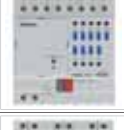


Catalogue
2013/2014



SYSTEMS FOR
TIME, LIGHT, CLIMATE

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Thinking about the day after tomorrow, today.

In the first decades after the company was founded in 1921, our core competence lay in **solutions for time-switching devices**. Very early on we got involved in the development of KNX technology and as a member of the "KNX Association" contributed significantly to the development of KNX into a global standard.

With four subsidiaries in Europe and more than 50 offices worldwide, today our focus is on intelligent, energy-saving solutions for building automation:

- **Lighting control** with dimming switches, presence and motion detectors.
- **Climate control** with analogue and digital timer thermostats for room temperature control.
- **KNX components** for building systems technology: from lighting and climate control to fully automatic sun protection with weather station.

We are certified in accordance with DIN EN ISO 9001:2008 and have a testing laboratory authorised by the VDE institute.

But our products don't just make a good impression technically: Our design also speaks for itself. For example, our multifunction display VARIA 826 KNX won the "red dot design award" and the presence detector PlanoCentro won the "iF product design award".





Dear clients and partners,

In recent years the demands for energy-efficient and sustainable building control have increased enormously. Sophisticated customer requirements for safety, service and comfort also have to be fulfilled in every respect. By choosing Theben products you are opting not only for "Made in Germany" quality, but also a system provider with whom you can fulfil these demands now and in future. Simple installation, simple operation and the highest possible energy efficiency – Theben products represent all-round optimal solutions.

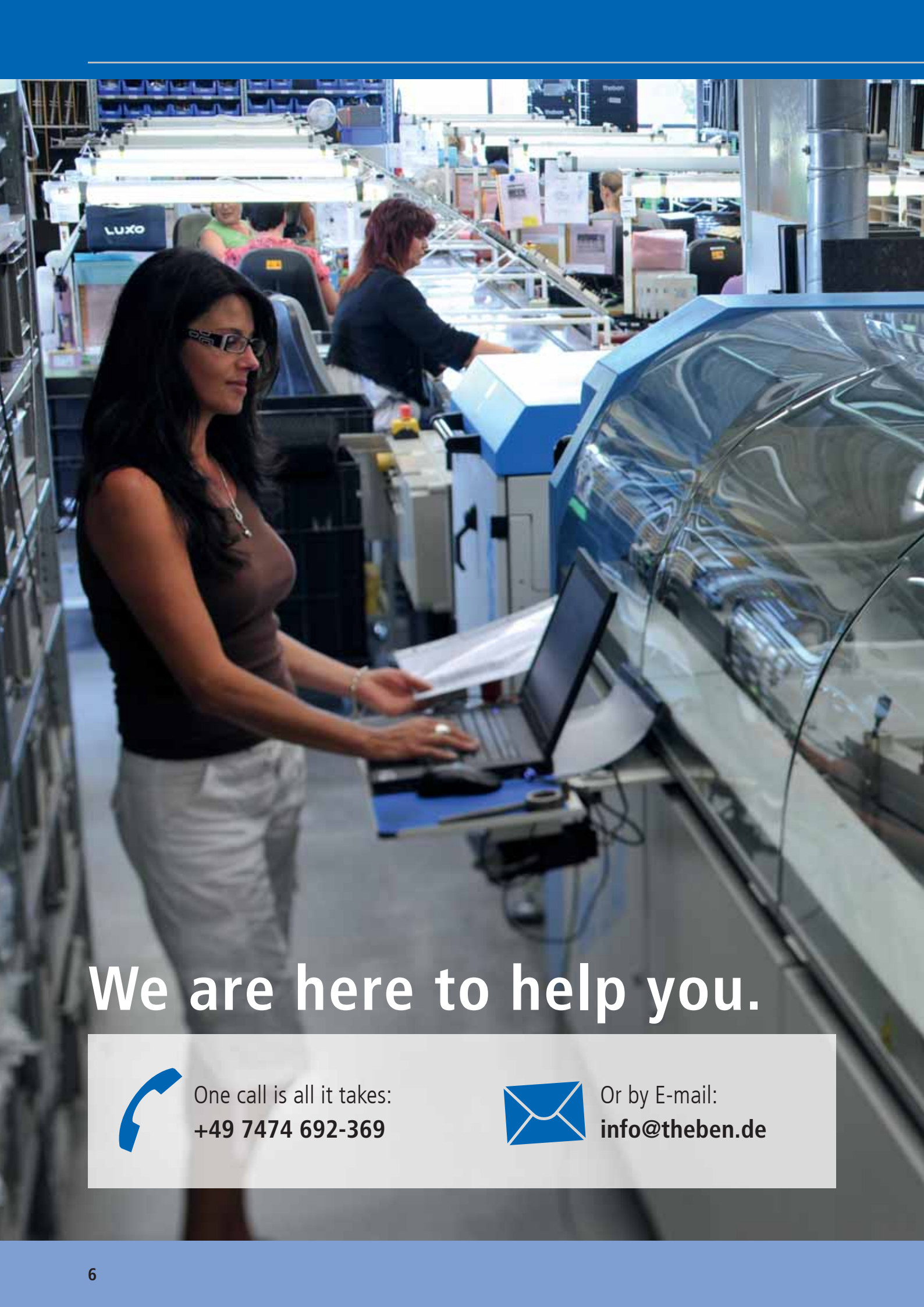
Energy efficiency and sustainability don't just play a central role in the Theben product range. Our company policy also follows these principles. More than 11 years ago, we installed photovoltaic systems in our buildings with a total output of now approx. 160 kWp. This alone saves us around 145 tonnes of CO₂ annually. And our staff use electric cars for short journeys.

In 2013 we will again invest around 7 % of our revenue in product development. This allows us to go on offering you and your customers exactly the products and solutions you expect: **management systems to control time, light and climate.**

Here at Theben, we all look forward to continuing our excellent and co-operative working relationship.

A handwritten signature in blue ink, which appears to read 'Thomas Goes', followed by a stylized flourish.

Thomas Goes
Chairman of the Board



We are here to help you.



One call is all it takes:
+49 7474 692-369



Or by E-mail:
info@theben.de

DISTRIBUTION

Theben consistently pursues a three-stage approach to distribution via wholesale and retail outlets.

QUALITY

Theben stands for the highest quality, guaranteed by rigorous final testing.

STORAGE

Our extensive central warehouse means we are ready to deliver promptly.

**TELEPHONE HOTLINE**

Our experts help you quickly and without fuss. A call is all it takes: +49 7474 692-369. The team is at your disposal from Monday to Thursday from 7.00 am to 6.00 pm and on Friday from 7.00 am to 4.00 pm.

EMAIL HOTLINE

Technical experts are constantly there for you. Ask for our CUSTOMER SERVICE at hotline@theben.de

SUPPORT

After the expiry of the guarantee period, our customer service not only ensures rapid and inexpensive repair, but also sends the desired replacement parts to you right away – even for older devices.

TRAINING

You can find central training from our own experts and decentralised training from our distribution partners very close to where you are. Additional information at www.theben.de/en

**TRADE FAIRS**

You can find out everything about our new products at the trade fairs. We look forward to your visit:

- eltec, Nürnberg
16–18 January 2013
- E-world, Essen
7–9 February 2013
- ISH, Frankfurt
12–16 March 2013
- eltefa, Stuttgart
20–22 March 2013
- ineltec, Basel
10–13 September 2013
- Elektrotechnik, Dortmund
11–14 September 2013
- SPS, Nürnberg
26–28 November 2013

WEBSITE

All important information about our products can be found on our website. With just a few clicks the "Product finder" function takes you to the right product for your application and all important documents can be placed in the document basket with just one click for easy downloading. The sophisticated search function quickly shows you the search results, arranged into practical categories.

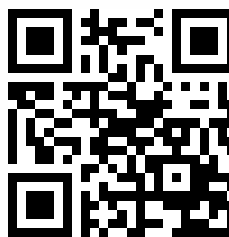
We have made sure that both catalogue and internet are closely interlinked: simply go to www.theben.de/product/ and type in the desired article number and straightaway you'll get the data sheet, operating manual, connection diagram and lots more with just a click. An example:

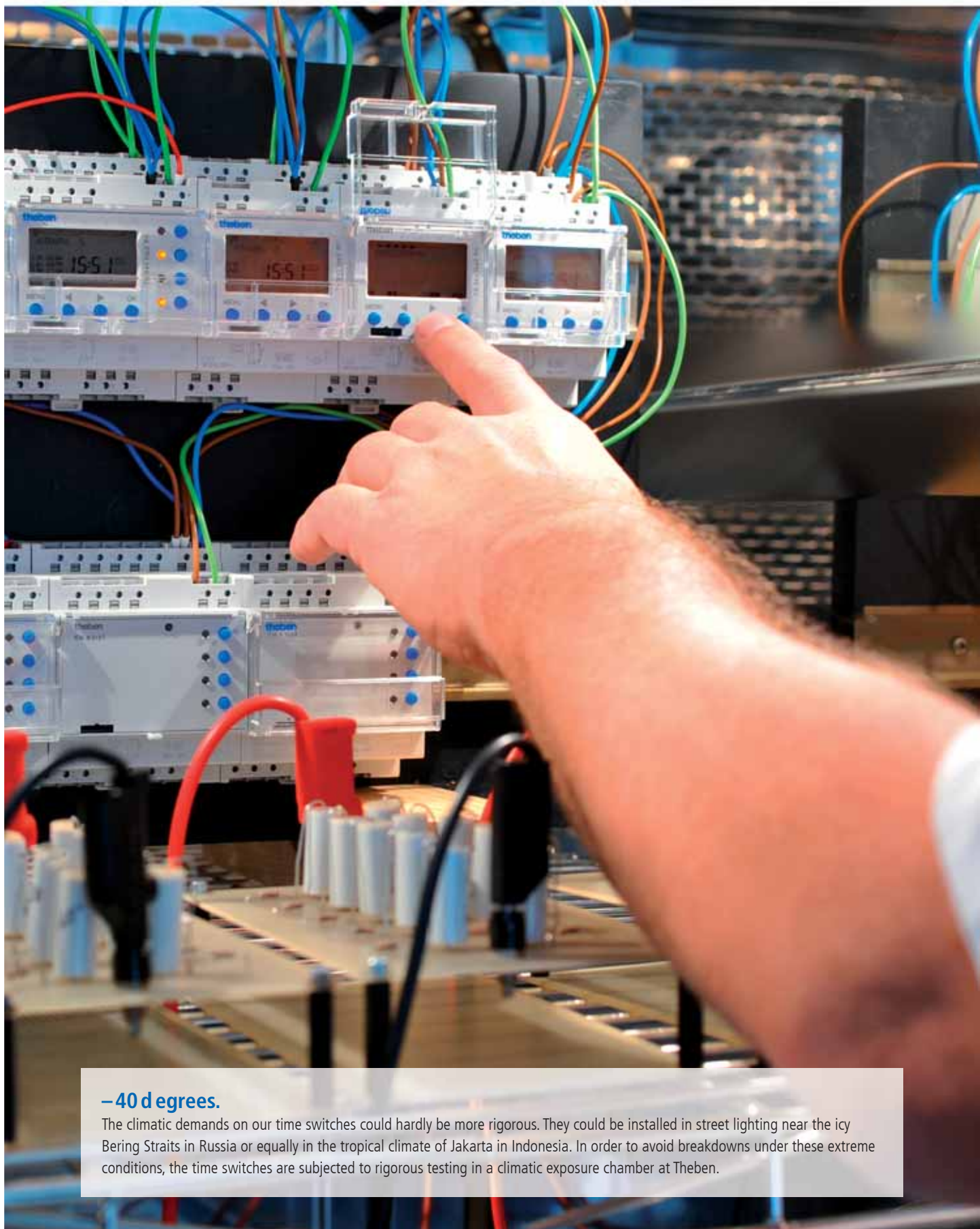
www.theben.de/product/6100103 gets you all the information about the TR 610 top2.

Incidentally, our website has twice received the 1st prize in the "INKA catalogue competition" for the best online catalogue in the German language area.

**MOBILE WEBSITE**

So you can also find out about our products in the best possible way using your smartphone, we now offer you a mobile version of the Theben website: m.theben.de/en





–40 degrees.

The climatic demands on our time switches could hardly be more rigorous. They could be installed in street lighting near the icy Bering Straits in Russia or equally in the tropical climate of Jakarta in Indonesia. In order to avoid breakdowns under these extreme conditions, the time switches are subjected to rigorous testing in a climatic exposure chamber at Theben.

Chapter summary

	Program	Number of channels	Memory locations	External inputs	PC interface	Memory card supplied	Type of connection	Type	Page
DIN rail, 2 modules									
	Weekly program	1	56	–	✓	–	Spring terminals	TR 610 top2	10
		2	56	–	✓	–	Spring terminals	TR 612 top2	10
		1	84	1	✓	✓	Spring terminals	TR 611 top2	12
								TR 611 top2 RC	12
		2	84	2	✓	✓	Spring terminals	TR 622 top2	12
	Weekly program, Astronomical program	1	56	–	✓	–	Spring terminals	SELEKTA 170 top2	14
			84	1	✓	–	Spring terminals	SELEKTA 171 top2 RC	14
		2	84	2	✓	–	Spring terminals	SELEKTA 172 top2	14
DIN rail, 1 module									
	Weekly program	1	56	–	✓	–	Spring terminals	TR 608 top2	16
			84	1	✓	–	Spring terminals	TR 609 top2	16
DIN rail, 3 modules									
	Yearly program, Astronomical program	1	800	1	✓	–	Spring terminals	TR 641 top2	18
						✓	Spring terminals	TR 641 top2 RC	18
		2	800	2	✓	–	Spring terminals	TR 642 top2	18
						✓	Spring terminals	TR 642 top2 RC	18
	–	–	–	–	–	–	Spring terminals	EM LAN top2	20
DIN rail, 4 modules									
	Yearly program, Astronomical program	4	800	4	✓	–	Spring terminals	TR 644 top2	18
						✓	Spring terminals	TR 644 top2 RC	18
	–	4	–	4	–	–	Spring terminals	EM 4 top2	20
Flush-mounted wall installation									
	Weekly program	1	42	–	–	–	Screw terminals	TR 030 top	21
Front panel installation/wall installation									
	Weekly program	1	84	–	✓	–	Screw terminals	TR 635 top2	22
		2	84	–	✓	–	Screw terminals	TR 636 top2	22
Flush-mounting									
	Weekly program	1	56	–	✓	–	Plug-in contact	TR 684-1 top2	24
		2	56	–	✓	–	Plug-in contact	TR 684-2 top2	24
Plug-in									
	Weekly program	1	36	–	–	–	Plug-in	theben-eltime 020 S	26
			33	–	–	–	Plug-in	theben-eltime 020 S DCF	26

Digital time switches with weekly program

TR 610 top2



TR 612 top2



Description

Common functions

- Digital time switch with weekly program
- Spring terminals
- Text-oriented user guidance in display
- 56 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)
- ON-OFF switching times
- Switching preselection
- Permanent switching ON/OFF
- Integrated operating hour counter
- Holiday program
- Display back light (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

TR 610 top2

- 1 channel

TR 612 top2

- 2 channel

Product selection

Program	Program-functions	Number of channels	Switching load < 1 mA	Operating voltage	Type	Article number
Weekly program	ON/OFF	1	—	230–240 V AC	TR 610 top2	6100103 ¹⁾
			✓	230–240 V AC	TR 610 top2 G	6100110
			—	12–24 V UC	TR 610 top2 24V	6104100
		2	—	230–240 V AC	TR 612 top2	6120103 ¹⁾
				12–24 V UC	TR 612 top2 24V	6124100

¹⁾ Languages: GB, E, F, P, D (other article numbers with additional languages on request)

Technical data

	TR 610 top2	TR 610 top2 G	TR 610 top2 24V	TR 612 top2	TR 612 top2 24V
Operating voltage	230–240 V AC		12–24 V UC	230–240 V AC	12–24 V UC
Frequency	50–60 Hz				
Width	2 modules				
Installation type	DIN rail				
Power reserve	10 years				
Switching capacity at 250 V AC, cos φ = 1	16 A				
Switching capacity at 250 V AC, cos φ = 0,6	10 A	2 A		10 A	2 A
Incandescent/halogen lamp load	2600 W	1400 W		2600 W	1400 W
Energy saving lamps	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W
Switching capacity min.	ca. 10 mA	<1 mA	ca. 10 mA		
Shortest switching times	1 min				
Time accuracy at 25 °C	≤ ± 0.5 s/day (quartz)				
Stand-by consumption	0,8 W		0,3 W	0,8 W	0,3 W
Test approval		—			—
Type of protection	IP 20				
Protection class	II according to EN 60 730-1				
Ambient temperature	–30 °C ... +55 °C				

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



Wall mounting kit 35 mm

- Art.No.: 9070064
Details ► Page 246



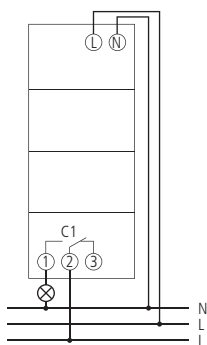
Front panel kit

- Art.No.: 9070001
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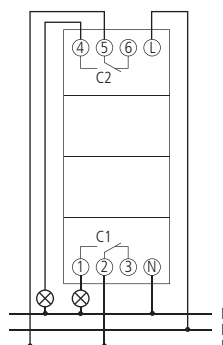


Connection diagrams

TR 610 top2



TR 612 top2



Digital time switches with weekly program

TR 611 top2



TR 611 top2 RC



TR 622 top2



Description

Common functions

- Digital time switch with weekly program
- Spring terminals
- Text-oriented user guidance in display
- 84 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- OBELISK memory card included in delivery
- 10 year power reserve (lithium battery)
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)
- ON-OFF switching times
- Pulse program
- Cycle program

- Switching preselection
- Permanent switching ON/OFF
- Timer countdown
- Integrated operating hour counter
- Holiday program
- 2 random programs
- Display back light (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

TR 611 top2

- 1 channel
- External input

TR 611 top2 RC

- Time synchronisation option via connection of an external DCF or GPS antenna (GPS not with 24 V device)
- Additional power unit required for GPS if only one device is connected to the antenna
- 1 channel
- External input

TR 622 top2

- 2 channel
- 2 external inputs

Product selection

Program	Program functions	Number of channels	External inputs	Time basis	Operating voltage	Type	Article number
Weekly program	ON-OFF, Pulse, Cycle	1	1	Quartz	230–240 V AC	TR 611 top2	6110103 ¹⁾
					12–24 V UC	TR 611 top2 24V	6114100
				Quartz/DCF77/GPS	230–240 V AC	TR 611 top2 RC	6110300
					12–24 V UC	TR 611 top2 RC 24V	6114300
		2	2	Quartz	230–240 V AC	TR 622 top2	6220103 ¹⁾
					12–24 V UC	TR 622 top2 24V	6224100

¹⁾ Languages: GB, E, F, P, D (other article numbers with additional languages on request)

Technical data

	TR 611 top2	TR 611 top2 24V	TR 611 top2 RC	TR 611 top2 RC 24V	TR 622 top2	TR 622 top2 24V
Operating voltage	230–240 V AC	12–24 V UC	230–240 V AC	12–24 V UC	230–240 V AC	12–24 V UC
Frequency	50–60 Hz					
Width	2 modules					
Installation type	DIN rail					
Power reserve	10 years					
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A					
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	10 A	2 A	10 A	2 A	10 A	2 A
Incandescent/halogen lamp load	2600 W	1400 W	2600 W	1400 W	2600 W	1400 W
Energy saving lamps	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W
Switching capacity min.	ca. 10 mA					
Shortest switching times	1 s					
Time accuracy at 25 °C	$\leq \pm 0.5$ s/day (quartz)		$\leq \pm 0,5$ s/day (quartz) or DCF77/ GPS		$\leq \pm 0.5$ s/day (quartz)	
Stand-by consumption	0,8 W	0,3 W	1,4 W	0,9 W	0,8 W	0,3 W
Test approval		–		–		–
Type of protection	IP 20					
Protection class	II according to EN 60 730-1					
Ambient temperature	–30 °C ... +55 °C					

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



Wall mounting kit 35 mm

- Art.No.: 9070064
Details ► Page 246

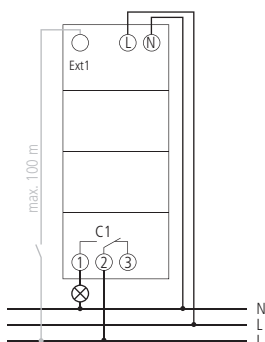


Additional accessories

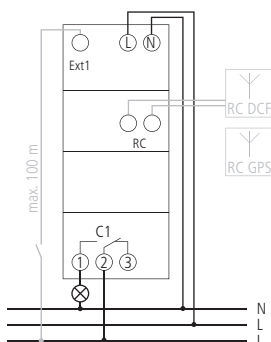
- Antenna top2 RC-DCF
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- Front panel kit
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- Antenna top2 RC-GPS
Details ► Page 248
- Power unit top2 GPS
Details ► Page 248

Connection diagrams

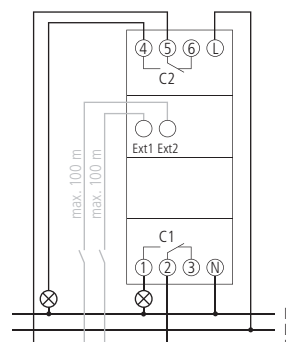
TR 611 top2



TR 611 top2 RC



TR 622 top2



Astronomical time switches with weekly program

SELEKTA 170 top2



SELEKTA 171 top2 RC



SELEKTA 172 top2



Description

Common functions

- Astronomical time switch with weekly program
- Astronomical time switch function (automatic calculation of sunrise and sunset times for the whole year)
- Spring terminals
- Text-oriented user guidance in display
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)
- Calculated astronomical switching times
- Programmable ON-OFF switching times
- Switching preselection
- Permanent switching ON/OFF
- Integrated operating hour counter

- Holiday program
- Display back light (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

SELEKTA 170 top2

- 1 channel
- 56 memory locations

SELEKTA 171 top2 RC

- Time synchronisation via connection of external DCF or GPS antennas, additional positioning for astronomical program with GPS (GPS not with 24 V device)
- Additional power unit required for GPS if only one device is connected to the antenna
- 1 channel
- External input
- 84 memory locations

- 3 special programs with yearly date function per channel
- Count-down timer

SELEKTA 172 top2

- 2 channels
- 84 memory locations
- Channel 1 or channel 2 can also be used purely as time switch channel
- 2 external inputs
- 3 special programs with yearly date function per channel
- Count-down timer

Product selection

Program	Number of channels	External inputs	Time basis	Operating voltage	Type	Article number
Weekly program, Astronomical program	1	—	Quartz	230–240 V AC	SELEKTA 170 top2	1700100
				12–24 V UC	SELEKTA 170 top2 24V	1704100
		1	Quartz/DCF77/GPS	230–240 V AC	SELEKTA 171 top2 RC	1710100
				12–24 V UC	SELEKTA 171 top2 RC 24V	1714100
	2	2	Quartz	230–240 V AC	SELEKTA 172 top2	1720100
				12–24 V UC	SELEKTA 172 top2 24V	1724100

Technical data

	SELEKTA 170 top2	SELEKTA 170 top2 24V	SELEKTA 171 top2 RC	SELEKTA 171 top2 RC 24V	SELEKTA 172 top2	SELEKTA 172 top2 24V
Operating voltage	230–240 V AC	12–24 V UC	230–240 V AC	12–24 V UC	230–240 V AC	12–24 V UC
Frequency	50–60 Hz					
Width	2 modules					
Installation type	DIN rail					
Power reserve	10 years					
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A					
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	10 A	2 A	10 A	2 A	10 A	2 A
Incandescent/halogen lamp load	2600 W	1400 W	2600 W	1400 W	2600 W	1400 W
Energy saving lamps	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W
Switching capacity min.	ca. 10 mA					
Shortest switching times	1 min					
Time accuracy at 25 °C	$\leq \pm 0.5$ s/day (quartz)		$\leq \pm 0.5$ s/day (quartz) or DCF77/GPS		$\leq \pm 0.5$ s/day (quartz)	
Stand-by consumption	0,8 W	0,2 W	1,4 W	0,8 W	0,2 W	0,2 W
Test approval		–		–		–
Type of protection	IP 20					
Protection class	II according to EN 60 730-1					
Ambient temperature	–30 °C ... +55 °C					

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



Wall mounting kit 35 mm

- Art.No.: 9070064
Details ► Page 246

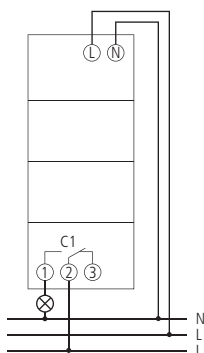


Additional accessories

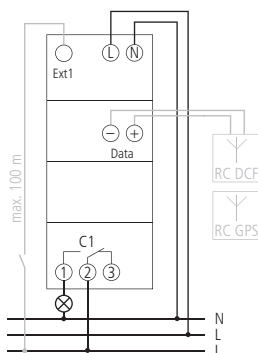
- Front panel kit
Details ► Page 246
- Antenna top2 RC-DCF
Details ► Page 247
- Antenna top2 RC-GPS
Details ► Page 248
- Power unit top2 GPS
Details ► Page 248

Connection diagrams

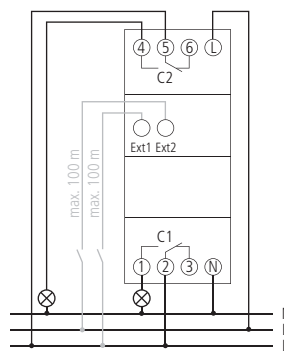
SELEKTA 170 top2



SELEKTA 171 top2 RC



SELEKTA 172 top2



Digital time switches with weekly program

TR 608 top2



NEW

TR 609 top2



NEW

Description

Common functions

- Digital time switch with weekly program
- 1 channel
- Spring terminals
- Text-oriented user guidance in display
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- ON-OFF switching times

- Switching preselection
- Permanent switching ON/OFF
- Integrated operating hour counter
- Holiday program
- PIN coding
- Automatic summer/winter time changeover

TR 608 top2

- 56 memory locations

TR 609 top2

- 84 memory locations
- External input
- Pulse program
- Cycle program
- Timer countdown
- 2 random programs

Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type	Article number
Weekly program	1	56	ON-OFF	230–240 V AC	TR 608 top2	6080100
		84	ON-OFF, Pulse, Cycle	230–240 V AC	TR 609 top2	6090100

Technical data

	TR 608 top2	TR 609 top2
Operating voltage	230–240 V AC	
Frequency	50–60 Hz	
Width	1 module	
Installation type	DIN rail	
Power reserve	10 years	
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A	
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	4 A	
Incandescent/halogen lamp load	1000 W	
Energy saving lamps	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 5 x 23 W	
Shortest switching times	1 min	
Time accuracy	$\leq \pm 0.5$ s/day (quartz) at 25 °C	
Stand-by consumption	0,4 W	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	
Ambient temperature	–25 °C ... +55 °C	

Accessories

Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246



PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



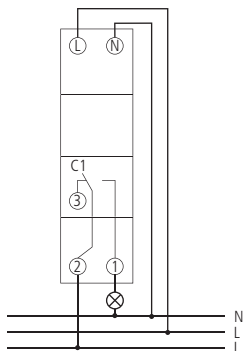
Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247

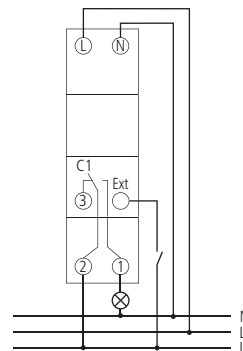


Connection diagrams

TR 608 top2



TR 609 top2



Digital time switches with yearly and astronomical program

TR 641 top2



TR 642 top2 RC



TR 644 top2



Description

Common functions

- Digital time switch with yearly and astronomical time program
- Spring terminals
- Text-oriented user guidance in display
- 800 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- Zero-cross switching for leay-saving switching and high lamp loads (not with 24 V devices)
- Automatic summer/winter time changeover
- ON-OFF switching times
- Pulse program
- Cycle program
- Extensive yearly clock functions
- Astronomical time switch function (automatic calculation of sunrise and sunset times for the whole year)

- Public holiday database
- Switching preselection
- Permanent switching ON/OFF
- Count-down timer
- Integrated operating hour counter
- Holiday program
- 2 random programs
- Display back light (can be turned off)
- PIN coding

TR 641 top2

- 1 channel
- External input

TR 641 top2 RC

- Time synchronisation via connection of external DCF or GPS antennas, additional positioning for astronomical program with GPS
- 1 channel
- External input

- Extension module can be connected
- Memory card OBELISK top2 included in delivery

TR 642 top2

- 2 channels
- 2 external inputs

TR 642 top2 RC

As TR 641 top2 RC, but:

- 2 channels
- 2 external inputs

TR 644 top2

- 4 channels
- 4 external inputs

TR 644 top2 RC

As TR 641 top2 RC, but:

- 4 channels
- 4 external inputs

Product selection

Program	Number of channels	External inputs	Time basis	Memory card supplied	Program functions	Operating voltage	Type	Article number
Yearly program, Astronomical program	1	1	Quartz	—	ON-OFF, Pulse, Cycle	110–240 V AC	TR 641 top2	6410100
			Quartz/DCF77/GPS	✓	ON-OFF, Pulse, Cycle	110–240 V AC	TR 641 top2 RC	6410300
						12–24 V UC	TR 641 top2 RC 24V	6414300
	2	2	Quartz	—	ON-OFF, Pulse, Cycle	110–240 V AC	TR 642 top2	6420100
			Quartz/DCF77/GPS	✓	ON-OFF, Pulse, Cycle	110–240 V AC	TR 642 top2 RC	6420300
						12–24 V UC	TR 642 top2 RC 24V	6424300
	4	4	Quartz	—	ON-OFF, Pulse, Cycle	110–240 V AC	TR 644 top2	6440100
			Quartz/DCF77/GPS	✓	ON-OFF, Pulse, Cycle	110–240 V AC	TR 644 top2 RC	6440300

Technical data

	TR 641 top2	TR 641 top2 RC	TR 641 top2 RC 24V	TR 642 top2	TR 642 top2 RC	TR 642 top2 RC 24V	TR 644 top2	TR 644 top2 RC
Operating voltage	110–240 V AC		12–24 V UC	110–240 V AC		12–24 V UC	110–240 V AC	
Frequency	50–60 Hz							
Width	3 modules						4 modules	
Installation type	DIN rail							
Power reserve	8 years							
Switching capacity at 250 V AC, cos φ = 1	16 A							
Switching capacity channels 1+3	–						10 A	
Switching capacity at 250 V AC, cos φ = 0,6	10 A		2 A	10 A		2 A	10 A	
Incandescent/halogen lamp load 230 V	2600 W		1400 W	2600 W		1400 W	2300 W	
Incandescent/halogen lamp load 120 V	1300 W		–	1300 W	700 W	–	1150 W	
Switching capacity min.	ca. 10 mA							
Shortest switching times	1 s							
Time accuracy at 25 °C	≤ ± 0.5 s/day (quartz)	≤ ± 0,5 s/day (quartz) or DCF77/GPS		≤ ± 0.5 s/day (quartz)	≤ ± 0,5 s/day (quartz) or DCF77/GPS		≤ ± 0.5 s/day (quartz)	≤ ± 0,5 s/day (quartz) or DCF77/GPS
Stand-by consumption	0,6 W	1,2 W	1,5 W	0,6 W	1,2 W	1,5 W	0,5 W	1,3 W
Type of protection	IP 20							
Protection class	II according to EN 60 730-1							
Ambient temperature	–30 °C ... +55 °C						–30 °C ... +45 °C	

Accessories

EM 4 top2

- for TR 641 top2 RC, TR 642 top2 RC, TR 644 top2 RC
- Art.No.: 6490104
Details ► Page 20



EM LAN top2

- for TR 641 top2 RC, TR 642 top2 RC, TR 644 top2 RC
- Art.No.: 6490900
Details ► Page 20



Antenna top2 RC-DCF

- for TR 641 top2 RC, TR 642 top2 RC, TR 644 top2 RC
- Art.No.: 9070410
Details ► Page 247

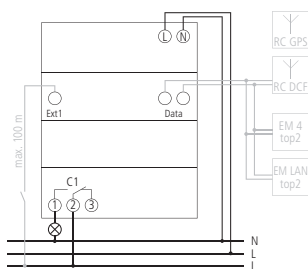


Additional accessories

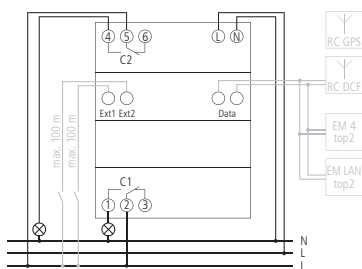
- Wall mounting kit 52,5 mm
Details ► Page 246
- Front panel kit
Details ► Page 246
- Antenna top2 RC-GPS
Details ► Page 248
- Wall mounting kit 70 mm
Details ► Page 246
- Memory card OBELISK top2
Details ► Page 247
- PC set OBELISK top2
Details ► Page 247

Connection examples

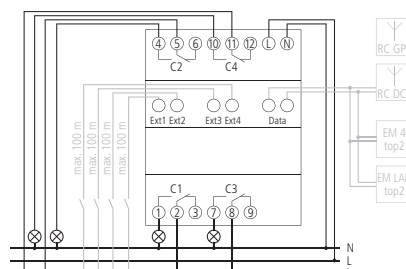
TR 641 top2 RC



TR 642 top2 RC



TR 644 top2 RC



Extension modules

EM LAN top2



EM 4 top2



Description

EM LAN top2

- Ethernet communication module for remote access via LAN-DSL network to time switches TR 641 top2 RC, TR 642 top2 RC and TR 644 top2 RC
- Remote programming using OBELISK top2 PC software

- Direct remote access to time switch (e.g. reading out switching status, performing manual switching, checking time)
- Width: 3 modules

EM 4 top2

- Extension module for TR 641 top2 RC, TR 642 top2 RC and TR 644 top2 RC
- 4 channels

- Width: 4 modules
- Spring terminals
- 4 external inputs
- Switching preselection
- Permanent ON/OFF switching
- 4 LEDs for displaying switching status
- Zero-cross switching for relay-saving switching and high lamp loads

Product selection

Type	Article number
EM LAN top2	6490900
EM 4 top2	6490104

Accessories

Front panel kit

- Art.No.: 9070001
- Details ► Page 246

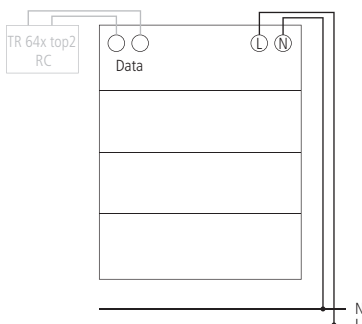


Additional accessories

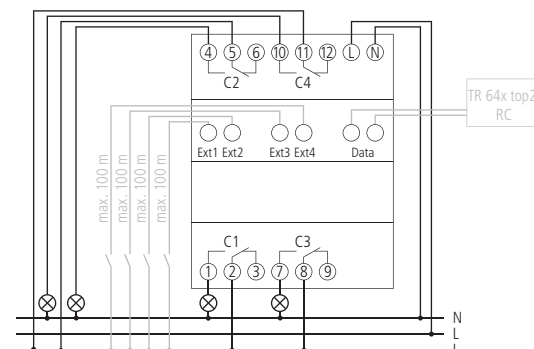
- Wall mounting kit 52,5 mm
- Details ► Page 246
- Wall mounting kit 70 mm
- Details ► Page 246

Connection examples

EM LAN top2



EM 4 top2



Digital time switch – TR 030 top



Description

- Digital time switch with weekly program
- 1 channel
- Text-oriented user guidance in display
- 42 memory locations
- 10 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program
- Cycle program
- Switching preselection
- Permanent switching ON/OFF
- Holiday program
- Random program
- PIN coding
- Automatic summer/winter time changeover

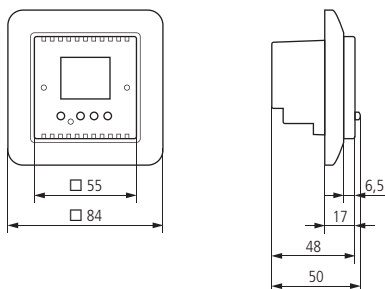
Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type	Article number
Weekly program	1	42	ON-OFF, Pulse, Cycle	230 V AC	TR 030 top	0300002

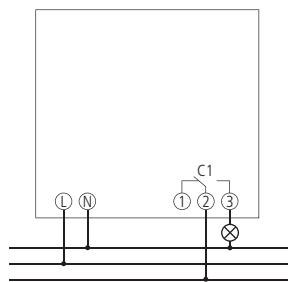
Technical data

TR 030 top			
Operating voltage	230 V AC	Fluorescent lamp load (conventional) series-corrected	1000 VA
Frequency	50–60 Hz	Fluorescent lamp load (conventional) parallel-corrected	400 VA, 42 µF
Installation type	Flush-mounted wall installation	Shortest switching times	1 s
Power reserve	10 years	Time accuracy at 25 °C	≤ ± 1 s/day (quartz)
Switching capacity at 250 V AC, cos φ = 1	10 A	Stand-by consumption	0,6 W
Switching capacity at 250 V AC, cos φ = 0,6	10 A	Type of protection	IP 20
Incandescent/halogen lamp load	2300 W	Protection class	II according to EN 60 730-1
Energy saving lamps	9 x 7 W, 7 x 11 W, 7 x 15 W, 7 x 20 W, 7 x 23 W	Ambient temperature	–10 °C ... +35 °C
Fluorescent lamp load (conventional) not corrected	1000 VA		

Scale drawings



Connection diagram



Digital time switches – wall installation

TR 635 top2

TR 636 top2



Description

Common functions

- Digital time switch with weekly program
- Text-based operator guidance in the display
- 84 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program
- Cycle program
- Switching preselection
- Permanent ON/OFF switching
- Count-down timer
- Integrated hour counter
- Holiday program
- 2 random programs
- Back lighting (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

TR 635 top2

- 1 channel

TR 636 top2

- 2 channels

Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type	Article number
Weekly program	1	84	ON-OFF, Pulse, Cycle	230–240 V AC	TR 635 top2	6350100
	2	84	ON-OFF, Pulse, Cycle	230–240 V AC	TR 636 top2	6360100

Technical data

	TR 635 top2	TR 636 top2
Operating voltage	230–240 V AC	
Frequency	50–60 Hz	
Installation type	Front panel installation/wall installation	
Power reserve	10 years	
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A	6 A
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	10 A	6 A
Incandescent/halogen lamp load	2300 W	1200 W
Energy saving lamps	90 W	

	TR 635 top2	TR 636 top2
Shortest switching times	1 s	
Time accuracy	$\leq \pm 0.5$ s/day (quartz) at 25 °C	
Stand-by consumption	0,9 W	1,1 W
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	
Ambient temperature	-30 °C ... +55 °C	

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247

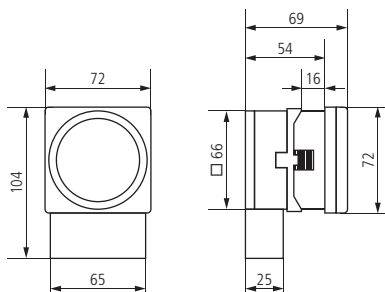


Snap-on mounting 72 x 72

- Art.No.: 9070071
Details ► Page 247

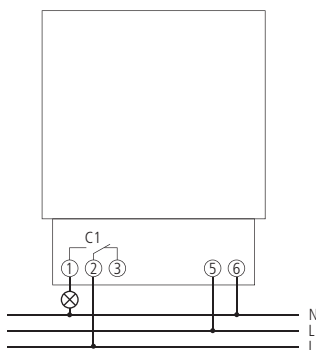


Scale drawings

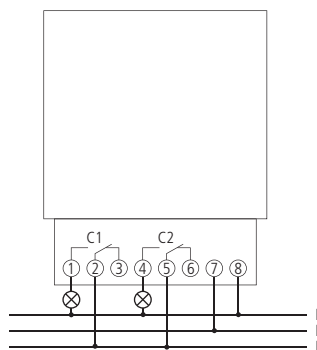


Connection diagrams

TR 635 top2



TR 636 top2



Digital time switches – Timer modules without plug-in base

TR 684-1 top2



TR 684-2 top2



Description

Common functions

- Digital time switch with weekly program
- Timer module without plug-in base
- Connection by 4.8 mm AMP flat plug for original installation standard devices
- Without power supply unit for installation in regulation and control
- Text-based operator guidance in the display
- 56 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program
- Cycle program
- Switching preselection
- Permanent ON/OFF switching
- Count-down timer
- Integrated hour counter
- Holiday program
- 2 random programs
- Back lighting (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

TR 684-1 top2

- 1 channel

TR 684-2 top2

- 2 channels

Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type	Article number
Weekly program	1	56	ON-OFF, Pulse, Cycle	230–240 V AC	TR 684-1 top2	6840100 *
	2	56	ON-OFF, Pulse, Cycle	230–240 V AC	TR 684-2 top2	6840101 *

* Available May 2013

Technical data

	TR 684-1 top2	TR 684-2 top2
Operating voltage	230–240 V AC	
Frequency	50–60 Hz	
Installation type	Timer module without plug-in base	
Power reserve	10 years	
Switching capacity at 250 V AC, $\cos \varphi = 1$	6 A	
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	2 A	
Shortest switching times	1 s	
Time accuracy	$\leq \pm 0.5$ s/day (quartz) at 25 °C	
Stand-by consumption	1,0 W	

	TR 684-1 top2	TR 684-2 top2
Type of protection	IP 20	
Protection class	II according to EN 60 529	
Ambient temperature	-30 °C ... +55 °C	

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



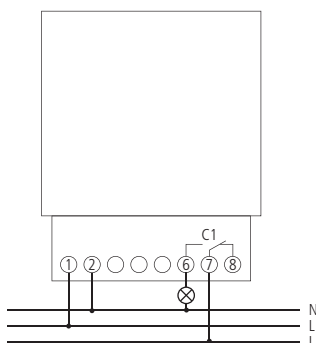
Multiple contact strip

- Art.No.: 9075141
Details ► Page 247

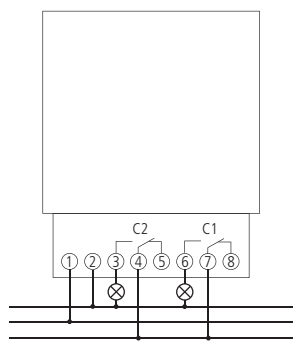


Connection diagrams

TR 684-1 top2

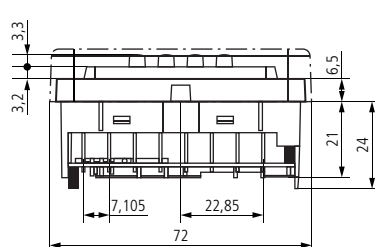
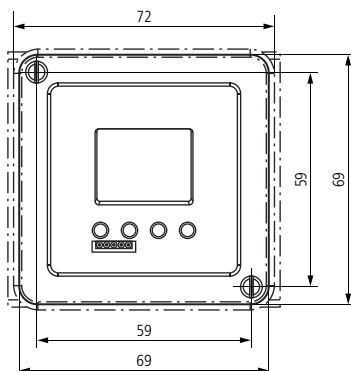


TR 684-2 top2



Scale drawings

TR 684-1 top2, TR 684-2 top2



Digital plug-in timers

theben-eltimo 020 S



theben-eltimo 020 S DCF



Description

Common functions

- Digital plug-in timer with weekly program
- Use with earthed sockets
- 1 channel
- Easy operation via keys for program function and day of the week, hours, minutes

- ON-OFF switching times
- Switching preselection
- Permanent switching ON/OFF
- Random program
- Automatic summer/winter time changeover

theben-eltimo 020 S

- 36 memory locations

theben-eltimo 020 S DCF

- DCF radio control
- 33 memory locations

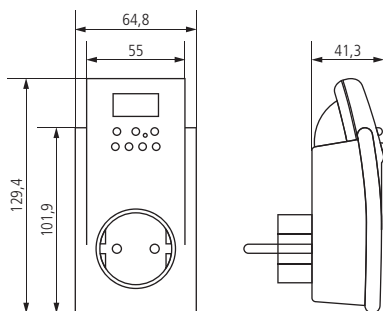
Product selection

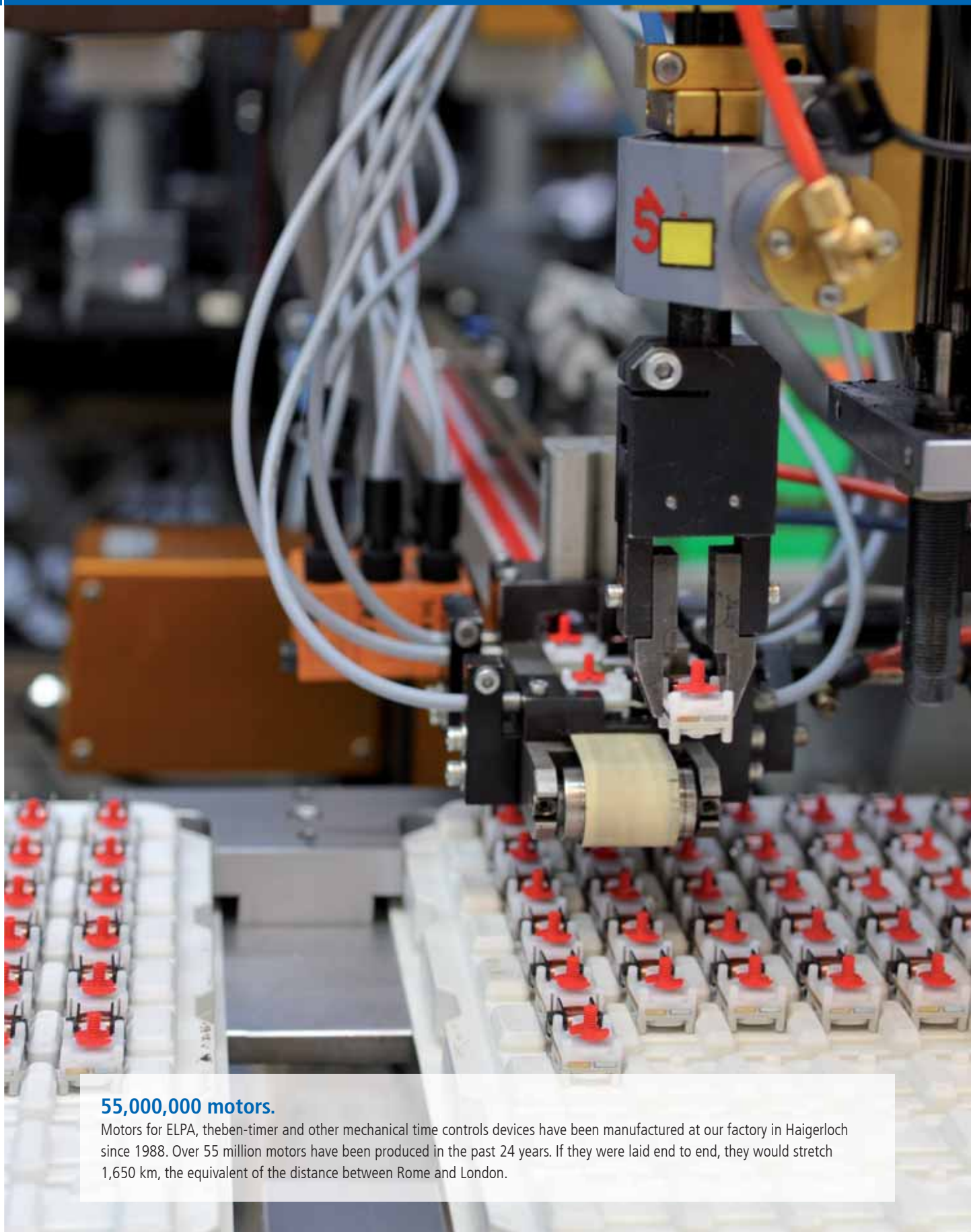
Program	Number of channels	Memory locations	Time basis	Operating voltage	Type	Article number
Weekly program	1	36	Quartz	230 V AC	theben-eltimo 020 S	0200000
		33	Quartz/DCF77	230 V AC	theben-eltimo 020 S DCF	0200300

Technical data

	theben-eltimo 020 S	theben-eltimo 020 S DCF
Operating voltage	230 V AC	
Frequency	50 Hz	
Installation type	Plug-in	
Power reserve	20 days	
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A	
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	2 A	
Incandescent/halogen lamp load	3500 W	
Shortest switching times	1 min	
Time accuracy at 25 °C	$\leq \pm 1$ s/day (quartz)	DCF77 synchronous or $\leq \pm 1$ s/day (quartz)
Stand-by consumption	0,8 W	
Type of protection	IP 20	
Protection class	II for housing, I for plug system as per EN 62 730-1	
Ambient temperature	-10 °C ... +40 °C	

Scale drawings





55,000,000 motors.

Motors for ELPA, theben-timer and other mechanical time controls devices have been manufactured at our factory in Haigerloch since 1988. Over 55 million motors have been produced in the past 24 years. If they were laid end to end, they would stretch 1,650 km, the equivalent of the distance between Rome and London.

	Program	Number of channels	Type of contact	Power reserve	Shortest switching times	Programmable every	Type of connection	Type	Page
DIN rail, 1 module									
	Daily program	1	NO contact	–	15 min	15 min	Screw terminals	SYN 160 a	30
				3 days	15 min	15 min	Screw terminals	SUL 180 a	30
	Weekly program	1	NO contact	3 days	2 h	2 h	Screw terminals	MEM 190 a	30
DIN rail, 3 modules									
	60 minutes program	1	Changeover contact	–	37,5 s	37,5 s	Spring terminals	SYN 151 h	32
	Daily program	1	Changeover contact	–	15 min	15 min	Spring terminals	SYN 161 d	32
				200 hours	15 min	15 min	Spring terminals	SUL 181 d	32
	Weekly program	1	Changeover contact	200 hours	2 h	2 h	Spring terminals	SUL 191w	
	Daily program	2	Changeover contact	3 days	30 min	15 min	Screw terminals	SUL 188 g	34
	Daily/weekly program with 1/2 day OFF function	1	Changeover contact	3 days	45 min, 12 h	15 min, 12 h	Screw terminals	SUL 188 hw	34
Front panel installation/wall installation									
	Daily program	1	Changeover contact	–	15 min	15 min	Screw terminals	SYN 169 s	36
				3 days	15 min	15 min	Screw terminals	SUL 189 s	36
	Daily program	1	Changeover contact	–	20 min, 2 h	5 min, 30 min	Screw terminals	SYN 269 h	38
				3 days	20 min, 2 h	5 min, 30 min	Screw terminals	SUL 289 h	38
		2	Changeover contact	3 days	20 min, 2 h	5 min, 30 min	Screw terminals	SUL 289 g	38
	60 minutes program	1	Changeover contact	–	1,25 min	18,5 s	Screw terminals	TM 179 h	40
	Daily/weekly program with 1/2 day OFF function	1	Changeover contact	3 days	30 min, 12 h	15 min, 12 h	Screw terminals	SUL 189 hw	40
Wall installation/3-point mounting									
	Daily program	2	Changeover contact	6 days	20 min	5 min	Screw terminals	SUL 285/2 T	42
Plug-in									
	Daily program	1	NO contact	–	15 min	15 min	Plug-in	theben-timer 26	43
								theben-timer 26 IP 44	43
	Weekly program	1	NO contact	–	2 h	2 h	Plug-in	theben-timer 27	43
Surface-mounted									
	Daily and defrost program	2	2 two-way changeover contacts	–	2 min, 1 h	1 min, 1 h	Screw terminals	FRI 77 g	44
Drive with quick fastening for DIN rail									
	Daily and defrost program	1	Changeover contact	–	2 min, 1 h	1 min, 1 h	Screw terminals	FRI 77 h-2	44
		2	2 two-way changeover contacts	–	2 min, 1 h	1 min, 1 h	Screw terminals	FRI 77 g-2	44

Analogue time switches – 1 module – segments

SYN 160 a



SUL 180 a



MEM 190 a



Description

Common functions

- Analogue time switch
- 1 channel
- Screw terminals
- Manual switch with 3 positions:
Permanent ON/AUTO/continuous OFF
- Switching status display

SYN 160 a

- Daily program

- Without power reserve
- 96 switching segments
- Synchronised with mains
- Shortest switching time: 15 minutes

SUL 180 a

- Daily program
- With power reserve
(exchangeable NiMH rechargeable battery)
- 96 switching segments

- Quartz controlled
- Shortest switching time: 15 minutes

MEM 190 a

- Weekly program
- With power reserve
(exchangeable NiMH rechargeable battery)
- 84 switching segments
- Quartz controlled
- Shortest switching time: 2 hours

Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	1	—	15 min	15 min	NO contact	230 V AC	SYN 160 a	1600001
		3 days	15 min	15 min	NO contact	230–240 V AC	SUL 180 a	1800001
Weekly program	1	3 days	2 h	2 h	NO contact	230–240 V AC	MEM 190 a	1900001

Technical data

	SYN 160 a	SUL 180 a	MEM 190 a
Operating voltage	230 V AC	230–240 V AC	
Frequency	50 Hz	50–60 Hz	
Width	1 module		
Installation type	DIN rail		
Program	Daily program		Weekly program
Power reserve	–	3 days	
Switching capacity at 250 V AC, cos φ = 1	16 A		
Switching capacity at 250 V AC, cos φ = 0,6	4 A		
Incandescent/halogen lamp load	1000 W		
Shortest switching times	15 min		2 h
Programmable every	15 min		2 h
Time accuracy	Synchronised with mains	≤ ± 1 s/day (quartz)	
Stand-by consumption	0,9 W	0,5 W	
Test approval			
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		
Ambient temperature	–25 °C ... +50 °C	–10 °C ... +50 °C	

Accessories

Front panel kit

- Art.No.: 9070001
Details ► Page 246

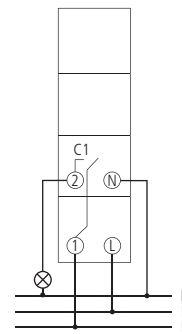


Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246



Connection diagrams



Analogue time switches – 3 modules – segments

SYN 151 h



SUL 181 d



SUL 191 w



Description

Common functions

- Analogue time switch
- 1 channel
- Spring terminals
- Switching preselection
- Manual switch with 3 positions:
Continuous ON/AUTO/continuous OFF
- Switching status display

SYN 151 h

- 60 minute program
- Without power reserve
- 96 switching segments
- Synchronised with mains
- Shortest switching time: 37.5 seconds

SYN 161 d

- Daily program
- Without power reserve

- 96 switching segments
- Synchronised with mains
- Shortest switching time: 15 minutes
- Clock hands for time display and in addition 12/24 hour recognition
- Simple summer/winter time correction

SUL 181 d

- Daily program
- With power reserve (NiMH rechargeable battery)
- 96 switching segments
- Quartz controlled
- Shortest switching time: 15 minutes
- Clock hands for time display and in addition 12/24 hour recognition
- Simple summer/winter time correction

SUL 191 w

- Weekly program
- With power reserve (NiMH rechargeable battery)
- 84 switching segments
- Quartz controlled
- Shortest switching time: 2 hours
- Clock hands for time display and in addition 12/24 hour recognition
- Simple summer/winter time correction

SUL 181 h 12/24 UC

without picture

- Daily program
- 48 switching segments
- Screw terminals

Product selection

Number of channels	Program	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
1	60 minutes program	—	37,5 s	37,5 s	Changeover contact	230 V AC	SYN 151 h	1510011
	Daily program	—	15 min	15 min	Changeover contact	230 V AC	SYN 161 d	1610011
		200 hours	15 min	15 min	Changeover contact	110–230 V AC	SUL 181 d	1810011
		3 days	30 min	30 min	Changeover contact	24 V UC	SUL 181 h 24 V	1814008
						12 V UC	SUL 181 h 12 V	1817008
	Weekly program	200 hours	2 h	2 h	Changeover contact	110–230 V AC	SUL 191 w	1910011

Technical data

	SYN 151 h	SYN 161 d	SUL 181 d	SUL 191 w	SUL 181 h 12 V	SUL 181 h 24 V
Operating voltage	230 V AC		110–230 V AC		12 V UC	24 V UC
Frequency	50 Hz		50–60 Hz			
Width	3 modules					
Installation type	DIN rail					
Program	60 minutes program	Daily program		Weekly program	Daily program	
Power reserve	–		200 hours, approx. 100 hours at 110 V		3 days	
Switching capacity at 250 V AC, cos φ = 1	10 A	16 A				
Switching capacity at 250 V AC, cos φ = 0,6	4 A					
Shortest switching times	37,5 s	15 min		2 h	30 min	
Programmable every	37,5 s	15 min		2 h	30 min	
Time accuracy	Synchronised with mains		≤ ± 1 s/day (quartz)			
Stand-by consumption	0,9 W	1 VA	0,5 W		0,5 W	0,1 W
Test approval						
Type of protection	IP 20					
Protection class	II according to EN 60 730-1					
Ambient temperature	–20 °C ... +55 °C				–20 °C ... +50 °C	

Accessories

Wall mounting kit 52,5 mm

- Art.No.: 9070050
Details ► Page 246



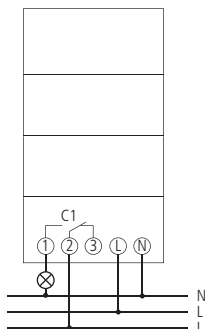
Front panel kit

- Art.No.: 9070001
Details ► Page 246

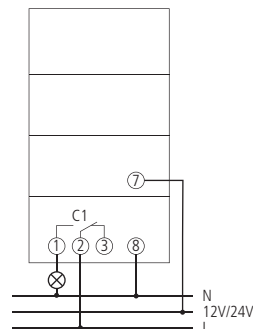


Connection diagrams

SYN 151 h, SYN 161 d, SUL 181 d, SUL 191 w



SUL 181 h 24 V, SUL 181 h 12 V



Analogue time switches – 3 modules – tappets

SUL 188 g

SUL 188 hw



Description

Common functions

- Analogue time switch
- With power reserve (NiMH rechargeable battery)
- Quartz controlled
- Tappets
- Screw terminals
- Switching status display
- Operating indication

SUL 188 g

- Daily program
- 2 channels
- Fine adjustment to set the time to the minute
- Shortest switching time: 30 minutes
- 10 tappets included in delivery

SUL 188 hw

- Daily/weekly program and 1/2 day OFF function for the weekdays
- 1 channel (with series connection of the 2 contacts)
- Tappets and turning segments
- Shortest switching time: 45 minutes (12 hours for the 1/2 day OFF function)
- 6 tappets included in delivery

Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	2	3 days	30 min	15 min	Changeover contact	230 V AC	SUL 188 g	1880033
Daily/weekly program with 1/2 day OFF function	1	3 days	45 min, 12 h	15 min, 12 h	Changeover contact	230 V AC	SUL 188 hw	1880108

Technical data

	SUL 188 g	SUL 188 hw
Operating voltage	230 V AC	
Frequency	45–60 Hz	
Width	3 modules	
Installation type	DIN rail	
Program	Daily program	Daily/weekly program with 1/2 day OFF function
Power reserve	3 days	
Switching capacity at 250 V AC, $\cos \varphi = 1$	10 A	
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	4 A	
Shortest switching times	30 min	45 min, 12 h
Programmable every	15 min	15 min, 12 h
Time accuracy	$\leq \pm 1$ s/day (quartz)	
Stand-by consumption	0,5 W	
Test approval		
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	
Ambient temperature	-20 °C ... +55 °C	

Accessories

Front panel kit

- Art.No.: 9070001
Details ► Page 246



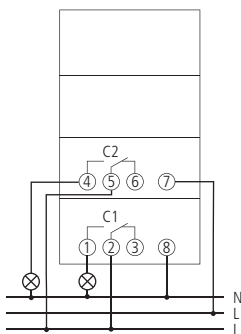
Terminal cover 52,5 mm

- Art.No.: 9070061
Details ► Page 246

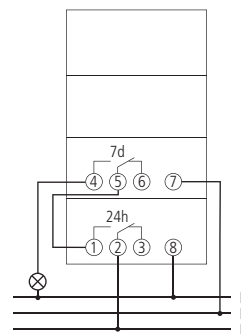


Connection diagrams

SUL 188 g



SUL 188 hw



Analogue time switches – wall installation – segments

SYN 169 s



SUL 189 s



Description

Common functions

- Analogue time switch
- 1 channel
- Daily program
- 96 switching segments
- Shortest switching time: 15 minutes
- Clock hands for time display
- Switching preselection
- Permanent ON/OFF switch
- Switching status display
- Simple summer/winter time correction

SYN 169 s

- Without power reserve
- Synchronised with mains

SUL 189 s

- With power reserve (NiMH rechargeable battery)
- Quartz controlled

Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	1	—	15 min	15 min	Changeover contact	230 V AC	SYN 169 s	1690801
		3 days	15 min	15 min	Changeover contact	230 V AC	SUL 189 s	1890801
						110 V AC	SUL 189 s 110V	1891801

Technical data

	SYN 169 s	SUL 189 s	SUL 189 s 110V
Operating voltage	230 V AC		110 V AC
Frequency	50 Hz	50–60 Hz	
Installation type	Front panel installation/wall installation		
Program	Daily program		
Power reserve	–	3 days, full power reserve approx. 3 days after connection to operating voltage	
Switching capacity at 250 V AC, cos φ = 1	10 A		
Switching capacity at 250 V AC, cos φ = 0,6	2 A		
Shortest switching times	15 min		
Programmable every	15 min		
Time accuracy	Synchronised with mains	≤ ± 1 s/day (quartz)	
Stand-by consumption	0,9 W	0,5 W	
Test approval			–
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		
Ambient temperature	–10 °C ... +55 °C		

Accessories

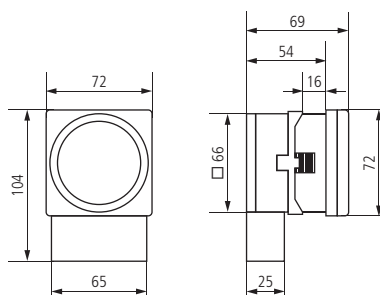
Snap-on mounting 72 x 72

- Art.No.: 9070071
Details ► Page 247



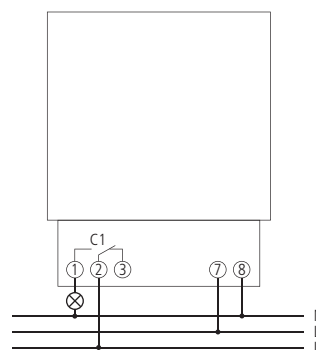
Scale drawings

SYN 169 s, SUL 189 s



Connection diagrams

SYN 169 s, SUL 189 s



Analogue time switches – wall installation – tappets

SYN 269 h



SUL 289 g



Description

Common functions

- Analogue time switch with daily or weekly program (switching disc can be turned)
- Tappets
- Shortest switching time: 20 minutes or 2 hours
- Clock hands for time display
- Switching status display

SYN 269 h

- 1 channel
- Without power reserve

- Synchronised with mains
- Switching preselection
- Permanent ON/OFF switch
- Simple summer/winter time correction
- 32 tappets included in delivery

SUL 289 h

- 1 channel
- With power reserve (NiMH rechargeable battery)
- Quartz controlled
- Switching preselection

- Permanent ON/OFF switch
- Simple summer/winter time correction
- 32 tappets included in delivery

SUL 289 g

- 2 channels
- With power reserve
- (NiMH rechargeable battery)
- Quartz controlled
- 49 tappets included in delivery

Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	1	—	20 min, 2 h	5 min, 30 min	Changeover contact	230 V AC	SYN 269 h	2690008
		3 days	20 min, 2 h	5 min, 30 min	Changeover contact	230 V AC	SUL 289 h	2890008
	2	3 days	20 min, 2 h	5 min, 30 min	Changeover contact	230 V AC	SUL 289 g	2890033

Technical data

	SYN 269 h	SUL 289 h	SUL 289 g
Operating voltage	230 V AC		
Frequency	50 Hz	50–60 Hz	
Installation type	Front panel installation/wall installation		
Program	Daily program, Weekly program		
Power reserve	–	3 days, full power reserve approx. 3 days after connection to operating voltage	
Switching capacity at 250 V AC, cos φ = 1	10 A		
Switching capacity at 250 V AC, cos φ = 0,6	2 A		
Shortest switching times	20 min, 2 h		
Programmable every	5 min, 30 min		
Time accuracy	Synchronised with mains	≤ ± 1 s/day (quartz)	
Stand-by consumption	0,9 W	0,5 W	
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		
Ambient temperature	–10 °C ... +55 °C		

Accessories

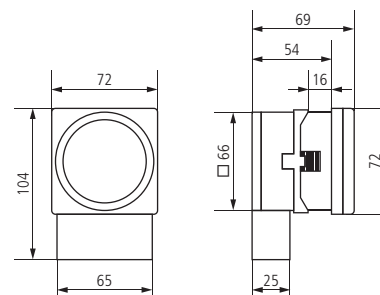
Snap-on mounting 72 x 72

- Art.No.: 9070071
Details ► Page 247



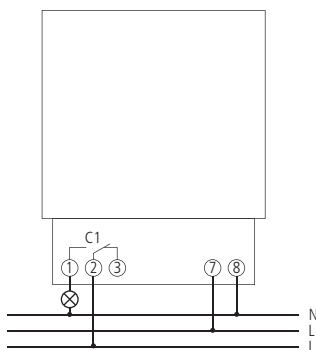
Scale drawings

SYN 269 h, SUL 289 h, SUL 289 g

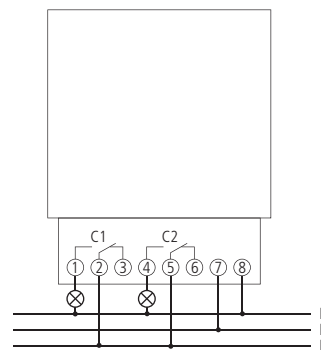


Connection diagrams

SYN 269 h, SUL 289 h



SUL 289 g



Analogue time switches – wall installation – tappets

TM 179 h



SUL 189 hw



Description

Common functions

- Analogue time switch
- Switching status display
- 6 tappets included in delivery

TM 179 h

- 60 minute program
- 1 channel
- Without power reserve

- Synchronised with mains
- Tappets
- Shortest switching time: 75 seconds
- Switching preselection

SUL 189 hw

- Daily/weekly program and 1/2 day OFF function for the weekdays

- 1 channel (with series connection of 2 the contacts)
- With power reserve (NiMH rechargeable battery)
- Quartz controlled
- Tappets and turning segments
- Shortest switching time: 30 minutes (12 hours for the 1/2 day OFF function)

Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
60 minutes program	1	–	1,25 min	18,5 s	Changeover contact	230 V AC	TM 179 h	1790008
Daily/weekly program with 1/2 day OFF function	1	3 days	30 min, 12 h	15 min, 12 h	Changeover contact	230 V AC	SUL 189 hw	1890108

Technical data

	TM 179 h	SUL 189 hw
Operating voltage	230 V AC	
Frequency	50 Hz	50–60 Hz
Installation type	Front panel installation/wall installation	
Program	60 minutes program	Daily/weekly program with 1/2 day OFF function
Power reserve	–	3 days, full power reserve approx. 3 days after connection to operating voltage
Switching capacity at 250 V AC, $\cos \varphi = 1$	10 A	
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	2 A	
Shortest switching times	1,25 min	30 min, 12 h
Programmable every	18,5 s	15 min, 12 h
Time accuracy	Synchronised with mains	$\leq \pm 1$ s/day (quartz)
Stand-by consumption	0,9 W	0,5 W
Test approval		
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	
Ambient temperature	–10 °C ... +55 °C	

Accessories

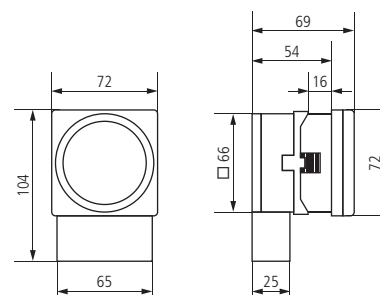
Snap-on mounting 72 x 72

- Art.No.: 9070071
Details ► Page 247



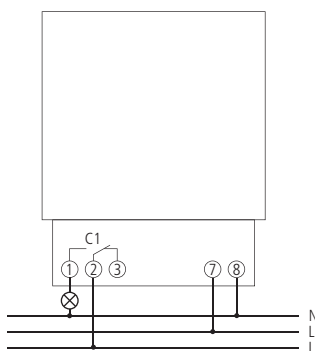
Scale drawings

TM 179 h, SUL 189 hw

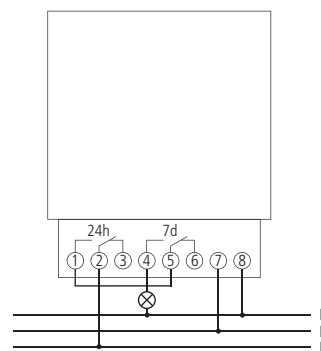


Connection diagrams

TM 179 h



SUL 189 hw



SUL 285/2 T



Description

- Analogue tariff time switch with daily program
- 2 channels
- With power reserve (exchangeable NiMH rechargeable battery)
- Quartz controlled
- Tappets
- Shortest switching time: 20 minutes
- Clock hands for time display
- Switching status display
- Simple summer/winter time correction
- Control LED for battery change
- 32 tappets included in delivery

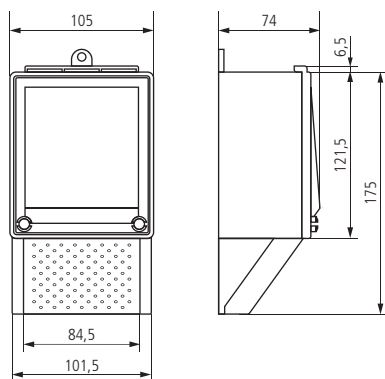
Product selection

Program	Number of channels	Power reserve	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	2	6 days	20 min	5 min	Changeover contact	110–230 V AC	SUL 285/2 T	2850033

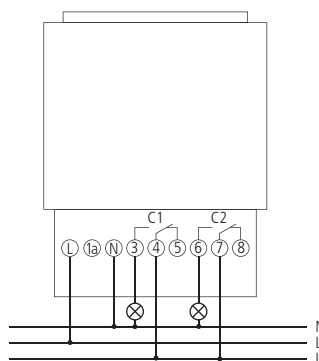
Technical data

SUL 285/2 T			
Operating voltage	110–230 V AC	Shortest switching times	20 min
Frequency	50–60 Hz	Programmable every	5 min
Installation type	Wall installation/3-point mounting	Time accuracy	$\leq \pm 1$ s/day (quartz)
Program	Daily program	Stand-by consumption	0,6 W
Power reserve	6 days, full power reserve approx. 3 days after connection to operating voltage	Type of protection	IP 54
Switching capacity at 250 V AC, $\cos \varphi = 1$	6 A	Protection class	II according to EN 62 054-21
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	2 A	Ambient temperature	$-10^\circ\text{C} \dots +55^\circ\text{C}$

Scale drawings



Connection diagram



Analogue plug-in timers

theben-timer 26



theben-timer 26 IP 44



theben-timer 27



Description

Common functions

- Analogue plug-in timer
- 1 channel
- Without power reserve
- Synchronised with mains
- Use with earthed sockets
- Switching preselection
- Switching status display

theben-timer 26

- Daily program
- 96 switching segments
- Shortest switching time: 15 minutes

theben-timer 26 IP 44

As theben-timer 26, but:

- Waterproof protection for damp locations and outdoor areas

- Transparent cover

theben-timer 27

- Weekly program
- 84 switching segments
- Shortest switching time: 2 hours

Product selection

Program	Shortest switching times	Programmable every	Type of contact	Operating voltage	Type	Article number
Daily program	15 min	15 min	NO contact	230 V AC	theben-timer 26	0260030
				230 V AC	theben-timer 26 IP 44	0260855
Weekly program	2 h	2 h	NO contact	230 V AC	theben-timer 27	0270930

Technical data

	theben-timer 26	theben-timer 26 IP 44	theben-timer 27
Operating voltage	230 V AC		
Frequency	50 Hz		
Installation type	Plug-in		
Program	Daily program		Weekly program
Switching capacity at 250 V AC, $\cos \varphi = 1$	16 A		
Switching capacity at 250 V AC, $\cos \varphi = 0,6$	4 A		
Shortest switching times	15 min		2 h
Programmable every	15 min		2 h
Time accuracy	Synchronised with mains		
Stand-by consumption	0,9 W		
Test approval		—	
Type of protection	IP 20	IP 44	IP 20
Protection class	II as per EN 60 730-1		
Ambient temperature	-10 °C ... +55 °C	-40 °C ... +55 °C	-10 °C ... +55 °C

Analogue cooling timers

FRI 77 h-2



FRI 77 g-2



Description

Common functions

- Analogue cooling time switch with daily and short time program
- Tappet
- 2 separate switching discs

FRI 77 g

- 2 channels
- Wall-mounted
- 8 tappets included in delivery
- Optional delayed switching on of fan

FRI 77 h-2

- 1 channel
- Drive with quick fastening for DIN rail
- 6 tappets included in delivery

FRI 77 g-2

- 2 channels
- Drive with quick fastening for DIN rail
- 8 tappets included in delivery
- Optional delayed switching on of fan

Product selection

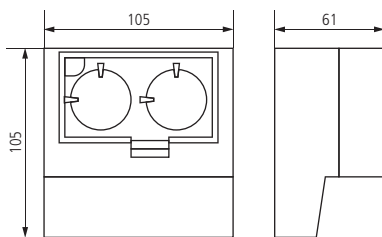
Type of contact	Installation type	Shortest switching times	Programmable every	Operating voltage	Type	Article number
2 two-way changeover contacts	Surface-mounted	2 min, 1 h	1 min, 1 h	230 V AC	FRI 77 g	0770033
Changeover contact	Drive with quick fastening for DIN rail	2 min, 1 h	1 min, 1 h	230 V AC	FRI 77 h-2	0770802
2 two-way changeover contacts	Drive with quick fastening for DIN rail	2 min, 1 h	1 min, 1 h	230 V AC	FRI 77 g-2	0770832

Technical data

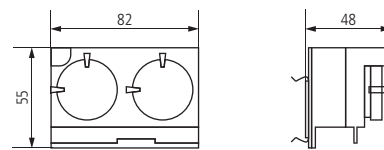
	FRI 77 g	FRI 77 h-2	FRI 77 g-2
Operating voltage	230 V AC		
Frequency	50 Hz		
Installation type	Surface-mounted	Drive with quick fastening for DIN rail	
Program	Daily and defrost program		
Switching capacity at 250 V AC, cos φ = 1	16 A		
Switching capacity at 250 V AC, cos φ = 0,6	2,5 A		
Shortest switching times	2 min, 1 h		
Programmable every	1 min, 1 h		
Time accuracy	Synchronised with mains		
Stand-by consumption	0,9 W		
Type of protection	IP 20	IP 00	
Protection class	II according to EN 60 730-1		
Ambient temperature	−10 °C ... +50 °C		

Scale drawings

FRI 77 g

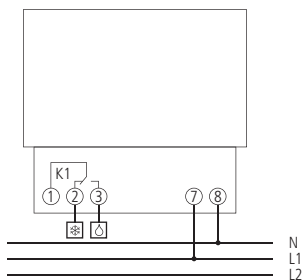


FRI 77 h-2, FRI 77 g-2

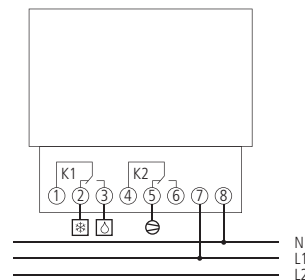


Connection diagrams

FRI 77 h-2

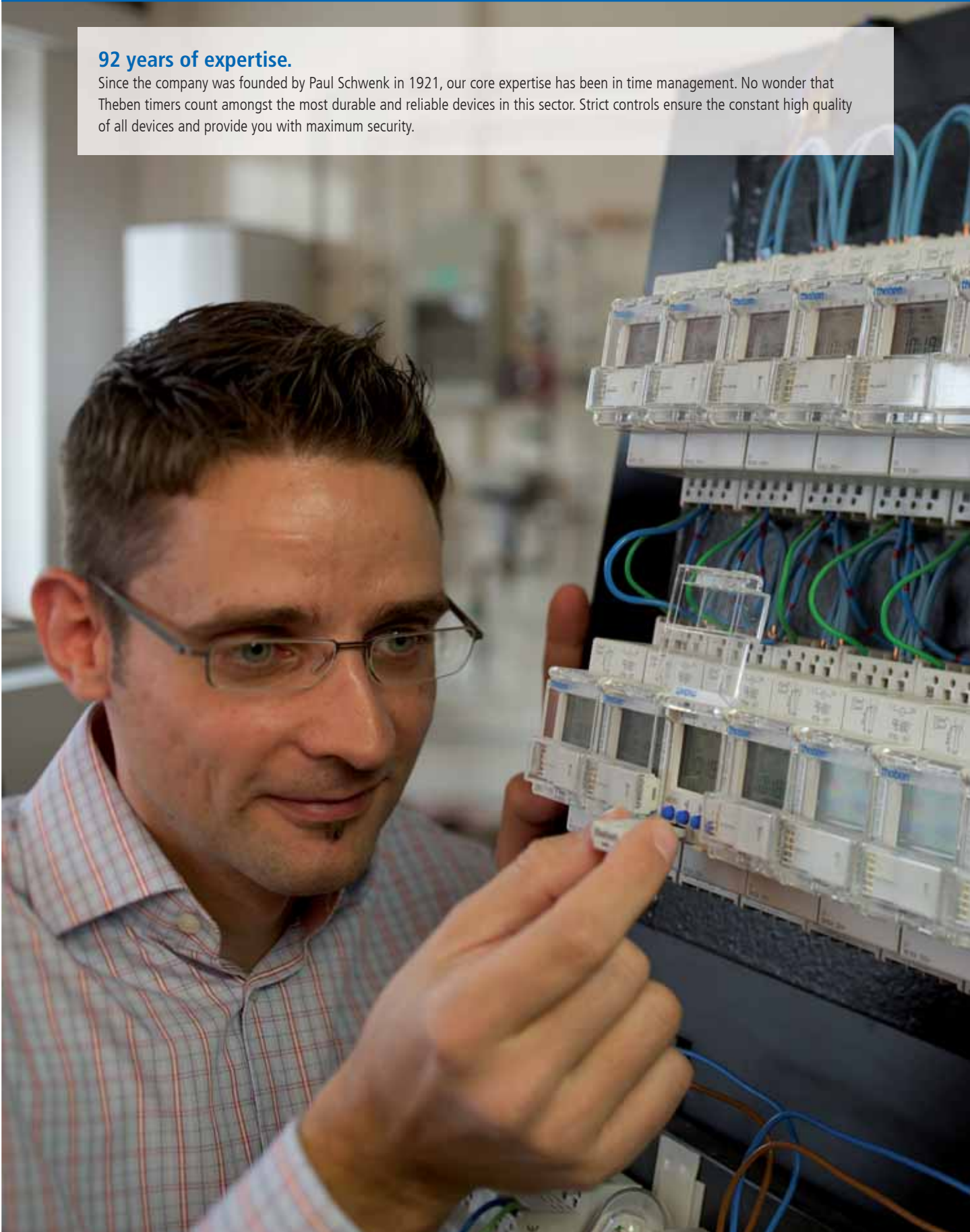


FRI 77 g, FRI 77 g-2



92 years of expertise.

Since the company was founded by Paul Schwenk in 1921, our core expertise has been in time management. No wonder that Theben timers count amongst the most durable and reliable devices in this sector. Strict controls ensure the constant high quality of all devices and provide you with maximum security.



		Type	Page
Time relays			
	Multi-function relay	TM 345 M	48
	Time relay with switch function	TM 345 B	48

	Installation type	Size front plate	Type	Page
Hour counters, analogue				
	Front panel installation	48 x 48 mm	BZ 142-1	50
			BZ 142-3	50
		52 x 52 mm	BZ 143-1	50
	DIN rail	35 x 45 mm	BZ 145	50
Hour counters, digital				
	Front panel installation	24 x 48 mm	BZ 146	52
		48 x 48 mm	BZ 147	52
	DIN rail	35 x 45 mm	BZ 148	52

Time relays

TM 345 M



TM 345 B



Description

Common functions

- Electronic time relay
- Can be used universally for controlling automatic processes in machines, lighting, ventilation, heating, cupboards etc.
- Precise analogue time setting
- Multi-voltage input for all supply and control voltages, no jumpers or additional terminals are required

- LED to display the switching status

TM 345 M

- Locking snap switch to select the period of time, as well as the following operating modes:
- Response delay (AV), without control contact
- Wipe contact (EW), without control contact
- Release delay (RV), with control contact

- Pulse former (IF), with control contact
- Response and release delay (VZ), with control contact
- Pulse output (VR), with control contact
- Flip-flop (TG)

TM 345 B

- With flip-flop function
- Pulse and break time independently adjustable

Product selection

Multi-function	Type	Article number
✓	TM 345 M	3450731
—	TM 345 B	3450730

Technical data

	TM 345 M	TM 345 B
Operating voltage	12–240 V AC/DC	24–240 V AC
Frequency	50–60 Hz	
Width	1 module	
Stand-by consumption	1 W	
Type of contact	Changeover contact	
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic	
Switching output	Potential-free	
Nominal current	10 mA–20 A < 10 ms	
Electrical service life	10 ⁵ operating cycles	
Fall back value of nominal input voltage	< 10.8 V AC/DC (as per EN 61812-1)	
Type of protection	IP 20	
Protection class	II	
Ambient temperature	–20 °C ... +60 °C	

Accessories

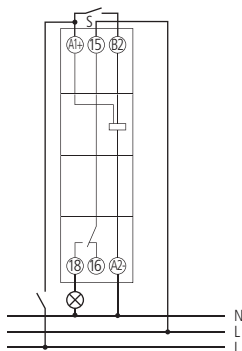
Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246

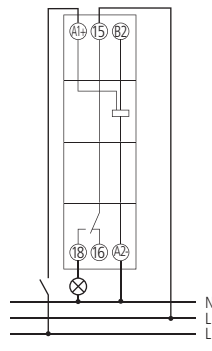


Connection diagrams

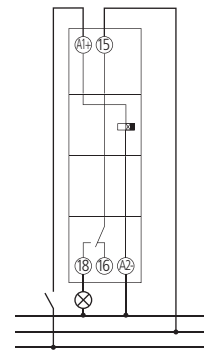
TM 345 M



TM 345 M



TM 345 B



Analogue hour counters – Front panel and DIN rail

BZ 142-1



BZ 142-3



BZ 145



Description

Common functions

- Hour counter with synchronous motor drive

BZ 142-1, BZ 143-1

- Front panel devices with click-in or stretch clamp supports for walls up to a maximum of 10 mm thick
- Clamp or flat plug connection 6.3 mm
- Versions for direct voltage with quartz-controlled stepper motor
- Progress display

BZ 142-3

- With plug-in base for wall installation (terminal cover required)
- Plug-in base with quick fastening for 35 mm profile rails (DIN EN 60 715)
- Screw terminals
- Contact protection to comply with accident prevention regulation BGV A3
- Housing colour: anthracite
- Versions for direct voltage with quartz-controlled stepper motor
- Progress display

BZ 145

- Built in distributor device with quick fastening for 35 mm profile rails (DIN EN 60 715)
- Top mounting with additional terminal box cover plate, sealable
- Control panel installation with assembly kit No. 907 0 001
- Contact protection to comply with accident prevention regulation BGV A3
- Captive screw terminals

Product selection

Counting range	Installation type	Size front plate	Size of Installation section	Operating voltage	Type	Article number
99 999,99 hours without reset	Front panel installation	48 x 48 mm	46 x 46 mm	230 V AC	BZ 142-1	1420721
				10–80 V DC	BZ 142-1 10V	1420821
				230–240 V AC	BZ 142-1 230V	1420621
				24 V AC	BZ 142-1 24V	1424721
				230 V AC	BZ 142-3	1420723
				10–80 V DC	BZ 142-3 10V	1420823
99 999,9 hours without reset	DIN rail	35 x 45 mm	35 x 45 mm (depth 60 mm)	230 V AC	BZ 143-1	1430721
				230 V AC	BZ 145	1450000
				24–48 V DC	BZ 145 24V	1459024

Technical data

	BZ 142-1	BZ 142-1 10V	BZ 142-1 230V	BZ 142-1 24V	BZ 142-3	BZ 142-3 10V	BZ 143-1	BZ 145	BZ 145 24V
Operating voltage	230 V AC	10–80 V DC	230–240 V AC	24 V AC	230 V AC	10–80 V DC	230 V AC	230 V AC	24–48 V DC
Frequency	50 Hz	–	60 Hz	50 Hz		–	50 Hz		–
Width	–							2 modules	
Installation type	Front panel installation							DIN rail	
Counting range	99 999,99 hours without reset							99 999,9 hours without reset	
Type of protection	Front frame IP 65							IP 20	
Protection class	II according to EN 60 335-1								
Ambient temperature	–20 °C ... +70 °C							–10 °C ... +70 °C	

Accessories

Clamp BZ

- for BZ 142-1, BZ 143-1
- Art.No.: 9070043
- Details ► Page 248



Cover 72 x 72 for BZ

- for BZ 142-1
- Art.No.: 9070074
- Details ► Page 248



Front kit BZ 142-3

- for BZ 142-3
- Art.No.: 9070075
- Details ► Page 248



Cover 55 x 55 for BZ

- for BZ 142-1
- Art.No.: 9070041
- Details ► Page 248



Plug-in socket BZ

- for BZ 142-3
- Art.No.: 9070042
- Details ► Page 249



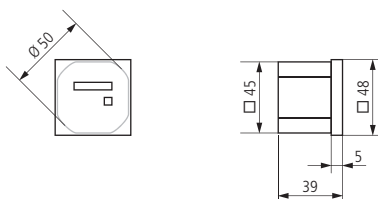
Wall mounting kit 35 mm

- for BZ 145
- Art.No.: 9070064
- Details ► Page 246

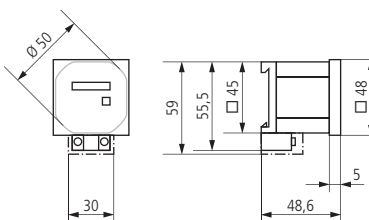


Scale drawings

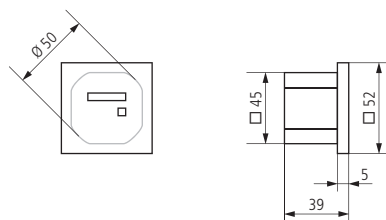
BZ 142-1



BZ 142-3



BZ 143-1



Digital hour counters – Front panel and DIN rail

BZ 146



BZ 147



BZ 148



Description

Common functions

- Digital hour counter
- With EEPROM memory provides reliable operating data capture even with loss of power
- 7-digit high-contrast LCD display
- Onscreen progress display

BZ 146

- Installation cutout 22 mm x 45 mm
- Control panel installation
- Screw terminals
- Tension clamp brackets for walls up to 5 mm thick
- Quartz controlled version

BZ 147

- Installation cutout 45 mm x 45 mm
- Control panel installation
- Screw terminals
- Tension clamp brackets for walls up to 5 mm thick
- Quartz controlled version

BZ 148

- For DIN rail mounting with quick fastening for 35 mm profile rails (DIN EN 60 715)
- Surface mounting with additional terminal box cover plate option
- Captive screw terminals

Product selection

Counting range	Installation type	Size front plate	Size of Installation section	Operating voltage	Type	Article number
99 999,99 hours without reset	Front panel installation	24 x 48 mm	22 x 45 mm	110–240 V AC	BZ 146	1460000
		48 x 48 mm	45 x 45 mm	110–240 V AC	BZ 147	1470000
999 999.9 hours without reset	DIN rail	35 x 45 mm	35 x 45 mm (depth 60 mm)	24–240 V AC/12–150 V DC	BZ 148	1480000

Technical data

	BZ 146	BZ 147	BZ 148
Operating voltage	110–240 V AC		24–240 V AC/12–150 V DC
Frequency	50–60 Hz		
Width	–		2 modules

	BZ 146	BZ 147	BZ 148
Installation type	Front panel installation		DIN rail
Counting range	99 999,99 hours without reset		999 999.9 hours without reset
Type of protection	IP 65		IP 20
Protection class	II according to EN 61010		
Ambient temperature	-30 °C ... +70 °C		-10 °C ... +70 °C

Accessories

Clamp BZ

- for BZ 146, BZ 147
- Art.No.: 9070043
- Details ► Page 248



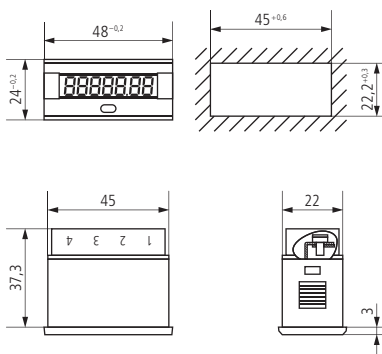
Wall mounting kit 35 mm

- for BZ 148
- Art.No.: 9070064
- Details ► Page 246

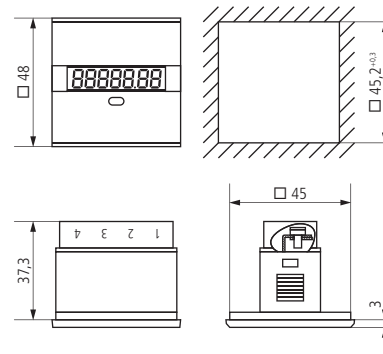


Scale drawings

BZ 146

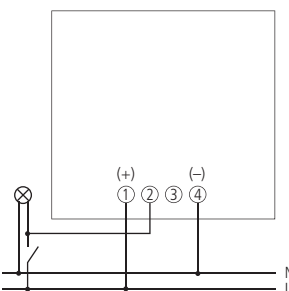


BZ 147

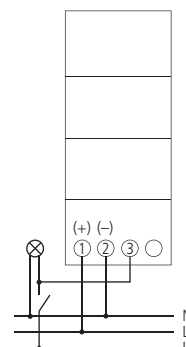


Connection diagrams

BZ 146, BZ 147



BZ 148





More than 20 years of Presence Detectors.

The Presence Detector was developed more than 20 years ago at the Laboratory for High Technology Systems in Switzerland (today ThebenHTS) which was a ground-breaking invention in the field of presence dependant lighting control. Discover the „real deal“ and see for yourself the world leading detection quality with square detection area.

	Installation type	Detection range - Sitting -	Detection range - Walking -	Channel	Function	Type of protection	Type	Page
230 V AC								
	Ceiling	20 m² (4,5 x 4,5 m)	49 m² (7 x 7 m)	Light	Switching	IP 54	PresenceLight 360	56
	Ceiling	20 m² (ø 5,0 m 360°)	133 m² (ø 13,0 m 360°)	Light	Switching	IP 41	SPHINX 104-360 AP	58
				Light Presence	Switching	IP 41	SPHINX 104-360/2 AP	58
				Light	Switching	IP 41	SPHINX 104-360	58
		28 m² (ø 6,0 m 360°)	452 m² (ø 24,0 m 360°)	Light Presence	Switching	IP 41	SPHINX 104-360/2	58
						IP 40	SPHINX 104-360/2 DIMplus	60
	Ceiling	20 m² (4,5 x 4,5 m)	49 m² (7 x 7 m)	Light Presence	Switching	IP 40	compact office	62
				Light 1–10 V	Dimming	IP 40	compact office DIM	64
				DALI	Switching	IP 40	compact office DALI	66
	Ceiling	90 m² (20 x 4,5 m)	135 m² (30 x 4,5 m)	Light Presence	Switching	IP 40	compact passage	70
		45 m² (10 x 4,5 m)	68 m² (15 x 4,5 m)	Light Presence	Switching	IP 40	compact passimo	70
	Ceiling	49 m² (7,0 x 7,0 m)	81 m² (9 x 9 m)	Light Presence	Switching	IP 40	ECO-IR 360A	72
							ECO-IR 360C NT	74
				2 x Light	Switching	IP 40	ECO-IR DUAL-C NT	76
	Ceiling	49 m² (□ 7,0 x 7,0 m)	81 m² (□ 9,0 x 9,0 m)	Light Presence	Switching	IP 40	PlanoCentro 101-EWH	78
				–	Switching	IP 40	PlanoCentro 000-EWH	78
				Light Presence	Switching	IP 40	PlanoCentro 101-UWH	78
				–	Switching	IP 40	PlanoCentro 000-UWH	78
	Ceiling	49 m² (□ 7,0 x 7,0 m)	81 m² (□ 9,0 x 9,0 m)	2 x Light Presence	Switching	IP 40	PlanoCentro 201-EWH	80
				3 x Light	Switching	IP 40	PlanoCentro 300-EWH	80
				2 x Light Presence	Switching	IP 40	PlanoCentro 201-UWH	80
				3 x Light	Switching	IP 40	PlanoCentro 300-UWH	80
	Wall	28 m² (ø 7,0 m 180°)	100 m² (ø 16,0 m 180°)	Light	Switching	IP 54	PresenceLight 180	86
		32 m² (ø 8,0 m 180°)	100 m² (ø 16,0 m 180°)	Light Presence	Switching	IP 40	ECO-IR 180A	88
24 V AC/DC								
	Ceiling	20 m² (4,5 x 4,5 m)	49 m² (7 x 7 m)	Light Presence	Switching 24 V	IP 40	compact office 24V	90
				Light 0–10 V	Switching 24 V	IP 40	compact office 24V Lux	92
		90 m² (20 x 4,5 m)	135 m² (30 x 4,5 m)	Light Presence	Switching 24 V	IP 40	compact passage 24V	94
		49 m² (7,0 x 7,0 m)	81 m² (9 x 9 m)	Light Presence	Switching 24 V	IP 40	ECO-IR 360-24V	96
	Wall	32 m² (ø 8,0 m 180°)	100 m² (ø 16,0 m 180°)	Light Presence	Switching 24 V	IP 40	ECO-IR 180-24V	98

Presence detector – PresenceLight 360



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- IP 54 for versatile use
- Light switch output (relay, 230 V)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Pulse function for staircase time switch
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

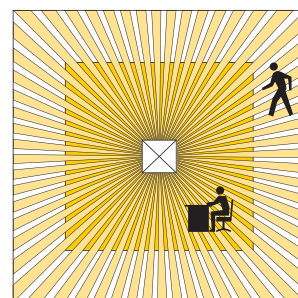
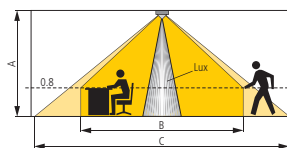
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light	230 V AC	Pure white (similar to RAL 9010)	PresenceLight 360	2000000
			Black (similar to RAL 9005)	PresenceLight 360 BK	2000800
			Silver (similar to RAL 9006)	PresenceLight 360 SR	2000801
Additional colours available upon request					

Technical data

	PresenceLight 360
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3 m
Power consumption	0,7 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V
Resistive load	1400 W
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA ($\cos \varphi = 0,8$), 580 VA ($\cos \varphi = 0,5$)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Ambient temperature	–20 °C ... +50 °C
Type of protection	IP 54

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame PresenzLight

- Art.No.: 9070513
Details ► Page 249



QuickSafe

- Art.No.: 9070531
Details ► Page 250



clic

- Art.No.: 9070515
Details ► Page 251

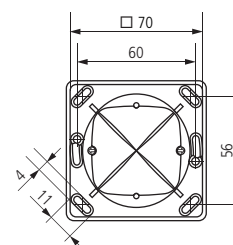
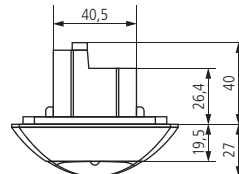
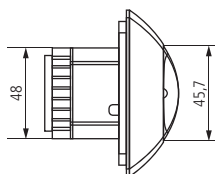
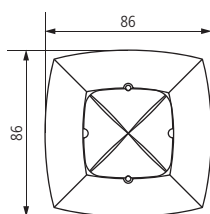


QuickSet plus

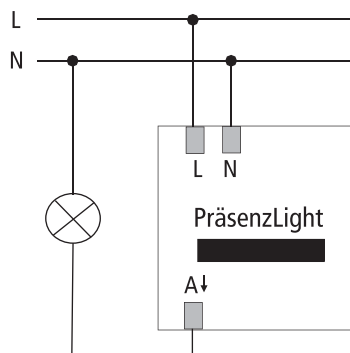
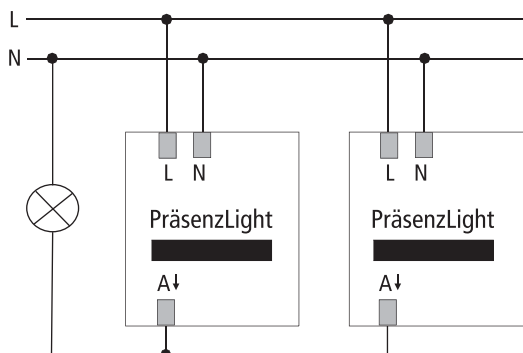
- Art.No.: 9070532
Details ► Page 251



Scale drawings



Connection diagrams



Presence detector – SPHINX 104

SPHINX 104-360 AP



SPHINX 104-360



Description

Common functions

- Presence detector (PIR)
- Lighting control with adjustable light threshold value and adjustable switch-off delay
- Teach-in of current brightness value possible via remote control
- Additional impulse function can be selected for combination with staircase timer (ELPA), building automation or PLC
- Master/slave function: Up to ten detectors to expand detection area
- Test function for checking detection area
- Zero-cross switching

- Automatic lighting control based on presence and brightness
- Detection area can be limited using three enclosed segments
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Instant start-up possible via factory preset
- Push-button or switch options for manual switching
- Screwless terminals for quick installation

SPHINX 104-360 AP

- 1 channel
- Surface-mounted installation

SPHINX 104-360/2 AP

- 2 channels
- Surface-mounted installation
- 2. Relay for HVAC control, presence dependent
- HVAC control with programmable switch-on and switch-off delay

SPHINX 104-360

- 1 channel
- Flush-mounted installation

SPHINX 104-360/2

- As SPHINX 104/360/2 AP, but:
- Flush-mounted installation

Product selection

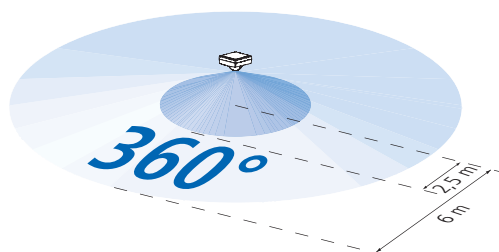
Installation type	Channel	Detection angle	Colour	Type	Article number
Ceiling installation, Surface mounted	Light	360°	Pure white (similar to RAL 9010)	SPHINX 104-360 AP	1040360
	Light Presence	360°	Pure white (similar to RAL 9010)	SPHINX 104-360/2 AP	1040362
Ceiling installation	Light	360°	Pure white (similar to RAL 9010)	SPHINX 104-360	1040370
	Light Presence	360°	Pure white (similar to RAL 9010)	SPHINX 104-360/2	1040372

Technical data

	SPHINX 104-360 AP	SPHINX 104-360/2 AP	SPHINX 104-360	SPHINX 104-360/2
Operating voltage	230 V AC			
Frequency	50–60 Hz			
Stand-by consumption	1 W			
Setting range brightness	10–2000 lx			
Switching capacity light	16 A (at 230 V AC, $\cos \varphi = 1$)		8 A (at 230 V AC, $\cos \varphi = 1$)	
Switching capacity presence	–	5 A ($\cos \varphi = 1$) 250 V AC/30 V DC	–	3 A ($\cos \varphi = 1$) 250 V AC/30 V DC
Detection angle	360°			
Recommended installation height	2,5–3,5 m			
Light switch-off delay	1 s–20 min			

	SPHINX 104-360 AP	SPHINX 104-360/2 AP	SPHINX 104-360	SPHINX 104-360/2
Presence switch-off delay	–	1–120 min	–	1–120 min
Switch-on delay presence	–	0–60 min	–	0–60 min
Incandescent lamp load	2000 W		1800 W	
Fluorescent lamp load (conventional) not corrected	900 VA			
Fluorescent lamp load (conventional) parallel-corrected, series-corrected, lead-lag circuit	400 VA			
Energy saving lamps	4 x 7 W, 3 x 11 W, 3 x 15 W, 3 x 20 W, 3 x 23 W			
Ambient temperature	–10 °C ... +55 °C			
Protection class	II			
Type of protection	IP 41			

Detection range



■ Walking
■ Sitting
Mounting height 3,0 m

Accessories

SPHINX RC 104 Pro

- Art.No: 9070536
Details ► Page 251

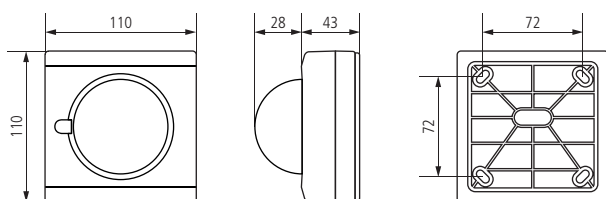


Additional accessories

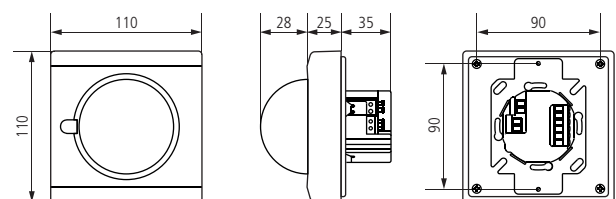
- SPHINX RC 104
Details ► Page 251
- RC filter
Details ► Page 251

Scale drawings

SPHINX 104-360 AP, SPHINX 104-360/2 AP

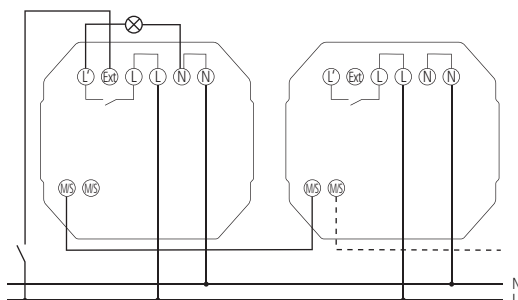


SPHINX 104-360, SPHINX 104-360/2

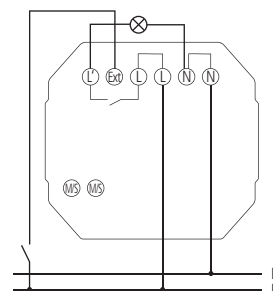


Connection diagrams

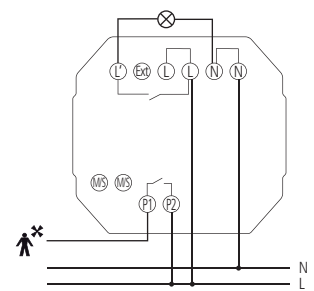
SPHINX 104-360 AP, SPHINX 104-360



SPHINX 104-360 AP, SPHINX 104-360



SPHINX 104-360/2 AP, SPHINX 104-360/2



Presence detector – SPHINX 104-360/2 DIMplus



Description

- Presence detector (PIR)
- Automatic lighting control based on presence and brightness
- 2 channels for application areas class and conference rooms
- Channel 1 for constant light control (1–10 V)
- Lighting control with adjustable light threshold value and adjustable switch-off delay
- Channel 2 presence dependent, e.g. for blackboard lighting with programmable switch-off delay or for HVAC control
- Flush-mounted installation
- Additional impulse function can be selected for combination with staircase timer (ELPA), building automation or PLC
- Test function for checking detection area
- Zero-cross switching
- Detection area can be limited using three enclosed segments
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Instant start-up possible via factory preset
- Option for Push-button or for manual switching for each channel
- Fully or semi-automatic: In „Fully automatic“ mode, the lighting switches on and off automatically according to presence and light In „Semi-automatic“ mode, it must be switched on manually and it switches off automatically

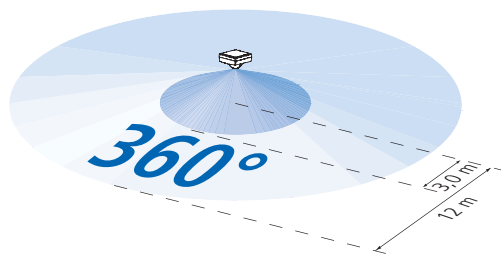
Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Ceiling installation	Light Presence	360°	Pure white (similar to RAL 9010)	SPHINX 104-360/2 DIM plus	1040374

Technical data

SPHINX 104-360/2 DIM plus			
Operating voltage	230 V AC	Fluorescent lamp load (conventional) not corrected, series-corrected	900 VA
Frequency	50–60 Hz	Fluorescent lamp load (conventional) not corrected, series-corrected (channel presence)	200 VA
Stand-by consumption	1 W	Fluorescent lamp load (conventional) not corrected, parallel-corrected	400 VA
Setting range brightness	5–2000 lx	Fluorescent lamp load (conventional) parallel-corrected (channel presence)	60 VA
Switching capacity light	4 A (at 230 V AC, $\cos \varphi = 1$)	Fluorescent lamp load (electronic ballast)	400 VA
Switching capacity presence	2 A ($\cos \varphi = 1$) 250 V AC/30 V DC	Fluorescent lamp load (electronic ballast) (channel presence)	40 VA
Detection angle	360°	Energy saving lamps	4 x 7 W, 3 x 11 W, 3 x 15 W, 3 x 20 W, 3 x 23 W
Recommended installation height	2,5–3,5 m	Energy saving lamps (channel presence)	2 x 7 W, 2 x 11 W, 1 x 15 W, 1 x 20 W, 1 x 23 W
Switching output	Not potential-free (230 V)	Ambient temperature	–10 °C ... +55 °C
Switching output channel presence	Potential-free	Protection class	II
Light switch-off delay	1 s–20 min	Type of protection	IP 40
Presence switch-off delay	1–120 min		
Incandescent lamp load	1000 W		
Incandescent lamp load (channel presence)	400 W		

Detection range



■ Walking
■ Sitting
Mounting height 3,0 m

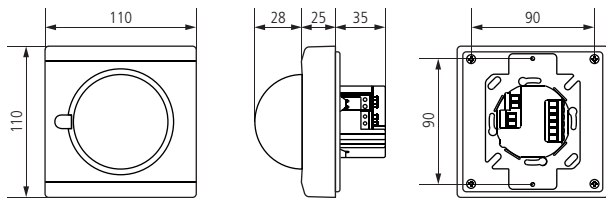
Accessories

RC filter

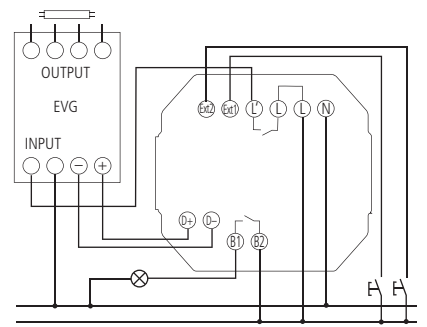
- Art.No: 9070523
Details ► Page 251



Scale drawings



Connection diagrams



Presence detector – compact office



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, 230 V)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	compact office	2010000
			Black (similar to RAL 9005)	compact office BK	2010800
			Silver (similar to RAL 9006)	compact office SR	2010801

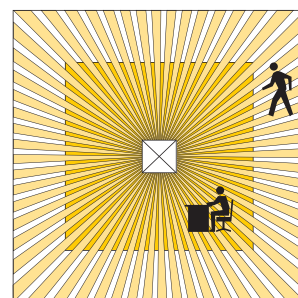
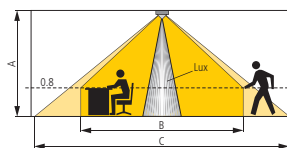
Additional colours available upon request

Technical data

	compact office
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3 m
Power consumption	0,7 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V
Resistive load	1400 VA
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA ($\cos \varphi = 0,8$), 580 VA ($\cos \varphi = 0,5$)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (220 V DC), 50 VA (250 V AC) minimale 0,5 mV/10 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame compact

- Art.No.: 9070514
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clic

- Art.No.: 9070515
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QuickSet plus

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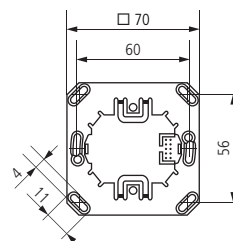
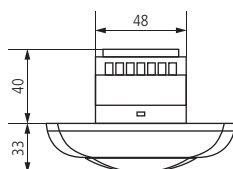
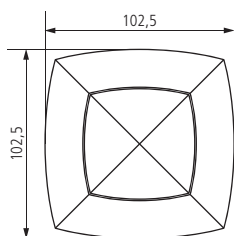


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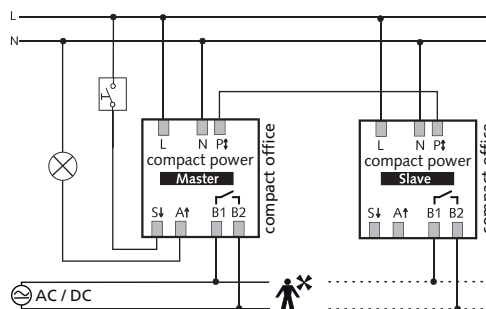
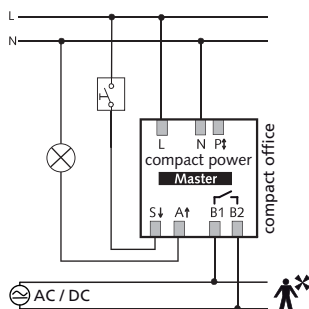
- Art.No.: 9070531
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Scale drawings



Connection diagrams



Presence detector – compact office DIM



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switching output (relay, 230 V) and 1–10 V interface
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Brightness threshold, self-learning switch-off delay and stand-by time adjustable
- The stand-by time guarantees a minimum brightness and provides for a sense of security in hospital and care environments as the lighting does not switch off when areas are unoccupied but remains in stand-by mode for the set time
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

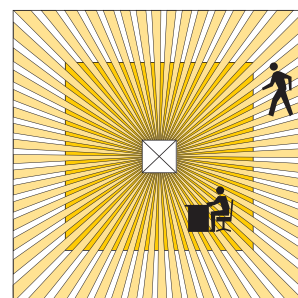
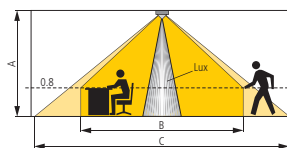
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light 1-10 V	230 V AC	Pure white (similar to RAL 9010)	compact office DIM	2010001
			Black (similar to RAL 9005)	compact office DIM BK	2010803
			Silver (similar to RAL 9006)	compact office DIM SR	2010804
Additional colours available upon request					

Technical data

	compact office DIM
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3 m
Power consumption	0,8 W
Setting range brightness	10–1500 lx
Light switch-off delay	10 s–20 min
Stand-by time light	0 s–60 min
Type of contact light	Relay 230 V
Resistive load	1400 VA
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA ($\cos \varphi = 0,8$), 580 VA ($\cos \varphi = 0,5$)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Control output	1–10 V DC/100 mA as per EN 60929/A1
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame compact

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clic

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QuickSet plus

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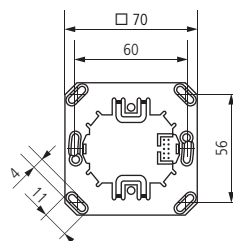
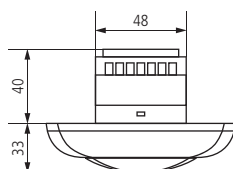
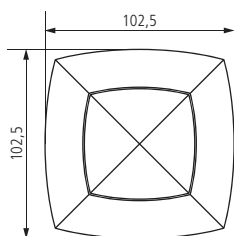


QuickSafe

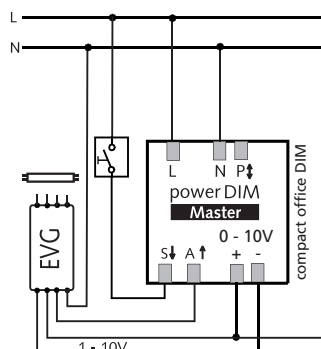
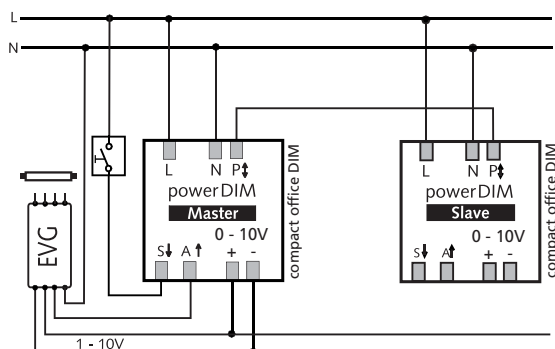
- Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – compact office DALI



Description

- Presence detector (PIR)
- Square 360° detection range for an accurate and simple planning
- DALI interface in accordance with EN 62386 for max. 25 DALI electronic ballasts
- Automatic allocation of DALI participants (DALI Broadcast)
- Automatic lighting regulation with constant light control
- Mixed light measurement suitable for switching fluorescent lamps (FL/PL), halogen and incandescent lamps as well as LEDs
- Facility to connect a push button for manual dimming and switching (single-button control)
- Fully or semi-automatic operation switch-selectable
- Brightness switching level, self-learning switch-off delay time, stand-by time and stand-by brightness can be adjusted
- Scene component with two built-in scenes
- Ready for immediate use due to factory preset
- Test mode for checking function and detection area
- Extension of detection area via Master/Slave or Master/Master switching, a maximum of 10 detectors can be switched at the same time
- Ceiling installation in flush-mounted socket
- Ceiling installation possible with surface-mounted frame
- User remote control SendoClic (option)
- Service remote control SendoPro (option)

Product selection

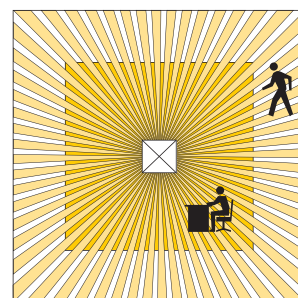
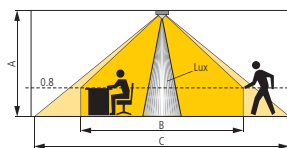
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	DALI	230 V AC	Pure white (similar to RAL 9010)	compact office DALI WH	2010010
			Black (similar to RAL 9005)	compact office DALI BK	2010011
			Silver (similar to RAL 9006)	compact office DALI SR	2010012
Additional colours available upon request					

Technical data

	compact office DALI WH
Operating voltage	230 V AC +10 %/–15 %
Frequency	50 Hz
Recommended installation height	2–3 m
Power consumption	0,5 W
Setting range brightness	5–2000 lx
Light switch-off delay	10 s–60 min
Stand-by time light	0 s–60 min/on
Stand-by brightness	1–25 %
Control output	50 mA
Output light	DALI-interface according to IEC SN EN 62 386 for max. 25 DALI devices
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame compact

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clic

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QuickSet plus

- Art.No.: 9070532
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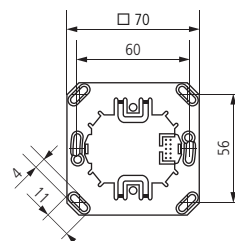
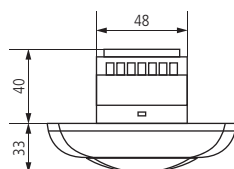
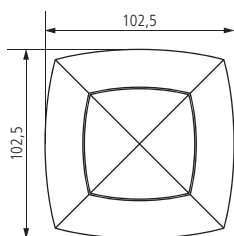


QuickSafe

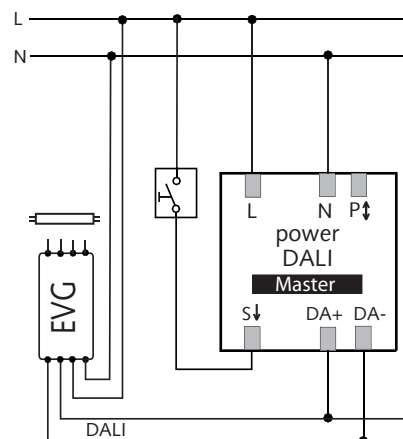
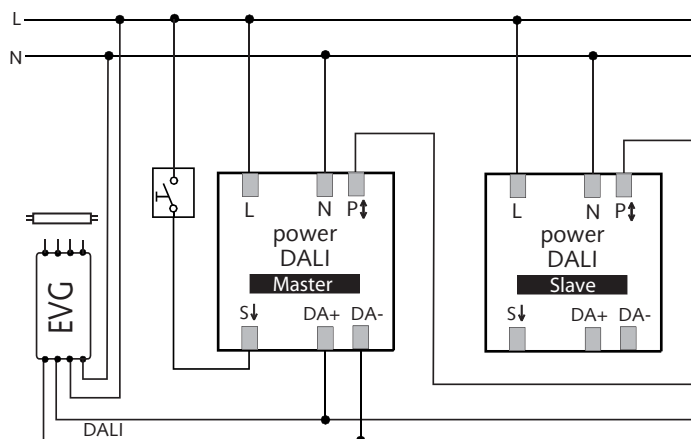
- Art.No.: 9070531
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Scale drawings



Connection diagrams



Presence detector – compact passage



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Rectangular detection area for corridors allows accurate and simple planning
- Light switch output (relay, 230 V)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

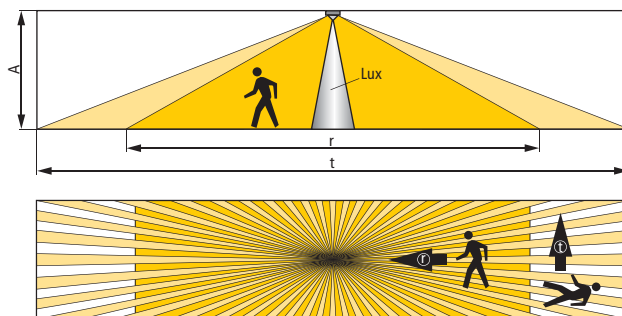
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	compact passage	2010090
			Black (similar to RAL 9005)	compact passage BK	2010806
			Silver (similar to RAL 9006)	compact passage SR	2010807
Additional colours available upon request					

Technical data

	compact passage
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3,5 m
Power consumption	0,7 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V
Resistive load	1400 VA
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA (cos ϕ = 0,8), 580 VA (cos ϕ = 0,5)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (220 V DC), 50 VA (250 V AC) minimal 0,5 mV/10 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Rectangular)

Mounting height (A)	Head on to (r)	Diagonally (t)
2 m	56 m ² 16 m x 3,5 m ± 1 m	105 m ² 30 m x 3,5 m ± 1 m
2,5 m	72 m ² 18 m x 4 m ± 1 m	120 m ² 30 m x 4 m ± 1 m
3 m	90 m ² 20 m x 4,5 m ± 1 m	135 m ² 30 m x 4,5 m ± 1 m
3,5 m	100 m ² 20 m x 5 m ± 1 m	150 m ² 30 m x 5 m ± 1 m



Accessories

Surface frame compact

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clic

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QuickSet plus

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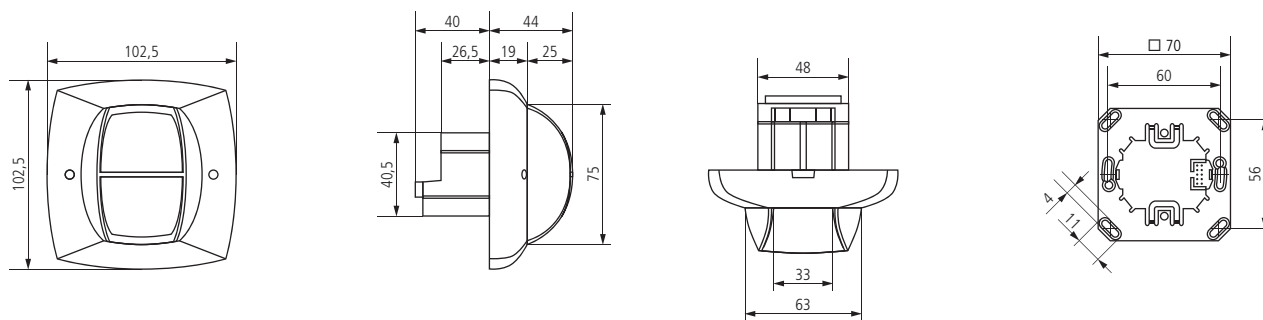


QuickSafe

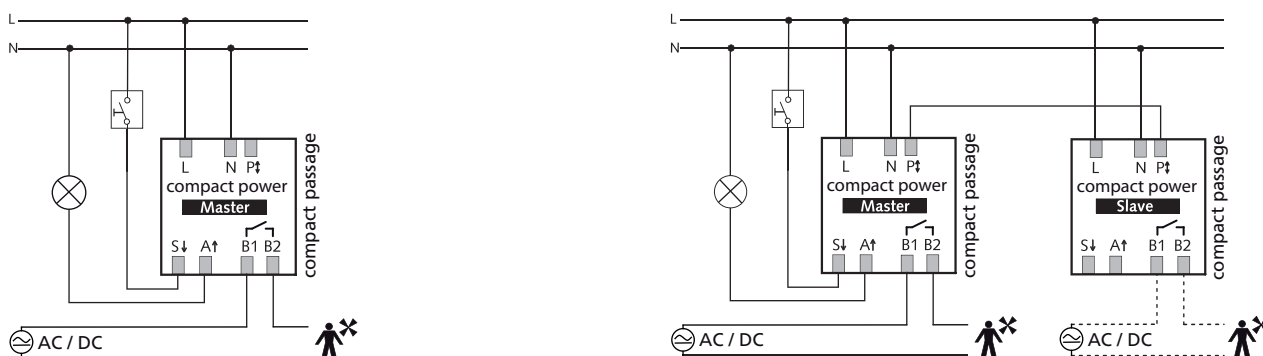
■ Art.No.: 9070531
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Scale drawings



Connection diagrams



Presence detector – compact passimo



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Rectangular detection area for storage areas with clear demarcation vertically below the presence detector allows accurate and simple planning
- Light switch output (relay, 230 V)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

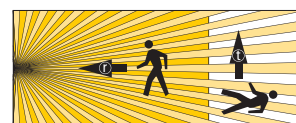
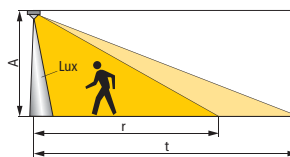
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	compact passimo WH	2010080
			Black (similar to RAL 9005)	compact passimo BK	2010809
			Silver (similar to RAL 9006)	compact passimo SR	2010810
Additional colours available upon request					

Technical data

	compact passimo WH
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3,5 m
Power consumption	0,7 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V
Resistive load	1400 VA
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA (cos ϕ = 0,8), 580 VA (cos ϕ = 0,5)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (220 V DC), 50 VA (250 V AC) minimal 0,5 mV/10 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Rectangular)

Mounting height (A)	Head on to (r)	Diagonally (t)
2 m	28 m ² 8 m x 3,5 m ± 1 m	53 m ² 15 m x 3,5 m ± 1 m
2,5 m	36 m ² 9 m x 4,0 m ± 1 m	60 m ² 15 m x 4,0 m ± 1 m
3 m	45 m ² 10 m x 4,5 m ± 1 m	68 m ² 15 m x 4,5 m ± 1 m
3,5 m	50 m ² 10 m x 5,0 m ± 1 m	75 m ² 15 m x 5,0 m ± 1 m



Accessories

Surface frame compact

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clic

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QuickSet plus

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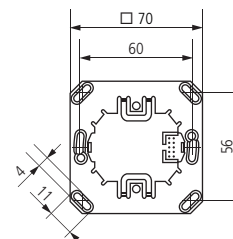
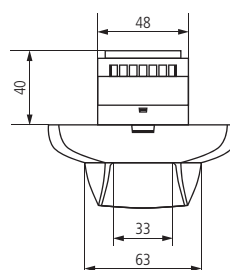
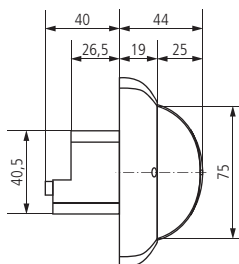
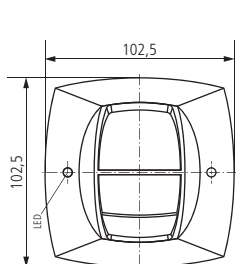


QuickSafe

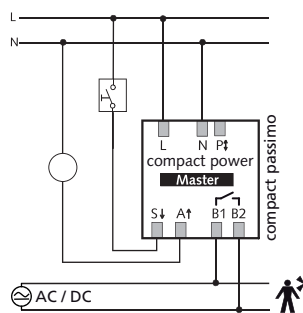
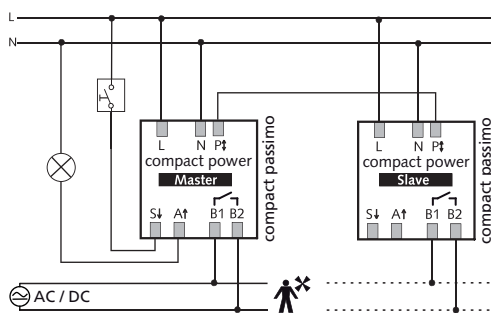
- Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – ECO-IR 360A



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, 230 V)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Brightness threshold and self-learning switch-off delay adjustable
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Parameters can be set using the potentiometers
- Ready for use by ex-factory set items
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

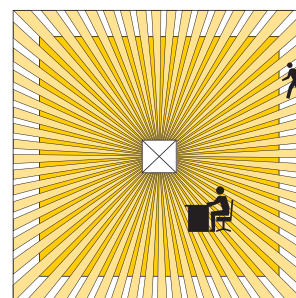
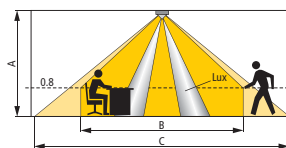
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	ECO-IR 360A	2020000
			Black (similar to RAL 9005)	ECO-IR 360A BK	2020806
			Silver (similar to RAL 9006)	ECO-IR 360A SR	2020807
Additional colours available upon request					

Technical data

	ECO-IR 360A
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3,5 m
Power consumption	0,9 W
Setting range brightness	50–1600 lx
Light switch-off delay	2 min–15 min
Type of contact light	Relay 230 V
Compact and fluorescent lamps	max. 1400 VA
Compact and fluorescent lamps (Number of electronic ballasts)	12 x (1 x 58 W), 6 x (2 x 58 W), 18 x (1 x 36 W), 9 x (2 x 36 W), 18 x (smaller than 36 W)
Presence switch-off delay	10–60 min
Type of contact presence	Relay potential-free
Switching capacity presence	100 W (24 V DC), 460 VA (230 V AC), μ
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

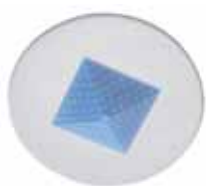
Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m
4 m	121 m ² 11 m x 11 m ± 1 m	-



Accessories

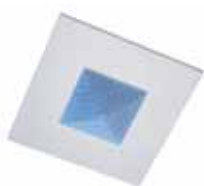
QuickFix concrete round cover

- Art.No.: 9070519
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QuickFix concrete square cover

- Art.No.: 9070518
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Surface frame ECO-IR 360

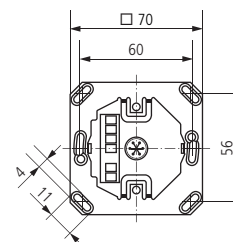
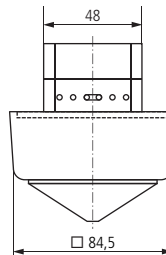
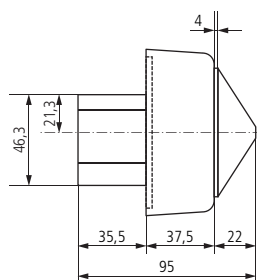
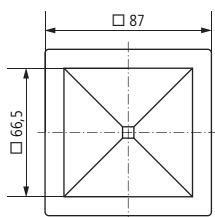
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Details ► Page 249



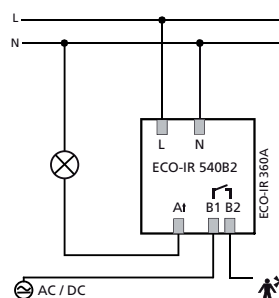
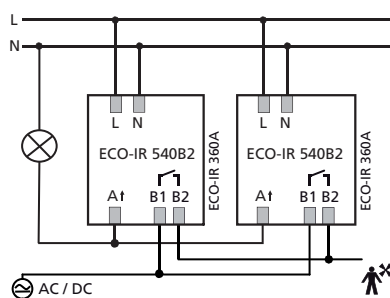
Additional accessories

- QuickFix concrete flush-mounted box
Details ► Page 250
- QuickFix flush-mounted housing
Details ► Page 250
- QuickSafe
Details ► Page 250
- QuickFix round cover
Details ► Page 250
- QuickFix square cover
Details ► Page 250

Scale drawings



Connection diagrams



Presence detector – ECO-IR 360C NT



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, 230 V)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Brightness threshold and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Inrush current limitation for EB
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/slave parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

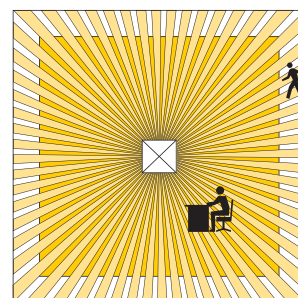
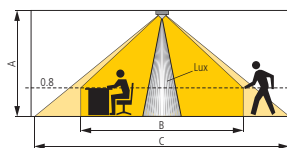
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	ECO-IR 360C NT	2020400
			Black (similar to RAL 9005)	ECO-IR 360C NT BK	2020812
			Silver (similar to RAL 9006)	ECO-IR 360C NT SR	2020813
Additional colours available upon request					

Technical data

	ECO-IR 360C NT
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3,5 m
Power consumption	0,9 W
Setting range brightness	10–1500 lx
Light switch-off delay	10 s–20 min
Type of contact light	Relay 230 V, switch-on current limit
Compact and fluorescent lamps	max. 1400 VA
Compact and fluorescent lamps (Number of electronic ballasts)	16 x (1 x 58 W), 8 x (2 x 58 W), 24 x (1 x 36 W), 12 x (2 x 36 W), 24 x (smaller than 36 W)
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	100 W (50 V DC), 460 VA (230 V AC), minimal 10 V/100 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m
4 m	121 m ² 11 m x 11 m ± 1 m	—
9 m	361 m ² 19 m x 19 m ± 1 m	—



Accessories

Surface frame ECO-IR 360

- Art.No.: 9070512
Details ► Page 249



QuickSet plus

- Art.No.: 9070532
Details ► Page 249



clic

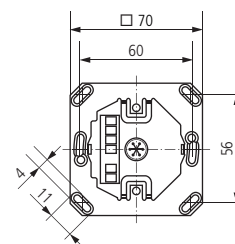
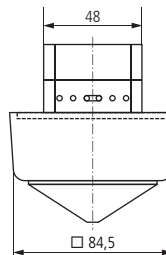
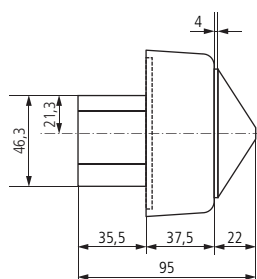
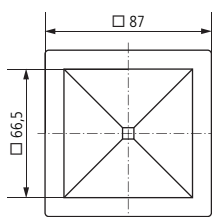
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Details ► Page 249



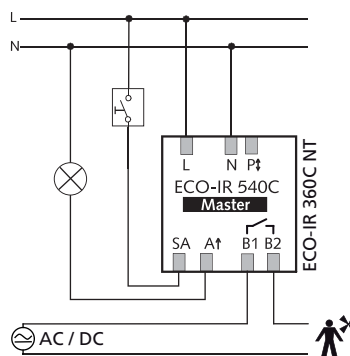
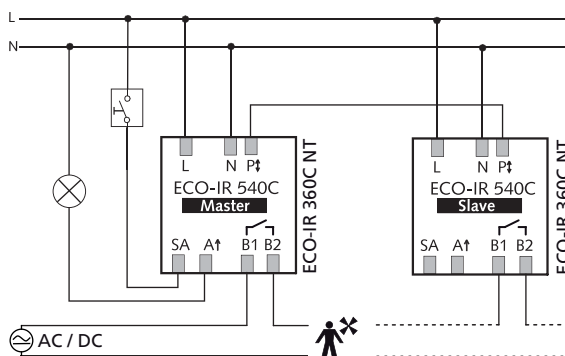
Additional accessories

- QuickFix covers
Details ► Page 249
- QuickFix concrete flush-mounted box
Details ► Page 249
- QuickFix flush-mounted housing
Details ► Page 249
- QuickSafe
Details ► Page 249

Scale drawings



Connection diagrams



Presence detector – ECO-IR DUAL-C NT



Description

- Presence detector (PIR)
- Automatic control of 2 lighting groups depending on presence and brightness
- Square detection area allows accurate and simple planning
- 2 light switch outputs (relay, 230 V)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- 2 brightness thresholds and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Inrush current limitation for EB
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

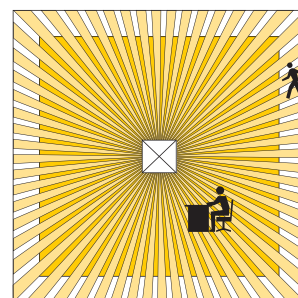
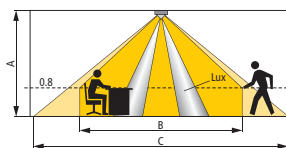
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	2 x light	230 V AC	Pure white (similar to RAL 9010)	ECO-IR DUAL-C NT	2020401
			Black (similar to RAL 9005)	ECO-IR DUAL-C NT BK	2020815
			Silver (similar to RAL 9006)	ECO-IR DUAL-C NT SR	2020816
Additional colours available upon request					

Technical data

	ECO-IR DUAL-C NT
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3,5 m
Power consumption	0,9 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V, switch-on current limit
Compact and fluorescent lamps	max. 1400 VA
Compact and fluorescent lamps (Number of electronic ballasts)	16 x (1 x 58 W), 8 x (2 x 58 W), 24 x (1 x 36 W), 12 x (2 x 36 W), 24 x (smaller than 36 W)
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m
4 m	121 m ² 11 m x 11 m ± 1 m	—



Accessories

Surface frame ECO-IR 360

- Art.No.: 9070512
Details ► Page 249



QuickSet plus

- Art.No.: 9070532
Details ► Page 249



clic

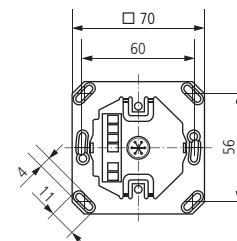
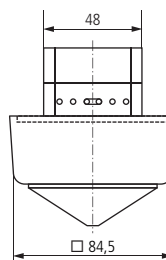
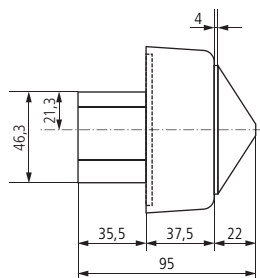
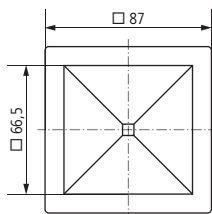
- Art.No.: 9070515
Details ► Page 249



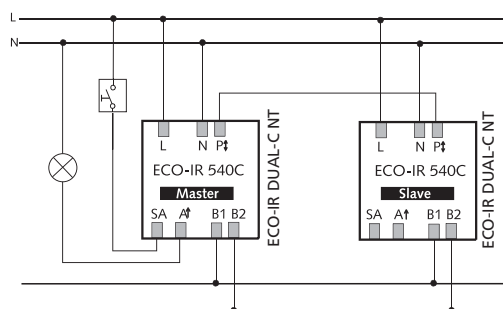
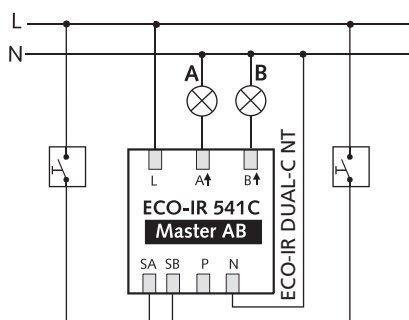
Additional accessories

- QuickFix covers
Details ► Page 249
- QuickFix concrete flush-mounted box
Details ► Page 249
- QuickFix flush-mounted housing
Details ► Page 249
- QuickSafe
Details ► Page 249

Scale drawings



Connection diagrams



Presence detector – PlanoCentro 101, 000

Description



- Presence detector (PIR)
 - Automatic control of lighting depending on presence and brightness
 - Flush design using concave mirror technology
 - Square detection area for accurate and easy planning
 - Light switch output (relay, 230 V)
 - Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
 - Brightness threshold and self-learning switch-off delay adjustable
 - Push button or switch connection for manual control
 - Pulse function for staircase time switch
 - Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
 - Presence switch output (relay, potential-free) for example for HVAC control
 - HVAC control with adjustable switch-on and switch-off delay
 - Function „monitoring“ with reduced sensitivity only to detect walking persons
 - Ready for use by 6 predefined settings, details can be set using the optional service remote control SendoPro
 - Parameters can be selected for subsequent changes
 - Adjustable sensitivity
 - Optional user remote control SendoClic
 - Test operation to check detection area, installation, brightness settings
 - Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
 - Individual covers available upon request
- PlanoCentro 101-E**
- For ceiling installation (false ceilings)
 - With installation for false ceilings and cover
- PlanoCentro 000-E**
- Slave-Version for PlanoCentro 101-E
 - Just to be used with PlanoCentro 101-E as Master
- PlanoCentro 101-U**
- For flush-mounting (concrete ceiling)
 - With metal installation frame for screwed fixing in wooden ceilings or in flush-mounted sockets, incl. cover
- PlanoCentro 000-U**
- Slave-Version for PlanoCentro 101-U
 - Just to be used with PlanoCentro 101-U as Master

Product selection

Installation type	Channel	Function	Colour	Type	Article number
Ceiling mounting with mounting frame	Light Presence	Master	Pure white (similar to RAL 9010)	PlanoCentro 101-EWH	2030102
			Black (similar to RAL 9005)	PlanoCentro 101-EBK	2030103
			Silver (similar to RAL 9006)	PlanoCentro 101-ESR	2030104
	–	Slave	Pure white (similar to RAL 9010)	PlanoCentro 000-EWH	2040102
			Black (similar to RAL 9005)	PlanoCentro 000-EBK	2040103
			Silver (similar to RAL 9006)	PlanoCentro 000-ESR	2040104
Ceiling installation (flush-mounting for concrete ceiling)	Light Presence	Master	Pure white (similar to RAL 9010)	PlanoCentro 101-UWH	2030202
			Black (similar to RAL 9005)	PlanoCentro 101-UBK	2030203
			Silver (similar to RAL 9006)	PlanoCentro 101-USR	2030204
	–	Slave	Pure white (similar to RAL 9010)	PlanoCentro 000-UWH	2040202
			Black (similar to RAL 9005)	PlanoCentro 000-UBK	2040203
			Silver (similar to RAL 9006)	PlanoCentro 000-USR	2040204

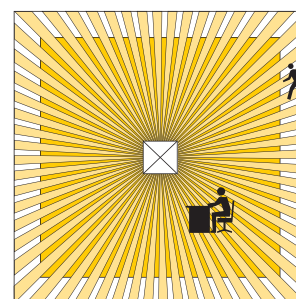
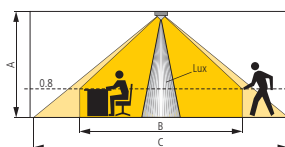
Additional colours available upon request

Technical data

	PlanoCentro 101	PlanoCentro 000
Operating voltage	230 V AC	
Frequency	50 Hz	
Recommended mounting height	2–3,5 m	
Stand-by consumption	0,8 W	0,3 W
Setting range brightness	5–2000 lx	–
Light switch-off delay	Impuls, 10 s–60 min	–
Type of contact light	Relay 230 V/10 A	–
Incandescent/halogen lamp load	2300 W	–
Compact and fluorescent lamps	2300 W (at $\cos \varphi = 1$), 1150 VA (at $\cos \varphi = 0,5$)	–
Compact and fluorescent lamps (Number of electronic ballasts)	20 x 54 W, 25 x 39 W, 10 x 2 x 54 W, 15 x 2 x 39 W	–
Switch-on delay presence	0 s–10 min	–
Presence switch-off delay	10 s–120 min	–
Type of contact presence	Relay potential-free	–
Switching capacity presence	60 W (220 V DC), 62,5 VA (250 V AC), minimal 0,5 mV/10mA	–
Ambient temperature	0 °C ... +50 °C	
Type of protection	IP 40	

Detection range (Square)

Mounting height (A)	Sitting (B)	Walking (C)
2 m	20 m² 4,5 m x 4,5 m	36 m² 6,0 m x 6,0 m ± 0,5 m
2,5 m	36 m² 6,0 m x 6,0 m	64 m² 8,0 m x 8,0 m ± 0,5 m
3 m	49 m² 7,0 m x 7,0 m	81 m² 9,0 m x 9,0 m ± 0,5 m
3,5 m	64 m² 8,0 m x 8,0 m	100 m² 10,0 m x 10,0 m ± 1 m



Accessories

PlanoBox 1WH

- for PlanoCentro 101-U, PlanoCentro 000-U
- Art.No.: 9070731
Details ► Page 249



Junction casing, 115 x 115 x 100 mm

- for PlanoCentro 101-U, PlanoCentro 000-U
- Art.No.: 9070689
Details ► Page 250



SendoPro 868-A

- Art.No.: 9070675
Details ► Page 251



SendoClic

- Art.No.: 9070690
Details ► Page 251



Presence detector – PlanoCentro 201, 300



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Flush design using concave mirror technology
- Square detection area for accurate and easy planning
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Push button or switch connection for manual control
- Pulse function for staircase time switch
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Ready for use by 6 predefined settings, details can be set using the optional service remote control SendoPro
- Parameters can be selected for subsequent changes
- Adjustable sensitivity
- Optional user remote control SendoClic
- Test operation to check detection area, installation, brightness settings
- Master/slave or master/master parallel switching: Up to ten detectors can be connected with each other to extend the detection area
- Individual covers available upon request

PlanoCentro 201

- Channels A, B light: relay, 230V
- Zero cross switching
- Channel H, presence: relay, floating
- Switch-on delay and switch-off delay
- Room surveillance
- Detection area can be extended by using slave-version PlanoCentro 000
- For ceiling installation (false ceilings), with installation for false ceilings and cover (PlanoCentro 201-E)
- For flush-mounting (concrete ceiling), with metal installation frame for screwed fixing in wooden ceilings or in flush-mounted sockets, incl. cover (PlanoCentro 201-U)

PlanoCentro 300

- 3 light channels
- Ideal for classrooms with two lighting groups switched according to daylight each with their own light measurement as well as presence-dependent controlled blackboard lighting
- A, B, C channels light: relay, 230V
- Zero cross switching
- Detection area can be extended by using slave-version PlanoCentro 000
- For ceiling installation (false ceilings), with installation for false ceilings and cover (PlanoCentro 300-E)
- For flush-mounting (concrete ceiling), with metal installation frame for screwed fixing in wooden ceilings or in flush-mounted sockets, incl. cover (PlanoCentro 300-U)

Product selection

Installation type	Channel	Colour	Type	Article number
Ceiling mounting with mounting frame	2 x Light Presence	Pure white (similar to RAL 9010)	PlanoCentro 201-EWH	2030502
		Black (similar to RAL 9005)	PlanoCentro 201-EBK	2030503
		Silver (similar to RAL 9006)	PlanoCentro 201-ESR	2030504
	3 x Light	Pure white (similar to RAL 9010)	PlanoCentro 300-EWH	2030302
		Black (similar to RAL 9005)	PlanoCentro 300-EBK	2030303
		Silver (similar to RAL 9006)	PlanoCentro 300-ESR	2030304
Ceiling installation (flush-mounting for concrete ceiling)	2 x Light Presence	Pure white (similar to RAL 9010)	PlanoCentro 201-UWH	2030602
		Black (similar to RAL 9005)	PlanoCentro 201-UBK	2030603
		Silver (similar to RAL 9006)	PlanoCentro 201-USR	2030604
	3 x Light	Pure white (similar to RAL 9010)	PlanoCentro 300-UWH	2030402
		Black (similar to RAL 9005)	PlanoCentro 300-UBK	2030403
		Silver (similar to RAL 9006)	PlanoCentro 300-USR	2030404

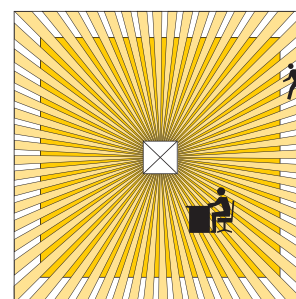
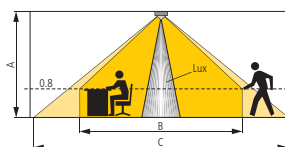
Additional colours available upon request

Technical data

	PlanoCentro 201	PlanoCentro 300
Operating voltage	230 V AC	
Frequency	50 Hz	
Recommended mounting height	2–3,5 m	
Stand-by consumption	1,0 W	
Setting range brightness	10–2000 lx	
Light switch-off delay	10 s–60 min	
Type of contact light	Relay 230 V/10 A	
Incandescent/halogen lamp load	2300 W	
Compact and fluorescent lamps	2300 W (at $\cos \varphi = 1$), 1150 VA (at $\cos \varphi = 0,5$)	
Compact and fluorescent lamps (Number of electronic ballasts)	20 x 54/58 W, 25 x 35/36 W, 10 x 2 x 54/58 W, 15 x 2 x 35/36 W	
Switch-on delay presence	0 s–10 min	–
Presence switch-off delay	10 s–120 min	–
Type of contact presence	Relay potential-free	–
Switching capacity presence	60 W (220 V DC), 62,5 VA (250 V AC), minimal 0,5 mV/10mA	–
Ambient temperature	0 °C ... +50 °C	
Type of protection	IP 40	

Detection range (Square)

Mounting height (A)	Sitting (B)	Walking (C)
2 m	20 m² 4,5 m x 4,5 m	36 m² 6,0 m x 6,0 m ± 0,5 m
2,5 m	36 m² 6,0 m x 6,0 m	64 m² 8,0 m x 8,0 m ± 0,5 m
3 m	49 m² 7,0 m x 7,0 m	81 m² 9,0 m x 9,0 m ± 0,5 m
3,5 m	64 m² 8,0 m x 8,0 m	100 m² 10,0 m x 10,0 m ± 1 m



Accessories

PlanoBox 1WH

- for PlanoCentro 101-U, PlanoCentro 000-U
- Art.No.: 9070731
Details ► Page 249



Junction casing, 115 x 115 x 100 mm

- for PlanoCentro 101-U, PlanoCentro 000-U
- Art.No.: 9070689
Details ► Page 250



SendoPro 868-A

- Art.No.: 9070675
Details ► Page 251



SendoClic

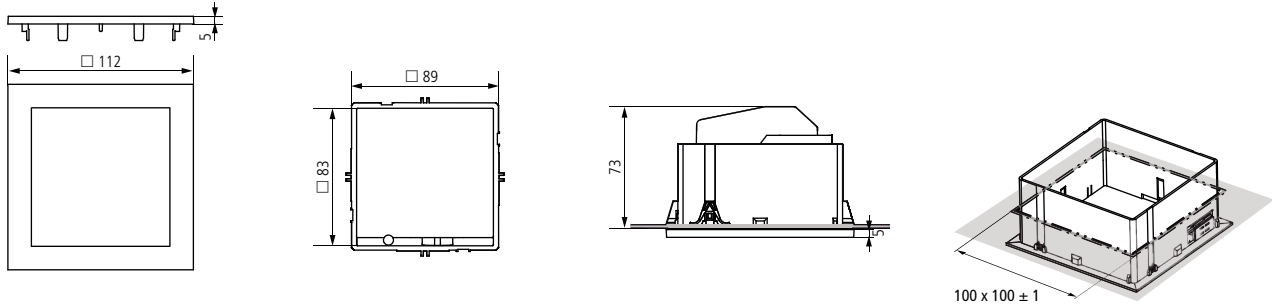
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Details ► Page 251



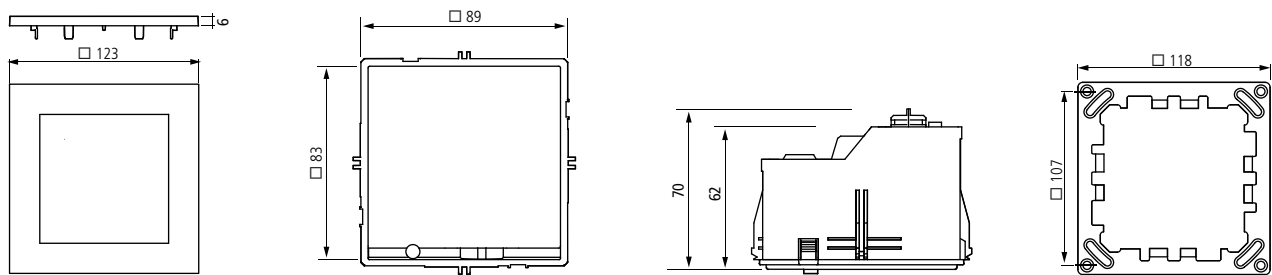
Presence detector – PlanoCentro

Scale drawings

PlanoCentro E

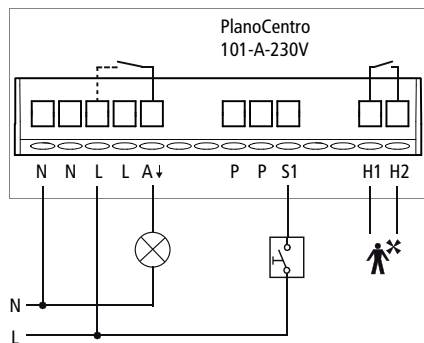


PlanoCentro U

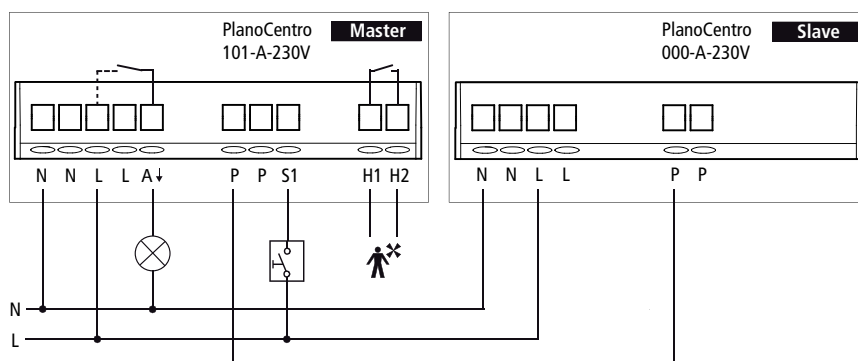


Connection examples

PlanoCentro 101

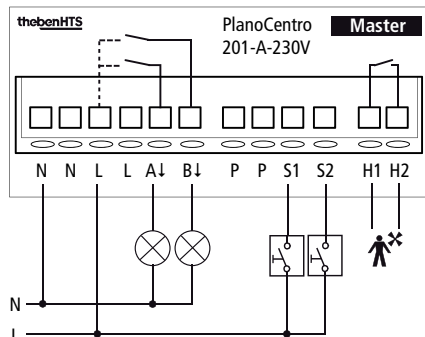


PlanoCentro 101, PlanoCentro 000

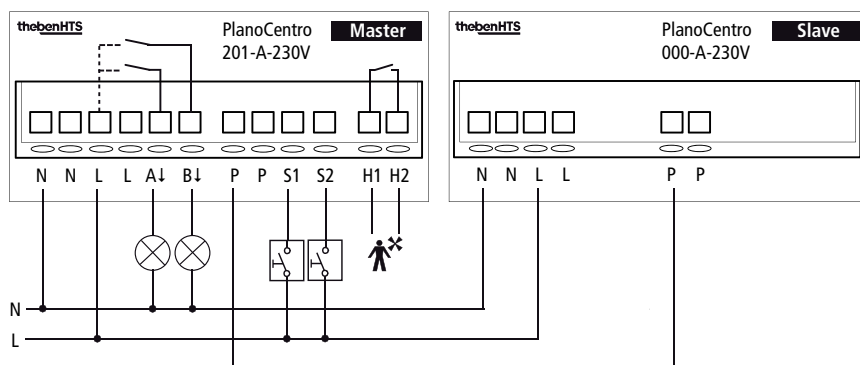


Connection examples

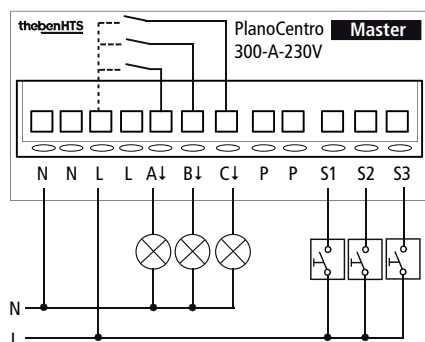
PlanoCentro 201



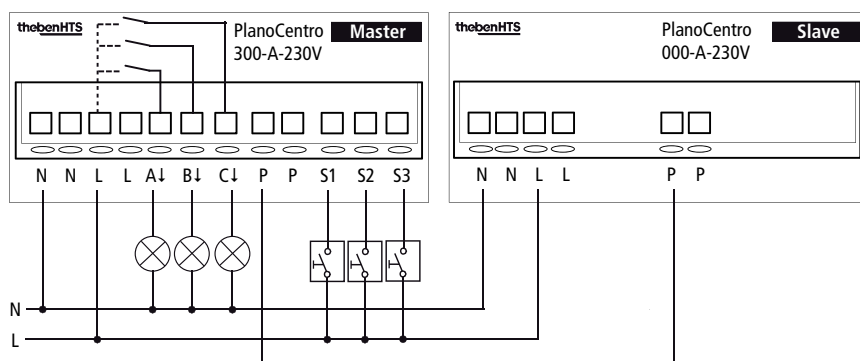
PlanoCentro 201, PlanoCentro 000



PlanoCentro 300



PlanoCentro 300, PlanoCentro 000



PlanoSet



Description

- Mounting set consisting of round flush-mounting box PlanoFix E, matching cover PlanoCover and assembly parts
- Easy and fast mounting in false-ceilings
- Suitable for all PlanoCentro false ceiling-mounted presence detectors
- Cut-out can be easily realized with a standard drill bit diameter 127 mm (5 inches)
- The following installation and alignment of the presence detector PlanoCentro is implemented very easily and quickly
- Flush ceiling installation, the presence detector is inserted into the false ceiling
- Optimale Anpassung an den Raum dank eleganten Abdeckrahmen in verschiedenen Formen und Farben
- Optimal adaptation to the room thanks to elegant covers in different shapes and colors

Product selection

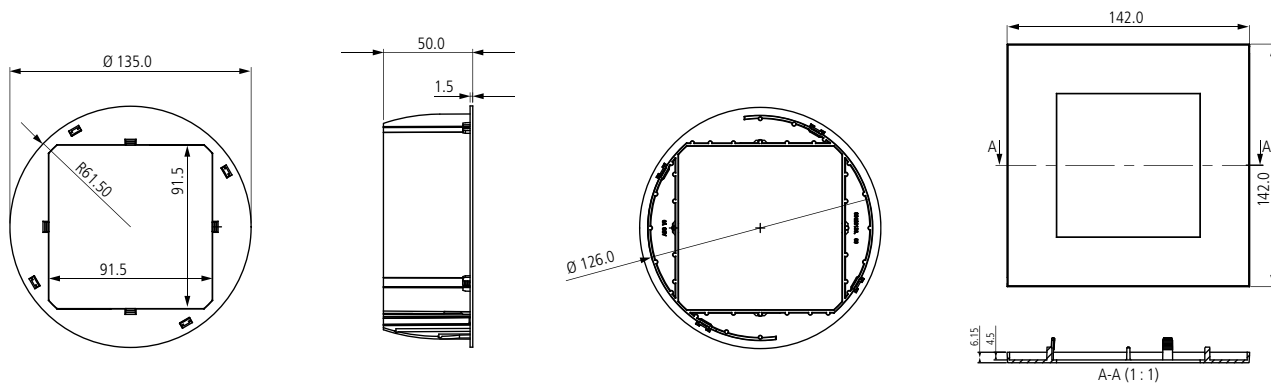
Installation type	Dimensions of frame	Colour	Type	Article number
Ceiling mounting	142 x 142 mm	Pure white (similar to RAL 9010)	PlanoSet RQ EWH	9070736
		Black (similar to RAL 9005)	PlanoSet RQ EBK	9070737
		Silver (similar to RAL 9006)	PlanoSet RQ ESR	9070738
	Ø 172 mm	Pure white (similar to RAL 9010)	PlanoSet RR EWH	9070740
		Black (similar to RAL 9005)	PlanoSet RR EBK	9070741
		Silver (similar to RAL 9006)	PlanoSet RR ESR	9070742
Additional colours available upon request				

Technical data

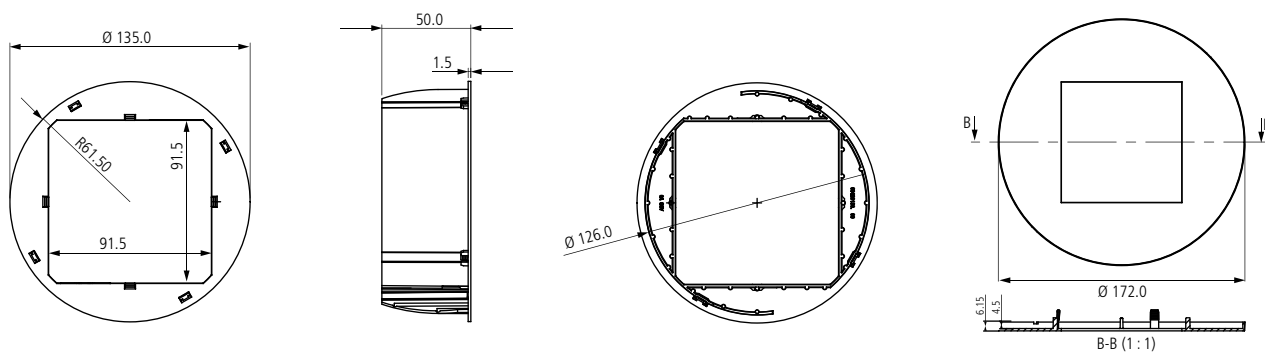
	PlanoSet RQ	PlanoSet RR
Thickness ceiling	0.5–30 mm	
Casing depth (Presence detector included)	75 mm	
Diameter flush-mounting box PlanoFix E	Ø 126 mm	
Frame PlanoCover	142 x 142 mm	Ø 172 mm
Suitable for	PlanoCentro 000-E, PlanoCentro 101-E, PlanoCentro 201-E, PlanoCentro 300-E, PlanoCentro KNX-E	

Scale drawings

PlanoSet RQ



PlanoSet RR



Presence detector – PresenceLight 180



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- IP 54 for versatile use
- Light switch output (relay, 230 V)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Pulse function for staircase time switch
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Wall mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

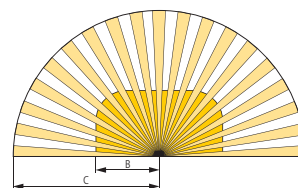
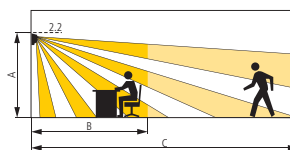
Installation type	Channel	Operating voltage	Colour	Type	Article number
Wall installation	Light	230 V AC	Pure white (similar to RAL 9010)	PresenceLight 180	2000050
			Black (similar to RAL 9005)	PresenceLight 180 BK	2000803
			Silver (similar to RAL 9006)	PresenceLight 180 SR	2000804
Additional colours available upon request					

Technical data

	PresenceLight 180
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	1,6–2,2 m
Power consumption	0,9 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay 230 V
Resistive load	1400 W
Incandescent/halogen lamp load	1200 W
Compact and fluorescent lamps	960 VA ($\cos \varphi = 0,8$), 580 VA ($\cos \varphi = 0,5$)
Compact and fluorescent lamps (Number of electronic ballasts)	10 x (1 x 58 W), 5 x (2 x 58 W), 16 x (1 x 36 W), 8 x (2 x 36 W), 16 x (smaller than 36 W)
Ambient temperature	–20 °C ... +50 °C
Type of protection	IP 54

Detection range (Semicircular)

Mounting height (A)	Walking (C)	Sitting (B)
2,2 m	100 m ² 8 m	25 m ² R 7 m



Accessories

Surface frame PresenceLight

■ Art.No.: 9070513
Details ► Page 249



QuickSafe

■ Art.No.: 9070531
Details ► Page 250



clic

■ Art.No.: 9070515
Details ► Page 251

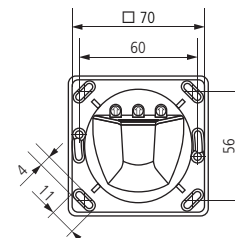
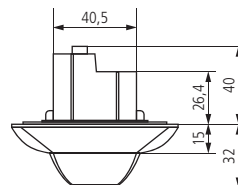
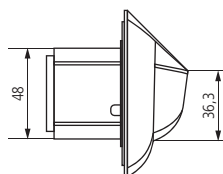
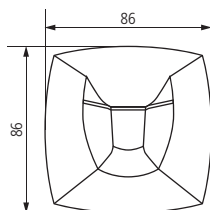


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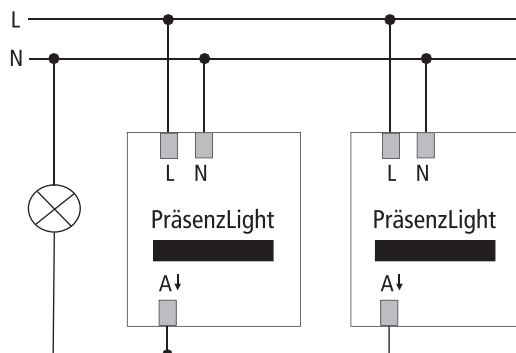
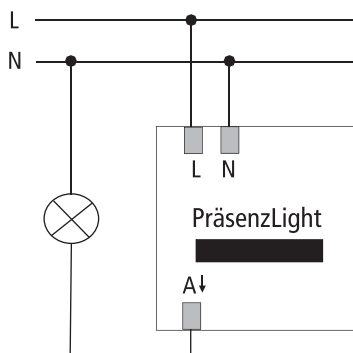
■ Art.No.: 9070532
Details ► Page 251



Scale drawings



Connection diagrams



Presence detector – ECO-IR 180A



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Light switch output (relay, 230 V)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Brightness threshold and self-learning switch-off delay adjustable
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Parameters can be set using the potentiometers
- Ready for use by ex-factory set items
- Wall mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

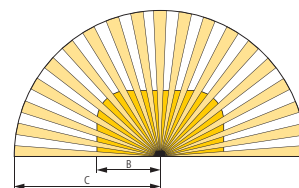
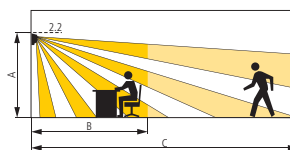
Installation type	Channel	Operating voltage	Colour	Type	Article number
Wall installation	Light Presence	230 V AC	Pure white (similar to RAL 9010)	ECO-IR 180A	2020050
			Black (similar to RAL 9005)	ECO-IR 180A BK	2020809
			Silver (similar to RAL 9006)	ECO-IR 180A SR	2020810
Additional colours available upon request					

Technical data

	ECO-IR 180A
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	1,6–2,2 m
Power consumption	0,9 W
Setting range brightness	50–1600 lx
Light switch-off delay	2 min–15 min
Type of contact light	Relay 230 V
Compact and fluorescent lamps	max. 1400 VA
Compact and fluorescent lamps (Number of electronic ballasts)	12 x (1 x 58 W), 6 x (2 x 58 W), 18 x (1 x 36 W), 9 x (2 x 36 W), 18 x (smaller than 36 W)
Presence switch-off delay	10–60 min
Type of contact presence	Relay potential-free
Switching capacity presence	100 W (24 V DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Semicircular)

Mounting height (A)	Walking (C)	Sitting (B)
2,2 m	100 m ² 8 m	32 m ² R 8 m



Accessories

Surface frame ECO-IR 180

- Art.No.: 9070511
Details ► Page 249

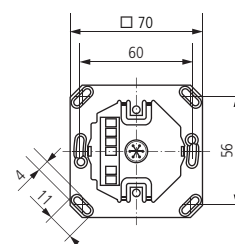
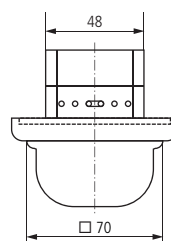
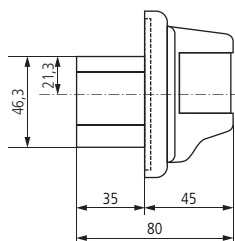
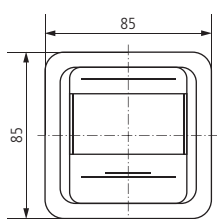


QuickSafe

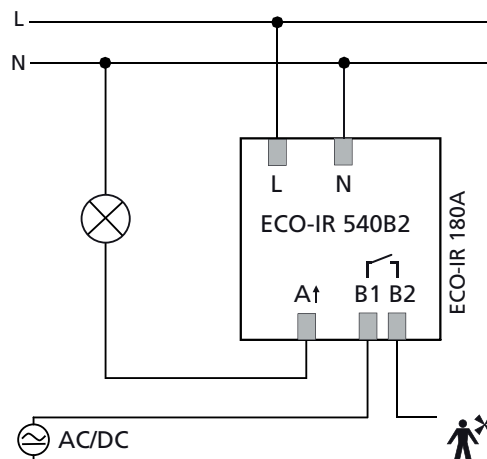
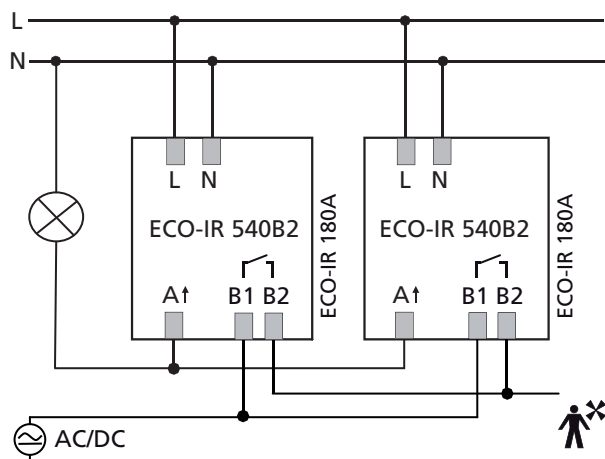
- Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – compact office 24V



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, potential-free)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Pulse function for staircase time switch
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

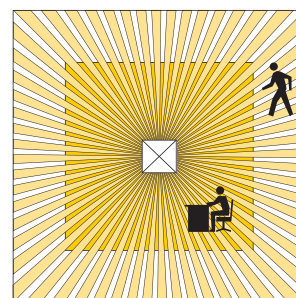
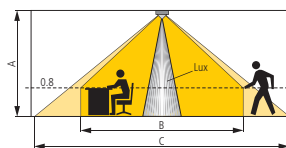
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	24 V AC/DC	Pure white (similar to RAL 9010)	compact office 24V	2014000
			Black (similar to RAL 9005)	compact office 24V BK	2014800
			Silver (similar to RAL 9006)	compact office 24V SR	2014801
Additional colours available upon request					

Technical data

	compact office 24V
Operating voltage	24 V AC/DC
Recommended installation height	2–3 m
Power consumption	0,4 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay potential-free
Compact and fluorescent lamps	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	-



Accessories

Surface frame compact

- Art.No.: 9070514
Details ► Page 249



clic

- Art.No.: 9070515
Details ► Page 251



QuickSet plus

- Art.No.: 9070532
Details ► Page 251

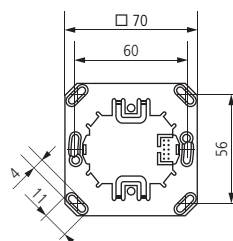
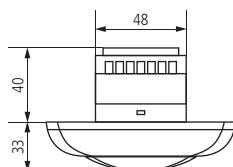
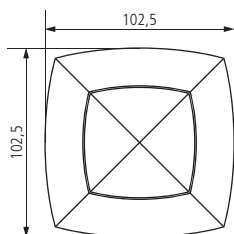


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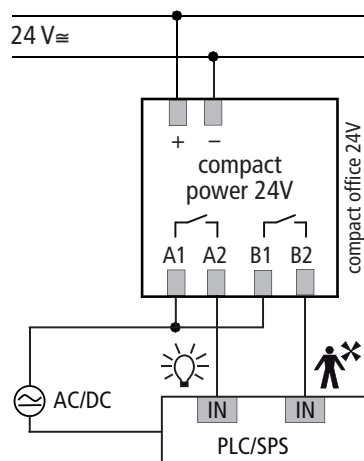
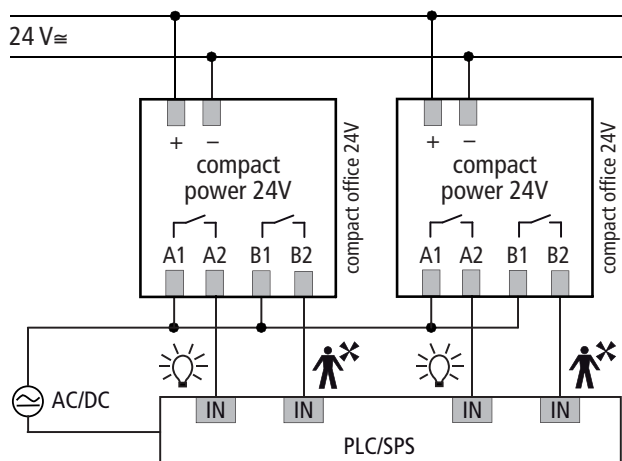
- Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – compact office 24V Lux



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness and analogue value output of measured brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, potential-free)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Analogue output 0–10 V for brightness
- Linear or logarithmic output of brightness
- Can be used as light sensor for PLC controls
- The analogue output exports the brightness measured by the internal sensor as an analogue signal. The output can be linear or logarithmic to the measured brightness. The output functions independently from the presence detector
- Pulse function for staircase time switch
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

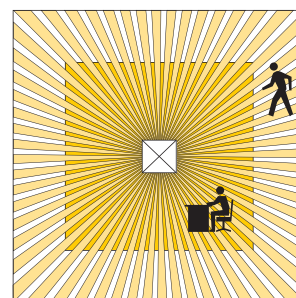
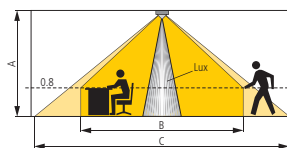
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light 0-10 V	24 V AC/DC	Pure white (similar to RAL 9010)	compact office 24V Lux	2014001
			Black (similar to RAL 9005)	compact office 24V Lux BK	2014803
			Silver (similar to RAL 9006)	compact office 24V Lux SR	2014804
Additional colours available upon request					

Technical data

	compact office 24V Lux
Operating voltage	24 V AC/DC
Recommended installation height	2–3 m
Power consumption	0,5 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay potential-free
Compact and fluorescent lamps	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	-



Accessories

Surface frame compact

- Art.No.: 9070514
Details ► Page 249



clic

- Art.No.: 9070515
Details ► Page 251



QuickSet plus

- Art.No.: 9070532
Details ► Page 251

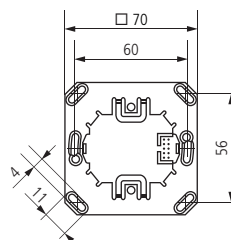
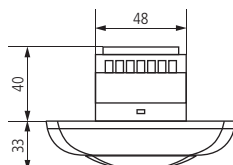
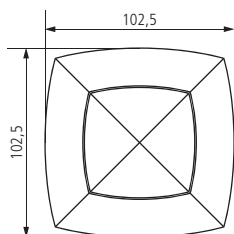


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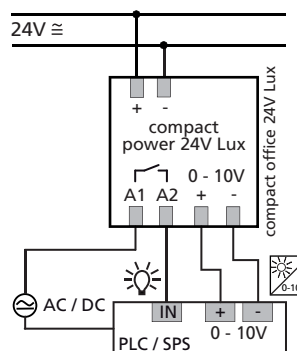
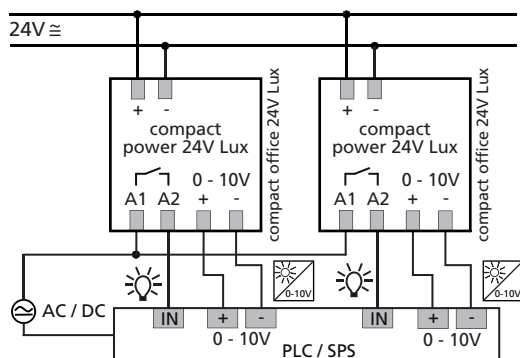
- Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – compact passage 24V



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Rectangular detection area for corridors allows accurate and simple planning
- Light switch output (relay, potential-free)
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Brightness threshold and self-learning switch-off delay adjustable
- Pulse function for staircase time switch
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Parameters can be set using the potentiometers or via the optional service remote controls
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

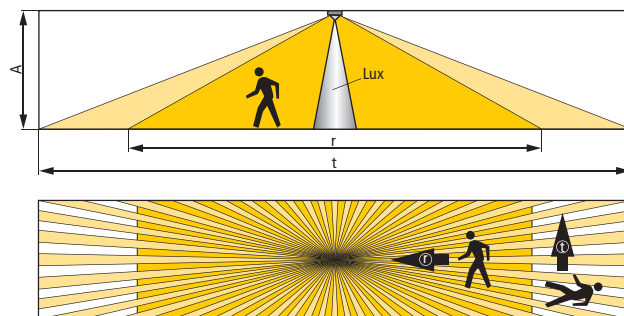
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	24 V AC/DC	Pure white (similar to RAL 9010)	compact passage 24V	2014090
			Black (similar to RAL 9005)	compact passage 24V BK	2014806
			Silver (similar to RAL 9006)	compact passage 24V SR	2014807
Additional colours available upon request					

Technical data

	compact passage 24V
Operating voltage	24 V AC/DC
Recommended installation height	2–3,5 m
Power consumption	0,4 W
Setting range brightness	10–1500 lx
Light switch-off delay	Impuls (0,5 s), 10 s–20 min
Type of contact light	Relay potential-free
Compact and fluorescent lamps	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Switch-on delay presence	0 s–10 min
Presence switch-off delay	10 s–120 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Rectangular)

Mounting height (A)	Head on to (r)	Diagonally (t)
2 m	56 m ² 16 m x 3,5 m ± 1 m	105 m ² 30 m x 3,5 m ± 1 m
2,5 m	72 m ² 18 m x 4 m ± 1 m	120 m ² 30 m x 4 m ± 1 m
3 m	90 m ² 20 m x 4,5 m ± 1 m	135 m ² 30 m x 4,5 m ± 1 m
3,5 m	100 m ² 20 m x 5 m ± 1 m	150 m ² 30 m x 5 m ± 1 m



Accessories

Surface frame compact

■ Art.No.: 9070514
Details ► Page 249



clic

■ Art.No.: 9070515
Details ► Page 251



QuickSet plus

■ Art.No.: 9070532
Details ► Page 251

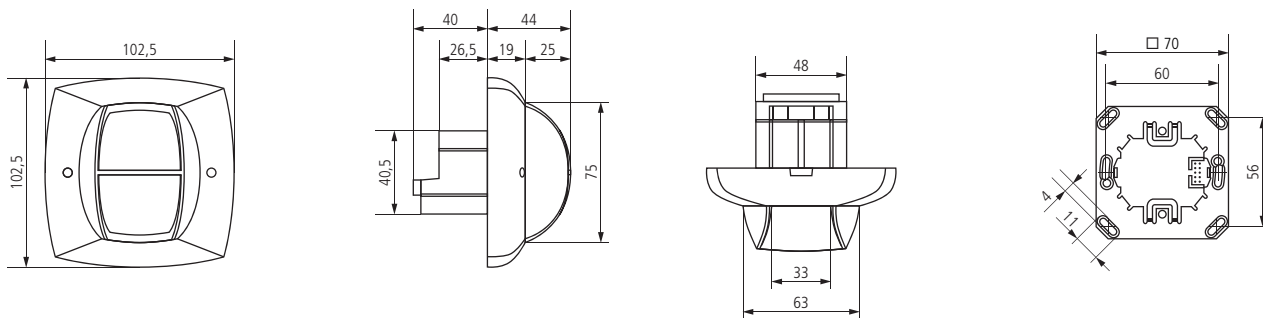


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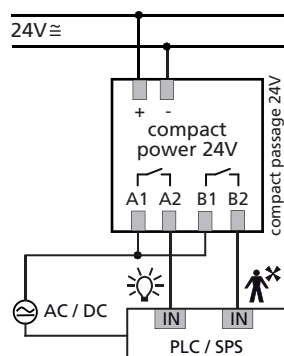
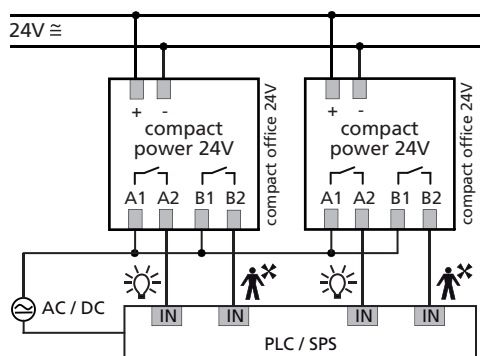
■ Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams



Presence detector – ECO-IR 360-24V



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Light switch output (relay, potential-free)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Brightness threshold and self-learning switch-off delay adjustable
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Parameters can be set using the potentiometers
- Ready for use by ex-factory set items
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

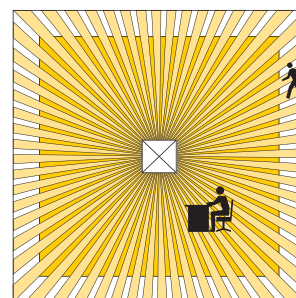
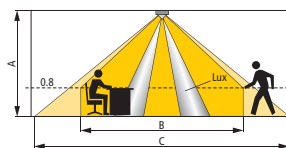
Installation type	Channel	Operating voltage	Colour	Type	Article number
Ceiling installation	Light Presence	24 V AC/DC	Pure white (similar to RAL 9010)	ECO-IR 360-24V	2024000
			Black (similar to RAL 9005)	ECO-IR 360-24V BK	2024800
			Silver (similar to RAL 9006)	ECO-IR 360-24V SR	2024801
Additional colours available upon request					

Technical data

	ECO-IR 360-24V
Operating voltage	24 V AC/DC
Recommended installation height	2–3,5 m
Power consumption	0,3 W
Setting range brightness	50–1600 lx
Light switch-off delay	2 min–15 min
Type of contact light	Relay potential-free
Compact and fluorescent lamps	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Presence switch-off delay	1–60 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

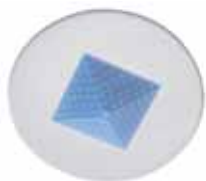
Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m
4 m	121 m ² 11 m x 11 m ± 1 m	—



Accessories

QuickFix concrete round cover

- Art.No.: 9070519
Details ► Page 249



QuickFix concrete square cover

- Art.No.: 9070518
Details ► Page 250



Surface frame ECO-IR 360

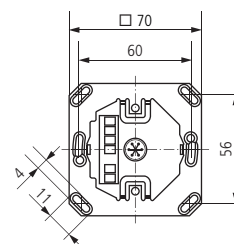
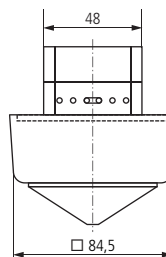
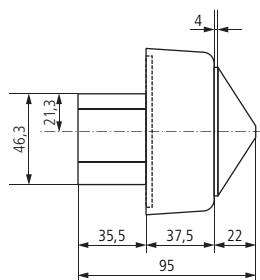
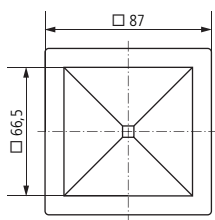
- Art.No.: 9070512
Details ► Page 249



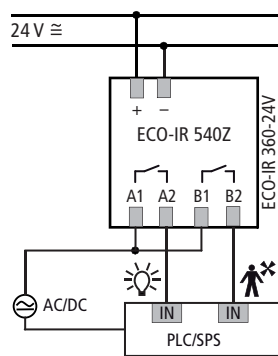
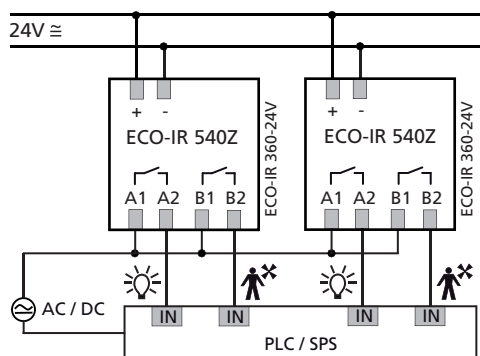
Additional accessories

- QuickFix concrete flush-mounted box
Details ► Page 250
- QuickFix flush-mounted housing
Details ► Page 250
- QuickSafe
Details ► Page 250
- QuickFix round cover
Details ► Page 250
- QuickFix square cover
Details ► Page 250

Scale drawings



Connection diagrams



Presence detector – ECO-IR 180-24V



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Light switch output (relay, potential-free)
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Brightness threshold and self-learning switch-off delay adjustable
- Presence switch output (relay, potential-free) for example for HVAC control
- HVAC control with adjustable switch-on and switch-off delay
- Parameters can be set using the potentiometers
- Ready for use by ex-factory set items
- Wall mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

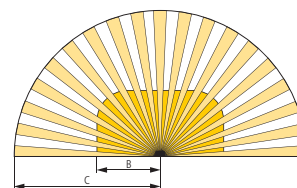
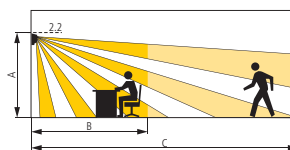
Installation type	Channel	Operating voltage	Colour	Type	Article number
Wall installation	Light Presence	24 V AC/DC	Pure white (similar to RAL 9010)	ECO-IR 180-24V	2024050
			Black (similar to RAL 9005)	ECO-IR 180-24V BK	2024803
			Silver (similar to RAL 9006)	ECO-IR 180-24V SR	2024804
Additional colours available upon request					

Technical data

	ECO-IR 180-24V
Operating voltage	24 V AC/DC
Recommended installation height	1,6–2,2 m
Power consumption	0,3 W
Setting range brightness	50–1600 lx
Light switch-off delay	2 min–15 min
Type of contact light	Relay potential-free
Compact and fluorescent lamps	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Presence switch-off delay	10–60 min
Type of contact presence	Relay potential-free
Switching capacity presence	50 W (24 V AC/DC), 460 VA (230 V AC), μ , minimal 1 V/1 mA
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Semicircular)

Mounting height (A)	Walking (C)	Sitting (B)
2,2 m	100 m ² 8 m	32 m ² R 8 m



Accessories

Surface frame ECO-IR 180

- Art.No.: 9070511
Details ► Page 249

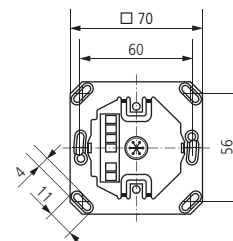
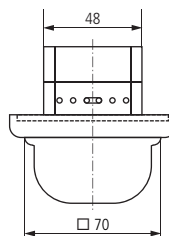
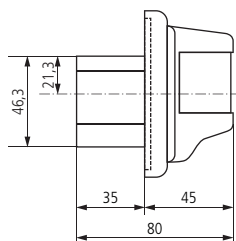
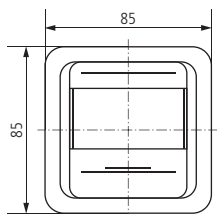


QuickSafe

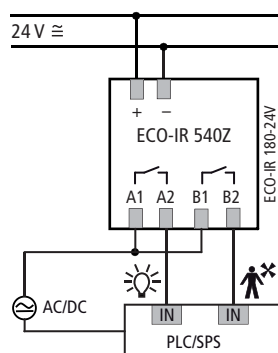
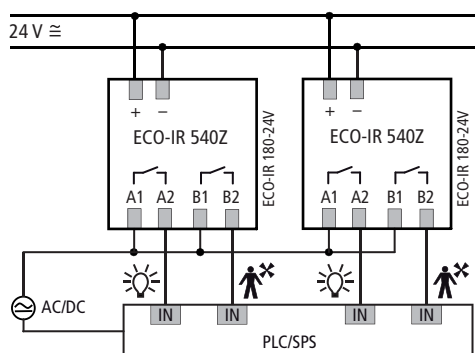
- Art.No.: 9070531
Details ► Page 250



Scale drawings



Connection diagrams





7 % R&D.

At Theben we invest 7 per cent of our turnover in research and development every year. That puts us well above the sector average. How does that benefit you? The certainty that you will continue to receive innovative and reliable products, now and in the future.

	Installation type	Detection angle	Detection range	Channel	Lamp loads	Light switch-off delay	Remote controlled	Type	Page
Outdoor									
	Wall installation	150°	12 m	Light	1000 W	5 s–12 min	–	LUXA 101-150	102
		180°						LUXA 101-180	102
	Wall and ceiling installation	360°	32 m	Light	1000 W	5 s–12 min	–	LUXA 101-360	104
		110°	15 m	Light	2300 W	1 s–20 min	✓	SPHINX 105-110	106
		220°	15 m	Light	2300 W	1 s–20 min	✓	SPHINX 105-220	106
		300°	15 m	Light	2300 W	1 s–20 min	✓	SPHINX 105-300	106
Outdoor with spotlight									
	Wall installation	150°	12 m	Light	–	5 s–12 min	–	LUXA 102-150/150W	108
								LUXA 102-150/500W	108
		140°/90°	10 m	Light	–	5 s–10 min	–	LUXA 102-140 LED 8W	110
								LUXA 102-140 LED 32W	110
		180°	12 m	Light	1000 W	5 s–10 min	–	LUXA 102-180 LED 32W	112
		–	–	Light	1000 W	–	–	LUXA 102 FL LED 8W	114
								LUXA 102 FL LED 16W	114
		–	–	Light	1000 W	–	–	LUXA 102 FL LED 32W	114
Indoor									
	Ceiling mounting	360°	7 m	Light	1000 W	5 s–20 min	–	LUXA 103-360	116
				Light Presence	1000 W	5 s–20 min	–	LUXA 103-360/2	116
	Ceiling installation, Surface mounted	360°	7 m	Light	1000 W	5 s–20 min	–	LUXA 103-360 AP	118
				Light Presence	1000 W	5 s–20 min	–	LUXA 103-360/2 AP	118
	Flush-mounted wall installation	200°	8 m	Light	1000 W	20 s–30 min	–	LUXA 103-200	120
					400 W	20 s–30 min	–	LUXA 103-200 T	120

Motion detectors – wall installation

LUXA 101-150



LUXA 101-180



Description

Common functions

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- For outdoor use
- Additional creep under protection
- Sensor head can be turned by $\pm 90^\circ$ horizontally and by 40° downwards

- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Single-handed plug-in installation with retained screws
- Instant start-up possible via factory preset
- Adjustable brightness switching value and switch-off delay

- Sensitivity can be reduced to limit detection area
- Controls are place protected

LUXA 101-150

- 150° detection angle

LUXA 101-180

- 180° detection angle

Product selection

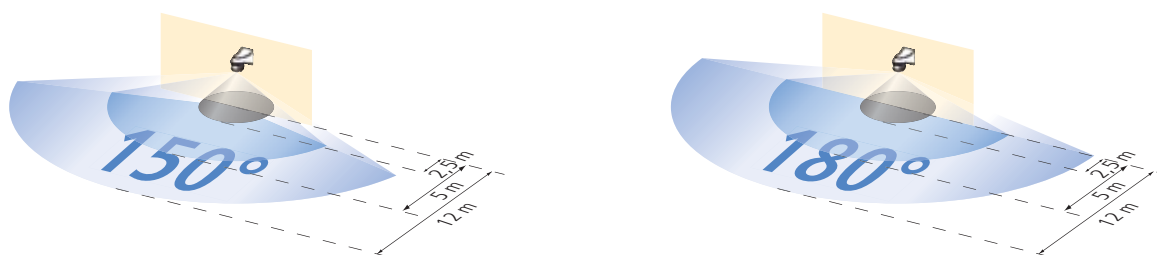
Installation type	Channel	Detection angle	Colour	Type	Article number
Wall installation	Light	150°	White	LUXA 101-150 white	1010963
			Black	LUXA 101-150 black	1010964
		180°	White	LUXA 101-180 white	1010961
			Black	LUXA 101-180 black	1010962

Technical data

	LUXA 101-150	LUXA 101-180
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,9 W	
Setting range brightness	5–1000 lx	
Switching capacity light	10 A (at 230 V AC, $\cos \varphi = 1$), 6 A (at 230 V AC, $\cos \varphi = 0.6$), 3 AX (at 230 V AC, $\cos \varphi = 0.3$)	
Detection angle	150°	180°
Switching output	Potential-free	
Light switch-off delay	5 s–12 min	
Incandescent lamp load	1000 W	
Fluorescent lamp load (conventional) not corrected, series-corrected	900 VA	
Fluorescent lamp load (conventional) parallel-corrected	200 VA	

	LUXA 101-150	LUXA 101-180
Fluorescent lamp load (conventional) lead-lag circuit	400 VA	
Ambient temperature	-25 °C ... +45 °C	
Protection class	II	
Type of protection	IP 54	

Detection range

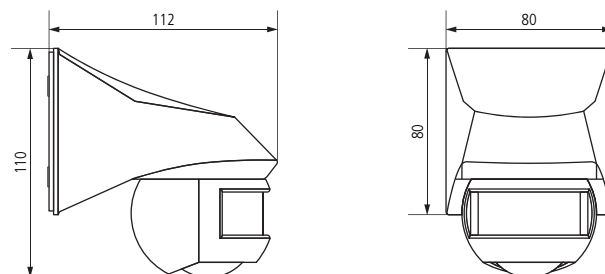


- Walking diagonally to the detector
 - Walking head on to the detector
 - Creep under protection
- Mounting height 2,5 m

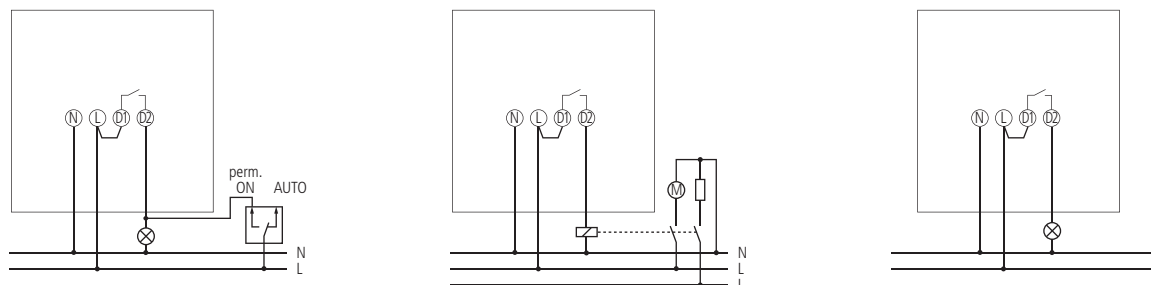
Accessories

- LUXA corner angle black
Details ► Page 252
- LUXA corner angle white
Details ► Page 252
- RC filter
Details ► Page 252

Scale drawings



Connection diagrams



Motion detector – LUXA 101-360



Description

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- For installation on walls and ceilings
- 360° detection angle
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Single-handed plug-in installation with retained screws
- Instant start-up possible via factory preset
- Adjustable brightness switching value and switch-off delay
- Sensitivity can be reduced to limit detection area
- Sensor head can be adjusted vertically by 90° upwards or 70° downwards, thus allowing universal installation
- Creep under protection
- Detection area can be limited using enclosed segments
- Screwless terminals for quick installation
- LUXA corner angle white included

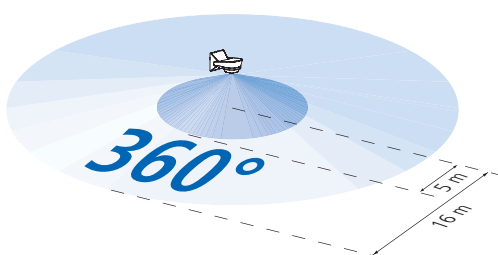
Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Wall and ceiling installation	Light	360°	White	LUXA 101-360	1010460

Technical data

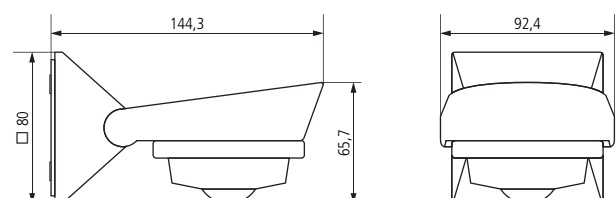
LUXA 101-360			
Operating voltage	230 V AC	Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	900 VA
Frequency	50–60 Hz	Fluorescent lamp load (conventional) parallel-corrected	200 VA
Stand-by consumption	0,9 W	Ambient temperature	–15 °C ... +45 °C
Setting range brightness	5–1000 lx	Protection class	II
Switching capacity light	10 (6) (3) A AX	Type of protection	IP 55
Detection angle	360°		
Switching output	Potential-free		
Light switch-off delay	5 s–12 min		
Incandescent lamp load	1000 W		

Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
- Mounting height 2,5 m

Scale drawings



Accessories

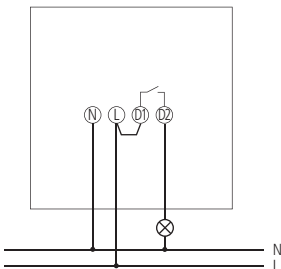
RC filter

- Art.No.: 9070523
- Details ► Page 252

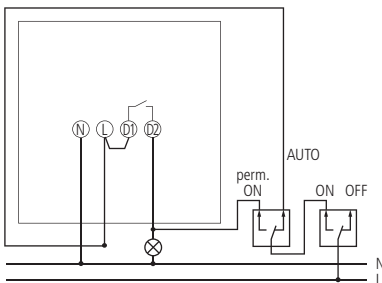


Connection diagrams

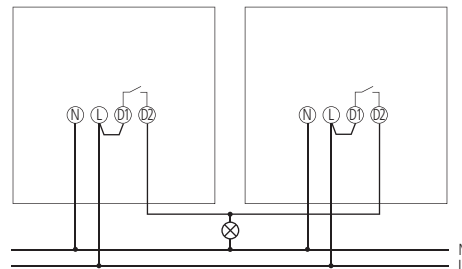
LUXA 101-360



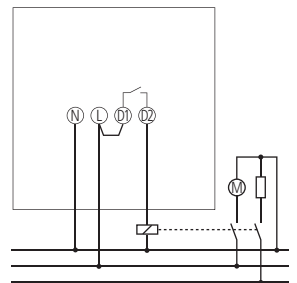
LUXA 101-360



LUXA 101-360



LUXA 101-360



Motion detectors – wall or ceiling installation



Description

- Motion detector (PIR)
- Wall and ceiling installation
- Automatic lighting control based on presence and brightness
- Sensor head can be adjusted horizontally by $\pm 90^\circ$, vertically by 90° upwards and 25° downwards
- Additional creep under protection
- Detection area can be limited using enclosed segments
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Instant start-up possible via factory preset
- A cover plate protects controls against manipulation
- Single-handed plug-in installation with captive screws
- RC 105 Pro, service remote control (optional)
- RC 105, user remote control (optional)
- Adjustable brightness switching value and switch-off delay
- Zero-cross switching for relay-saving switching and high lamp loads
- Teach-in of current brightness value possible via remote control

- Impulse function can be combined with staircase time switches (ELPA)
- Test function for checking detection area

SPHINX 105-110

- 110° detection angle
- Especially suitable for narrow courtyard entrances, house entrances or paths
- Internal corner installation with optional corner installation bracket

SPHINX 105-220

- 220° detection angle
- Particularly suitable for sides of properties, entrances and drives

SPHINX 105-300

- 300° detection angle
- Corner installation bracket for internal or external corners included in delivery
- Especially suitable for external corner installation for simultaneous coverage of two facades via corner

Product selection

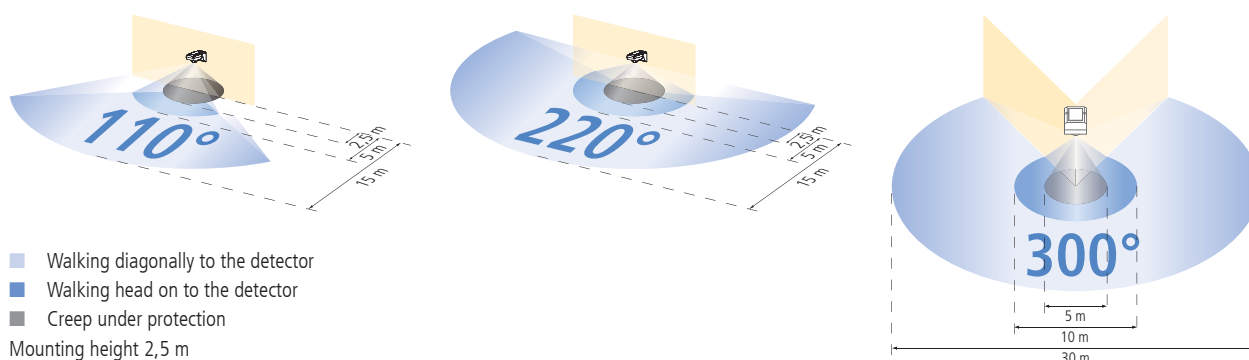
Installation type	Channel	Detection angle	Colour	Type	Article number
Wall and ceiling installation	Light	110°	White	SPHINX 105-110	1050110
		220°	White	SPHINX 105-220	1050220
		300°	White	SPHINX 105-300	1050300

Technical data

	SPHINX 105-110	SPHINX 105-220	SPHINX 105-300
Operating voltage	230 V AC		
Frequency	50–60 Hz		
Stand-by consumption	0,9 W		
Setting range brightness	2–2000 lx		
Switching capacity light	16 A (at 230 V AC, $\cos \varphi = 1$), 10 A (at 230 V AC, $\cos \varphi = 0.6$), 8 AX (at 230 V AC, $\cos \varphi = 0.3$)		
Detection angle	110°	220°	300°
Light switch-off delay	1 s–20 min		
Incandescent lamp load	2300 W		
Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	900 VA		

	SPHINX 105-110	SPHINX 105-220	SPHINX 105-300
Fluorescent lamp load (conventional) parallel-corrected	400 VA		
Energy saving lamps	9 x 7 W, 7 x 11 W, 7 x 15 W, 7 x 20 W, 7 x 23 W		
Ambient temperature	-25 °C ... +55 °C		
Protection class	II		
Type of protection	IP 55		

Detection range



Accessories

SPHINX RC 105

- Art.No.: 9070539
Details ► Page 253



SPHINX RC 105 Pro

- Art.No.: 9070537
Details ► Page 253



RC filter

- Art.No.: 9070523
Details ► Page 252

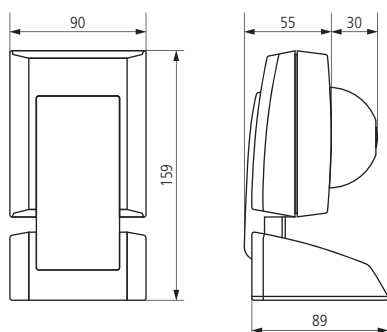


SPHINX corner angle

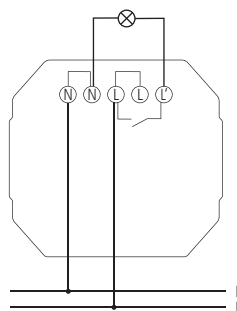
- Art.No.: 9070535
Details ► Page 252



Scale drawings



Connection diagrams



Motion detectors – wall installation

LUXA 102-150/150W



LUXA 102-150/500W



Description

Common functions

- Motion detector (PIR)
- For outdoor use
- Integrated halogen spotlight for extensive lighting
- Energy saving ecoHalogen light bulb with energy efficient class C (R7s socket) included
- 150° detection angle
- Automatic lighting control based on presence and brightness
- Spotlight can be swivelled $\pm 45^\circ$ horizontally, and adjusted 60° upwards and 30° downwards using screw fixings
- Additional creep under protection
- Sensor head can be turned by $\pm 90^\circ$ horizontally and by 40° downwards
- Instant start-up possible via factory preset
- Single-handed plug-in installation with retained screws
- Controls are placed protected
- Additional light switch output (relay 230 V AC)
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Spotlight with tough aluminium die-cast housing
- Adjustable brightness switching value and switch-off delay
- Sensitivity can be reduced to limit detection area

LUXA 102-150/150W

- 120 W ecoHalogen spotlight (comparable with regular 150 W spotlight)

LUXA 102-150/500W

- 400 W ecoHalogen spotlight (comparable with regular 500 W spotlight)

Product selection

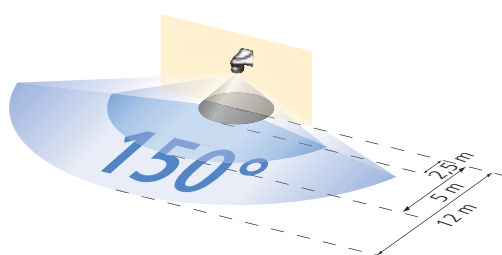
Installation type	Channel	Detection angle	Colour	Type	Article number
Wall installation	Light	150°	White	LUXA 102-150/150W white	1020961
			Black	LUXA 102-150/150W black	1020962
			White	LUXA 102-150/500W white	1020963
			Black	LUXA 102-150/500W black	1020964

Technical data

	LUXA 102-150/150W	LUXA 102-150/500W
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,9 W	
Setting range brightness	5–1000 lx Infinitely adjustable	
Switching capacity light	8 A (at 230 V AC, $\cos \varphi = 1$), 6 A (at 230 V AC, $\cos \varphi = 0.6$), 3 AX (at 230 V AC, $\cos \varphi = 0.3$)	

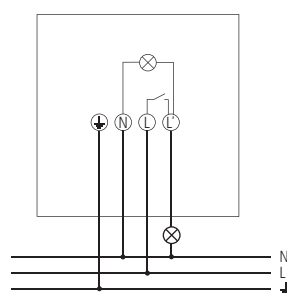
	LUXA 102-150/150W	LUXA 102-150/500W
Detection angle	150°	
Switching output	Potential-free	
Light switch-off delay	5 s–12 min	
Ambient temperature	–15 °C ... +45 °C	
Protection class	I according to EN 60 669-2-1	
Type of protection	IP 54	

Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
 - Creep under protection
- Mounting height 2,5 m

Connection diagrams



Accessories

LUXA corner angle white

- Only for LUXA 102-150/150W
- Art.No.: 9070626
- Details ► Page 252



LUXA corner angle black

- Only for LUXA 102-150/150W
- Art.No.: 9070625
- Details ► Page 252



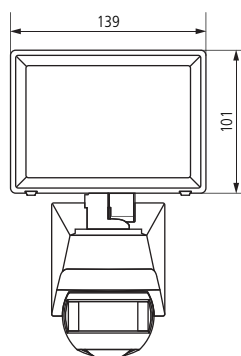
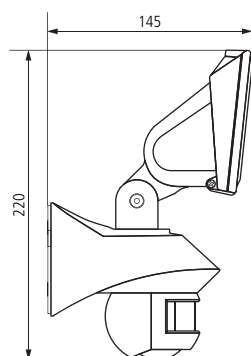
RC filter

- Art.No.: 9070523
- Details ► Page 252

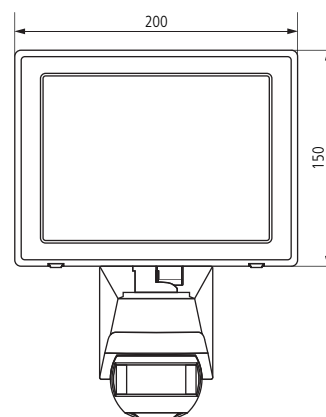
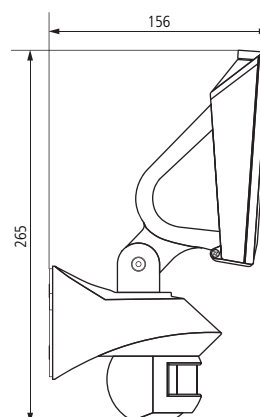


Scale drawings

LUXA 102-150/150W



LUXA 102-150/500W



LED spotlight with motion detector

LUXA 102-140 LED 8W WH

LUXA 102-140 LED 16W BK



Description

Common functions

- LED spotlight with motion detector
- For outdoor use
- Automatic lighting control based on presence and brightness
- 90° detection angle at a detection range of 10 m
- Additional creep under protection with 140° detection angle at a detection range of 2 m

- Sensor head can be turned by $\pm 90^\circ$ horizontally
- Spotlight can be swivelled $\pm 40^\circ$ horizontally, and adjusted 90° downwards
- Lighting only brightness dependent with deactivated motion detector
- Single-handed plug-in installation
- Instant start-up possible via factory preset
- Adjustable brightness switching value and switch-off delay

LUXA 102-140 LED 8W

- 1 x 4-way LED spot with 8 W, 430 lm (equivalent to 100 W Halogen spotlight)

LUXA 102-140 LED 16W

- 2 x 1-way LED spots with 8 W each 860 lm (equivalent to 2 x 100 W Halogen spotlight)

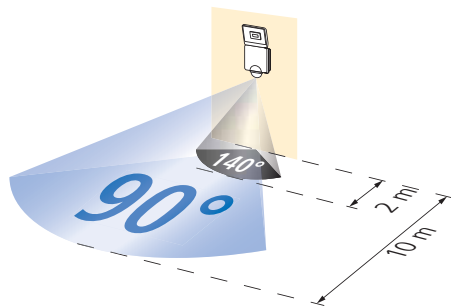
Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Wall installation	Light	140°/90°	White	LUXA 102-140 LED 8W WH	1020971
			Black	LUXA 102-140 LED 8W BK	1020972
			White	LUXA 102-140 LED 16W WH	1020973
			Black	LUXA 102-140 LED 16W BK	1020974

Technical data

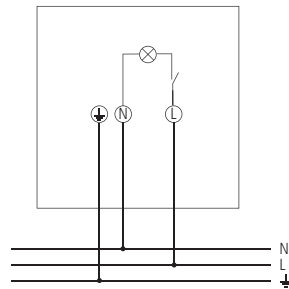
	LUXA 102-140 LED 8W	LUXA 102-140 LED 16W
Operating voltage	100–240 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,3 W	
Setting range brightness	5–200 lx or just presence dependent	
LED output (lighting current)	8 W (430 lm)	2 x 8 W (860 lm)
Color temperature	6000 K	
Detection angle	140°/90°	
Switching output	Potential-free	
Color temperature	6000 K (Daylight white)	
Light switch-off delay	5 s–10 min	
Ambient temperature	–20 °C ... +40 °C	
Protection class	II	
Type of protection	IP 44	

Detection range



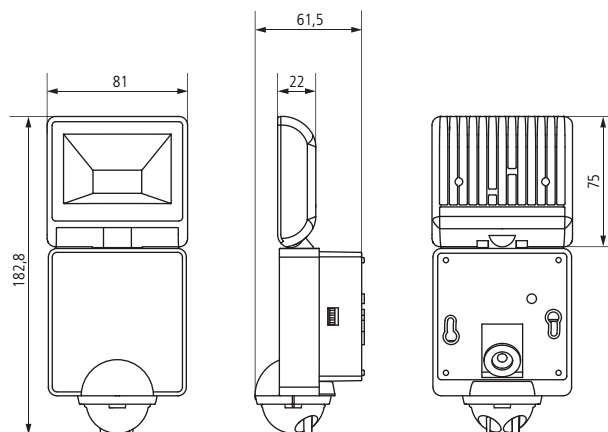
- Walking diagonally to the detector
 - Creep under protection
- Mounting height 2,5 m

Connection diagrams

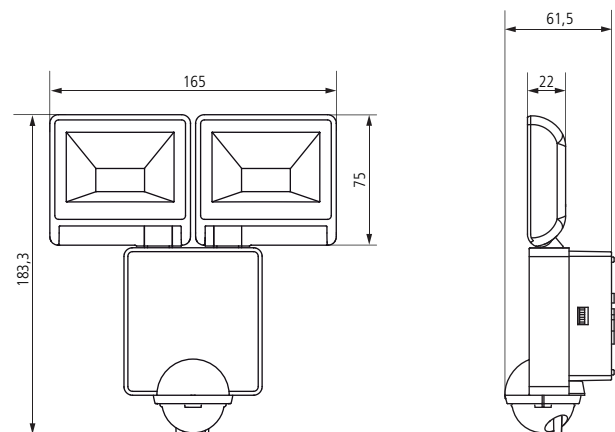


Scale drawings

LUXA 102-140 LED 8W



LUXA 102-140 LED 16W



LED spotlight with motion detectors

LUXA 102-140 LED 8W



LUXA 102-140 LED 16W



Description

Common functions

- LED spotlight with motion detector
- 1 x 4-way LED spot with 32 W, 2000 lm (equivalent to 230 W Halogen spotlight)
- Suitable for outdoor use
- Automatic lighting control based on presence and brightness
- Additional light switch output (relay 230 V AC)
- 180° detection angle at a detection range of 12 m
- Additional creep under protection with 220° detection angle at a detection range of 1 m
- Sensor head can be turned by $\pm 90^\circ$ horizontally
- Spotlight can be swivelled $\pm 90^\circ$ horizontally, and adjusted 55° downwards
- Detection area can be limited using enclosed segments
- Single-handed plug-in installation
- Instant start-up possible via factory preset
- Adjustable lux value and switch-off delay
- Settings can be changed without tools
- Optional purely twilight-dependent control
- Master/master switching
- Additional spacer included. For flexible installation (cable entry below, side, top and more space for cables) and an increased angle of rotation for spotlight

Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Wall installation	Light	180°	White	LUXA 102-180 LED 32W WH	1020975 *
			Black	LUXA 102-180 LED 32W BK	1020976 *

* Available May 2013

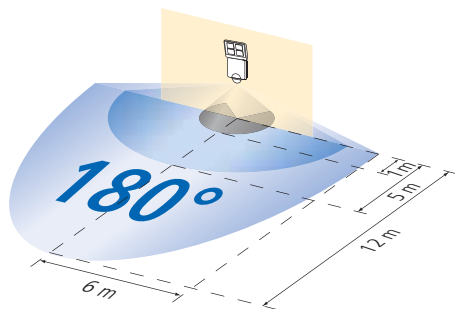
Technical data

	LUXA 102-180 LED 32W WH	LUXA 102-180 LED 32W BK
Operating voltage	220–240 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,5 W	
Setting range brightness	5–200 lx or just presence dependent	
Switching capacity light	8 AX (at 230 V AC, $\cos \varphi = 1$), 2,6 A (at 230 V AC, $\cos \varphi = 0.6$)	
LED output (lighting current)	32 W (2000 lm)	
Detection angle	180°	
Switching output	Not Potential-free (230 V)	
Color temperature	6000 K (Daylight white)	
Light switch-off delay	5 s–10 min	
Ambient temperature	–25 °C ... +45 °C	
Protection class	II	
Type of protection	IP 55	

Additional technical data at:

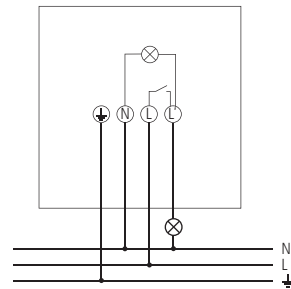
www.theben.de/product/Article number

Detection range

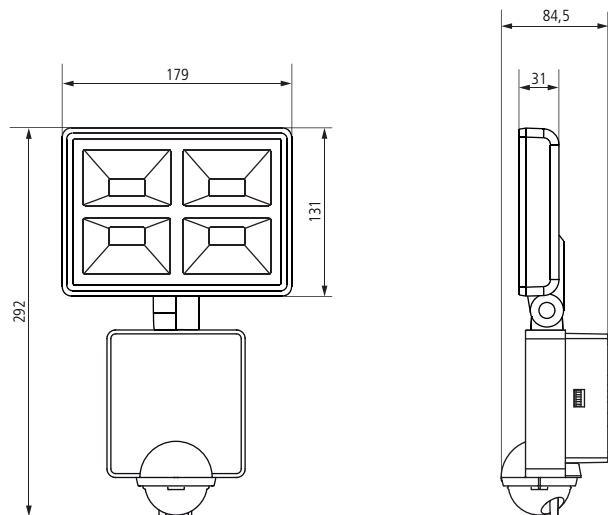


- Walking diagonally to the detector
 - Creep under protection
- Mounting height 2,5 m

Connection diagrams



Scale drawings



LED spotlight

LUXA 102 FL LED 8W WH



LUXA 102 FL LED 16W BK



LUXA 102 FL LED 32W WH



Description

Common functions

- LED spotlight
- For outdoor use
- Spotlight can be swivelled $\pm 30^\circ$ horizontally, and adjusted 70° downwards
- Single-handed plug-in installation with retained screws
- Instant start-up possible via factory preset

LUXA 102 FL LED 8W

- 1 x 1-way LED spot with 8 W (equivalent to 100 W Halogen spotlight)

LUXA 102 FL LED 16W

- 2 x 1-way LED spots with 8 W (equivalent to 2 x 100 W Halogen spotlight)

LUXA 102 FL LED 32W

- 1 x 4-way LED spot with 32 W (equivalent to 230 W Halogen spotlight)
- Additional spacer included. For flexible installation (cable entry below, side, top and more space for cables) and an increased angle of rotation for spotlight

Product selection

Installation type	LED output	Colour	Type	Article number
Wall mounting	8 W	White	LUXA 102 FL LED 8W WH	1020771 *
		Black	LUXA 102 FL LED 8W BK	1020772 *
	16 W	White	LUXA 102 FL LED 16W WH	1020773 *
		Black	LUXA 102 FL LED 16W BK	1020774 *
	32 W	White	LUXA 102 FL LED 32W WH	1020775 *
		Black	LUXA 102 FL LED 32W BK	1020776 *

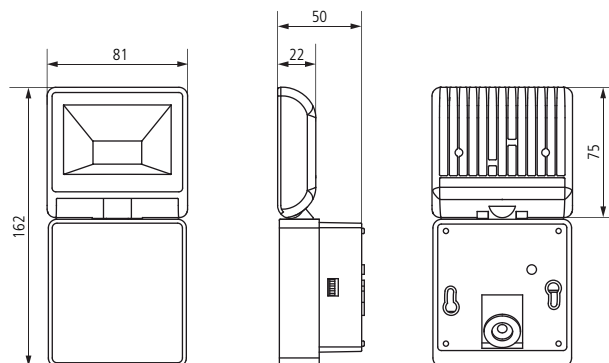
* Available May 2013

Technical data

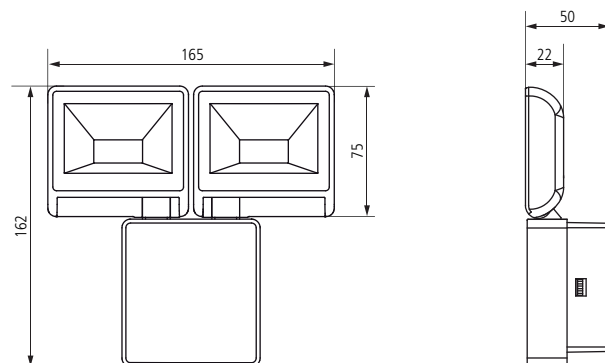
	LUXA 102 FL LED 8W	LUXA 102 FL LED 16W	LUXA 102 FL LED 32W
Operating voltage	100–240 V AC		220–240 V AC
Frequency	50–60 Hz		
Stand-by consumption	0,3 W		0,5 W
LED output (lighting current)	8 W (430 lm)	2 x 8 W (860 lm)	32 W (2000 lm)
Color temperature	6000 K (Daylight white)		
Ambient temperature	–20 °C ... +40 °C		–20 °C ... +45 °C
Protection class	II		
Type of protection	IP 44		IP 55

Dimension drawings

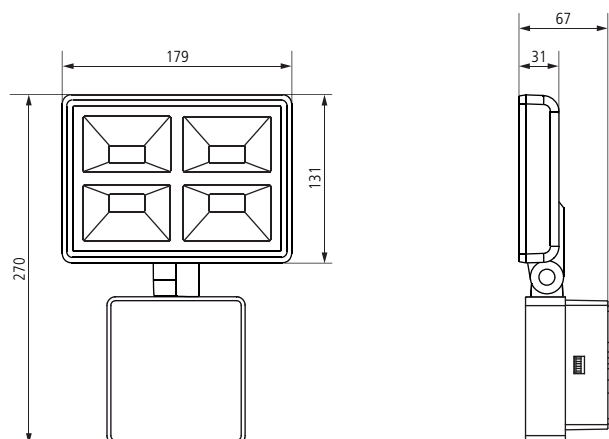
LUXA 102 FL LED 8W



LUXA 102 FL LED 16W

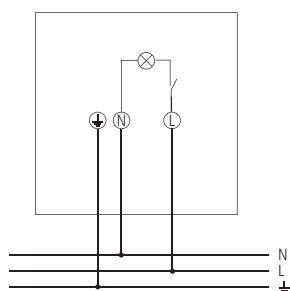


LUXA 102 FL LED 32W



Connection diagrams

LUXA 102 FL LED 8W



Motion detectors – ceiling installation flush mounted



Description

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- Ceiling installation for suspended ceilings
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Zero-cross switching for relay-saving switching and high lamp loads
- Sensor head can be adjusted downwards by 45° in 15° stages thus allowing detection area to be changed to avoid switching the device on unnecessarily
- Ceiling cut-out of 65–68 mm diameter
- Easy installation via two clamping brackets
- System consists of power box and sensor with plugged connection cable
- Sensor can easily be removed during painting work and replaced afterwards
- Large clamping area for quick installation
- Single-handed plug-in installation with captive screws
- Instant start-up possible via factory preset
- No unintentional adjustment due to covered up controls
- Adjustable brightness switching value and switch-off delay
- Sensitivity can be reduced to limit detection area
- Impulse function
- Test function

LUXA 103-360

- 1 channel

LUXA 103-360/2

- 2 channels
- 2. Relay for HVAC control with adjustable switch-off delay, presence-dependent, potential-free

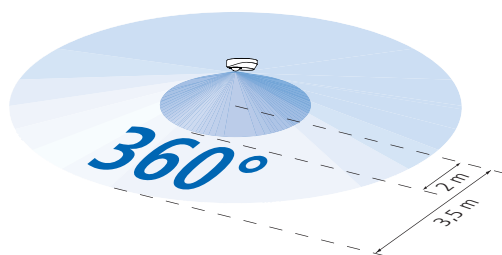
Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Ceiling mounting	Light	360°	White	LUXA 103-360	1030010
	Light Presence	360°	White	LUXA 103-360/2	1030011

Technical data

	LUXA 103-360	LUXA 103-360/2
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,9 W	1,5 W
Setting range brightness	10–2000 lx Infinitely adjustable	
Switching capacity light	10 A (at 230 V AC, $\cos \varphi = 1$), 3 AX (at 230 V AC, $\cos \varphi = 0.3$)	
Switching capacity presence	–	5 A ($\cos \varphi = 1$) 250 V AC/24 V DC
Detection angle	360°	
Recommended installation height	2–3 m	
Light switch-off delay	5 s–20 min	
Presence switch-off delay	–	10 s/15 min/30 min/60 min
Incandescent lamp load	1000 W	
Fluorescent lamp load (conventional) parallel-corrected	400 VA	
Ambient temperature	0 °C ... +45 °C	
Protection class	II	
Type of protection	Sensor IP 40, power module IP 20	

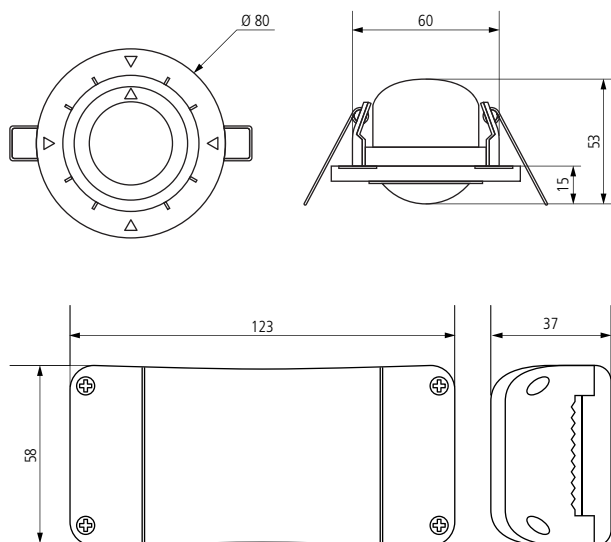
Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
- Mounting height 2,5 m

Scale drawings

LUXA 103-360, LUXA 103-360/2



Accessories

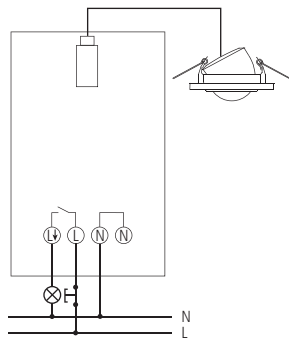
RC filter

- Art.No.: 9070523
- Details ► Page 252

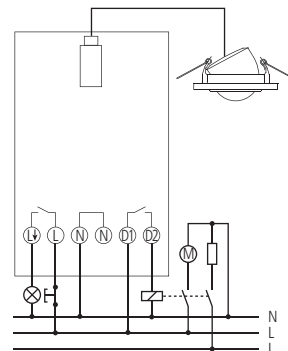


Connection diagrams

LUXA 103-360



LUXA 103-360/2



Motion detectors – ceiling installation surface mounted



Description

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- Ceiling installation
- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Zero-cross switching for relay-saving switching and high lamp loads
- Single-handed plug-in installation with captive screws
- Instant start-up possible via factory preset
- No unintentional adjustment due to covered up controls
- Adjustable brightness switching value and switch-off delay
- Sensitivity can be reduced to limit detection area
- Impulse function
- Test function

LUXA 103-360 AP

- 1 channel

LUXA 103-360/2 AP

- 2 channels
- 2. Relay for HVAC control, presence dependent, potential-free
- HVAC control with programmable switch-off delay

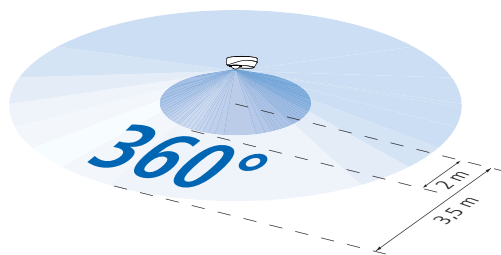
Product selection

Installation type	Channel	Detection angle	Colour	Type	Article number
Ceiling installation, Surface mounted	Light	360°	White	LUXA 103-360 AP	1030020
	Light Presence	360°	White	LUXA 103-360/2 AP	1030021

Technical data

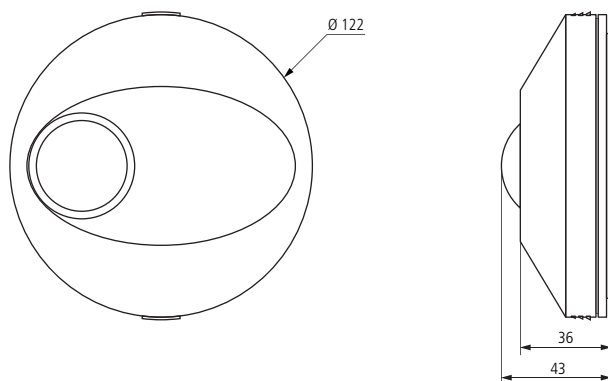
	LUXA 103-360 AP	LUXA 103-360/2 AP
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Stand-by consumption	1 W	
Setting range brightness	10–2000 lx Infinitely adjustable	
Switching capacity light	10 A (at 230 V AC, $\cos \varphi = 1$), 3 AX (at 230 V AC, $\cos \varphi = 0.3$)	
Switching capacity presence	–	5 A ($\cos \varphi = 1$) 250 V AC/ 24 V DC
Detection angle	360°	
Recommended installation height	2–3 m	
Light switch-off delay	5 s–20 min	
Presence switch-off delay	–	10 s–60 min
Incandescent lamp load	1000 W	
Fluorescent lamp load (conventional) parallel-corrected	400 VA	
Ambient temperature	0 °C ... +45 °C	
Protection class	II	
Type of protection	IP 40	

Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
- Mounting height 2,5 m

Scale drawings



Accessories

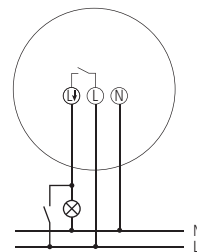
RC filter

- Art.No.: 9070523
- Details ► Page 252

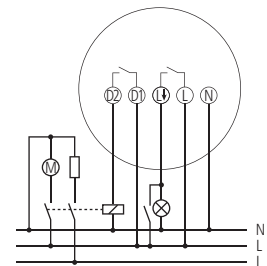


Connection diagrams

LUXA 103-360 AP



LUXA 103-360/2 AP



Motion detectors – wall installation



Description

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- Wall installation
- Compatible with branded switches, replaces conventional light switches
- Detection area can be limited using enclosed segments
- Manual AUTO/ON/OFF switching by simple adjustment of cover flap
- Teach-in of current brightness value
- Instant start-up possible via factory preset
- No unintentional adjustment due to covered up controls
- Adjustable brightness switching value and switch-off delay
- Sensitivity can be reduced to limit detection area
- Impulse function
- Test function

LUXA 103-200

- Mixed light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Expansion of detection area through integrated master/slave or master/master function when using up to 10 devices
- With acoustic advance shut-off warning 15 seconds before light switches off

LUXA 103-200 T

- 2 wire connection, ideal for retrofitting
- Light switch output (triac, 230 V AC)
- Mixed light measurement suitable for incandescent and halogen lamps (no electronic ballast)
- Advance shut-off warning through dimming 15 seconds before light switches off

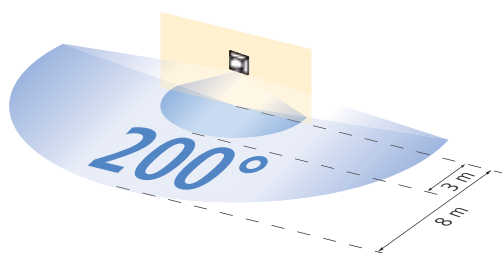
Product selection

PG	Channel	Detection angle	Type	Article number
Flush-mounted wall installation	Light	200°	LUXA 103-200	1030030
			LUXA 103-200 T	1030031

Technical data

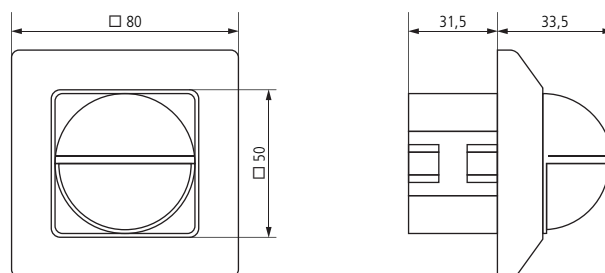
	LUXA 103-200	LUXA 103-200 T
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	1 W	0,7 W
Setting range brightness	10–1000 lx Infinitely adjustable	
Switching capacity light	10 A (at 230 V AC, $\cos \varphi = 1$), 3 AX (at 230 V AC, $\cos \varphi = 0,3$)	2 A (at 230 V AC, $\cos \varphi = 1$)
Detection angle	200°, circular	
Recommended installation height	1,2–2 m	
Light switch-off delay	20 s–30 min	
Incandescent lamp load	1000 W	400 W
Fluorescent lamp load (conventional) parallel-corrected	400 VA	–
Ambient temperature	0 °C ... +45 °C	
Protection class	II	
Type of protection	IP 40	

Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
- Mounting height 1,2–2 m

Scale drawings



Accessories

Surface frame LUXA 103-200

- Art.No.: 9070504
- Details ► Page 252



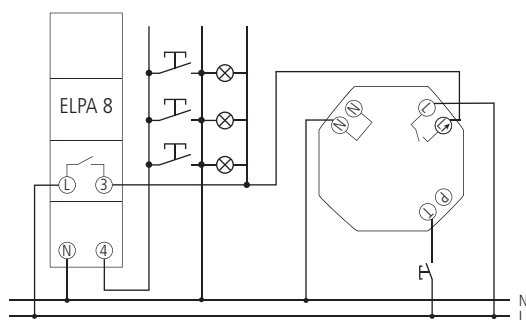
RC filter

- Art.No.: 9070523
- Details ► Page 252

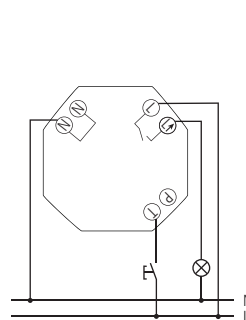


Connection diagrams

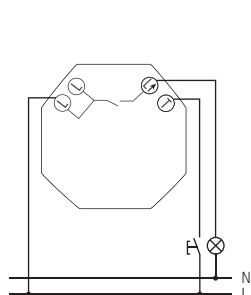
LUXA 103-200



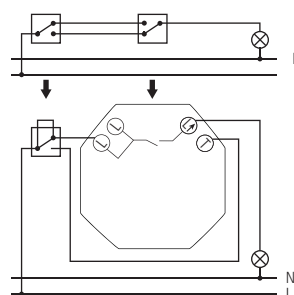
LUXA 103-200



LUXA 103-200 T



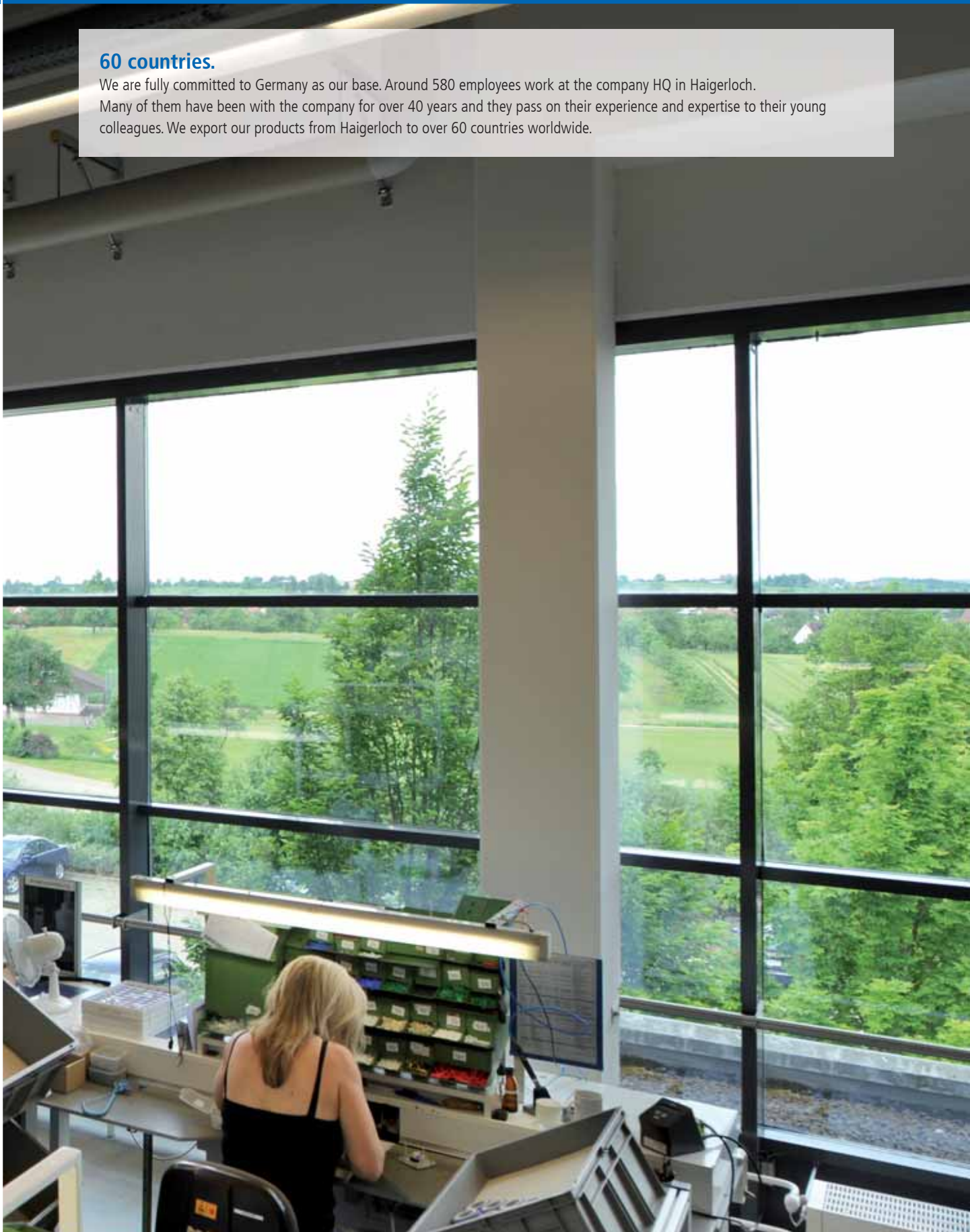
LUXA 103-200 T



LIGHT

60 countries.

We are fully committed to Germany as our base. Around 580 employees work at the company HQ in Haigerloch. Many of them have been with the company for over 40 years and they pass on their experience and expertise to their young colleagues. We export our products from Haigerloch to over 60 countries worldwide.



	Number of channels	Setting range brightness	Switch-on delay	Separate on/off switching delay	External inputs	PC interface	Program	Type of connection	Type	Page
Analogue, DIN rail										
	1	2–100 lx	20 s	–	–	–	–	Screw terminals	LUNA 108	124
		2–2000 lx	60 s	–	–	–	–	DuoFix spring terminals	LUNA 109	124
		2–50000 lx	0–20 min	–	–	–	–	DuoFix spring terminals	LUNA 110	124
		2–2000 lx	0–59 min	✓	–	✓	Weekly program	DuoFix spring terminals	LUNA 120 top2	128
Digital without clock, DIN rail										
	1	1–99000 lx	0–59 min	✓	1	✓	–	DuoFix spring terminals	LUNA 111 top2	126
	2	1–99000 lx	0–59 min	✓	2	✓	–	DuoFix spring terminals	LUNA 112 top2	126
Digital, DIN rail										
	1	1–99000 lx	0–59 min	✓	1	✓	Weekly program	DuoFix spring terminals	LUNA 121 top2 RC	128
	2	1–99000 lx	0–59 min	✓	2	✓	Weekly program	DuoFix spring terminals	LUNA 122 top2 RC	128
Analogue, Wall installation or mast bracket										
	1	5–200 lx	40 s	–	–	–	–	Screw terminals	LUNA 126 star	130
		2–200 lx	2–100 s	–	–	–	–	Screw terminals	LUNA 127 star	130
		2–2000 lx	2–100 s	–	–	–	–	Screw terminals	LUNA 128 star	130
Digital, Wall installation or mast bracket										
	1	2–200 lx	0–10 min	✓	–	–	Daily program	Screw terminals	LUNA 129 star-time	130

Twilight switches

LUNA 108



LUNA 109



LUNA 110



Description

Common functions

- Analogue twilight switch
- External light sensor included in delivery
- Display of channel and switching status
- Infinitely adjustable switching brightness

LUNA 108

- Fixed On and Off switching delay

LUNA 109

- DuoFix spring terminals
- Fixed On and Off switching delay
- Test function

LUNA 110

- Adjustable On and Off switching delay
- DuoFix spring terminals
- Extended brightness levels and adjustable delay

- Five adjustable brightness levels for simple setting of lux value
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)
- Permanent OFF and permanent ON function can be set on the potentiometer
- Test function

Product selection

Setting range brightness	Switch-on delay	Type of connection	Operating voltage	Sensor (included)	Type of protection	Type	Article number
2–100 lx	20 s	Screw terminals	220–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 54	LUNA 108 AL	1080710
				Flush-mounted light sensor	IP 20, sensor IP 65	LUNA 108 EL	1080700
2–2000 lx	60 s	DuoFix spring terminals	220–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 109 AL	1090100
				Flush-mounted light sensor	IP 20, sensor IP 65	LUNA 109 EL	1090200
2–50000 lx	0–20 min	DuoFix spring terminals	220–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 110 AL	1100100
				Flush-mounted light sensor	IP 20, sensor IP 65	LUNA 110 EL	1100200
			12–24 V UC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 110 AL 24V	1104100
				Flush-mounted light sensor	IP 20, sensor IP 65	LUNA 110 EL 24V	1104200

Technical data

	LUNA 108	LUNA 109	LUNA 110	LUNA 110 24V
Operating voltage	220–240 V AC			12–24 V UC
Frequency	50–60 Hz			
Stand-by consumption	0,8 W	1,1 W	1,3 W	0,2 W
Setting range brightness	2–100 lx	2–2000 lx	2–50000 lx	
Switch-on delay	20 s	60 s	0–20 min	
Type of contact	NO contact	Changeover contact		
Switching output	Potential-free		Potential-free, not for SELV	Potential-free
Width	1 module	2 modules		
Switching capacity	16 A (at 250 V AC, cos ϕ = 1), 10 AX (Fluorescent lamp load)		16 A (at 250 V AC, cos ϕ = 1), 16 AX (Fluorescent lamp load)	16 A (at 250 V AC, cos ϕ = 1), 2 AX (Fluorescent lamp load)
Switching capacity min.	–		<10 mA	
Incandescent lamp load	2300 W		3600 W	1400 W
Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	2300 VA		3600 VA	1400 vA
Fluorescent lamp load (conventional) parallel-corrected	400 VA, 42 μF		1200 VA, 130 μF	58 W, 7 μF
Energy saving lamps	9 x 7 W, 7 x 11 W, 7 x 15 W, 7 x 20 W, 7 x 23 W		34 x 7 W, 27 x 11 W, 24 x 15 W, 22 x 23 W	5 x 7 W, 4 x 11 W, 4 x 15 W, 4 x 20 W, 4 x 23 W
Fluorescent lamp load (electronic ballast)	300 VA		1000 VA	180 VA
Ambient temperature	–25 °C ... +50 °C	–30 °C ... +55 °C		
Protection class	II	II, Sensor III		
Max. cable length to sensor	25 m	100 m		

Accessories

Wall mounting kit 17,5 mm

- for LUNA 108
- Art.No.: 9070065
Details ► Page 246



Wall mounting kit 35 mm

- for LUNA 109, LUNA 110
- Art.No.: 9070064
Details ► Page 246



Front panel kit

- Art.No.: 9070001
Details ► Page 246

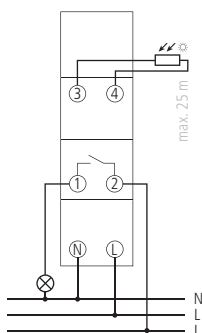


Additional accessories

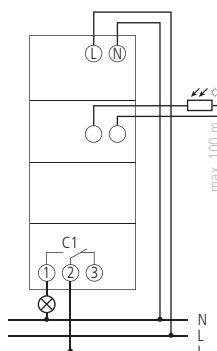
- Surface-mounted light sensor
Details ► Page 253
- Analogue surface-mounted light sensor
Details ► Page 253
- Analogue flush-mounted light sensor
Details ► Page 254

Connection diagrams

LUNA 108



LUNA 109, LUNA 110



Twilight switches

LUNA 111 top2



LUNA 112 top2



6

Description

Common functions

- Twilight switch
- External light sensor included in delivery
- Switching brightness digitally adjustable
- Adjustable On and Off switching delay
- Switching brightness and switching delay can be set separately for switching On and Off
- Onscreen display of channel and switching status as well as current lux value
- DuoFix spring terminals
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)

- Up to 4 sensors can be attached
- Up to 10 devices can be connected to a digital sensor
- Interface for OBELISK top2 memory card (PC programming)
- External light sensor included in delivery
- Extended brightness range
- Permanent switching ON/OFF
- Test function
- Switching preselection
- Display back light (can be turned off)
- External input
- Operating hour counter

LUNA 111 top2

- 1 channel

LUNA 112 top2

- 2 channels
- 2 external control inputs
- Channel-independent operating hour counter

Product selection

Number of channels	External inputs	Switch-on delay	Sensor (included)	Type of protection	Type	Article number
1	1	0–59 min	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 111 top2 AL	1110100
			Flush-mounted light sensor	IP 20, sensor IP 66	LUNA 111 top2 EL	1110200
2	2	0–59 min	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 112 top2 AL	1120100
			Flush-mounted light sensor	IP 20, sensor IP 66	LUNA 112 top2 EL	1120200

Technical data

	LUNA 111 top2	LUNA 112 top2
Operating voltage	230–240 V AC	100–240 V AC
Frequency	50–60 Hz	
Stand-by consumption	1,7 W	1,3 W
Setting range brightness	1–99000 lx	
Switch-on delay	0–59 min	
Type of contact	Changeover contact	2 two-way changeover contacts
Switching output	Potential-free, not for SELV	
Width	2 modules	3 modules
Switching capacity	16 A (at 250 V AC, $\cos \varphi = 1$), 10 A (at 250 V AC, $\cos \varphi = 0.6$), 10 AX (Fluorescent lamp load)	
Switching capacity min.	ca. 10 mA	
Incandescent lamp load	2600 W	
Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	2300 VA	
Fluorescent lamp load (conventional) parallel-corrected	800 VA, 80 μ F	
Energy saving lamps	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	
Fluorescent lamp load (electronic ballast)	650 VA	
Ambient temperature	–30 °C ... +55 °C	
Protection class	II, Sensor III	
Max. cable length to sensor	100 m	

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



Front panel kit

- Art.No.: 9070001
Details ► Page 246

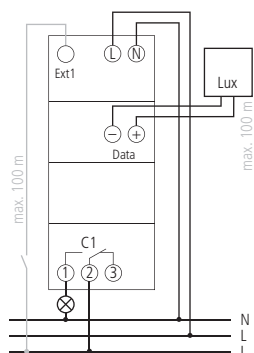


Additional accessories

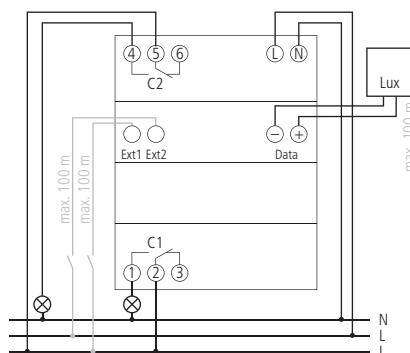
- Digital surface-mounted light sensor
Details ► Page 253
- Digital flush-mounted light sensor
Details ► Page 254
- Wall mounting kit 35 mm
Details ► Page 246
- Wall mounting kit 52,5 mm
Details ► Page 246

Connection diagrams

LUNA 111 top2



LUNA 112 top2



Twilight switches with time switch

LUNA 120 top2



LUNA 121 top2 RC



LUNA 122 top2 RC



Description

Common functions

- Twilight switch with integrated weekly timer
- External light sensor included in delivery
- Fixed ON and OFF times (e.g. nighttime interruption)
- Different summer/winter time rules can be selected or freely defined
- Adjustable On and Off switching delay
- Switching brightness and switching delay can be set separately for switching On and Off
- DuoFix spring terminals
- Zero-cross switching for relay-saving switching and high lamp loads (not with 24 V devices)

- Interface for OBELISK top2 memory card (PC programming)
- Permanent switching ON/OFF
- Test function
- Switching preselection
- Display back light (can be turned off)
- Variable lux values can be set for each day
- Operating hour counter
- Holiday and public holiday program with yearly function for fixed and public holidays dependent on Easter

LUNA 121 top2 RC

- Digital twilight switch
- 1 channel
- DCF77 or GPS radio controlled time via external antenna

- External input
- Switching brightness digitally adjustable
- Up to 4 sensors can be attached
- Up to 10 devices can be connected to a digital sensor
- Extended brightness range
- 2 special programmes with yearly function

LUNA 122 top2 RC

As LUNA 121 top2 RC, but:

- 2 channels
- 2 external inputs
- Operating hour counter channel dependent

LUNA 120 top2

- Analogue twilight switch
- 1 channel
- Analogue adjustable switching brightness

Product selection

Number of channels	External inputs	Additional program	Operating voltage	Sensor (included)	Type of protection	Type	Article number
1	1	Extra/Holiday program	230–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 121 top2 RC AL	1210100
				Flush-mounted light sensor	IP 20, sensor IP 66	LUNA 121 top2 RC EL	1210200
			12–24 V UC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 121 top2 RC AL 24V	1214100
				Flush-mounted light sensor	IP 20, sensor IP 66	LUNA 121 top2 RC EL 24V	1214200
2	2	Extra/Holiday program	100–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 122 top2 RC AL	1220100
				Flush-mounted light sensor	IP 20, sensor IP 66	LUNA 122 top2 RC EL	1220200
1	–	Holiday program	220–240 V AC	Surface-mounted light sensor	IP 20, sensor IP 55	LUNA 120 top2 AL	1200100
				Flush-mounted light sensor	IP 20, sensor IP 65	LUNA 120 top2 EL	1200200

Technical data

	LUNA 121 top2 RC	LUNA 121 top2 RC 24V	LUNA 122 top2 RC	LUNA 120 top2
Operating voltage	230–240 V AC	12–24 V UC	100–240 V AC	220–240 V AC
Frequency	50–60 Hz			
Stand-by consumption	1,3 W	0,8 W	1,3 W	
Setting range brightness	1–99000 lx			2–2000 lx
Switch-on delay	0–59 min			
Type of contact	Changeover contact		2 two-way changeover contacts	Changeover contact
Switching output	Potential-free, not for SELV	Potential-free	Potential-free, not for SELV	
Width	2 modules		3 modules	
Switching capacity	16 A (at 250 V AC, cos ϕ = 1), 10 A (at 250 V AC, cos ϕ = 0.6), 10 AX (Fluorescent lamp load)	16 A (at 250 V AC, cos ϕ = 1), 2 AX (Fluorescent lamp load)	16 A (at 250 V AC, cos ϕ = 1), 10 A (at 250 V AC, cos ϕ = 0.6), 10 AX (Fluorescent lamp load)	
Switching capacity min.	ca. 10 mA			
Incandescent lamp load	2600 W	1400 W	2600 W	
Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	2300 VA	1400 VA	2300 VA	
Fluorescent lamp load (conventional) parallel-corrected	800 VA, 80 μF	58 W, 7 μF	800 VA, 80 μF	
Energy saving lamps	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	7 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	22 x 7 W, 18 x 11 W, 16 x 15 W, 16 x 20 W, 14 x 23 W	
Fluorescent lamp load (electronic ballast)	650 VA	180 W	650 VA	
Ambient temperature	–30 °C ... +55 °C			
Protection class	II, Sensor III			
Max. cable length to sensor	100 m			

Accessories

PC set OBELISK top2

- Art.No.: 9070409
Details ► Page 247



Memory card OBELISK top2

- Art.No.: 9070404
Details ► Page 247



Antenna top2 RC-DCF

- for LUNA 121 top2 RC, LUNA 122 top2 RC
- Art.No.: 9070410
Details ► Page 247

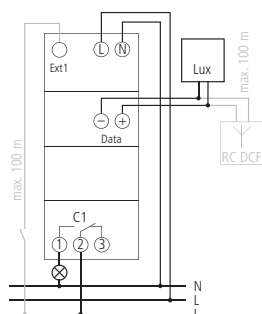


Additional accessories

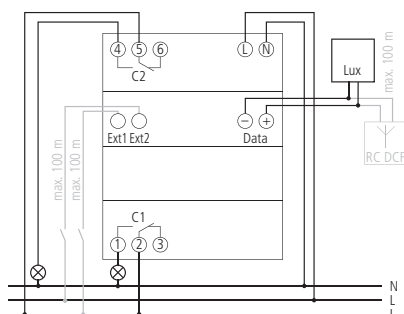
- Light sensors
Details ► Page 253
- Wall mounting kits
Details ► Page 246
- Antenna top2 RC-GPS
Details ► Page 248
- Power unit top2 GPS
Details ► Page 248

Connection diagrams

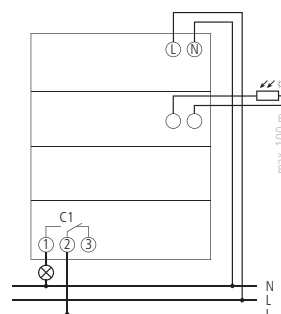
LUNA 121 top2 RC



LUNA 122 top2 RC



LUNA 120 top2



Twilight switches – wall installation

LUNA 126 star



LUNA 129 star-time



Description

Common functions

- Twilight switch with integrated light sensor
- Cable feed from the back and from below
- Captive screws
- Large terminal area
- Brightness value can be set without opening the device
- Large light exposure angle (approx. 180 degrees)

LUNA 126 star

- Fixed On and Off switching delay
- Infinitely adjustable switching brightness

LUNA 127 star

- Adjustable On and Off switching delay
- Test button
- Infinitely adjustable switching brightness

LUNA 128 star

As LUNA 127 star, but:

- Expanded brightness range
- for monitoring installation independent of set brightness value. The button can be accessed without opening the device

LUNA 129 star-time

- Time function for freely-programmable night switch-off (daily program)

- Adjustable On and Off switching delay
- Easy programming philosophy
- Preset night switch-off (23.00 OFF/5.00 ON), lux values and switch delay
- Automatic summer/winter time correction
- Integrated replaceable lithium battery enables programming before installation
- Switching brightness and switching delay can be set digitally for switching On and Off separately
- Test button
- Time function can be deactivated

Product selection

Setting range brightness	Switch-on delay	Switching capacity at 230 V AC	Time program	Type	Article number
5–200 lx	40 s	16 (10) A AX	–	LUNA 126 star	1260700
2–200 lx	2–100 s	16 (10) A AX	–	LUNA 127 star	1270700
2–2000 lx	2–100 s	16 (10) A AX	–	LUNA 128 star	1280700
2–200 lx	0–10 min	16 (10) A AX	Daily program	LUNA 129 star-time	1290700

Technical data

	LUNA 126 star	LUNA 126 star	LUNA 127 star	LUNA 128 star	LUNA 129 star-time
Operating voltage	220–230 V AC				
Frequency	50–60 Hz				
Stand-by consumption	0,6 W				
Setting range brightness	5–200 lx		2–200 lx	2–2000 lx	2–200 lx
Switch-on delay	40 s		2–100 s		0–10 min
Type of contact	NO contact				
Switching output	Not potential-free (230 V)				
Switching capacity	16 A (at 230 V AC, $\cos \varphi = 1$), 10 AX (at 230 V AC, $\cos \varphi = 0.3$)				
Incandescent lamp load	2300 W				
Fluorescent lamp load (conventional) not corrected, series-corrected, lead-lag circuit	2300 VA				
Energy saving lamps	9 x 7 W, 7 x 11 W, 7 x 15 W, 7 x 20 W, 7 x 23 W				
Ambient temperature	–35 °C ... +55 °C				
Type of protection	IP 55				
Protection class	II				

Accessories

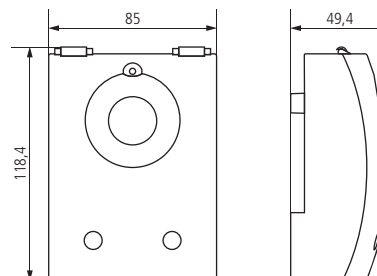
Adapter plate LUNA star

- Art.No.: 9070486
Details ► Seite 253



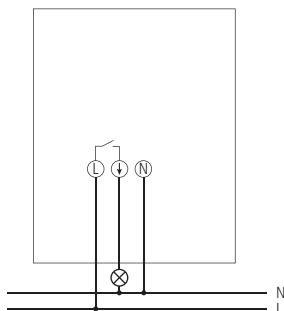
Scale drawings

LUNA star

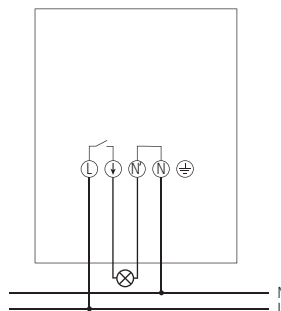


Connection diagrams

LUNA 126 star, LUNA 127 star, LUNA 128 star



LUNA 129 star-time



LIGHT



20,000 switching cycles.

Every one of our ELPA test devices from the current production run are put through 20,000 two-minute switching cycles. After these 40,000 minutes we know exactly about the quality of our ELPAs. And you know that you and your customers can always rely on reliable and durable products.

	Setting range time	Key input	Multi-voltage input	Switch-off pre-warning	Long-time function	Zero-cross switching	Without stand-by consumption	Type	Page
Staircase time switches, DIN rail, electronic with multi-function									
	0,5–20 min	150 mA	✓	✓	60 min	✓	–	ELPA 1	134
			–	✓	60 min	✓	–	ELPA 6	134
Staircase time switches, DIN rail, electronic									
	0,5–20 min	150 mA	✓	–	–	–	–	ELPA 3	134
			–					ELPA 7	134
Staircase time switches, DIN rail, electro-mechanical									
	1–7 min	50 mA	–	–	–	–	✓	ELPA 8	136
			–	–	–	–	✓	ELPA 9	136
Staircase time switches, DIN rail, electronic with switch-off pre-warning									
	20–60 s	–	–	✓	–	–	–	ELPA 4	136
Staircase time switches, Flush-mounted, electronic with multi-function									
	0,5–20 min	30 mA	✓	✓	60 min	✓	–	ELPA 041	138
			–	–	–	✓	–	ELPA 047	138

	Universal dimmer for R, L, and C loads	Dimming output	Multi- voltage input	Automatic overload and overheating switch-off	Soft-ON/ Soft-OFF	Saveable switch-on brightness	Comfort functions	Type	Page
Dimmer									
	✓	500 W (100 W ESL)	✓	✓	✓	✓	–	DIMAX 532	140
							✓	DIMAX 534	140

Staircase time switches electronic

ELPA 1



ELPA 6



ELPA 3



Description

Common functions

- Staircase time switch, electronic
- Terminal layout same as ELPA 8
- Extremely accurate
- Push button input with electronic overload protection
- Automatic 3 or 4 conductor detection (4 conductor with connection for floor lighting, 3 conductor no longer permitted for new systems)

ELPA 1

- Zero-cross switching for relay-saving switching and high lamp loads
- Multi-functional device with 10 available functions, set at the front of the device
- Additional multi-voltage input electrically isolated for AC/DC 8...240 V, e.g. für intercoms

- Switch-off pre-warning (two double flashes) in accordance with DIN 18015-2 to avoid sudden darkness
- Extended function activated via long button press
- Immediate secondary switching (stair light switch) or prematurely switched off (impulse switch with switch-off delay)
- Permanent switch
- Electronic impulse light

ELPA 6

- Zero-cross switching for relay-saving switching and high lamp loads
- Multi-functional device with 10 available functions, set at the front of the device
- Without multi-voltage input
- Switch-off pre-warning (two double flashes) in accordance with DIN 18015-2 to avoid sudden darkness

- Extended function activated via long button press
- Immediate secondary switching (stair light switch) or prematurely switched off (impulse switch with switch-off delay)
- Permanent switch
- Electronic impulse light

ELPA 3

- Additional multi-voltage input electrically isolated for AC/DC 8...240 V, e.g. für intercoms
- Immediate secondary switching
- Toggle switch for permanent light

ELPA 7

As ELPA 3, but:

- Without multi-voltage input

Product selection

Incandescent lamp load	Multi-function	Multi-voltage input	Switch-off pre-warning	Zero-cross switching	Type	Article number
3600 W	✓	✓	✓	✓	ELPA 1	0010002
		—	✓	✓	ELPA 6	0060002
2300 W	—	✓	—	—	ELPA 3	0030002
		—	—	—	ELPA 7	0070002

Technical data

	ELPA 1	ELPA 6	ELPA 3	ELPA 7
Operating voltage	220–240 V AC			
Frequency	50–60 Hz			
Stand-by consumption	0,9 W		0,7 W	
Glow lamp load	150 mA			
Setting range time	0,5–20 min			
3/4 conductors	Automatic			
Type of contact	NO contact			
Switching output	Not potential-free (230 V)			
Incandescent/halogen lamp load	3600 W		2300 W	
Fluorescent lamp load (conventional) lead-lag circuit	3600 VA		2300 VA	
Fluorescent lamp load (conventional) parallel-corrected	1200 VA, 120 µF		400 VA, 42 µF	
Energy saving lamps	34 x 7 W, 27 x 11 W, 24 x 15 W, 22 x 23 W		9 x 7 W, 7 x 11 W, 7 x 15 W, 7 x 20 W, 7 x 23 W	
Switching capacity	16 AX (at 230 V AC, cos ϕ = 0.3), 16 A (at 230 V AC, cos ϕ = 1)		10 AX (at 230 V AC, cos ϕ = 0.3), 16 A (at 230 V AC, cos ϕ = 1)	
Test approval				
Ambient temperature	–25 °C ... +50 °C			
Protection class	II			
Type of protection	IP 20			

Accessories

Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246



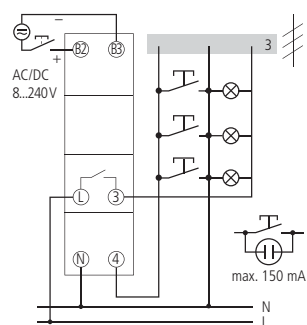
Front panel kit

- Art.No.: 9070001
Details ► Page 246



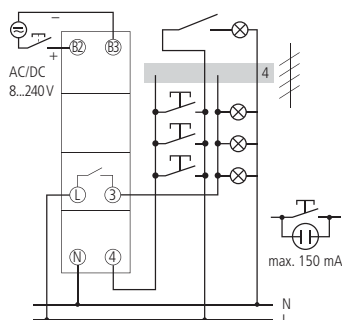
Connection diagrams

ELPA 1, ELPA 3

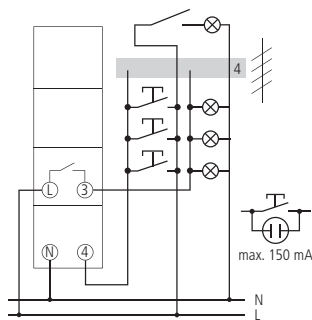


Connection diagrams

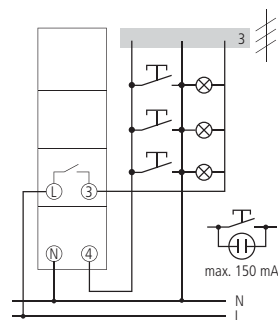
ELPA 1, ELPA 3



ELPA 6, ELPA 7



ELPA 6, ELPA 7



Staircase time switches electro-mechanical

ELPA 8



ELPA 9



ELPA 4



Description

ELPA 8

- Staircase time switch, electro-mechanical
- 4 conductor with floor lighting connection
- 3 conductor without floor lighting (no longer permitted for new systems)
- Retriggerable
- No closed-circuit current consumption
- Toggle switch for permanent light ON
- Reliable due to synchronous motor drive
- Simplest possible time setting and direct delay time readout on absolute scale

- Precision mechanics and therefore exact switching period
- Very low sensitivity to interference

ELPA 9

As ELPA 8, but:

- 3 conductor connection and floor lighting, but without secondary switching (no longer permitted for new systems)
- Terminal layout same as ELPA 8

ELPA 4

- Switch-off pre-warning
- Additional device for staircase time switch ELPA 3/ELPA 8 or other makes
- After the lighting period set on the staircase time switch ELPA 3/ELPA 8 has expired, ELPA 4 switches to reduced brightness (approx. 50 %)
- Suitable for switching incandescent lamps and 230 V AC halogen lamps

Product selection

Incandescent lamp load	Setting range time	Without stand-by consumption	Switch-off pre-warning	3/4 conductors	Secondary switching	Type	Article number
2300 W	1–7 min	✓	–	Yes	After 30 s	ELPA 8	0080002
				Only 3-way conductor	No	ELPA 9	0090001
	20–60 s	–	✓	–	At once	ELPA 4	0040001

Technical data

	ELPA 8	ELPA 9	ELPA 4
Operating voltage	230 V AC		
Frequency	50 Hz		50–60 Hz
Stand-by consumption	0 W		0,4 W
Glow lamp load	50 mA		–
Setting range time	1–7 min		20–60 s
3/4 conductors	Yes	Only 3-way conductor	–
Type of contact	NO contact		
Switching output	Not potential-free (230 V)		
Incandescent/halogen lamp load	2300 W		
Fluorescent lamp load (conventional) lead-lag circuit	2300 VA		–
Fluorescent lamp load (conventional) parallel-corrected	1300 VA, 70 µF		–
Energy saving lamps	9 x 7 W, 6 x 11 W, 5 x 15 W, 5 x 20 W		–
Switching capacity	10 AX (at 230 V AC, cos ϕ = 0.3), 16 A (at 230 V AC, cos ϕ = 1)		10 A (at 230 V AC, cos ϕ = 1)
Test approval		–	
Ambient temperature	–10 °C ... +50 °C		
Protection class	II		
Type of protection	IP 20		

Accessories

Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246



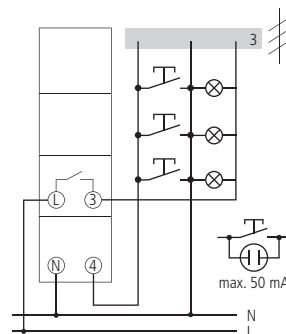
Front panel kit

- Art.No.: 9070001
Details ► Page 246



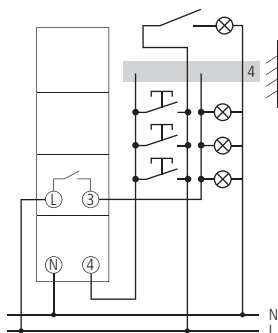
Connection diagrams

ELPA 8

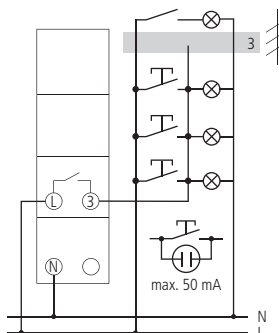


Connection diagrams

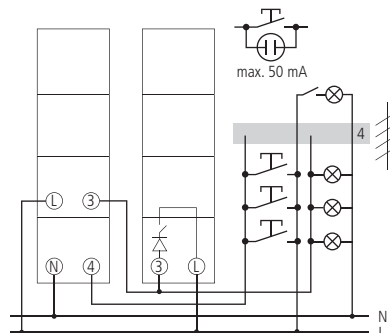
ELPA 8



ELPA 9



ELPA 4



Staircase time switches flush-mounted

ELPA 041



ELPA 047



Description

ELPA 047

- Flush-mounted staircase time switch, electronic
- Suitable for upgrades and new installation
- Only push button connectable
- Zero-cross switching for relay-saving switching and high lamp loads
- Push button input with electronic overload protection
- Automatic 3 or 4 conductor detection (4 conductor with connection for floor lighting, 3 conductor no longer permitted for new systems)
- Extremely accurate
- Immediate secondary switching

ELPA 041

- As ELPA 047, but:
- Multi-functional device with 12 available functions, set at the front of the device
 - Switch or push button connectable, i.e. existing switches can be used (e.g. when updating)
 - Additional multi-voltage input electrically isolated for AC/DC 8...240 V, e.g. für intercoms
 - Switch-off pre-warning (two double flashes) in accordance with DIN 18015-2 to avoid sudden darkness
 - 60 min. extended function activated via long button press

- Immediate secondary switching (stair light switch) or prematurely switched off (impulse switch with switch-off delay)

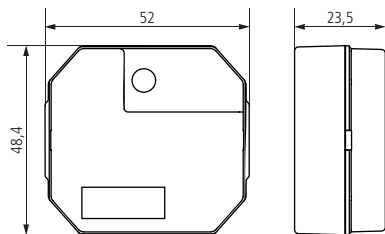
Product selection

Incandescent lamp load	Multi-function	Multi-voltage input	Switch-off pre-warning	Zero-cross switching	Type	Article number
1800 W	✓	✓	✓	✓	ELPA 041	0410002
	–	–	–	✓	ELPA 047	0470002

Technical data

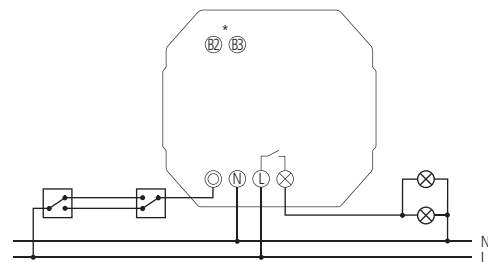
	ELPA 041	ELPA 047
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Stand-by consumption	0,1 W	
Glow lamp load	30 mA	
Setting range time	0,5–20 min	
3/4 conductors	Automatic	
Type of contact	NO contact	
Switching output	Not potential-free (230 V)	
Incandescent/halogen lamp load	1800 W	
Fluorescent lamp load (conventional) lead-lag circuit	1200 VA	
Fluorescent lamp load (conventional) parallel-corrected	580 VA, 54 µF	
Energy saving lamps	13 x 7 W, 7 x 11 W, 5 x 15 W, 5 x 20 W, 4 x 23 W	
Switching capacity	6 AX (at 230 V AC, $\cos \varphi = 0.3$), 10 A (at 230 V AC, $\cos \varphi = 1$)	
Test approval		
Ambient temperature	–25 °C ... +45 °C	
Protection class	II	
Type of protection	IP 20	

Scale drawings



Connection diagram

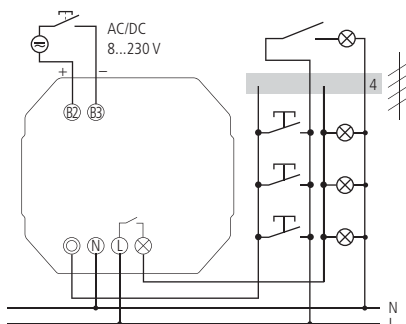
ELPA 041



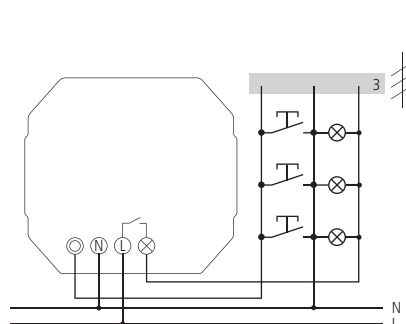
* with switch (cannot be used with three way switch, multi-voltage input switch connection)

Connection diagrams

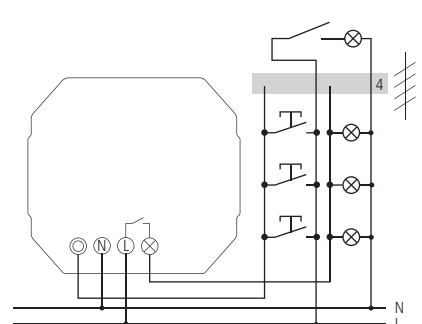
ELPA 041



ELPA 047



ELPA 047



Dimmer

DIMAX 532



DIMAX 534



Description

DIMAX 532

- Universal dimmer for R, L and C loads with automatic load detection
- 500 W dimming output, 100 W dimmable Energy saving lamps (ESL)
- Switch-on brightness can be saved individually
- Adjustable minimum brightness (required for ESL)
- Multi-voltage input, e.g. for intercoms
- Low stand-by consumption
- Memory function in the event of power failure

- Automatic electronic overload and over-heating switch-off
- Dimming switch-on function
- Permanent ON function (test function)
- No minimum load requirement
- Soft ON and Soft OFF protects the light

DIMAX 534

As DIMAX 532, but:

- Comfort setting with wake-up and snooze function (can be deactivated), e.g. for children's bedrooms
- Adjustable dimming rate (with automatic functions)

- One and two button operation for ease of use
- Up to 3 light scenes can be called up via separate input (diode module required for more than one light scene)
- Central OFF/ON or light scene for up to 10 devices possible with one push button
- Staircase light function with dimming function in accordance with DIN 18015 - 2 (resettable, long-time function)
- Can be controlled by push buttons or switches e.g. for combination with presence detectors or time switch

Product selection

Load detection	Optimized for energy-saving lamps	Light settings	Multi-function	Type	Article number
✓	✓	—	—	DIMAX 532	5320000
		✓	✓	DIMAX 534	5340000

Technical data

	DIMAX 532	DIMAX 534
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	0,2 W	
Incandescent/halogen lamp load	500 W	
Transformer electronic (C)	500 W	
Transformer inductive (L)	500 W	
Energy saving lamps	100 W (dimmable)	
Ambient temperature	-30 °C ... +50 °C	
Protection class	II	
Type of protection	IP 20	

Accessories

Wall mounting kit 17,5 mm

- Art.No.: 9070065
Details ► Page 246



Front panel kit

- Art.No.: 9070001
Details ► Page 246



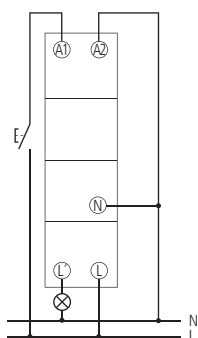
Diode module

- for DIMAX 534
- Art.No.: 9070367
Details ► Page 254

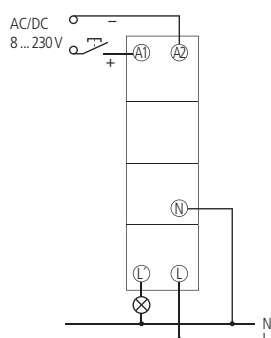


Connection diagrams

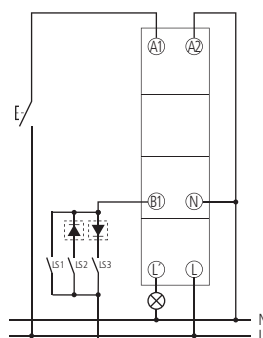
DIMAX 532



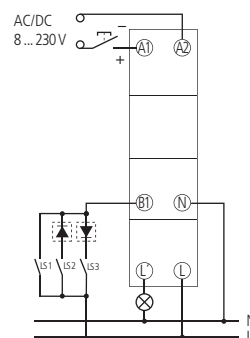
DIMAX 532



DIMAX 534

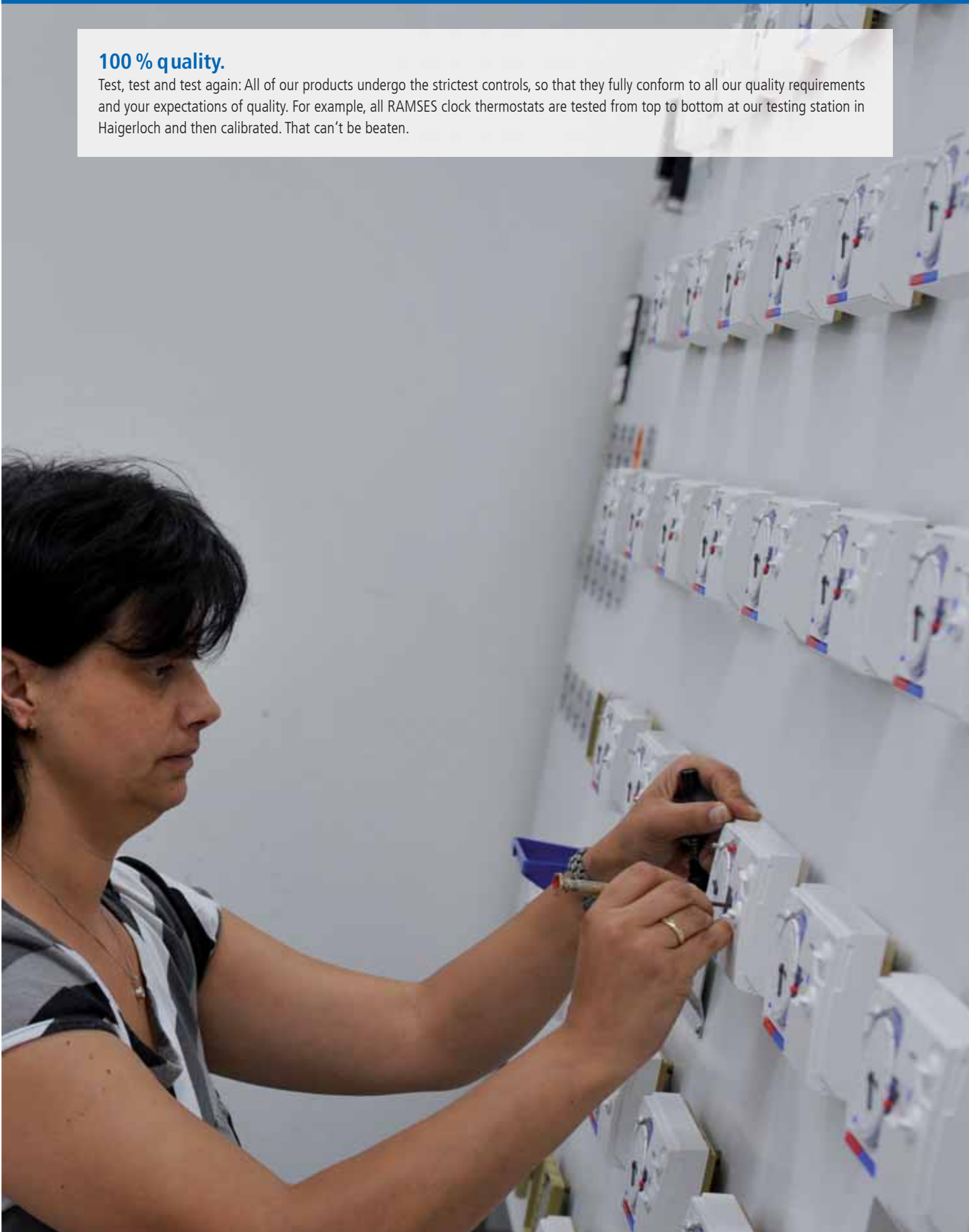


DIMAX 534



100 % quality.

Test, test and test again: All of our products undergo the strictest controls, so that they fully conform to all our quality requirements and your expectations of quality. For example, all RAMSES clock thermostats are tested from top to bottom at our testing station in Haigerloch and then calibrated. That can't be beaten.



	Program	Type of connection	Operating voltage	Switching capacity at 250 V AC	Type of contact	Type	Page
Digital battery version							
	Weekly program	2/3-way conductors	2 AA batteries	6 (1) A	Changeover contact	RAMSES 811 top2	144
						RAMSES 831 top2	144
		Radio controlled	2 AA batteries	16 (2) A	NO contact	RAMSES 813 top2 HF Set A	148
						RAMSES 813 top2 HF Set S	148
				6 (1) A	Changeover contact	RAMSES 813 top2 HF Set 1	148
						RAMSES 833 top2 HF Set 1	150
						RAMSES 833 top2 HF Set 2	150
						Digital 230 V	
	Weekly program	3-/4-way conductors	230 V AC	6 (1) A	Changeover contact	RAMSES 812 top2	146
						RAMSES 832 top2	146
	Weekly program	Screw terminals max. 4 mm²	230 V AC	10 (2) A	Changeover contact	RAMSES 366/1 top	156
						RAMSES 366/2 top	156
OpenTherm							
	Weekly program	2-way conductor (BUS) room controller	230 V AC	2 x 2 (1) A, 1 x 1 (1) A	NO contact	RAMSES 816 top2 OT	152
				5 x 5 (1) A, 2 x 1 (1) A:		RAMSES 856 top2 OT	154
Analogue battery version							
	Daily program	2/3-way conductors	2 AA batteries	6 (1) A	Changeover contact	RAMSES 784 S	158
	Daily/weekly program	2/3-way conductors	2 AA batteries	6 (1) A	Changeover contact	RAMSES 784	160
		Radio controlled	2 AA batteries	6 (1) A	Changeover contact	RAMSES 784 HF Set 1	160
Analogue 230 V							
	Daily program	3-/4-way conductors	230 V AC	6 (1) A	Changeover contact	RAMSES 722 S	158
	Daily/weekly program	3-/4-way conductors	230 V AC	6 (1) A	Changeover contact	RAMSES 722	160
						RAMSES 782	160
	Daily program	3-/4-way conductors	230 V AC	6 (1) A	Changeover contact	RAMSES 721	160
Daily/weekly program	3-/4-way conductors	230 V AC	6 (1) A	Changeover contact	RAMSES 725	160	

Digital clock thermostats – battery version

RAMSES 811 top2



RAMSES 831 top2



Description

RAMSES 811 top2

- Digital clock thermostat with a low profile design for time-dependent monitoring and control of room temperature
- Battery version
- Suitable for energy-saving room temperature control in houses, apartments, heating zones, offices, showrooms, factories, medical practices, holiday homes
- Temperature is set quickly via rotary switch
- INFO key for viewing important settings
- Quick start-up via 3 basic programs with individually changeable comfort and reduced temperature
- Party / ECO program

- Fully automatic summer/winter-time correction
- Holiday program with reduction phase or date-controlled heating phase for holiday homes
- Different control types can be individually set
- Optimum start option thanks to operating point and switching differential setting option
- 24 programmable time phases per program also enable reduction phases during the day
- Plug-in base for wall or flush-mounted socket installation

RAMSES 831 top2

As RAMSES 811 top2, but:

- Illuminated display via keystroke
- External input for connection of presence detectors, temperature sensors, floor sensors, window contacts or telephone remote switches
- Optimisation function for automatic correction of heating start up

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
2/3-way conductors	Weekly program	6 (1) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 811 top2	8119132
					RAMSES 831 top2	8319132

Technical data

	RAMSES 811 top2	RAMSES 831 top2
Operating voltage	2 AA batteries	
Type of contact	Changeover contact	
Switching capacity	6 A (at 250 V AC, $\cos \varphi = 1$), 1 A (at 250 V AC, $\cos \varphi = 0.6$)	
Setting range temperature	+6 °C ... +30 °C	
Time basis	Quartz	
Program	Weekly program, Daily program, Holiday program, 3 basic programs	
Number of memory locations	42, max. 24 per program	
Control types	Pulse width modulation, Hysteresis controller	
Control period	5–30 min	
Control capture range	0,2–5 K	
Switching output	Potential-free	
Time accuracy	$\leq \pm 1$ s/day (quartz)	
Power reserve	Max. 10 mins without losing time	
Battery life	approx. 1 year, depending on switching frequency	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

Actuator ALPHA 4 230 V

- Art.No.: 9070438
Details ► Page 256



Actuator ALPHA 4 24 V

- Art.No.: 9070439
Details ► Page 256



Temperature sensor

- for RAMSES 831 top2
- Art.No.: 9070321
Details ► Page 255



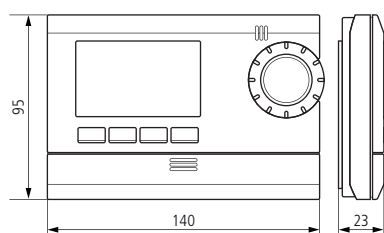
Temperature sensor RAMSES IP 65

- for RAMSES 831 top2
- Art.No.: 9070459
Details ► Page 255



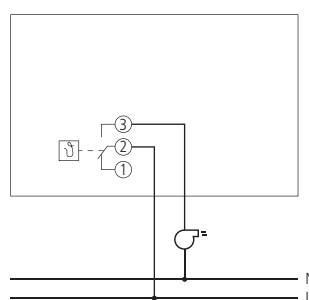
Scale drawings

RAMSES 811 top2, RAMSES 831 top2

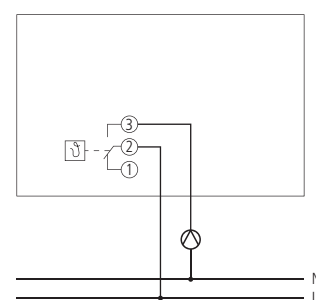


Connection diagrams

RAMSES 811 top2



RAMSES 811 top2



Digital clock thermostats – mains version

RAMSES 812 top2



RAMSES 832 top2



Description

RAMSES 812 top2

- Digital clock thermostat with a low profile design for time-dependent monitoring and control of room temperature
- Mains version
- Suitable for energy-saving room temperature control in houses, apartments, heating zones, offices, showrooms, factories, medical practices, holiday homes
- Temperature is set quickly via rotary switch
- INFO key for viewing important settings

- Quick start-up via 3 basic programs with individually changeable comfort and reduced temperature
- Party/ECO program
- Fully automatic summer/winter-time correction
- Different control types can be individually set
- Optimum start option thanks to operating point and switching differential setting option
- 24 programmable time phases per program also enable reduction phases during the day

- Plug-in base for wall or flush-mounted socket installation

RAMSES 832 top2

As RAMSES 812 top2, but:

- Illuminated display via keystroke
- External input for connection of presence detectors, temperature sensors, floor sensors, window contacts or telephone remote switches
- Optimisation function for automatic correction of heating start up

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
3-/4-conductors	Weekly program	6 (1) A	+6 °C ... +30 °C	230 V AC	RAMSES 812 top2	8120132
					RAMSES 832 top2	8320132

Technical data

	RAMSES 812 top2	RAMSES 832 top2
Operating voltage	230 V AC	
Frequency	50 Hz	
Type of contact	Changeover contact	
Switching capacity	6 A (at 250 V AC, $\cos \varphi = 1$), 1 A (at 250 V AC, $\cos \varphi = 0.6$)	
Setting range temperature	+6 °C ... +30 °C	
Time basis	Quartz	
Program	Weekly program, Daily program, Holiday program, 3 basic programs	
Number of memory locations	42, max. 24 per program	
Control types	Pulse width modulation, Hysteresis controller	
Control period	5–30 min	
Control capture range	0,2–5 K	

	RAMSES 812 top2	RAMSES 832 top2
Switching output	Potential-free, not for SELV	
Time accuracy	$\leq \pm 1$ s/day (quartz)	
Power reserve	5 hours	
Stand-by consumption	0,4 W	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

Actuator ALPHA 4 230 V

- Art.No.: 9070438
Details ► Page 256



Actuator ALPHA 4 24 V

- Art.No.: 9070439
Details ► Page 256



Temperature sensor

- for RAMSES 832 top2
- Art.No.: 9070321
Details ► Page 255



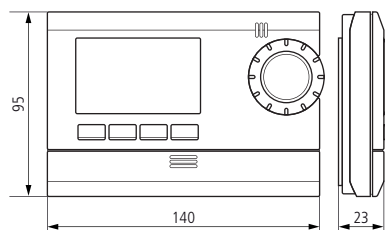
Temperature sensor RAMSES IP 65

- for RAMSES 832 top2
- Art.No.: 9070459
Details ► Page 255



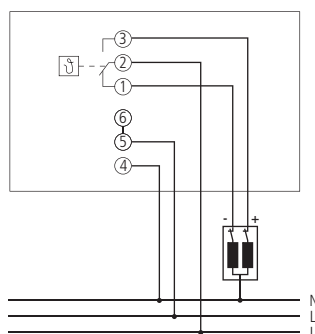
Scale drawings

RAMSES 812 top2, RAMSES 832 top2

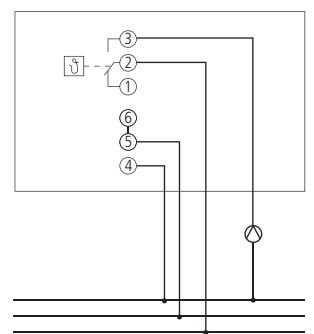


Connection diagrams

RAMSES 812 top2

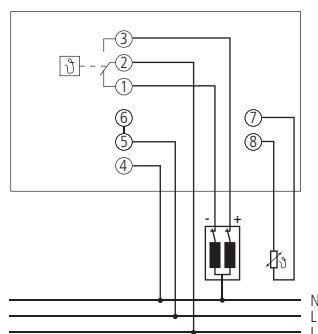


RAMSES 812 top2

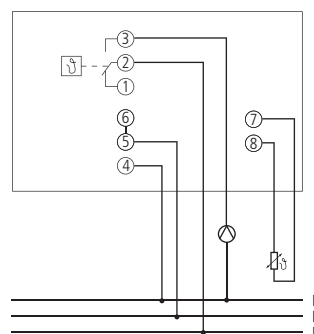


Connection diagrams

RAMSES 832 top2



RAMSES 832 top2



Digital clock thermostats – radio-controlled

RAMSES 813 top2 HF Set A



RAMSES 813 top2 HF Set S



RAMSES 813 top2 HF Set 1



Description

Common functions

- Radio-controlled system for room temperature control
- The system consists of one digital clock thermostat and one receiver
- Suitable for energy-saving room temperature control in houses, apartments, heating zones, offices, showrooms, factories, medical practices, holiday homes
- Required temperature set via the rotary dial
- INFO key for viewing important settings
- Quick start-up via 3 basic programs with individually changeable comfort and reduced temperature
- Party/ECO program
- Automatic summer/winter time adjustment

- Different control types can be individually set
- Optimum start option thanks to operating point and switching differential setting option
- 24 programmable time phases per program also enable reduction phases during the day
- 2 comfort and 2 reduced temperatures can be allocated to each phase
- Including base for free choice of position
- An optionally available plug-in base is required for wall installation
- Holiday program with reduced temperature or date-controlled heating phase
- Optional pump protection function
- Optional feature to warn when boiler maintenance required

RAMSES 813 top2 HF Set A

- Consisting of a RAMSES 813 top2 HF and a REC 11 receiver with an NO contact 16 (2) A/250 V AC for wall installation

RAMSES 813 top2 HF Set S

- Consisting of a RAMSES 813 top2 HF and a REC 21 receiver as earthed intermediate connector with an NO contact 16 (2) A/230 V AC

RAMSES 813 top2 HF Set 1

- Consisting of a RAMSES 813 top2 HF and a REC 1 receiver (DIN rail mounting device) with a two-way switch 6 (2) A/250 V AC

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
Radio controlled	Weekly program	16 (2) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 813 top2 HF Set A	8139503
	Weekly program	16 (2) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 813 top2 HF Set S	8139505
	Weekly program	6 (1) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 813 top2 HF Set 1	8139501

Technical data

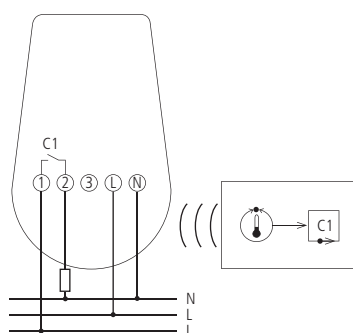
	RAMSES 813 top2 HF Set A	RAMSES 813 top2 HF Set S	RAMSES 813 top2 HF Set 1
Operating voltage	2 AA batteries		
Type of contact	NO contact		Changeover contact
Switching capacity	16 A (at 250 V AC, $\cos \varphi = 1$), 2 A (at 250 V AC, $\cos \varphi = 0.6$)		6 A (at 250 V AC, $\cos \varphi = 1$), 1 A (at 250 V AC, $\cos \varphi = 0.6$)
Setting range temperature	+6 °C ... +30 °C		
Time basis	Quartz		
Program	Weekly program, Daily program, Holiday program, 3 basic programs		
Number of memory locations	42, max. 24 per program		
Control types	Pulse width modulation, Hysteresis controller		
Control period	5–30 min		
Control capture range	0,2–5 K		
Switching output	Potential-free, not for SELV	Not potential-free	Potential-free
Time accuracy	$\leq \pm 1$ s/day (quartz)		
Power reserve	Max. 10 mins without losing time		
Stand-by consumption	1,9 W	1,1 W	1,7 W
Battery life	approx. 1 year, depending on switching frequency		
Width	see scale drawings		5 modules
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		

Accessories

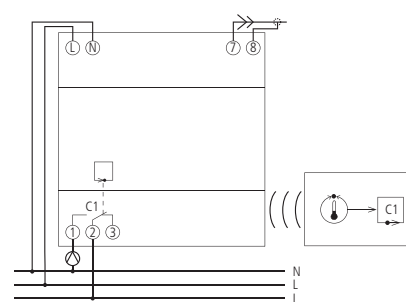
- Wall installation base RAMSES
Details ► Page 254
- Actuator ALPHA 4 230 V
Details ► Page 256
- Actuator ALPHA 4 24 V
Details ► Page 256
- Antenna RAMSES 813/833
Details ► Page 255

Connection diagrams

RAMSES 813 top2 HF Set A

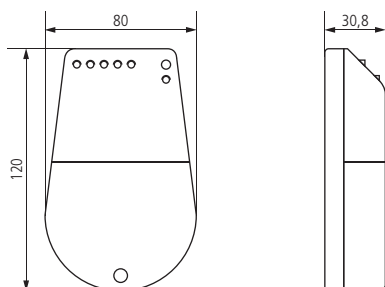


RAMSES 813 top2 HF Set 1

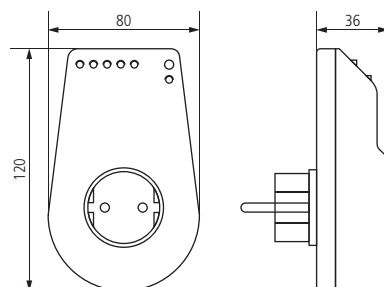


Scale drawings

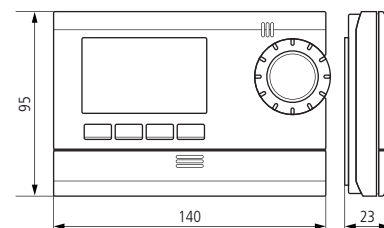
RAMSES 813 top2 HF Set A



RAMSES 813 top2 HF Set S



RAMSES 813 top2 HF Set 1



Digital clock thermostats – radio-controlled

RAMSES 833 top2 HF Set 1



RAMSES 833 top2 HF Set 2



Description

Common functions

- Radio-controlled system for room temperature control
- Suitable for energy-saving room temperature control in houses, apartments, heating zones, offices, showrooms, factories, medical practices, holiday homes
- The system consists of one or two digital clock thermostat and one receiver
- Required temperature set via the rotary dial
- INFO key for viewing important settings
- Quick start-up via 3 basic programs with individually changeable comfort and reduced temperature
- Party/ECO program
- Automatic summer/winter time adjustment
- Different control types can be individually set

- Optimum start option thanks to operating point and switching differential setting option
- 24 programmable time phases per program also enable reduction phases during the day
- Illuminated display via keystroke
- External input for connection of presence detectors, temperature sensors, floor sensors, window contacts or telephone remote switches (can only be used in connection with optional plug-in base for wall mounting)
- Optimisation function for automatic correction of heating start up
- Holiday program with reduction phase or date-controlled heating phase for holiday homes
- Optional feature to warn when boiler maintenance required
- Optional pump protection function

- 3 comfort and 2 reduced temperatures can be allocated to each phase
- Including base for free choice of position
- An optionally available plug-in base is required for wall installation

RAMSES 833 top2 HF Set 1

- Consisting of a RAMSES 833 top2 HF and a REC 1 receiver (DIN rail mounting device) with a two-way switch 6 (2) A/250 VDC

RAMSES 833 top2 HF Set 2

- Consisting of two RAMSES 833 top2 HF and a 2 channel REC 2 receiver (DIN rail mounting device) with a two-way switch 6 (2) A/250 VDC per channel

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
Radio controlled	Weekly program	6 (1) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 833 top2 HF Set 1	8339501
	Weekly program	6 (1) A	+6 °C ... +30 °C	2 AA batteries	RAMSES 833 top2 HF Set 2	8339502

Technical data

	RAMSES 833 top2 HF Set 1	RAMSES 833 top2 HF Set 2
Operating voltage	2 AA batteries	
Type of contact	Changeover contact	
Switching capacity	6 A (at 250 V AC, $\cos \varphi = 1$), 1 A (at 250 V AC, $\cos \varphi = 0.6$)	
Setting range temperature	+6 °C ... +30 °C	
Time basis	Quartz	
Program	Weekly program, Daily program, Holiday program, 3 basic programs	
Number of memory locations	42, max. 24 per program	
Control types	Pulse width modulation, Hysteresis controller	
Control period	5–30 min	
Control capture range	0,2–5 K	
Switching output	Potential-free, not for SELV	
Time accuracy	$\leq \pm 1$ s/day (quartz)	
Power reserve	Max. 10 mins without losing time	
Stand-by consumption	1,7 W	2,2 W
Battery life	approx. 1 year, depending on switching frequency	
Width	5 modules	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

Actuator ALPHA 4 230 V

- Art.No.: 9070438
Details ► Page 256



Temperature sensor

- Art.No.: 9070321
Details ► Page 255

Temperature sensor RAMSES
IP 65

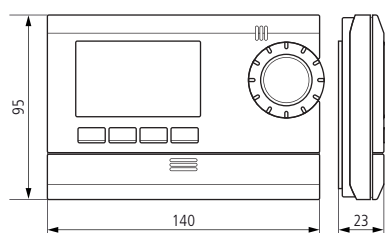
- for RAMSES 833 top2 HF Set 1
- Art.No.: 9070459
Details ► Page 255



Additional accessories

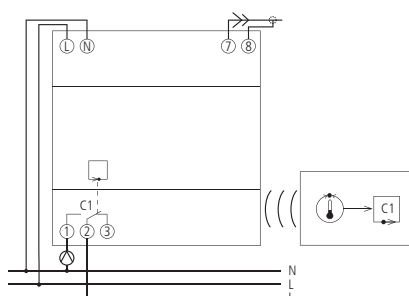
- Wall installation base RAMSES
Details ► Page 254
- Antenna RAMSES 813/833
Details ► Page 255
- Actuator ALPHA 4 24 V
Details ► Page 256

Scale drawings

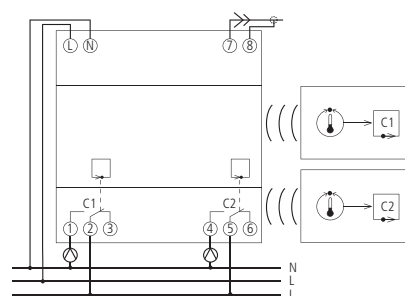


Connection diagrams

RAMSES 833 top2 HF Set 1



RAMSES 833 top2 HF Set 2



Digital OpenTherm mixer controller – RAMSES 816 top2 OT



Description

- Digital mixer control
- 3 different weekly programs
- 3 comfort and 2 reduced temperatures can be allocated to each zone
- INFO button for the most important data
- Party/ECO program
- Chimney sweeping function with push button OT box
- Minimum boiler temperature can be set
- 2-stage burner control option
- Holiday program with reduced temperature or date-controlled heating phase can be programmed e. g. for holiday homes
- USB interface for modem
- Automatic summer/winter time adjustment
- Control of feed temperature via motor-controlled mixer
- 3-point controller with feed sensor
- Pump protection function
- Inputs: External sensor, feed sensor heating circuit (contained in set)
- Elapsed-time counter for recording relay switching times e.g. burner operating time
- Adjustable reminder function for heater maintenance

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
2-way conductor (BUS) room controller	Weekly program	2 x 2 (1) A, 1 x 1 (1) A	+6 °C ... +30 °C	230 V AC	RAMSES 816 top2 OT	8169132

Technical data

RAMSES 816 top2 OT			
Operating voltage	230 V AC	Number of memory locations	42, max. 24 per program
Frequency	50 Hz	Switching hysteresis	2–20 K
Type of contact	NO contact	Mixer runtime	2–10 min
Switching capacity	2 x 2 (1) A Relay, 1 x 1 (1) A Relay	Switching output	NO contact
Setting range temperature	+6 °C ... +30 °C	Power reserve	4 hours
Flow temperature limit	+40 °C ... +90 °C	Stand-by consumption	1,1 W
Type of connection	2-way conductor (BUS) room controller	Type of protection	IP 20
Program	Weekly program	Protection class	II according to EN 60 730-1

Accessories

Temperature sensor RAMSES IP 65

- Art.No.: 9070459
Details ► Page 255



Flow temperature sensor RAMSES

- Art.No.: 9070371
Details ► Page 255

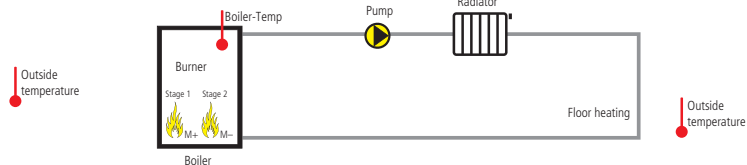
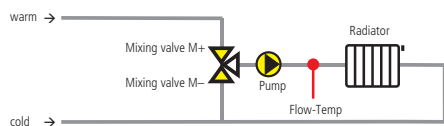


Plunge sensor RAMSES

- Art.No.: 9070379
Details ► Page 256



Connection diagrams



Digital OpenTherm heating controller – RAMSES 856 top2 OT



Description

- Digital heating control for time-dependent monitoring and control of room temperature
- Open Therm heating controller for 2 or 3 point control, weather-dependent, service water and circulation control
- Automatic sensor recognition for weather- or room-dependent control; can be switched manually at any time
- 3 different weekly programs
- 3 comfort and 2 reduced temperatures can be allocated to each phase.
- INFO button for the most important data
- Additional switching program for domestic hot water utilisation times
- Adjustable service water storage temperature, programmable legionella protection
- Party/ECO program
- Chimney sweeping function with push button OT box
- Minimum boiler temperature can be set
- 2 heating curves can be set for 2 heating circuits
- 2-stage burner control option
- Holiday program with reduced temperature or date-controlled heating phase can be programmed e. g. for holiday homes
- Remote control option via USB interface for modem
- Automatic summer/winter time adjustment
- Boiler/feed temperature (control circuit 1) controlled by switching the burner
- Control of feed temperature (control circuit 2) via pump control or motor-controlled mixer
- 3-point controller with feed sensor
- Time- and temperature-dependent control of hot water circulation pump.
- Pump protection function
- Inputs: External sensor (contained in set), feed sensor heating circuit (contained in set), contact or immersion sensor for domestic hot water, contact sensor for circulation
- Elapsed-time counter for recording relay switching times e.g. burner operating time
- Adjustable reminder function for heater maintenance

Product selection

Type of connection	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
2-way conductor (BUS) room controller	Weekly program	5 x 5 (1) A, 2 x 1 (1) A	+6 °C ... +30 °C	230 V AC	RAMSES 856 top2 OT	8569132

Technical data

RAMSES 856 top2 OT			
Operating voltage	230 V AC	Number of memory locations	42, max. 24 per program
Frequency	50 Hz	Switching hysteresis	2–20 K
Type of contact	NO contact	Mixer runtime	2–10 min
Switching capacity	5 x 5 (1) A Relay, 2 x 1 (1) A Relay	Switching output	NO contact
Setting range temperature	+6 °C ... +30 °C	Power reserve	4 hours
Flow temperature limit	+40 °C ... +90 °C	Stand-by consumption	1,1 W
Type of connection	2-way conductor (BUS) room controller	Type of protection	IP 20
Program	Weekly program	Protection class	II according to EN 60 730-1

Accessories

Temperature sensor RAMSES IP 65

- Art.No.: 9070459
Details ► Page 255



Flow temperature sensor RAMSES

- Art.No.: 9070371
Details ► Page 255



OT-Box Standard

- Art.No.: 9070712
Details ► Page 255

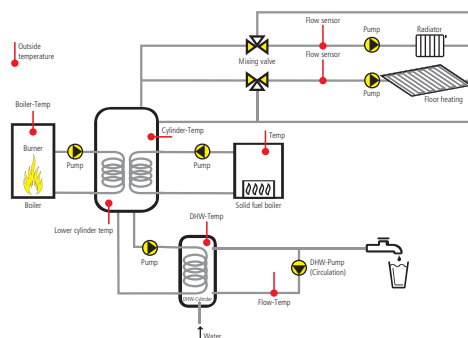
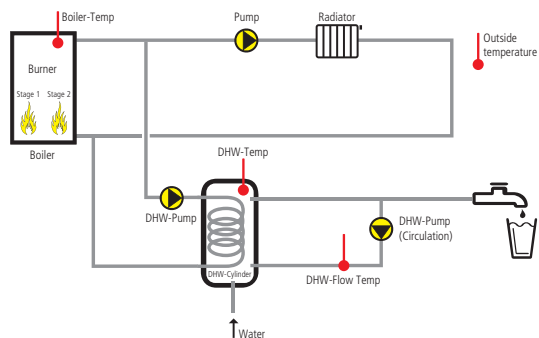
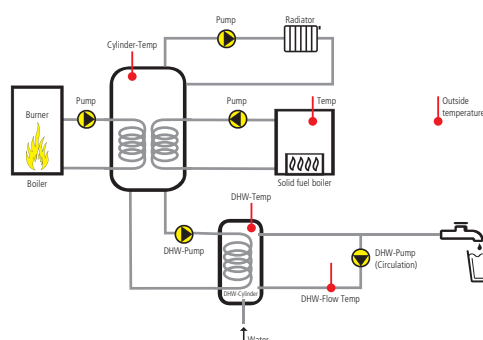
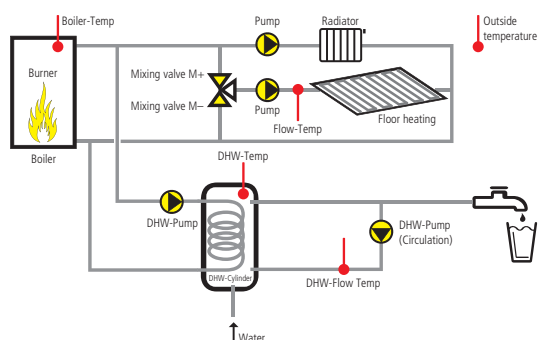


Plunge sensor RAMSES

- Art.No.: 9070379
Details ► Page 256



Connection diagrams



Digital clock thermostats – zone control

RAMSES 366/1 top



RAMSES 366/2 top



Description

Common functions

- Digital clock thermostat with a low profile design for time-dependent monitoring and control of room temperature
- Daily/weekly program can be set to the minute
- Date-controlled holiday program
- Programming displayed graphically by a bar arrangement in the LCD
- Fully automatic summer/winter-time correction

- Manual switching pre-selection and operation mode selector for: Automatic mode, comfort mode, reduction mode, frost protection mode
- PIN coding
- Connection for telephone remote control for switching to comfort mode or frost protection mode
- LED display of active operating status as well as relay status

RAMSES 366/1 top

- Zone control, 1 zone
- 1 external temperature sensor required

RAMSES 366/2 top

- Zone control, 2 zones
- 2 external temperature sensors required

Product selection

Number of channels	Program	Switching capacity at 250 V AC	Setting range temperature	Operating voltage	Type	Article number
1	Weekly program	10 (2) A	+6 °C ... +30 °C	230 V AC	RAMSES 366/1 top	3660002
2	Weekly program	10 (2) A	+6 °C ... +30 °C	230 V AC	RAMSES 366/2 top	3660052

Technical data

	RAMSES 366/1 top	RAMSES 366/2 top
Operating voltage	230 V AC	
Frequency	50–60 Hz	
Type of contact	Changeover contact	
Switching capacity	10 A (at 250 V AC, $\cos \varphi = 1$), 2 A (at 250 V AC, $\cos \varphi = 0.6$)	
Setting range temperature	+6 °C ... +30 °C	
Time basis	Quartz	
Program	Weekly program, Daily program, Holiday program	
Number of memory locations	42, max. 24 per program	
Switching output	Potential-free	
Time accuracy	$\leq \pm 1$ s/day (quartz)	
Power reserve	10 years	
Stand-by consumption	1,3 W	
Width	6 modules	
Type of protection	IP 20	
Protection class	II, Sensor III	

Accessories

External temperature sensor 1

- Art.No.: 9070191
Details ► Page 255



External temperature sensor 2

- Art.No.: 9070192
Details ► Page 255



Actuator ALPHA 4 230 V

- Art.No.: 9070438
Details ► Page 256



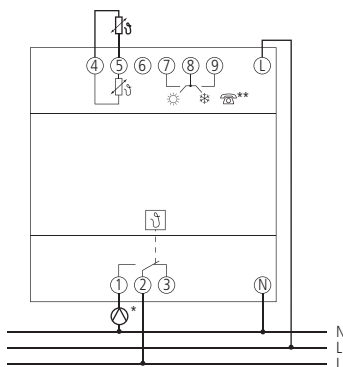
Actuator ALPHA 4 24 V

- Art.No.: 9070439
Details ► Page 256

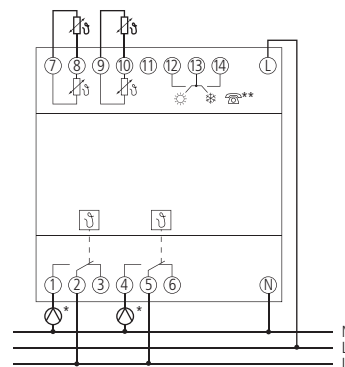


Connection diagrams

RAMSES 366/1 top



RAMSES 366/2 top



Analogue clock thermostats – segments

RAMSES 784 S



Description

Common functions

- Analogue clock thermostat with a low profile design for time-dependent monitoring and control of room temperature
- Segment program disc with daily program
- Electronic temperature control
- Selector switch for operating mode: continuous reduced temperature, continuous normal temperature, automatic mode, frost and plant protection +6 °C
- Normal and reduced temperature can be set separately
- Operating point and electronic recirculation are set from the front
- Party switch and program display

RAMSES 784 S

- Battery version
- Quartz mechanism
- Battery monitoring with battery replacement indicator via flashing LED
- Silting and pump protection function (option)

RAMSES 722 S

- Mains version
- Synchronous motor drive

Product selection

Power reserve	Type of connection	Program	Type of contact	Setting range temperature	Operating voltage	Type	Article number
—	2/3-way conductors	Daily program	Changeover contact	+10 °C ... +30 °C	2 AA batteries	RAMSES 784 S	7840801
	3-/4-conductors	Daily program	Changeover contact	+10 °C ... +30 °C	230 V AC	RAMSES 722 S	7220801

Technical data

	RAMSES 784 S	RAMSES 722 S
Operating voltage	2 AA batteries	230 V AC
Frequency	–	50 Hz
Type of contact	Changeover contact	
Program	Daily program	
Switching capacity	6 A (at 250 V AC, $\cos \varphi = 1$), 1 A (at 250 V AC, $\cos \varphi = 0.6$)	
Switching differential	0,4–1,2 K	
Switching output	Potential-free	Potential-free, not for SELV
Setting range temperature	+10 °C ... +30 °C	
Shortest switching times	15 min	
Programmable every	15 min	
Time accuracy	$\leq \pm 1$ s/day (quartz)	Synchronised with mains
Power reserve	–	
Stand-by consumption	1,1 W	1,3 W
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

Actuator ALPHA 4 230 V

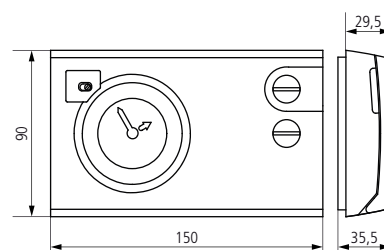
- Art.No.: 9070438
Details ► Page 256



Additional accessories

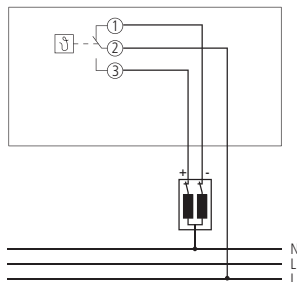
- Actuator ALPHA 4 24 V
Details ► Page 256
- Adapter RAMSES 72x/78x
Details ► Page 254

Scale drawings

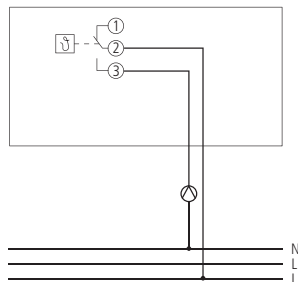


Connection diagrams

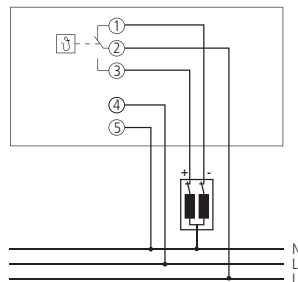
RAMSES 784 S



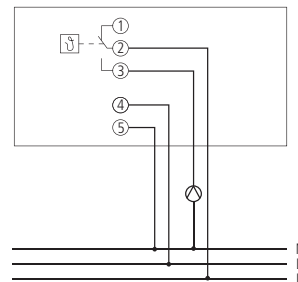
RAMSES 784 S



RAMSES 722 S



RAMSES 722 S



Analogue clock thermostats – tappets

RAMSES 784



RAMSES 784 HF Set 1



RAMSES 721



Description

Common functions

- Analogue clock thermostat with a low profile design for time-dependent monitoring and control of room temperature
- Normal and reduced temperature can be set separately
- Operating point and electronic recirculation are set from the front
- Party switch and program display
- Electronic temperature control
- Selector switch for operating mode: continuous reduced temperature, continuous normal temperature, automatic mode, frost and plant protection +6 °C

RAMSES 784

- Battery version (can also be used for retrofitting purposes via 2-wire connection)
- Tappet program disc with daily or weekly program
- Electronic temperature control

- Quartz mechanism
- Battery monitoring with battery replacement indicator via flashing LED
- Silting and pump protection function (option)

RAMSES 784 HF Set 1

- Radio-controlled system for room temperature control
- Consisting of one analogue clock thermostat RAMSES 784 HF and one REC 1 receiver (DIN rail mounting device) with a two-way switch 6 (1) A/250 V DC
- RAMSES 784 battery version
- Receiver REC 1 (DIN rail mounting device, 5 modules) mains version

RAMSES 722

- Mains version
- Tappet program disc with daily or weekly program
- Synchronous motor drive

RAMSES 782

- Mains version
- Tappet program disc with daily or weekly program
- Quartz mechanism, 3 day power reserve

RAMSES 721

- Mains version
- Tappet program disc with daily program
- Synchronous motor drive
- Reduced temperature approx. 5 K lower in relation to the set comfort temperature
- Without selector switch

RAMSES 725

As RAMSES 722, but:

- Tappet program disc with daily or weekly program
- Central control of reduced temperature as per time program

Product selection

Power reserve	Type of connection	Program	Type of contact	Setting range temperature	Operating voltage	Type	Article number
–	2/3-way conductors	Daily/weekly program	Changeover contact	+10 °C ... +30 °C	2 AA batteries	RAMSES 784	7840030
	Radio controlled	Daily/weekly program	Changeover contact	+10 °C ... +30 °C	2 AA batteries	RAMSES 784 HF Set 1	7849407
	3-/4-wa conductors	Daily/weekly program	Changeover contact	+10 °C ... +30 °C	230 V AC	RAMSES 722	7220030
3 days	3-/4-wa conductors	Daily/weekly program	Changeover contact	+10 °C ... +30 °C	230 V AC	RAMSES 782	7820030
–	3-/4-wa conductors	Daily program	Changeover contact	+10 °C ... +30 °C	230 V AC	RAMSES 721	7210030
		Daily/weekly program	Changeover contact	+10 °C ... +30 °C	230 V AC	RAMSES 725	7250030

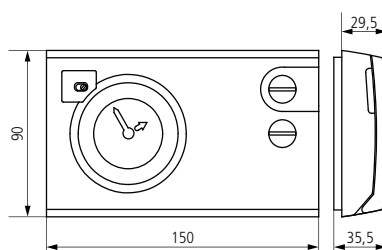
Technical data

	RAMSES 784	RAMSES 784 HF Set 1	RAMSES 722	RAMSES 782	RAMSES 721	RAMSES 725
Operating voltage	2 AA batteries		230 V AC			
Frequency	–		50 Hz	50–60 Hz	50 Hz	
Type of contact	Changeover contact					
Program	Daily/weekly program				Daily program	Daily/weekly program
Switching capacity	6 A (at 250 V AC, cos ϕ = 1), 1 A (at 250 V AC, cos ϕ = 0.6)					
Switching differential	0,4–1,2 K		0–1,2 K	0,4–1,2 K	1,5 K	
Switching output	Potential-free		Potential-free, not for SELV			
Setting range temperature	+10 °C ... +30 °C					
Shortest switching times	20 min, 120 min				20 min	20 min, 120 min
Programmable every	5 min, 30 min				5 min	5 min, 30 min
Time accuracy	≤ ± 1 s/day (quartz)		Synchronised with mains	≤ ± 1 s/day (quartz)	Synchronised with mains	
Power reserve	–			3 days	–	
Stand-by consumption	1,1 W	1,7 W	1,3 W	1,1 W	1,3 W	1,4 W
Type of protection	IP 20					
Protection class	II according to EN 60 730-1					

Accessories

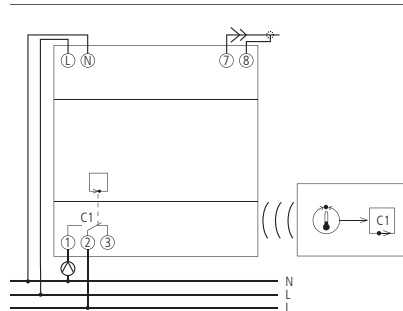
- Actuator ALPHA 4 230 V
Details ► Page 256
- Actuator ALPHA 4 24 V
Details ► Page 256
- Adapter RAMSES 72x/78x
Details ► Page 254
- Antenna RAMSES 813/833
Details ► Page 255

Scale drawings



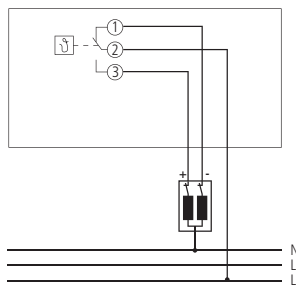
Connection diagram

RAMSES 784 HF Set 1

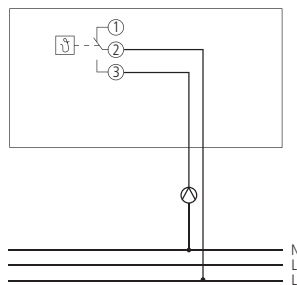
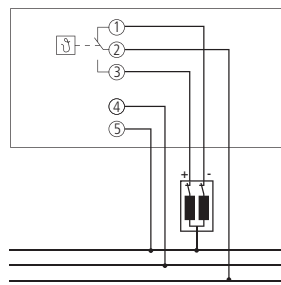
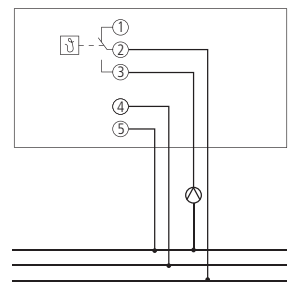


Connection diagrams

RAMSES 784



RAMSES 784

RAMSES 722, RAMSES 782,
RAMSES 721, RAMSES 725RAMSES 722, RAMSES 782,
RAMSES 721, RAMSES 725



100 % growth.

Here at Theben, we take the training of every young person very seriously and we see it as an investment in the future rather than a tiresome duty. Therefore, we have doubled the number of apprenticeships in the past year. This new generation of qualified and motivated employees will ensure we maintain our long-term position as: An innovative company that thinks and acts sustainably.

	Type of connection	Switching capacity at 230 V AC	Type of contact	Operating voltage	Installation type	Type	Page
Mechanical							
	2/3-way conductors	10 (4) A	NC contact	230–240 V AC	Surface-mounted	RAMSES 701	164
	3-/4-wa conductors	10 (4) A	NC contact	230–240 V AC	Surface-mounted	RAMSES 702	164
						RAMSES 703	164
						RAMSES 704	164
						RAMSES 705	164
	4/5-way conductor	10 (4) A	NC contact	230–240 V AC	Surface-mounted	RAMSES 706	164
						RAMSES 707	164
	3-/4-wa conductors	Heating: 10 (4) A Cooling: 5 (2) A	Changeover contact	230–240 V AC	Surface-mounted	RAMSES 708	164
	4/5-way conductor	Heating: 10 (4) A Cooling: 5 (2) A	Changeover contact	230–240 V AC	Surface-mounted	RAMSES 709	164
	2/3-way conductors	10 (4) A	NC contact	230–240 V AC	Flush-mounted	RAMSES 741	166
	4/5-way conductor	10 (4) A	NC contact	230–240 V AC	Flush-mounted	RAMSES 746	166
	3-/4-wa conductors	Heating: 10 (4) A Cooling: 5 (1) A	Changeover contact	230–240 V AC	Flush-mounted	RAMSES 748	166
	2/3-way conductors	10 (4) A	NC contact	230–240 V AC	Flush-mounted	RAMSES 741 RA	166
	4/5-way conductor	10 (4) A	NC contact	230–240 V AC	Flush-mounted	RAMSES 746 RA	166
	3-/4-wa conductors	Heating: 10 (4) A Cooling: 5 (1) A	Changeover contact	230–240 V AC	Flush-mounted	RAMSES 748 RA	166
Electronic							
	2/3-way conductors	8 A	NC contact	230 V AC	Surface-mounted	RAMSES 714	168
	4/5-way conductor	16 A	NC contact	230 V AC	Surface-mounted	RAMSES 714 A	168
	5-way conductor	16 (4) A	NO contact	230 V AC	Flush-mounted	RAMSES 751 RA	168

Mechanical room thermostats – Surface-mounted

RAMSES 701



RAMSES 706



RAMSES 707



Description

Common functions

- Room temperature controller with thermal feedback
- Suitable for all types of heating, e.g. gas, water, electric heating with central/individual room control
- Setting controller with mechanical setting limit or detection

RAMSES 701

see common functions

RAMSES 702

- Integrated temperature reduction (approx. 4 K) possible via control with time switch

RAMSES 703

- Internal setting: Temperature cannot be set externally. Temperature is set inside the device at start-up
- Integrated temperature reduction (approx. 4 K) possible via control with time switch

RAMSES 704

- Switch for additional heating ON/OFF + indicator lamp

RAMSES 705

- Switch for heating ON/OFF

RAMSES 706

- Switch for heating ON/OFF + indicator lamp
- Integrated temperature reduction (approx. 4 K) possible via control with time switch

RAMSES 707

- Switch for heating ON/OFF
- Switch for additional heating ON/OFF + indicator lamp

RAMSES 708

- Also suitable for air conditioning equipment
- Heating/cooling changeover contact

RAMSES 709

- Also suitable for air conditioning equipment
- Heating/cooling changeover contact
- 3-way selector switch for: comfort mode, reduction mode, external reduction
- Indicator lamp
- External temperature reduction (approx. 4 K) possible via control with time switch

Product selection

Type of connection	Type of contact	Switching capacity at 230 V AC	Setting range temperature	Operating voltage	Type	Article number
2/3-way conductors	NC contact	10 (4) A	+5 °C ... +30 °C	230–240 V AC	RAMSES 701	7010001
3-/4-way conductors	NC contact	10 (4) A	+5 °C ... +30 °C	230–240 V AC	RAMSES 702	7020001
					RAMSES 703	7030001
					RAMSES 704	7040001
					RAMSES 705	7050001
					RAMSES 706	7060001
4/5-way conductor	NC contact	10 (4) A	+5 °C ... +30 °C	230–240 V AC	RAMSES 707	7070001
3-/4-way conductors	Changeover contact	Heating: 10 (4) A Cooling: 5 (2) A	+5 °C ... +30 °C	230–240 V AC	RAMSES 708	7080001
4/5-way conductor	Changeover contact	Heating: 10 (4) A Cooling: 5 (2) A	+5 °C ... +30 °C	230–240 V AC	RAMSES 709	7090001

Technical data

	RAMSES 701–707	RAMSES 708–709
Operating voltage	230–240 V AC	
Frequency	50–60 Hz	
Type of contact	NC contact	Changeover contact
Switching capacity	10 A (at 230 V AC, $\cos \varphi = 1$), 4 A (at 230 V AC, $\cos \varphi = 0.6$)	Heating: 10 A (at 230 V AC, $\cos \varphi = 1$), 4 A (at 230 V AC, $\cos \varphi = 0.6$) Cooling: 5 A (at 230 V AC, $\cos \varphi = 1$), 2 A (at 230 V AC, $\cos \varphi = 0.6$)
Setting range temperature	+5 °C ... +30 °C	
Control accuracy	approx. 1 K, thermal recirculation	
Test approval		
Colour	Pure white (similar to RAL 9010)	
Installation type	Surface-mounted	
Type of protection	IP 30	
Protection class	II according to EN 60 730-1	

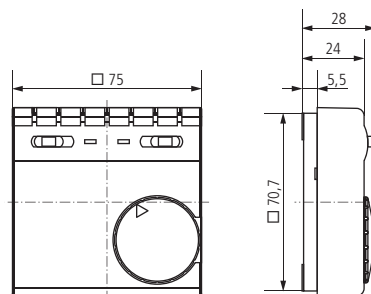
Accessories

Adapterplatte RAMSES 70x

- Art.Nr.: 9070480
Details ► Seite 254

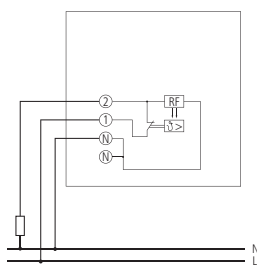


Scale drawings

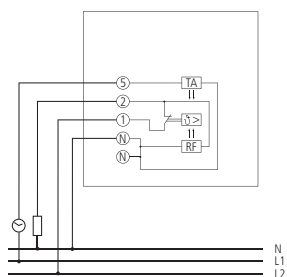


Connection diagrams

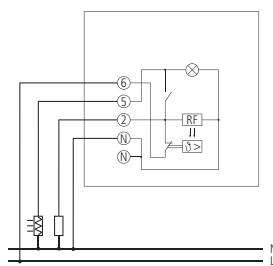
RAMSES 701



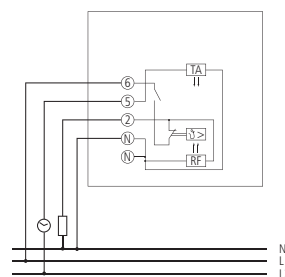
RAMSES 702, RAMSES 703



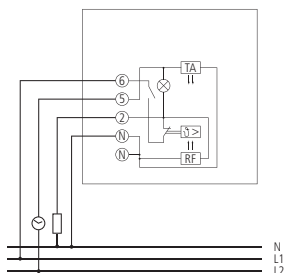
RAMSES 704



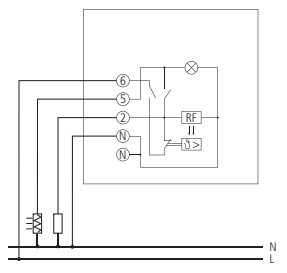
RAMSES 705



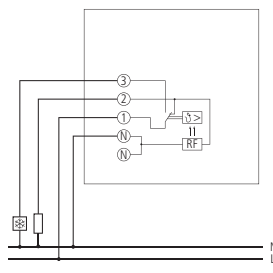
RAMSES 706



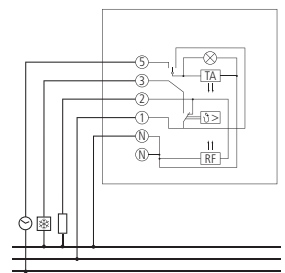
RAMSES 707



RAMSES 708



RAMSES 709



Mechanical room thermostats – Flush-mounted

RAMSES 741



RAMSES 741 RA



RAMSES 746 RA



Description

Common functions

- Room temperature controller with thermal feedback
- Central part fits nearly all frames using an adapter frame from the switch manufacturer
- Ideal controller for refurbished and new build properties

RAMSES 741

- Supplied as replacement device without frame, central part and setting button, incl. protective cap
- Frame, central part and setting button available as accessories

RAMSES 746

- Switch for heating ON/OFF + indicator lamp
- Supplied as replacement device without frame, central part and setting button, incl. protective cap
- Frame, central part and setting button available as accessories

RAMSES 748

- Heating/cooling two-way switch
- Supplied as replacement device without frame, central part and setting button, incl. protective cap
- Frame, central part and setting button available as accessories

RAMSES 741 RA

- With frame, central part and setting button

RAMSES 746 RA

- With frame, central part and setting button
- Switch for heating ON/OFF + indicator lamp

RAMSES 748 RA

- Heating/cooling two-way switch
- With frame, central part and setting button

Product selection

Operating voltage	Setting range temperature	Scope of delivery	Type of connection	Type of contact	Switching capacity at 230 V AC	Type	Article number
230–240 V AC	+5 °C ... +30 °C	Without cover	2/3-way conductors	NC contact	10 (4) A	RAMSES 741	7410130
			4/5-way conductor	NC contact	10 (4) A	RAMSES 746	7460130
			3-/4-way conductors	Changeover contact	Heating: 10 (4) A Cooling: 5 (1) A	RAMSES 748	7480130
		With cover	2/3-way conductors	NC contact	10 (4) A	RAMSES 741 RA	7410131
			4/5-way conductor	NC contact	10 (4) A	RAMSES 746 RA	7460131
			3-/4-way conductors	Changeover contact	Heating: 10 (4) A Cooling: 5 (1) A	RAMSES 748 RA	7480131

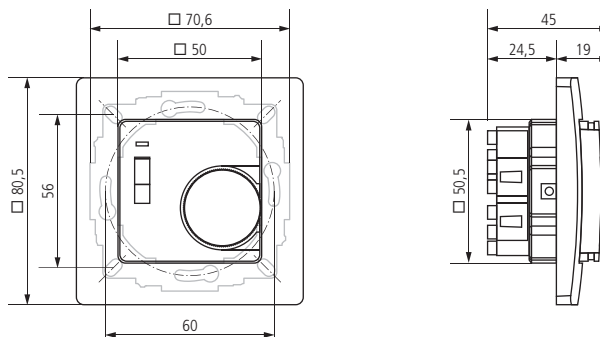
Technical data

	RAMSES 741	RAMSES 746	RAMSES 748	RAMSES 741 RA	RAMSES 746 RA	RAMSES 748 RA
Operating voltage	230–240 V AC					
Frequency	50–60 Hz					
Type of contact	NC contact		Changeover contact	NC contact		Changeover contact
Switching capacity	10 A (at 230 V AC, cos φ = 1), 4 A (at 230 V AC, cos φ = 0.6)		Heating: 10 A (at 230 V AC, cos φ = 1), 4 A (at 230 V AC, cos φ = 0.6) Cooling: 5 A (at 230 V AC, cos φ = 1), 1 A (at 230 V AC, cos φ = 0.6)	10 A (at 230 V AC, cos φ = 1), 4 A (at 230 V AC, cos φ = 0.6)		Heating: 10 A (at 230 V AC, cos φ = 1), 4 A (at 230 V AC, cos φ = 0.6) Cooling: 5 A (at 230 V AC, cos φ = 1), 1 A (at 230 V AC, cos φ = 0.6)
Setting range temperature	+5 °C ... +30 °C					
Control accuracy	approx. 0.5 K, thermal recirculation					
Test approval						
Colour	—			Brilliant pure white (similar to RAL 9010)		
Installation type	Flush-mounted					
Type of protection	—			IP 30		
Protection class	II according to EN 60 730-1					

Accessories

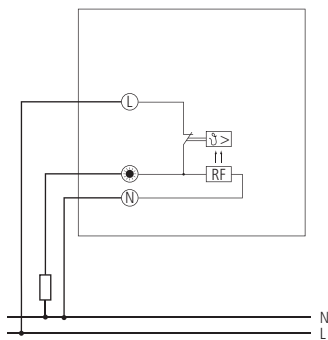
- Central part RAMSES 741/748
Details ► Page 256
- Central part RAMSES 746
Details ► Page 257
- Frame RAMSES 74x
Details ► Page 256

Scale drawings

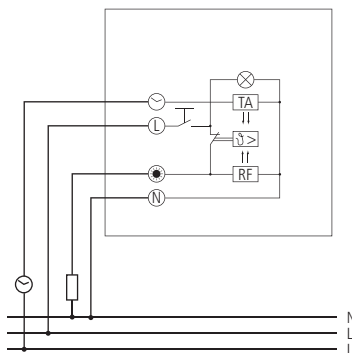


Connection diagrams

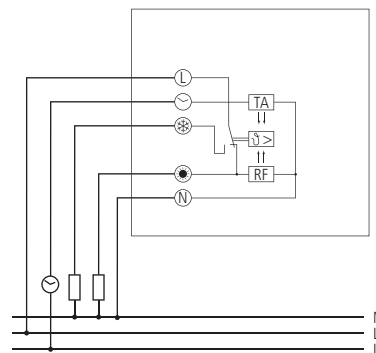
RAMSES 741, RAMSES 741 RA



RAMSES 746, RAMSES 746 RA



RAMSES 748, RAMSES 748 RA



Electronic room thermostats

RAMSES 714



RAMSES 714 A



RAMSES 751 RA



Description

RAMSES 714

- Electronic room thermostats for all types of heating, e.g. gas, water, electric heating etc.
- Individual room control possible in combination with Theben actuators
- Heating status display via LED
- External temperature reduction (approx. 3.5 K) is possible via control with time switch. Temperature reduction can be cut to 2 K by opening a wire bridge

RAMSES 714 A

As RAMSES 714, but:

- External temperature sensor for underfloor heating (wet rooms or bathroom heating)
- Switchable for the connection of available NTC sensors (33 K Ω /25 °C)
- Switch for heating ON/OFF

RAMSES 751 RA

- Electronic room thermostat with remote temperature sensor for underfloor heating control
- Display of temperature reduction and heating ON
- 2-pole mains switch for heating ON/OFF
- Emergency mode for sensor malfunction at 30 % heating
- Central part fits nearly all frames using an adapter frame from the switch manufacturer

Product selection

Type of connection	Type of contact	Switching capacity at 230 V AC	Setting range temperature	Installation type	Type	Article number
2/3-way conductors	NC contact	8 A	+5 °C ... +30 °C	Surface-mounted	RAMSES 714	7140002
4/5-way conductor	NC contact	16 A	+10 °C ... +60 °C	Surface-mounted	RAMSES 714 A	7140016
5-way conductor	NO contact	16 (4) A	+10 °C ... +50 °C	Flush-mounted	RAMSES 751 RA	7510131

Technical data

	RAMSES 714	RAMSES 714 A	RAMSES 751 RA
Operating voltage	230 V AC		
Frequency	50 Hz		
Type of contact	NC contact		NO contact
Switching output	Not potential-free		Potential-free
Switching capacity	8 A (at 230 V AC, cos φ = 1)	16 A (at 230 V AC, cos φ = 1)	16 A (at 230 V AC, cos φ = 1), 4 A (at 230 V AC, cos φ = 0.6)
Setting range temperature	+5 °C ... +30 °C	+10 °C ... +60 °C	+10 °C ... +50 °C
Control accuracy	± 0.25 K	± 0.5 K	
Control behaviour	—		Proportional controller with PWM (continuous type)
Colour	Pure white (similar to RAL 9010)		

	RAMSES 714	RAMSES 714 A	RAMSES 751 RA
Installation type	Surface-mounted		Flush-mounted
Max. cable length	–	Length 4 m, Ø 6 mm, (IP 54)	Length 4 m, Ø 6 mm, extendable to 50 m
Ambient temperature	–		0 °C ... +40 °C
Type of protection	IP 20		IP 30
Protection class	II according to EN 60 730-1		

Accessories

Actuator ALPHA 4 230 V

- Art.No.: 9070438
Details ► Page 256



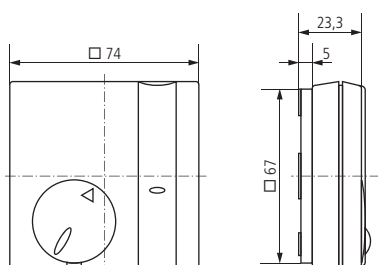
Adapter plate RAMSES 714

- for RAMSES 714, RAMSES 714 A
- Art.No.: 9070212
Details ► Page 254

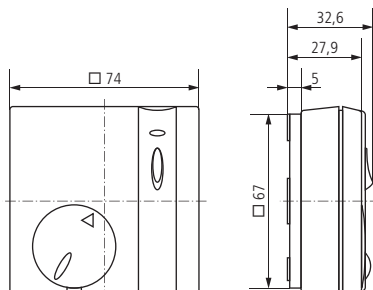


Scale drawings

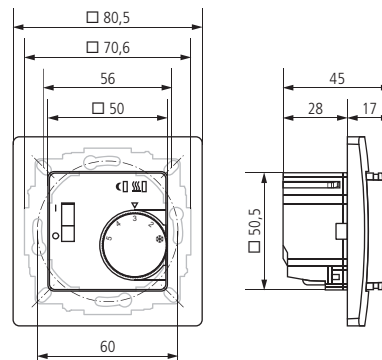
RAMSES 714



RAMSES 714 A

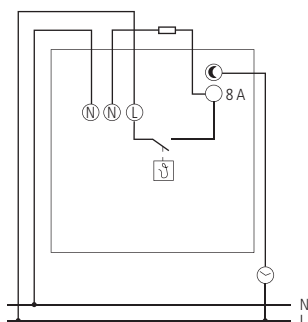


RAMSES 751 RA

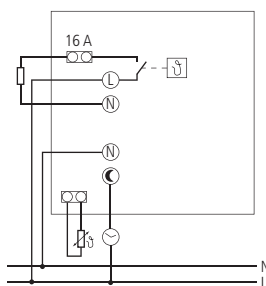


Connection diagrams

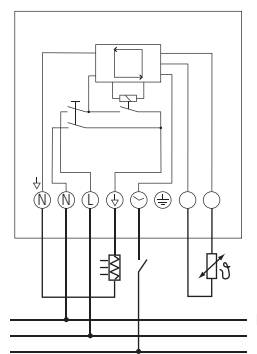
RAMSES 714, RAMSES 714 A



RAMSES 714 A



RAMSES 751 RA



Zero emissions.

Energy efficiency, environmental responsibility and sustainability are not just important in our range of products. These tenets are firmly anchored in our company policy: In addition to a solar power system and heat pumps for climatizing the production section, we have recently introduced our first zero emission electric company car.

	Description	Type	Page
CO₂ sensor			
	CO ₂ sensor for ventilation control and monitoring of air quality in the room with switch and analog outputs	AMUN 716 R	172
Hygostat			
	Hygostat for wall installation for control of humidifiers or ventilation and dehumidifier systems	SOTHIS 715	173

Air Quality Sensor – AMUN 716 R



Description

- Combined CO₂, Temperature and Humidity sensor
- Suitable for conference and meeting rooms, offices, schools/nurseries, passive and low-energy housing
- For fan control
- Warning display for CO₂ concentration (lights)
- Power unit optionally available. Power unit is suitable for flush mounted installation
- Simple upgrade of uncontrolled ventilation systems possible
- 2 switch outputs CO₂ controlled for 2 stage control, with manual and automatic mode as well as display of switching status
- 3 x 0–10 V outputs for CO₂, temperature and relative humidity

Product selection

Measuring range	Data interface	Display	Operating voltage	Protection class	Type	Article number
0–2000 ppm	3 x 0–10 V, 2 x relay 5 A/250 V AC	6 LEDs	24 V AC/DC	II	AMUN 716 R	7160101

Technical data

AMUN 716 R			
Operating voltage	24 V AC/DC SELV	Type of connection	Screw terminals
Outputs	3 x 0–10 V, 2 x relay 5 A/250 V AC	Display	6 LEDs
Measuring range CO ₂	0–2000 ppm	Installation type	Wall installation (also on flush-mounted socket possible)
Measuring range temperature	+5 °C ... +40 °C	Type of protection	IP 20
Measuring range humidity	30–80 % rF	Protection class	II according to EN 60 730-1
Hysteresis	±75 ppm		
ON/OFF thresholds	700 ppm ±200 ppm, 1300 ppm ±200 ppm		

Accessories

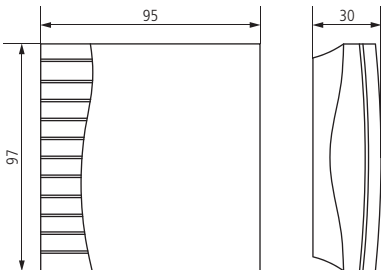
Power unit CO2-sensor

- Art.No.: 9070494
Details ► Page 257



Scale drawings

AMUN 716 R



Hygrostat – SOTHIS 715



Description

- Hygrostat for wall installation
- Measurement of relative humidity
- Suitable for control of humidifiers or ventilation and dehumidifier systems
- Use SELV when there is a risk of high humidity and the build up of condensation

Product selection

Measuring range	Type of contact	Switching capacity humidifier	Switching capacity dehumidifying	Type	Article number
35–100 % rF	Changeover contact	2 A	5 A	SOTHIS 715	7150002

Technical data

SOTHIS 715			
Switching capacity dehumidifying	5 A	Installation type	Wall installation
Switching capacity humidifier	2 A	Type of protection	IP 30
Suitable for SELV	Yes	Protection class	II according to EN 60 730-1
Colour	Pure white (similar to RAL 9010)		

Accessories

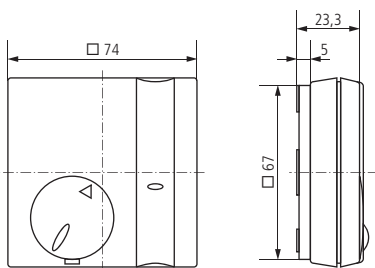
Adapter plate RAMSES 714

- Art.No.: 9070212
- Details ▶ Page 254



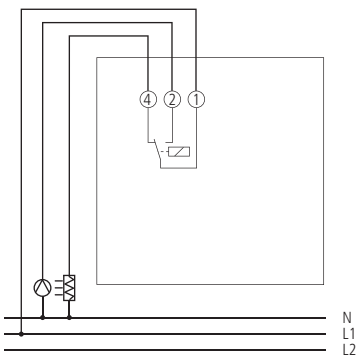
Scale drawings

SOTHIS 715



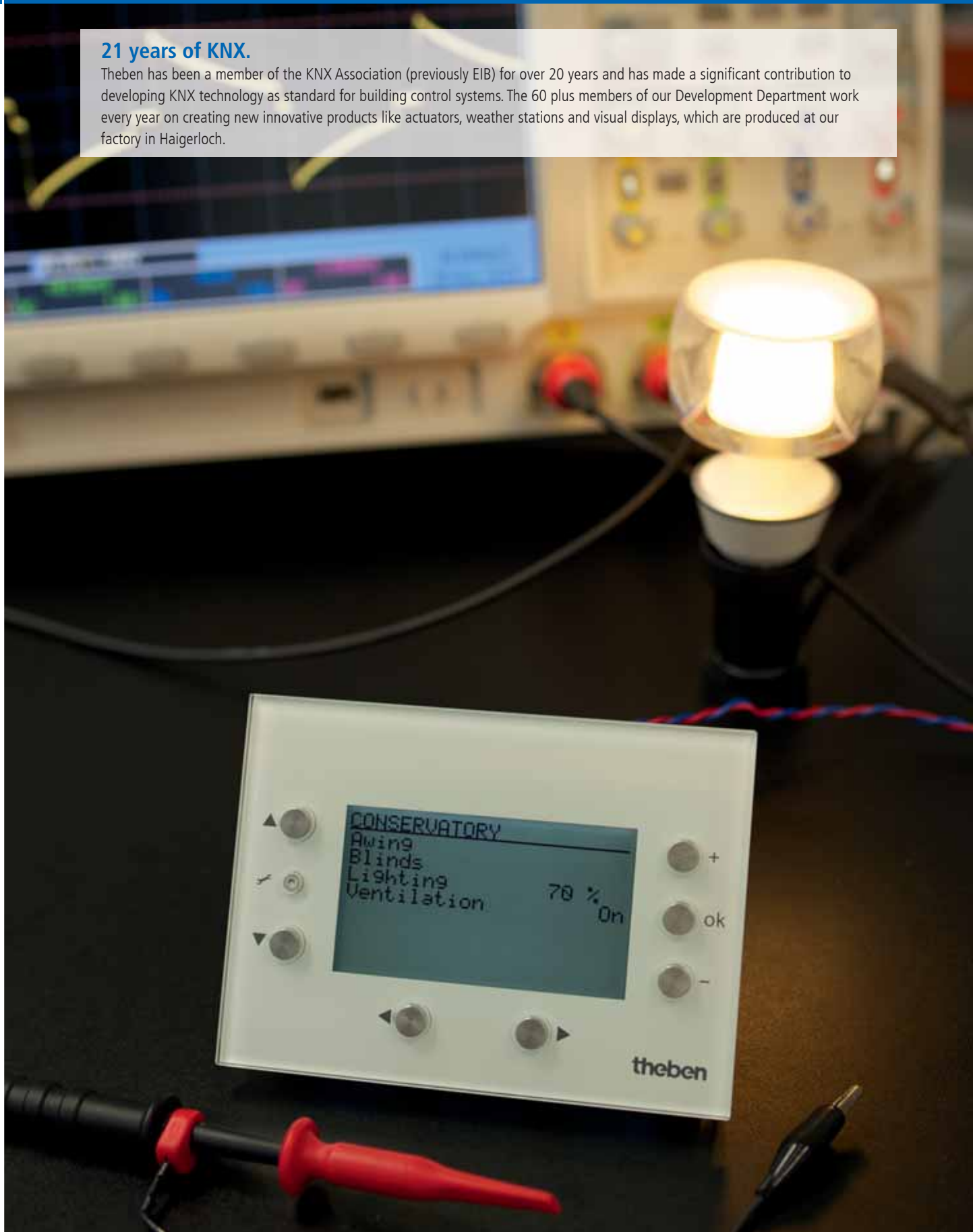
Connection diagram

SOTHIS 715



21 years of KNX.

Theben has been a member of the KNX Association (previously EIB) for over 20 years and has made a significant contribution to developing KNX technology as standard for building control systems. The 60 plus members of our Development Department work every year on creating new innovative products like actuators, weather stations and visual displays, which are produced at our factory in Haigerloch.



Chapter summary

	Description	Type	Page
Switching actuators			
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Dimming actuators			
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	Universal dimming actuators 2–6 channels MIX2/MIX	DMG 2 T KNX/DME 2 T KNX/DMG 2 S KNX/DME 2 S KNX	182
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	Blinds actuators 4–12 channels MIX	JMG 4 S KNX/JME 4 S KNX	186
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	Multifunction display and room thermostats	VARIA 826 KNX/RAMSES 713 S KNX/RAMSES 712 KNX	189
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	KNX-OpenTherm-Gateway	KNX-OT-Box	223
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	Time signal transmitter	ZS 600 DF KNX	219
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	KNX indoor clocks	OSIRIA	226

Switching actuators C-load 4–12 channels MIX2

RMG 4 I KNX



RME 4 I KNX



Description

Common functions

- 4-way C load switching actuator MIX2
- With current recognition
- For higher lamp loads
- Up to two extension modules MIX or MIX2 can be connected to one Base module
- Device and KNX bus module can be swapped independently of each other

- Removable KNX bus module enables devices to be changed without reprogramming
- Manual set-up and use of switching actuators is possible without KNX bus module
- LED switching status display for each channel
- Manual operation on device (even without bus connection)
- Switching functions: On/Off, pulse, On/Off delay, staircase light with warning

- Logical links: e.g. lock, AND, release, OR

RMG 4 I KNX

- Base module MIX2
- Can be upgraded to maximum of 12 channels

RME 4 I KNX

- Extension module MIX2
- For extending to maximum of 12 channels

Product selection

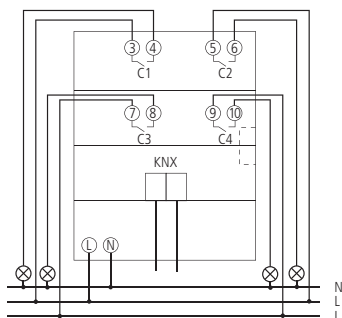
Type	Article number
RMG 4 I KNX	4930210
RME 4 I KNX	4930215

Technical data

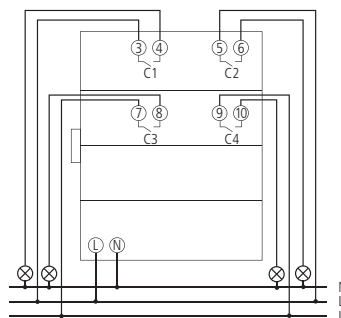
	RMG 4 I KNX	RME 4 I KNX
Operating voltage KNX	Bus voltage, $\leq 10 \text{ mA}$	—
Operating voltage	110–240 V AC	
Frequency	45–65 Hz	
Stand-by consumption	1,3 W	0 W
Width	4 modules	
Type of contact	NO contact, 16 A (at 250 V AC, $\cos \varphi = 1$), 10 A (at 250 V AC, $\cos \varphi = 0,6$)	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

RMG 4 I KNX



RME 4 I KNX



Switching actuators 8–24 channels MIX2

RMG 8 S KNX



RME 8 S KNX



Description

Common functions

- 8-way switching actuator MIX2
- Up to two extension modules MIX or MIX2 can be connected to one Base module
- Device and KNX bus module can be swapped independently of each other
- Removable KNX bus module enables devices to be changed without reprogramming

- Manual set-up and use of switching actuators is possible without KNX bus module
- LED switching status display for each channel
- Manual operation on device (even without bus connection)
- Switching functions: On/Off, pulse, On/Off delay, staircase light with warning
- Logical links: e.g. lock, AND, release, OR

RMG 8 S KNX

- Base module MIX2
- Can be upgraded to maximum of 24 channels

RME 8 S KNX

- Extension module MIX2
- For extending to maximum of 24 channels

Product selection

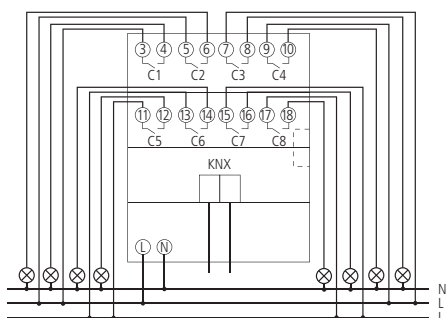
Type	Article number
RMG 8 S KNX	4930220
RME 8 S KNX	4930225

Technical data

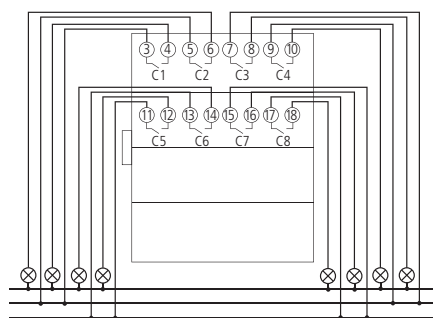
	RMG 8 S KNX	RME 8 S KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	—
Operating voltage	110–240 V AC	—
Frequency	45–65 Hz	—
Stand-by consumption	0,3 W	—
Width	4 modules	
Type of contact	NO contact, 16 A (at 250 V AC, $\cos \varphi = 1$), 3 A (at 250 V AC, $\cos \varphi = 0,6$)	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

RMG 8 S KNX



RME 8 S KNX



Switching actuators C-load 4–12 channels MIX

RMG 4 C-Load KNX



RME 4 C-Load KNX



Description

Common functions

- 4-way C load switching actuator MIX
- For higher lamp loads
- Up to 2 extension modules can be connected to a Base module
- Can be combined with all MIX series devices

- Free combination of switches, dimming, blinds and heating control as well as binary inputs
- LED switching status display for each channel
- Manual switch with On/Off/Bus settings (also without bus voltage)
- Switching functions: e.g. On/Off, pulse, On/Off delay, staircase light with warning

- Logical links: e.g. lock, AND, release, OR

RMG 4 C-Load KNX

- Base module MIX
- Can be upgraded to maximum of 12 channels

RME 4 C-Load KNX

- Extension module MIX
- For extending to maximum of 12 channels

Product selection

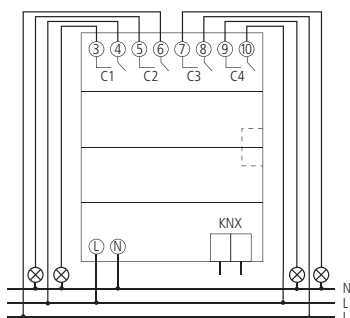
Type	Article number
RMG 4 C-Load KNX	4910206
RME 4 C-Load KNX	4910207

Technical data

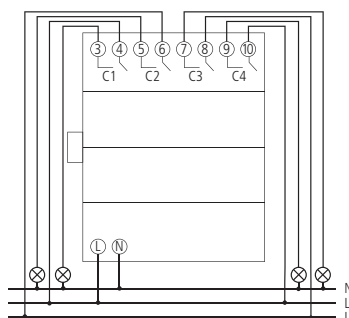
	RMG 4 C-Load KNX	RME 4 C-Load KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	–
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	2 W	
Width	4 modules	
Type of contact	NO contact, 16 A (at 250 V AC, cos ϕ = 1), 16 A (at 250 V AC, cos ϕ = 0,6)	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

RMG 4 C-Load KNX



RME 4 C-Load KNX



Switching actuators 4–12 channels MIX

RMG 4 S KNX



RME 4 S KNX



Description

Common functions

- 4-way switching actuator MIX
- Up to 2 extension modules can be connected to a Base module
- Can be combined with all MIX series devices
- Free combination of switches, dimming, blinds and heating control as well as binary inputs

- LED switching status display for each channel
- Manual switch with On/Off/Bus settings (also without bus voltage)
- Switching functions: e.g. On/Off, pulse, On/Off delay, staircase light with warning
- Logical links: e.g. lock, AND, release, OR

RMG 4 S KNX

- Base module MIX
- Can be upgraded to maximum of 12 channels

RME 4 S KNX

- Extension module MIX
- For extending to maximum of 12 channels

Product selection

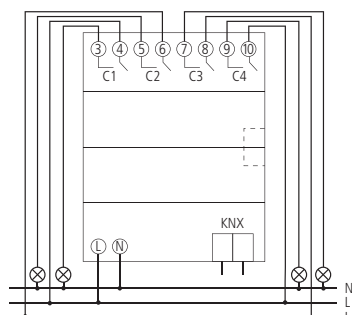
Type	Article number
RMG 4 S KNX	4910204
RME 4 S KNX	4910205

Technical data

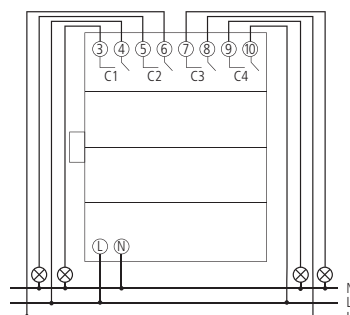
	RMG 4 S KNX	RME 4 S KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	—
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	1,3 W	
Width	4 modules	
Type of contact	NO contact, 16 A (at 250 V AC, $\cos \varphi = 1$), 10 A (at 250 V AC, $\cos \varphi = 0,6$)	
Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

RMG 4 S KNX



RME 4 S KNX



Switch or blind actuators 4–16 channels

RMG 8 KNX



RME 8 KNX



Description

Common functions

- 4- way blind or 8-way switching actuator
- Flexible channel function selection: As switching actuator or for controlling drives for blinds, shutters, sun and vision protection devices, skylights and ventilation flaps
- Manual operation on device
- LED switching status display on device
- Manual switch for Up / Down or for Switching On / Off (also without bus voltage)
- Optimised repetition accuracy of programmed lamella positions
- Slip correction when moving from bottom to top
- No referencing required

RMG 8 KNX

- Base module
- Can be upgraded to maximum of 8 blind or 16 switching outputs

RME 8 KNX

- Extension module
- For extending to maximum of 8 blind or 16 switching outputs

Product selection

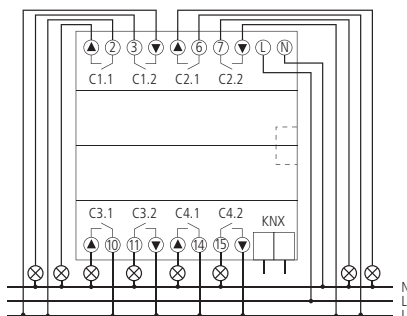
Type	Article number
RMG 8 KNX	4900251
RME 8 KNX	4900252

Technical data

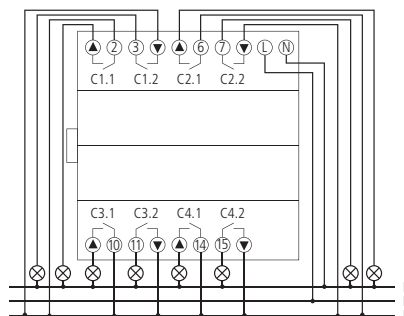
	RMG 8 KNX	RME 8 KNX
Operating voltage KNX	Bus voltage, $\leq 8 \text{ mA}$	—
Operating voltage	230–240 V AC	
Frequency	50 Hz	
Stand-by consumption	1,6 W	1,2 W
Width	6 modules	
Type of contact	NO contact, 10 A (at 250 V AC, $\cos \varphi = 1$), 6 A (at 250 V AC, $\cos \varphi = 0,6$)	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

RMG 8 KNX



RME 8 KNX



Switch or blind actuators 4–16 channels – 1–10 V

SMG 2 S KNX



SME 2 S KNX



Description

Common functions

- 2-way 1–10 V control unit MIX
- Free combination of switches, dimming, blinds and heating control as well as binary inputs
- Switching and dimming of lighting circuits in combination with electronic ballasts (EBs and ballasts LED)
- 1–10 V inputs and one switch output (relay contact) per channel
- Indicator of switching status display for each channel
- Manual switch with On/Off/Bus settings (also without bus voltage)
- With crossover switching to spare the relay contact

SMG 2 S KNX

- Base module MIX
- Can be upgraded to maximum of 6 channels

SME 2 S KNX

- Extension module MIX
- For extending to maximum of 6 channels

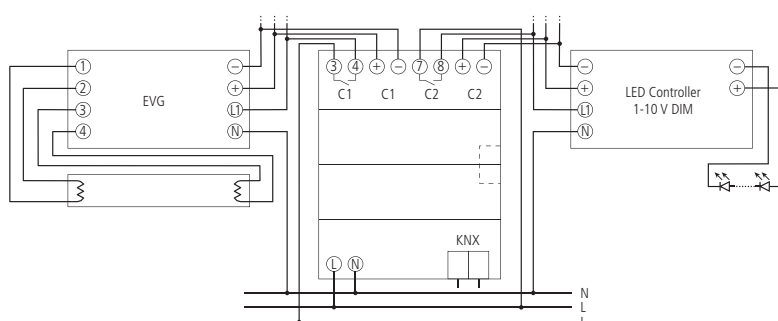
Product selection

Type	Article number
SMG 2 S KNX	4910273
SME 2 S KNX	4910274

Technical data

	SMG 2 S KNX	SME 2 S KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	–
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	1,6 W	
Width	4 modules	
Type of contact	NO contact, 16 A (at 250 V AC, $\cos \varphi = 1$), 10 A (at 250 V AC, $\cos \varphi = 0,6$)	
Incandescent/halogen lamp load	2500 W	
Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams



Universal dimming actuators 2–6 channels MIX2

DMG 2 T KNX



DME 2 T KNX



DMB 1 T KNX



Description

Common functions

- 2-way universal dimmer actuator MIX2
- For dimming dimmable LED, incandescent lamps, LV, HV halogen lamps and energy saving lamps
- Also suitable for controlling fans
- Up to two extension modules MIX or MIX2 can be connected to one base module
- Device and KNX bus module can be swapped independently of each other
- Removable KNX bus module enables devices to be changed without reprogramming
- Manual set-up and use of switching actuators is possible without KNX bus module

- Indicator of switching status display for each channel
- Manual operation on device (even without bus connection)
- Dimming output: up to 1 x 400 W/VA per channel or 800 W/VA in parallel operation
- If the DMB 1 T KNX „Dimbooster“ is used, the dimming output can be upgraded to max. 300 W/VA. Output to a maximum of 2000 W/VA by using max. 4 boosters possible
- Automatic load detection (can be deactivated)
- For R, L and C loads

DMG 2 T KNX

- Base module MIX2
- Can be upgraded to maximum of 6 channels

DME 2 T KNX

- Extension module MIX2
- For extending to maximum of 6 channels

DMB 1 T KNX

- 1 channel dimming output extension module „Dimbooster“
- For extending the output of basic and extension dimming actuators up to 300 W/VA per booster. Extending output to a maximum of 2000 W/VA by using max. 4 boosters possible

Product selection

Type	Article number
DMG 2 T KNX	4930270
DME 2 T KNX	4930275
DMB 1 T KNX	4930279

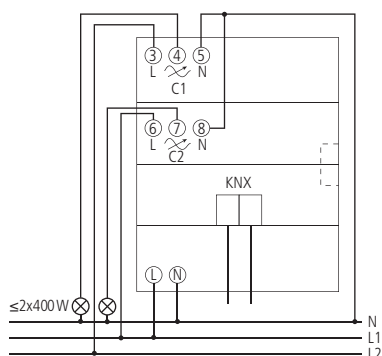
Technical data

	DMG 2 T KNX	DME 2 T KNX	DMB 1 T KNX
Operating voltage KNX	Bus voltage, ≤10 mA		
Operating voltage	230 V AC		
Frequency	50 Hz		
Stand-by consumption	0,9 W	0,6 W	0,2 W
Width	4 modules		1 module
Lamp types	Incandescent, low-voltage and high-voltage halogen and dimmable energy saving lamps and LED		Incandescent, low-voltage and high-voltage halogen and LED
Switching capacity per channel	400 W		300 W/VA
Switching capacity in parallel operation	800 W		–

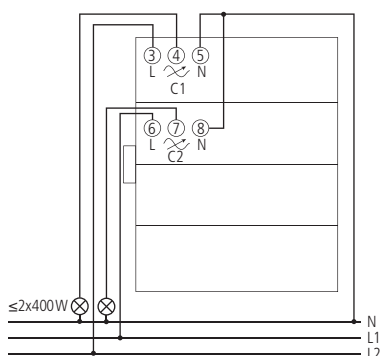
	DMG 2 T KNX	DME 2 T KNX	DMB 1 T KNX
Switching capacity dimmable energy saving lamps per channel	80 W		–
Switching capacity dimmable energy saving lamps in parallel operation	140 W		–
Switching capacity dimmable 230 V LED per channel	60 W		45 W
Switching capacity dimmable 230 V LED in parallel operation	120 W		45 W
Switching capacity min.	5 W		
Ambient temperature	–5 °C ... +45 °C		
Type of protection	IP 20		
Protection class	II according to EN 60 669		

Connection diagrams

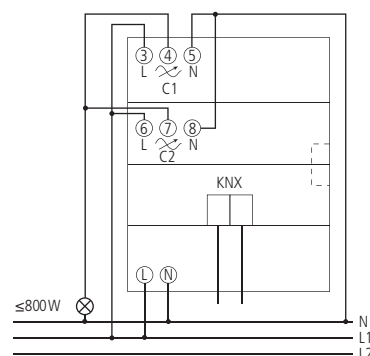
DMG 2 T KNX



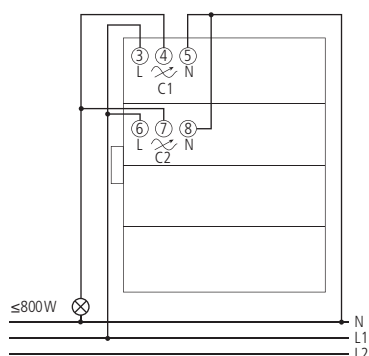
DME 2 T KNX



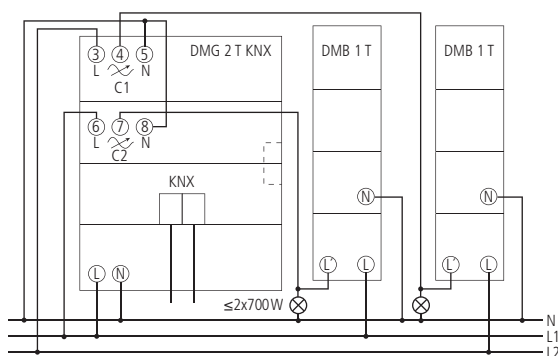
DMG 2 T KNX



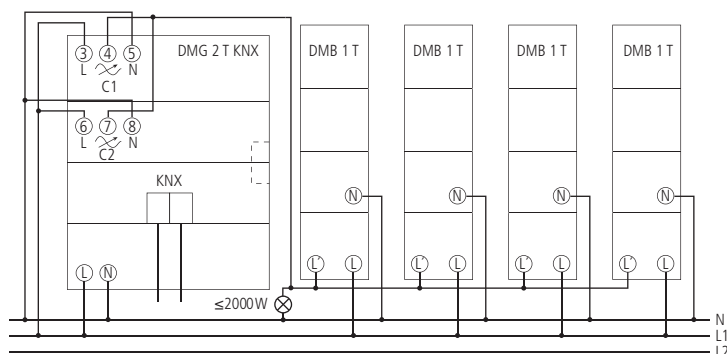
DME 2 T KNX



DMG 2 T KNX, DMB 1 T KNX



DMG 2 T KNX, DMB 1 T KNX



Universal dimming actuators 2–6 channels MIX

DMG 2 S KNX



DME 2 S KNX



DMB 2 S KNX



Description

Common functions

- 2-way universal dimmer actuator MIX
- For dimming incandescent lamps, LV and HV halogen lamps
- Also suitable for dimming of dimmable energy-saving lamps
- Also suitable for controlling fans
- Up to 2 extension modules can be connected to a Base module.
- Can be combined with all MIX series devices
- Free combination of switches, dimming, blinds and heating control as well as binary inputs

- Dimming output: 2 x 300 W/VA or 1 x 500 W/VA
- If the DMB 2 S KNX 'Dimbooster' is used, the dimming output per device can be doubled to: 2 x 600 W/VA or 1 x 1,000 W/VA
- LED switching status display for each channel
- Manual switch with On/Off/Bus settings (also without bus voltage)
- Automatic load detection (can be deactivated)

DMG 2 S KNX

- Base module MIX

- Can be upgraded to maximum of 6 channels

DME 2 S KNX

- Extension module MIX
- For extending to maximum of 6 channels

DMB 2 S KNX

- 2 channel dimming output extension module "Dimbooster"
- To double the output of basic and extension dimming actuators modules. e.g. to: 2 x 600 W/VA (2 channels) or 1 x 1,000 W/VA (1 channel)

Product selection

Type	Article number
DMG 2 S KNX	4910270
DME 2 S KNX	4910271
DMB 2 S KNX	4910272

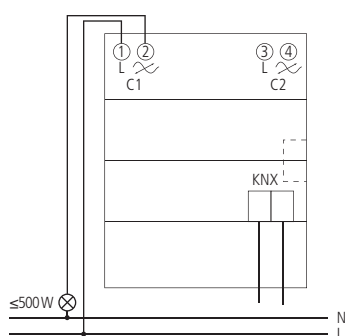
Technical data

	DMG 2 S KNX	DME 2 S KNX	DMB 2 S KNX
Operating voltage KNX	Bus voltage, ≤10 mA	–	
Operating voltage	230 V AC		
Frequency	50 Hz		
Stand-by consumption	0,5 W		0,8 W
Width	4 modules		
Lamp types	Incandescent, low-voltage and high-voltage halogen and dimmable energy saving lamps		Incandescent, low-voltage and high-voltage halogen lamps
Switching capacity per channel	300 W/VA		Upgrade to 600 W/VA
Switching capacity in parallel operation	500 W/VA		Upgrade to 1000 W/VA

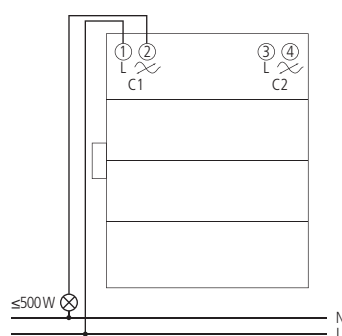
	DMG 2 S KNX	DME 2 S KNX	DMB 2 S KNX
Switching capacity min.	20 W/VA, 7 W/VA (ESL)		300 W
Switching capacity energy saving lamps	max. 2 x 60 W oder 1 x 100 W		–
Ambient temperature	–5 °C ... +45 °C		
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		

Connection diagrams

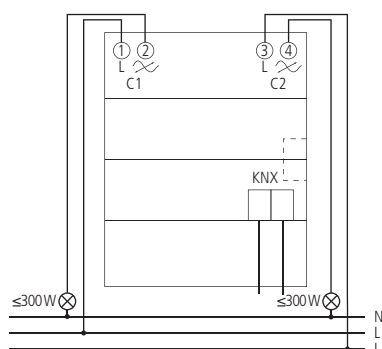
DMG 2 S KNX



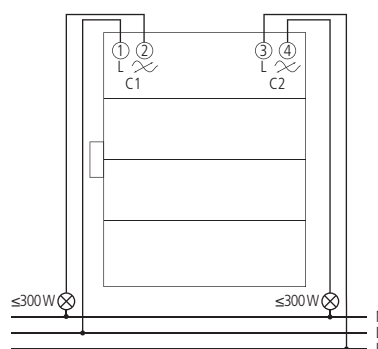
DME 2 S KNX



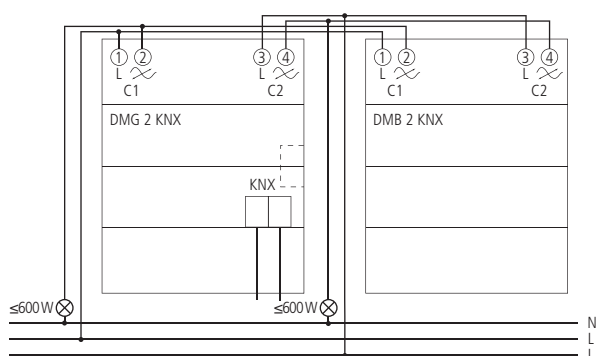
DMG 2 S KNX



DME 2 S KNX



DMB 2 S KNX



Blind actuators 4–12 channels MIX

JMG 4 S KNX



JME 4 S KNX



Description

Common functions

- 4-way blind actuator MIX
- Can be upgraded to maximum of 12 channels
- For controlling drives for blinds, shutters, sun and vision protection devices, skylights and ventilation flaps
- Up to 2 extension modules can be connected to a Base module

- Can be combined with all MIX series devices
- Free combination of switches, dimming, blinds and heating control as well as binary inputs
- Manual operation on device (even without bus connection)
- LED Up and Down switching status display for each channel

- Potential-free contacts for Up and Down per channel
- Setting option for phase sequence and running time of drives
- Copy function for fast configuration

JMG 4 S KNX

- Base module MIX

JME 4 S KNX

- Extension module MIX

Product selection

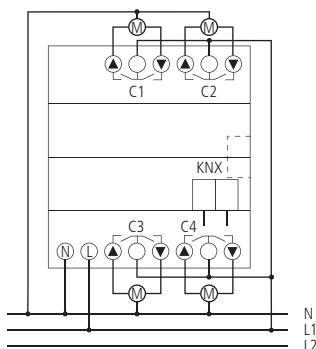
Type	Article number
JMG 4 S KNX	4910250
JME 4 S KNX	4910251

Technical data

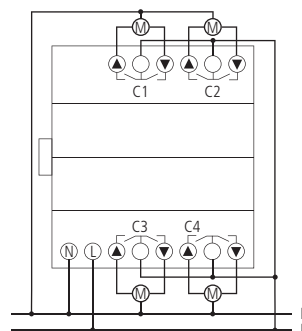
	JMG 4 S KNX	JME 4 S KNX
Operating voltage KNX	Bus voltage, ≤ 8 mA	—
Operating voltage	230 V AC	
Stand-by consumption	1,6 W	
Frequency	50 Hz	
Width	4 modules	
Type of contact	NO contact, 3 A	
Ambient temperature	−5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

JMG 4 S KNX



JME 4 S KNX



Binary inputs 4–18 channels MIX

BMG 6 KNX



BME 6 KNX



Description

Common functions

- 6-way binary input MIX
- Multi-voltage input 8-250 AC/DC or auxiliary supply from device (approx. 18V AC / 20mA)
- Potential-free inputs
- Up to 2 extension modules can be connected to a Base module
- Can be combined with all MIX series devices

- Free combination of switches, dimming, blinds and heating control as well as binary inputs
- All inputs can be operated with different voltages
- Free allocation of functions: Switch/key, dimming, blinds, valuator, counter
- LED switching status display for each input

BMG 6 KNX

- Base module MIX
- Can be upgraded to maximum of 18 channels

BME 6 KNX

- Extension module MIX
- For extending to maximum of 18 channels

Product selection

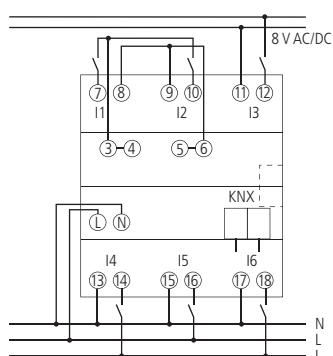
Type	Article number
BMG 6 KNX	4910230
BME 6 KNX	4910231

Technical data

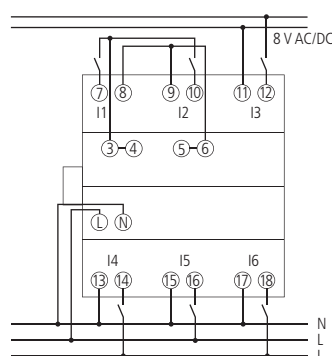
	BMG 6 KNX	BME 6 KNX
Operating voltage KNX	Bus voltage, ≤10 mA	–
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	0,3 W	
Width	4 modules	
Voltage inputs	8–250 V AC/DC 3 mA	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Connection diagrams

BMG 6 KNX



BME 6 KNX



Binary inputs for flush-mounted sockets

TA 2 KNX



TA 4 KNX



TA 6 KNX



Description

Common functions

- Binary input/binary output sensor interfaces
- Can be installed in flush-mounted sockets with conventional sensors/switches
- Free allocation of functions: Switch/key, dimming, blinds, valuator

- Inputs can be reconfigured to outputs: binary input: potential-free contact/binary output: 1 mA (low current) (LED 1 mA types)
- Colour coding of wiring pairs
- Grooves on side of housing for switch/sensor clamps

TA 2 KNX

- 2-way key interface

- 4-pole cable connection

TA 4 KNX

- 4-way key interface
- 8-pole cable connection

TA 6 KNX

- 6-way key interface
- 8-pole cable connection

Product selection

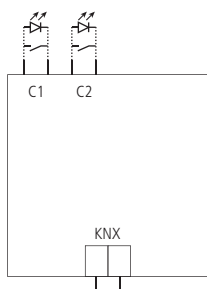
Type	Article number
TA 2 KNX	4969202
TA 4 KNX	4969204
TA 6 KNX	4969206

Technical data

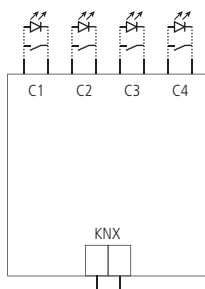
	TA 2 KNX	TA 4 KNX	TA 6 KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA		
Length connecting wires	25 cm		
Output configuration LED	Low current 1 mA (LED 1 mA types) without series resistor		
Contact voltage	3,3 V		
Contact current	0,5 mA		
Interface extension max.	5 m		
Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$		
Type of protection	IP 20		
Protection class	III		

Connection diagrams

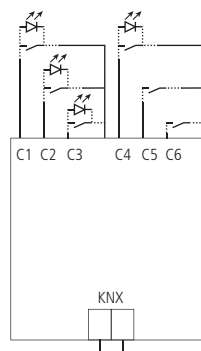
TA 2 KNX



TA 4 KNX



TA 6 KNX



Multifunction display

VARIA 826 BK KNX



VARIA 826 WH KNX



Description

Common functions

- Multi-functional display with room thermostat
- Glass front in white or black
- Freely configurable for displaying and controlling functions e.g. light settings, sun protection systems
- Illuminated display and integrated timer
- For control and regulation of heating, fan coils, air conditioning systems
- Up to 7 different display pages
- Can also be operated without 230 V connection (double power consumption from bus system)
- Automatic summer/winter time adjustment with power reserve
- Controls up to 8 rooms via own temperature profiles
- Weekly time switch with 8 channels with up to 3 different statuses, e.g. for light, shutters, fans etc.
- 3 heating programs
- Alternative continuous or on/off control
- Operation modes: comfort, stand-by, temperature reduction at night, frost protection
- Weather data from Theben weather stations can be displayed
- Free choice of programming via the ETS without plug-in
- Installation in flush-mounted socket

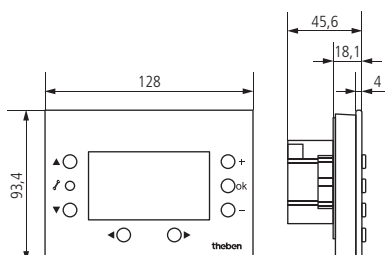
Product selection

Colour	Type	Article number
Glass front in white	VARIA 826 WH KNX	8269200
Glass front in black	VARIA 826 BK KNX	8269201

Technical data

	VARIA 826 KNX
Operating voltage KNX	Bus voltage, ≤ 8 mA
Operating voltage	230 V AC
Frequency	50 Hz
Stand-by consumption	0,4 W
Power reserve	1,5 years
Display	Display with 132 x 72 points (8 lines with various functions) e.g. title, switching, dimming, blinds/shutters, % value, HVAC, counter value, temperature, 2-byte value, 8/16 bit counter value etc.
Ambient temperature	0 °C ... +45 °C
Type of protection	IP 20
Protection class	II according to EN 60 730-1

Scale drawings



Individual room thermostat – RAMSES 713 S KNX



Description

- Individual room thermostat
- For controlling heating actuators or motorised actuators
- Can be used as a continuous or two point control (can also be combined).
- Continuous PI control can be configured for 2 stage heating (basic and additional stage, e. g. underfloor heating and radiators) or for heating and cooling (radiators and cooling surfaces)
- Two rotary controls are included in delivery: a numerical scale (mounted) and a relative scale (enclosed)
- Rotary control can be limited mechanically or via parameters
- Manual override button for presence or operation modes: comfort, stand-by, temperature reduction at night, frost protection
- 3 binary inputs for conventional switches/sensors (switching, dimming, blinds), also for external temperature sensor, window contact or presence signal
- Temperature sensor can be connected to give remote temperature reading
- LED (red) for heating mode, (blue) for cooling mode
- With integrated bus coupling unit

Product selection

Type	Article number
RAMSES 713 S KNX	7139201

Technical data

RAMSES 713 S KNX			
Operating voltage KNX	Bus voltage, ≤ 10 mA	Setting range temperature	$+10^{\circ}\text{C} \dots +28^{\circ}\text{C}$
Ambient temperature	$0^{\circ}\text{C} \dots +50^{\circ}\text{C}$	Type of protection	IP 20
Measuring range temperature	$0^{\circ}\text{C} \dots +40^{\circ}\text{C}$	Protection class	II according to EN 60 730-1

Accessories

External temperature sensor 1

- Art.No.: 9070191
- Details ► Page 255



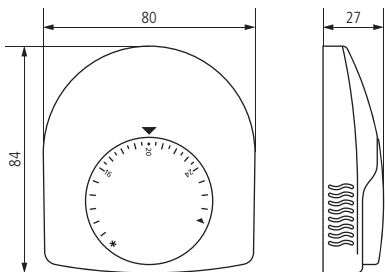
Temperature sensor

Details ► Page 255



Scale drawings

RAMSES 713 S KNX



Individual room thermostat – RAMSES 712 KNX



Description

- Individual room thermostat
- For controlling heating actuators or motorised actuators
- Can be used as a continuous or two point control (can also be combined)
- Temperature sensor can be connected to give remote temperature reading
- Objects for night operation (only with „old“ operation mode selection) presence, window/frost.
- LED (red) for heating mode
- Inputs can be reconfigured to outputs for connecting LED (LED 1 mA types)
- 2 binary inputs for conventional switches/sensors (switch/sensor, dimmer, blinds, valuator, LED control)
- Can be installed in flush-mounted sockets (temperature sensor with electronic component can be removed from housing and installed in flush-mounted sockets with back-ventilated cover)
- With integrated bus coupling unit

Product selection

Type	Article number
RAMSES 712 KNX	7129200

Technical data

RAMSES 712 KNX			
Operating voltage KNX	Bus voltage, ≤ 10 mA	Measuring range temperature	$-20^{\circ}\text{C} \dots +60^{\circ}\text{C}$
Output configuration LED	Low current 1 mA (LED 1 mA types)	Type of protection	IP 20
Interface extension max.	5 m	Protection class	II according to EN 60 730-1
Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$		

Accessories

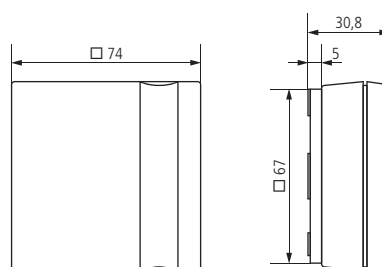
Temperature sensor

- Art.No.: 9070321
- Details ► Page 255



Scale drawings

RAMSES 712 KNX



Heating actuators 4–12 channels MIX

HMG 4 KNX



HME 4 KNX



Description

Common functions

- 4-way heating actuator MIX
- For controlling thermal actuators
- Silent semiconductor switch (triac)
- Up to 2 extension modules can be connected to a Base module.
- Can be combined with all MIX series devices
- Free combination of switches, dimming, blinds and heating control as well as binary inputs

- Maximum control variables for integrating boiler control
- For integrating boiler control
- It is possible to control a circulation pump directly via the actuator
- Up to 5 positioning actuators per channel
- Potential-free outputs 24–250 V AC
- Manual switch with On/Off/Bus settings (also without bus voltage)
- Switching status display for each channel
- With summer mode and valve protection

- Continuous or switching actuating value selectable

HMG 4 KNX

- Base module MIX
- Can be upgraded to maximum of 12 channels

HME 4 KNX

- Extension module MIX
- For extending to maximum of 12 channels

Product selection

Type	Article number
HMG 4 KNX	4910210
HME 4 KNX	4910211

Technical data

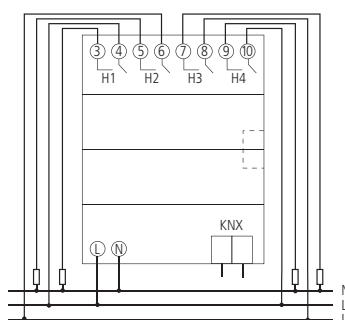
	HMG 4 KNX	HME 4 KNX
Operating voltage KNX	Bus voltage, ≤10 mA	–
Operating voltage	230 V AC	
Frequency	50 Hz	
Stand-by consumption	1,5 W	
Width	4 modules	
Output	Triac, 0,5 A	
Ambient temperature	–5 °C ... +45 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

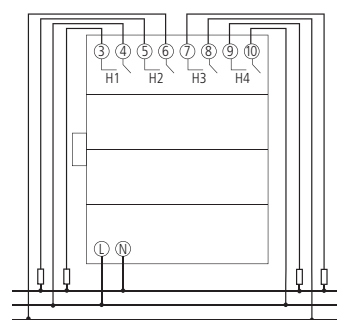
- Actuator ALPHA 4 230 V
Details ► Page 256
- Actuator ALPHA 4 24 V
Details ► Page 256

Connection diagrams

HMG 4 KNX



HME 4 KNX



Heating actuators with triacs

HMT 6 KNX



HMT 12 KNX



Description

Common functions

- Heating actuator
- Can be installed directly on a wall or a rail in the heating circuit distributor
- Mains plug on transformer for easy installation

- Screwless terminal technology
- Integrated power supply for a maximum of 13 thermal actuators
- Silent semiconductor switch (triac)
- For integrating boiler control
- Continuous or switching actuating value selectable

HMT 6 KNX

- 6-way

HMT 12 KNX

- 12-way

Product selection

Type	Article number
HMT 6 KNX	4900273
HMT 12 KNX	4900274

Technical data

	HMT 6 KNX	HMT 12 KNX
Operating voltage KNX	Bus voltage	
Operating voltage	230 V AC	
Stand-by consumption	4 W	
Frequency	50–60 Hz	
Number of channels	6	12
Output	Triac	
Fuse	T 2 A	
Ambient temperature	–5 °C ... +50 °C	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	

Accessories

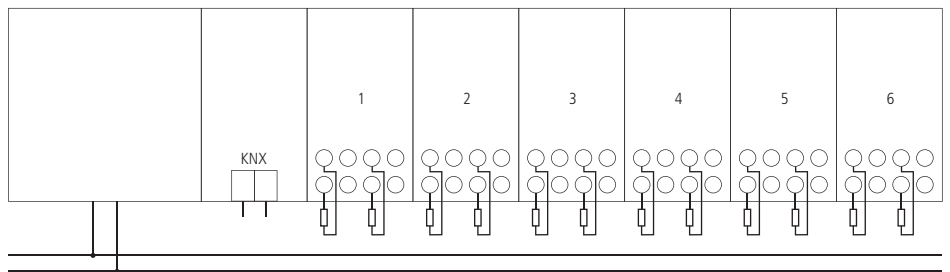
Actuator ALPHA 4 24 V

- Art.No.: 9070439
- Details ► Page 256

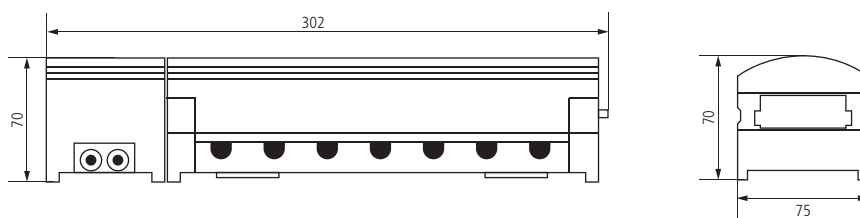


Connection diagrams

HMT 6 KNX



Scale drawings



Motor-driven modulating actuators

CHEOPS control KNX



CHEOPS drive KNX



Description

Common functions

- Motorised actuator for radiator heating valves or for controlling other modulating valves
- Display of valve stroke
- Automatic valve stroke recognition
- Simple installation by clicking onto valve adapter
- Can be used in heating circuit distributor
- Integrated bus coupling unit

- With summer mode and valve protection
- 2 different valve adapters included (VA 10, VA 78)

CHEOPS control KNX

- Independent room thermostat and integrated temperature sensor
- Manual operation possible via 2 keys on the device
- 2 inputs for window contact, presence detector, remote sensor

- Display via LEDs (red/blue for hotter/colder)
- Configurable as: Heating control (continuous control), two stage heating, heating and cooling

CHEOPS drive KNX

- Without integrated control
- Display via LEDs (red)
- 2 inputs for window contact, presence detector

Product selection

Type	Article number
CHEOPS control KNX	7329201
CHEOPS drive KNX	7319200

Technical data

	CHEOPS control KNX	CHEOPS drive KNX
Operating voltage KNX	Bus voltage, ≤10 mA	
Max. valve stroke	7,5 mm	
Controlling torque details	120 N	
Ambient temperature	0 °C ... +50 °C	
Protection class	III according to EN 60730-2-14	
Type of protection	IP 20	IP 21

Accessories

External temperature sensor 1

- for CHEOPS control KNX
- Art.No.: 9070191
Details ► Page 255



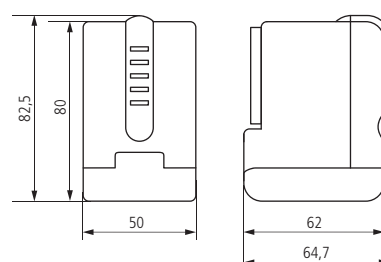
Valve adapter VA 80

- Art.No.: 9070437
Details ► Page 256



Scale drawings

CHEOPS control KNX, CHEOPS drive KNX



Air Quality Sensor – AMUN 716 KNX



Description

- CO₂ air quality sensor
- Measures CO₂ level, relative humidity and temperature
- Three independent, configurable thresholds for the CO₂ level and relative humidity
- A threshold for the temperature
- Actions can be carried out if thresholds are exceeded or not reached (send, priority, switching, value)
- Display of achieved threshold of CO₂ level and relative humidity through multi-coloured LEDs
- CO₂ setting range of 500–2250 ppm (thresholds)
- Relative humidity of 1 % to 100 %
- „Physical value“ object of 0–9999 ppm
- Power supply via KNX bus voltage, 230 V mains supply not required

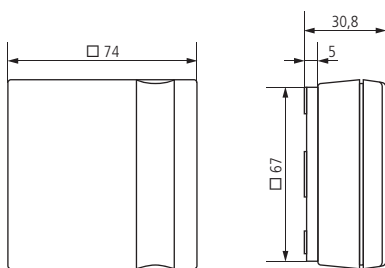
Product selection

Type	Article number
AMUN 716 KNX	7169200

Technical data

	AMUN 716 KNX
Operating voltage KNX	Bus voltage, ≤10 mA
Measuring range CO ₂	300–9999 ppm
Measuring range temperature	0 °C ... +40 °C
Measuring range humidity	20–80 % rF linear 1–100 % rF relative
Type of protection	IP 20
Schutzart	IP 20
Protection class	III according to EN 60 730-1

Scale drawings



Accessories

Adapter plate RAMSES 70x

- Art.Nr.: 9070865
- Details ► Seite 254



Individual room thermostat – RAMSES 713 FC KNX



Description

- Individual room thermostat fan coil
- For control of fan coil
- Continuous PI controller for heating and cooling
- Two rotary controls are included in delivery: an absolute scale (mounted) and 1 relative scale (enclosed)
- Rotary control can be limited mechanically or via parameters.
- Manual button for OFF, Auto, fan stages 1, 2, 3 operation modes
- 3 binary inputs for conventional switches/sensors (switching, dimming, blinds), also for external temperature sensor, window contact or presence signal
- LED (red) for heating mode, (blue) for cooling mode
- With integrated bus coupling unit

Product selection

Type	Article number
RAMSES 713 FC KNX	7139202

Technical data

RAMSES 713 FC KNX			
Operating voltage KNX	Bus voltage, ≤ 10 mA	Setting range temperature	$+10^{\circ}\text{C} \dots +28^{\circ}\text{C}$
Ambient temperature	$0^{\circ}\text{C} \dots +50^{\circ}\text{C}$	Type of protection	IP 20
Measuring range temperature	$0^{\circ}\text{C} \dots +40^{\circ}\text{C}$	Protection class	II according to EN 60 730-1

Accessories

External temperature sensor 1

- Art.No.: 9070191
- Details ► Page 255



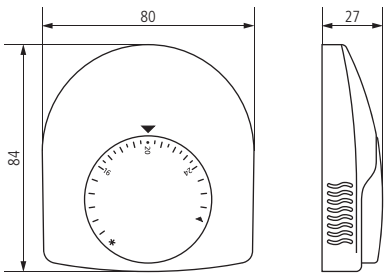
Temperature sensor

- Art.No.: 9070321
- Details ► Page 255

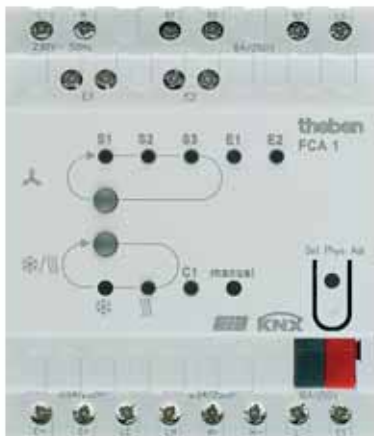


Scale drawings

RAMSES 713 FC KNX



Fan coil actuator – FCA 1 KNX



Description

- Fan coil actuator
- For controlling fan coils
- For 2 and 4 pipe systems
- For up to three fan stages
- For 2-way and 3-way valves
- Additional relay for electrical heater or cooler bank
- Potential-free input for window contacts or temperature sensor
- Potential-free, condensation monitoring
- Display of operation status via 9 LEDs
- Manual operation on device (fan stages, switching between heating and cooling)
- Adjustment of setpoint value for cooling in relation to external temperature
- Potential-free switching contact for either cooler or heater bank
- With emergency program

Product selection

Type	Article number
FCA 1 KNX	4920200

Technical data

FCA 1 KNX			
Operating voltage KNX	Bus voltage, ≤10 mA	Switching capacity additional relay	16 A
Operating voltage	230 V AC	Switching capacity blower relay	8 A
Frequency	50 Hz	Ambient temperature	–5 °C ... +45 °C
Stand-by consumption	1,9 W	Type of protection	IP 20
Width	4 modules	Protection class	II according to EN 60 730-1
Type of contact	Triac		

Accessories

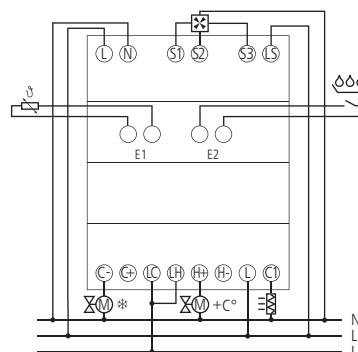
Temperature sensor

- Art.No.: 9070321
- Details ► Page 255



Connection diagrams

FCA 1 KNX



Motion detector – SPHINX 105-300 KNX



Description

- Motion detector (PIR)
- 2 channels
- For controlling lighting in outdoor areas
- Blended light measurement suitable for the control of fluorescent, incandescent and halogen lamps
- Adjustable sensor head
- Additional creep under protection via remote control
- Detection area can be limited using enclosed segments
- Settings per ETS: Brightness range and switch-off delay
- Set point adjustment of brightness either via object or potentiometer
- Following functions: Lighting ON/OFF, time functions, locking the motion detector
- Lighting control with adjustable light threshold value and adjustable switch-off delay
- Memorising of current brightness value possible via remote control
- Setting controls protected against manipulation
- Single-handed plug-in installation with captive screws

Product selection

Installation type	Type	Article number
Wall and ceiling installation	SPHINX 105-300 KNX	1059203

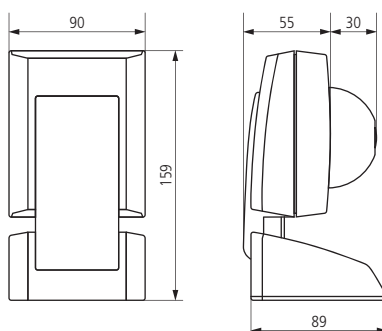
Technical data

SPHINX 105-300 KNX			
Operating voltage KNX	Bus voltage, <10 mA	Ambient temperature	-20 °C ... +55 °C
Setting range brightness	0–650 lx	Protection class	II according to EN 60 335
Light switch-off delay	1 s–120 min	Type of protection	IP 55

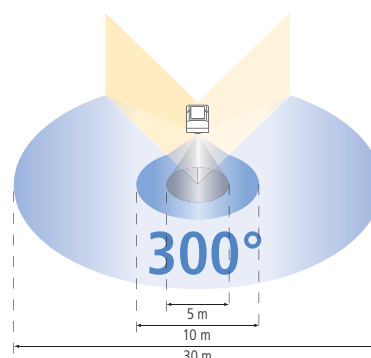
Accessories

- SPHINX RC 105
Details ► Page 250
- SPHINX RC 105 Pro
Details ► Page 250
- SPHINX corner angle
Details ► Page 250

Scale drawings



Detection range



- Walking diagonally to the detector
 - Walking head on to the detector
 - Creep under protection
- Mounting height 2,5 m

Motion detectors – SPHINX 331 KNX, SPHINX 332 KNX



Description

- Motion detector (PIR)
- Automatic lighting control based on presence and brightness
- Integrated bus coupling
- With constant light control
- Lighting control „movement-dependent only „ and „movement and brightness dependent“
- Continuous constant light control/movement-dependent
- Following functions: e.g. lighting ON/ OFF, shutters/blinds UP/DOWN, time functions (switch-off delay), locking the motion detector, dimming values, dimming UP/ DOWN, Master/Slave function
- Flush fitting design (projects 4 mm from ceiling)

SPHINX 331 KNX

- 1 channel

SPHINX 332 KNX

- 2 channels
- Additional programming keys can activate the physical address via a programming magnet (if programming is being executed after installation)

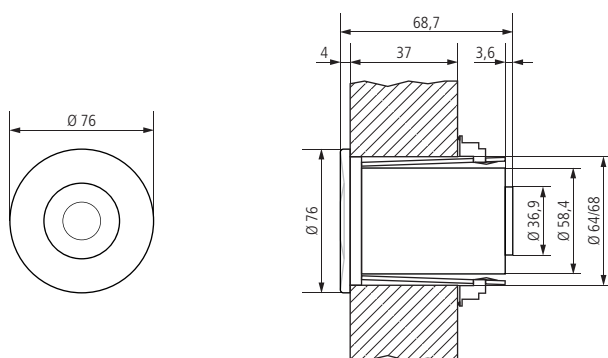
Product selection

Installation type	Type	Article number
Ceiling installation	SPHINX 331 KNX	1079211
	SPHINX 332 KNX	1079212

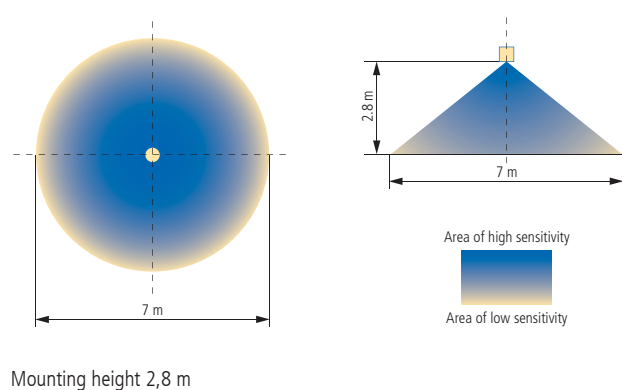
Technical data

	SPHINX 331 KNX	SPHINX 332 KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	
Setting range brightness	0–700 lx	
Light switch-off delay	1 s–120 min	
Ambient temperature	–5 °C ... +45 °C	
Protection class	II according to EN 60 730-1	
Type of protection	IP 20	

Scale drawings



Detection range



Presence detector – PresenceLight 360 KNX



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Integrated bus coupling
- IP 54 for versatile use
- Outputs light for controlling one or two lighting groups
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Switching or constant light control with stand-by function
- Adjustable sensitivity
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- Short presence; Reduced switch-off delay time in case of a short presence
- Channel presence with switch-off delay and switch-on delay time and send values
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Channel brightness (Lux)
- Set brightness level via bus object
- Scene functionality (8-bit scenes)
- Selected parameters can be configured remotely using the SendoPro remote control. Parameter settings are made via ETS
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Parallel switching of several presence detectors (master-slave or master-master) possible
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

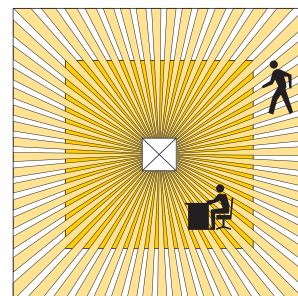
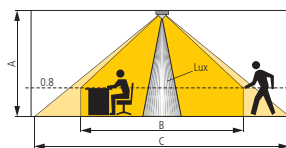
Installation type	Colour	Type	Article number
Ceiling installation	Pure white (similar to RAL 9010)	PresenceLight 360B-KNX WH	2009000
	Black (similar to RAL 9005)	PresenceLight 360B-KNX BK	2009812
	Silver (similar to RAL 9006)	PresenceLight 360B-KNX SR	2009813
Additional colours available upon request			

Technical data

	PresenceLight 360B-KNX
Operating voltage KNX	Bus voltage
Recommended installation height	2–3 m
Setting range brightness	5–2000 lx
Light switch-off delay	30 s–60 min
Stand-by time light	30 s–60 min, on, inactive
Presence switch-off delay	10 s–120 min
Switch-on delay presence	10 s–30 min, inactive
Ambient temperature	–10 °C ... +50 °C
Type of protection	IP 54

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	20 m ² 4,5 m x 4,5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame PresenceLight

- Art.No.: 9070513
Details ► Page 249



SendoPro 868-A

- Art.No.: 9070675
Details ► Page 251



SendoClic

- Art.No.: 9070690
Details ► Page 251

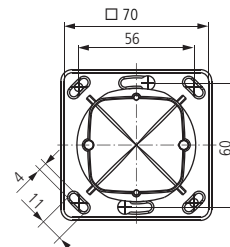
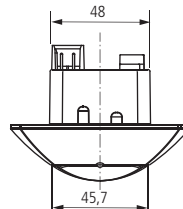
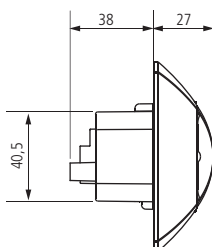
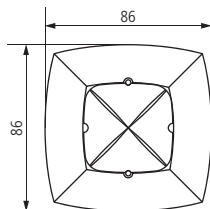


QuickSafe

- Art.No.: 9070531
Details ► Page 250



Scale drawings



Presence detector – compact office EIB

Description



- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Integrated bus coupling
- Outputs light for controlling one or two lighting groups
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Switching or constant light control
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- The self-learning switch-off delay time adjusts to occupants' behavior
- The brightness output makes the light information available for visualization purposes
- Channel presence with switch-off delay and switch-on delay time
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Optional service remote control
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Parallel switching of several presence detectors (master-slave or master-master) possible
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

Product selection

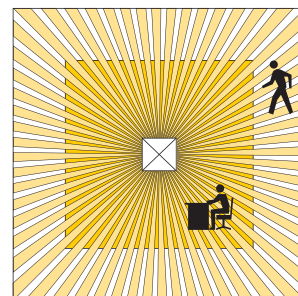
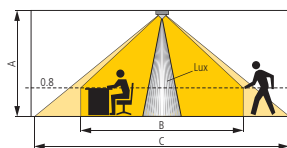
Installation type	Colour	Type	Article number
Ceiling installation	Pure white (similar to RAL 9010)	compact office EIB	2019200
	Black (similar to RAL 9005)	compact office EIB BK	2019800
	Silver (similar to RAL 9006)	compact office EIB SR	2019801
Additional colours available upon request			

Technical data

	compact office EIB
Operating voltage KNX	Bus voltage
Recommended installation height	2–3 m
Setting range brightness	10–1500 lx
Light switch-off delay	30 s–20 min
Stand-by time light	0 s–60 min
Presence switch-off delay	30 s–120 min
Switch-on delay presence	0 s–30 min
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	20 m ² 4,5 m x 4,5 m ± 0,5 m	9 m ² 3 m x 3 m
2,5 m	36 m ² 6 m x 6 m ± 0,5 m	16 m ² 4 m x 4 m
3 m	49 m ² 7 m x 7 m ± 1 m	25 m ² 5 m x 5 m
3,5 m	64 m ² 8 m x 8 m ± 1 m	—



Accessories

Surface frame compact

- Art.No.: 9070514
Details ► Page 249



clic

- Art.No.: 9070515
Details ► Page 251



QuickSet plus

- Art.No.: 9070532
Details ► Page 251

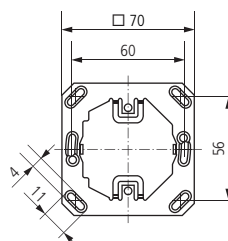
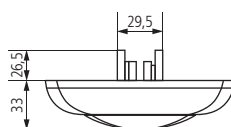
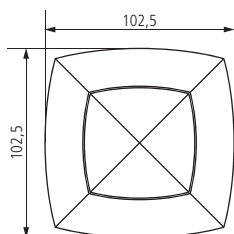


QuickSafe

- Art.No.: 9070531
Details ► Page 250



Scale drawings



Presence detectors – compact passage KNX, compact passimo KNX

compact passage KNX



compact passimo KNX



Description

Common functions

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Integrated bus coupling
- Outputs light for controlling one or two lighting groups
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Switching or constant light control
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- The self-learning switch-off delay time adjusts to occupants' behavior
- The brightness output makes the light information available for visualization purposes
- Channel presence with switch-off delay and switch-on delay time
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Optional service remote control
- Optional user remote control
- Ready for use by ex-factory set items
- Test operation to check detection area and installation
- Parallel switching of several presence detectors (master-slave or master-master) possible
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

compact passage KNX

- Square detection range for corridors

compact passimo KNX

- Rectangular detection range for storage areas with clear demarcation vertically below the presence detector

Product selection

Installation type	Colour	Type	Article number
Ceiling installation	Pure white (similar to RAL 9010)	compact passage KNX	2019290
	Black (similar to RAL 9005)	compact passage KNX BK	2019803
	Silver (similar to RAL 9006)	compact passage KNX SR	2019804
	Pure white (similar to RAL 9010)	compact passimo KNX WH	2019280
	Black (similar to RAL 9005)	compact passimo KNX BK	2019809
	Silver (similar to RAL 9006)	compact passimo KNX SR	2019810
Additional colours available upon request			

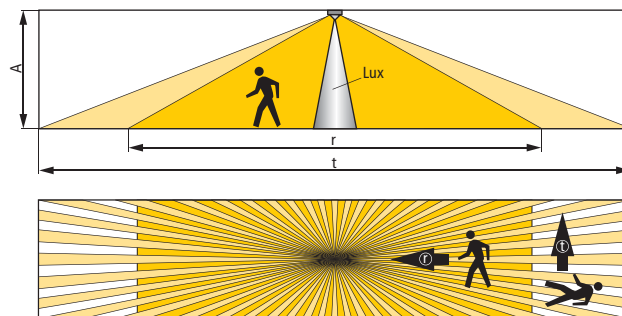
Technical data

	compact passage KNX/compact passimo KNX
Operating voltage KNX	Bus voltage
Recommended installation height	2–3 m
Setting range brightness	10–1500 lx
Light switch-off delay	30 s–20 min
Stand-by time light	0 s–60 min
Presence switch-off delay	30 s–120 min

	compact passage KNX/compact passimo KNX
Switch-on delay presence	0 s–30 min
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

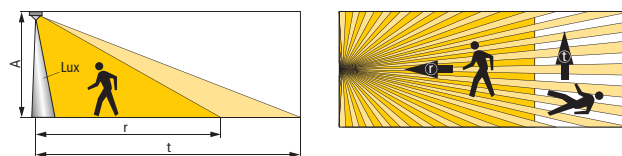
Detection range compact passage KNX (Rectangular)

Mounting height (A)	Head on to (r)	Diagonally (t)
2 m	56 m ² 16 m x 3,5 m ± 1 m	105 m ² 30 m x 3,5 m ± 1 m
2,5 m	72 m ² 18 m x 4 m ± 1 m	120 m ² 30 m x 4 m ± 1 m
3 m	90 m ² 20 m x 4,5 m ± 1 m	135 m ² 30 m x 4,5 m ± 1 m
3,5 m	100 m ² 20 m x 5 m ± 1 m	150 m ² 30 m x 5 m ± 1 m



Detection range compact passimo KNX (Rectangular)

Mounting height (A)	Head on to (r)	Diagonally (t)
2 m	28 m ² 8 m x 3,5 m ± 1 m	53 m ² 15 m x 3,5 m ± 1 m
2,5 m	36 m ² 9 m x 4 m ± 1 m	60 m ² 15 m x 4 m ± 1 m
3 m	45 m ² 10 m x 4,5 m ± 1 m	68 m ² 15 m x 4,5 m ± 1 m
3,5 m	50 m ² 10 m x 5 m ± 1 m	75 m ² 15 m x 5 m ± 1 m



Accessories

Surface frame compact

- Art.No.: 9070514
Details ► Page 249



clic

- Art.No.: 9070515
Details ► Page 249



QuickSet plus

- Art.No.: 9070532
Details ► Page 249

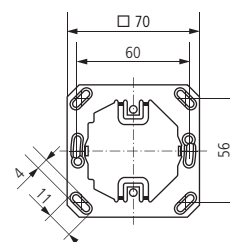
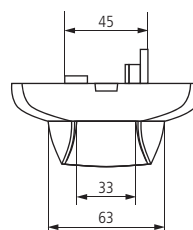
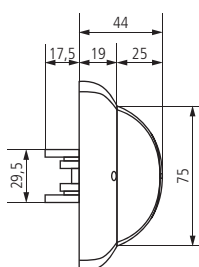
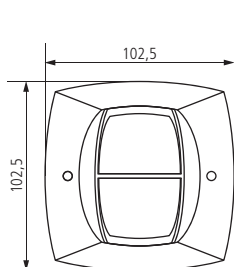


QuickSafe

- Art.No.: 9070531
Details ► Page 249



Scale drawings



Presence detectors – ECO-IR 360EIB-AC, ECO-IR DUAL-EIB



Description

Common functions

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Square detection area allows accurate and simple planning
- Genuine daylight measurement, suitable only for fluorescent lamps (FL/PL/ESL)
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- The self-learning switch-off delay time adjusts to occupants' behavior
- Ready for use by ex-factory set items
- The parameters are set by ETS or potentiometers
- Test operation to check detection area and installation

- Parallel switching of several presence detectors (master-slave or master-master) possible
- Ceiling mounting in flush-mounted box
- Possibility of surface mounting by using a surface frame

ECO-IR 360EIB-AC

- Automatic control of lighting and HVAC
- Presence output for HVAC control with switch-off delay
- Lighting control with light threshold value and self-learning switch-off delay

ECO-IR DUAL-EIB

- Automatic control of two lighting zones
- Lighting control with two light threshold values and self-learning switch-off delay
- Two brightness measurements

Product selection

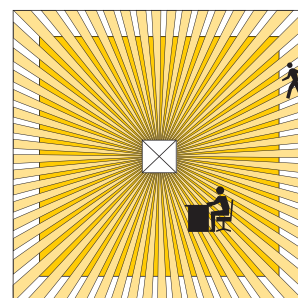
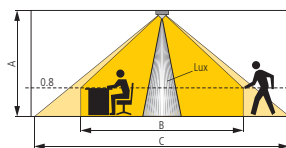
Installation type	Colour	Type	Article number
Ceiling installation	Pure white (similar to RAL 9010)	ECO-IR 360EIB-AC	2029201
	Black (similar to RAL 9005)	ECO-IR 360EIB-AC BK	2029803
	Silver (similar to RAL 9006)	ECO-IR 360EIB-AC SR	2029804
	Pure white (similar to RAL 9010)	ECO-IR DUAL-EIB	2029200
	Black (similar to RAL 9005)	ECO-IR DUAL-EIB BK	2029800
	Silver (similar to RAL 9006)	ECO-IR DUAL-EIB SR	2029801
Additional colours available upon request			
Required accessories		BCU bus coupling unit KNX	9070524

Technical data

	ECO-IR 360EIB-AC	ECO-IR DUAL-EIB
Operating voltage KNX	Bus voltage	
Recommended installation height	2–3,5 m	
Setting range brightness	100–1600 lx	
Light switch-off delay	30 s–20 min	
Presence switch-off delay	30 s–60 min	–
Ambient temperature	0 °C ... +45 °C	
Type of protection	IP 40	

Detection range (Square)

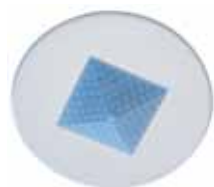
Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m
4 m	121 m ² 11 m x 11 m ± 1 m	—



Accessories

QuickFix round cover

- Art.No.: 9070517
Details ► Page 250



QuickFix concrete square cover

- Art.No.: 9070518
Details ► Page 250



Surface frame ECO-IR 360

- Art.No.: 9070512
Details ► Page 249

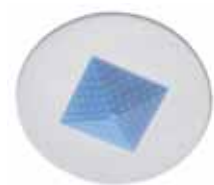


Additional accessories

- QuickFix concrete flush-mounted box
Details ► Page 250
- QuickFix flush-mounted housing
Details ► Page 250
- QuickSafe
Details ► Page 250

QuickFix concrete round cover

- Art.No.: 9070519
Details ► Page 249



QuickFix square cover

- Art.No.: 9070516
Details ► Page 250

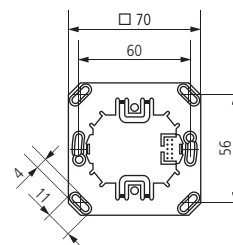
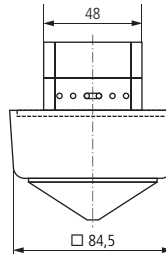
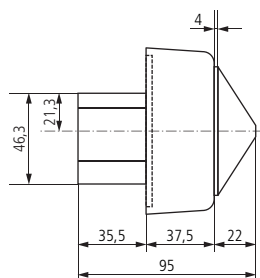
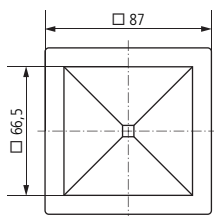


Bus coupling unit KNX

- Art.No.: 9070524
Details ► Page 251



Scale drawings



Presence detector – PlanoCentro KNX



Description

- Presence detector (PIR)
- Automatic control of lighting depending on presence and brightness
- Flush design
- Square detection area allows accurate and simple planning
- Integrated bus coupling
- Outputs light for controlling one or two lighting groups
- Mixed light measurement, suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Switching or constant light control with stand-by function
- Adjustable sensitivity
- Choice of fully or semi automatic operation: In „Semi-automatic“ mode the light must be switched on manually and switches off automatically
- The self-learning switch-off delay time adjusts to occupants' behavior
- Short presence; Reduced switch-off delay time in case of a short presence
- Channel presence with switch-off delay and switch-on delay time and send values
- Function „monitoring“ with reduced sensitivity only to detect walking persons
- Selected parameters can be configured remotely using the SendoPro remote control. Parameter settings are made via ETS
- Optional user remote control
- Test operation to check detection area, installation and brightness settings
- Parallel switching of several presence detectors (master-slave or master-master) possible
- Individual covers available on request

PlanoCentro EWH-A KNX

- For ceiling installation (false ceilings)
- With installation for false ceilings and cover

PlanoCentro UWH-A KNX

- For flush-mounting (concrete ceiling)
- With metal installation frame for screwed fixing in wooden ceilings or in flush-mounted sockets, incl. cover

Product selection

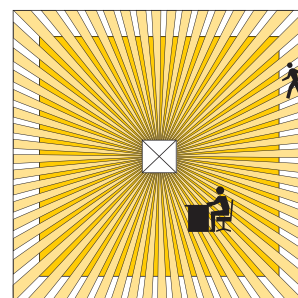
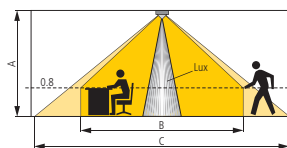
Installation type	Colour	Type	Article number
Ceiling mounting with mounting frame	Pure white (similar to RAL 9010)	PlanoCentro EWH-A KNX	2059102
	Black (similar to RAL 9005)	PlanoCentro EBK-A KNX	2059103
	Silver (similar to RAL 9006)	PlanoCentro ESR-A KNX	2059104
Ceiling installation (flush-mounting concrete)	Pure white (similar to RAL 9010)	PlanoCentro UWH-A KNX	2059202
	Black (similar to RAL 9005)	PlanoCentro UBK-A KNX	2059203
	Silver (similar to RAL 9006)	PlanoCentro USR-A KNX	2059204
Additional colours available upon request			

Technical data

	PlanoCentro KNX
Operating voltage KNX	Bus voltage
Recommended installation height	2,5–3,5 m
Setting range brightness	5–2000 lx
Light switch-off delay	30 s–60 min
Presence switch-off delay	10 s–120 min
Switch-on delay presence	10 s–30 min
Ambient temperature	0 °C ... +50 °C
Type of protection	IP 40

Detection range (Square)

Mounting height (A)	Walking (C)	Sitting (B)
2 m	36 m ² 6 m x 6 m ± 0,5 m	20 m ² 4,5 m x 4,5 m
2,5 m	64 m ² 8 m x 8 m ± 0,5 m	36 m ² 6 m x 6 m
3 m	81 m ² 9 m x 9 m ± 0,5 m	49 m ² 7 m x 7 m
3,5 m	100 m ² 10 m x 10 m ± 1 m	64 m ² 8 m x 8 m



Accessories

SendoPro 868-A

- Art.No.: 9070675
- Details ► Page 251



SendoClic

- Art.No.: 9070690
- Details ► Page 251



PlanoBox 1WH

- for PlanoCentro UWH-A KNX
- Art.No.: 9070731
- Details ► Page 249

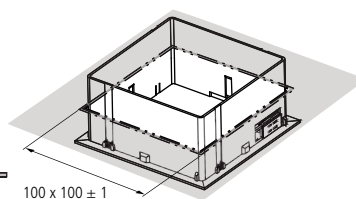
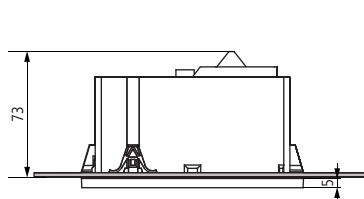
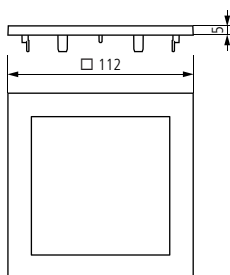
Junction casing,
115x115x100 mm

- for PlanoCentro UWH-A KNX
- Art.No.: 9070689
- Details ► Page 250

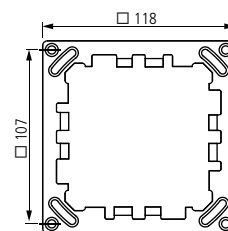
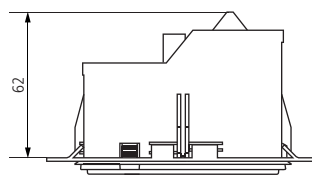
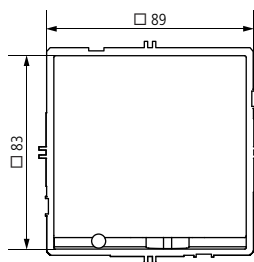
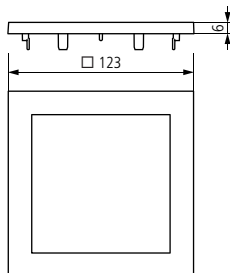


Scale drawings

PlanoCentro EWH-A KNX



PlanoCentro UWH-A KNX



PlanoSet



Description

- Mounting set consisting of round flush-mounting box PlanoFix E, matching cover PlanoCover and assembly parts
- Easy and fast mounting in false-ceilings
- Suitable for all PlanoCentro false ceiling-mounted presence detectors
- Cut-out can be easily realized with a standard drill bit diameter 127 mm (5 inches)
- The following installation and alignment of the presence detector PlanoCentro is implemented very easily and quickly
- Flush ceiling installation, the presence detector is inserted into the false ceiling
- Optimale Anpassung an den Raum dank eleganten Abdeckrahmen in verschiedenen Formen und Farben
- Optimal adaptation to the room thanks to elegant covers in different shapes and colors

Product selection

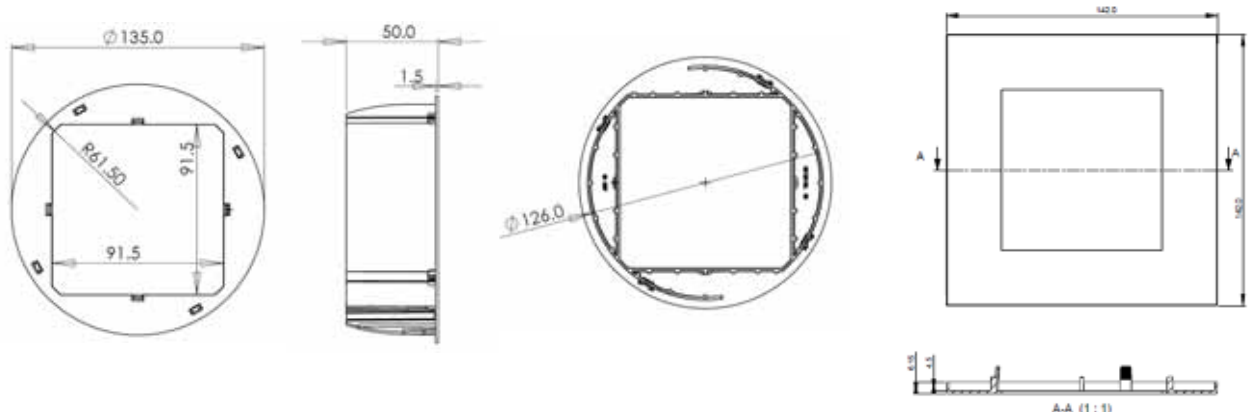
Installation type	Dimensions of frame	Colour	Type	Article number
Ceiling mounting	142 x 142 mm	Pure white (similar to RAL 9010)	PlanoSet RQ EWH	9070736
		Black (similar to RAL 9005)	PlanoSet RQ EBK	9070737
		Silver (similar to RAL 9006)	PlanoSet RQ ESR	9070738
	Ø 172 mm	Pure white (similar to RAL 9010)	PlanoSet RR EWH	9070740
		Black (similar to RAL 9005)	PlanoSet RR EBK	9070741
		Silver (similar to RAL 9006)	PlanoSet RR ESR	9070742
Additional colours available upon request				

Technical data

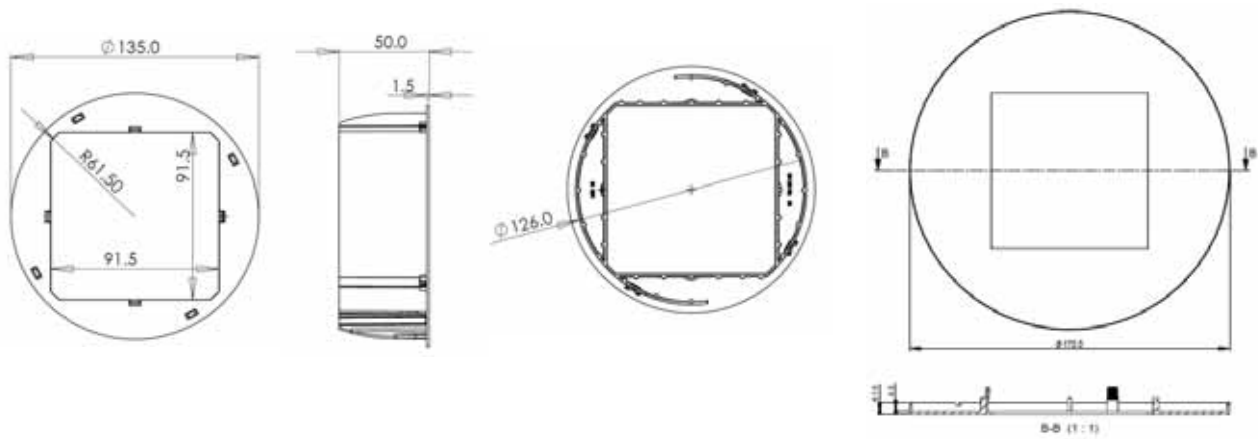
	PlanoSet RQ	PlanoSet RR
Thickness ceiling	0.5–30 mm	
Casing depth (Presence detector included)	75 mm	
Diameter flush-mounting box PlanoFix E	Ø 126 mm	
Frame PlanoCover	142 x 142 mm	Ø 172 mm
Suitable for	PlanoCentro 000-E, PlanoCentro 101-E, PlanoCentro 201-E, PlanoCentro 300-E, PlanoCentro KNX-E	

Scale drawings

PlanoSet RQ



PlanoSet RR



Presence detector – PresenceLight 180 KNX



Description

- Presence detector (PIR)
- Detection range 180°
- Wall installation
- Presence and brightness-dependent control for lighting and HVAC systems
- Choice of fully or semi-automatic lighting control
- Connection option for sensors or switches for manual switching with automatic recognition
- Adjustable sensitivity
- Can be configured remotely
- Installation with mechanical stop
- Lighting control with brightness threshold value and self-learning switch-off delay
- Pulse function for staircase time switch
- Presence output with switch-on and switch-off delay
- Room monitoring with selective movement detection
- Parameters can be selected for subsequent changes
- Test operation mode checks the Detection range and brightness threshold
- Management remote control SendoPro 868-A (optional)
- SendoClic user remote control (optional)

Product selection

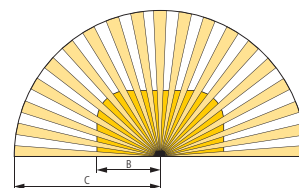
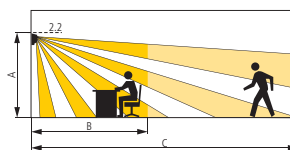
Installation type	Colour	Type	Article number
Wall installation	Pure white (similar to RAL 9010)	PresenceLight 180B-KNX WH	2009050
	Black (similar to RAL 9005)	PresenceLight 180B-KNX BK	2009815
	Silver (similar to RAL 9006)	PresenceLight 180B-KNX SR	2009816
Additional colours available upon request			

Technical data

	PresenceLight 180B-KNX
Operating voltage KNX	Bus voltage
Recommended installation height	1,6–2,2 m
Setting range brightness	5–2000 lx
Light switch-off delay	30 s–60 min
Stand-by time light	30 s–60 min, on, inactive
Presence switch-off delay	10 s–120 min
Switch-on delay presence	10 s–30 min, inactive
Ambient temperature	–10 °C ... +50 °C
Type of protection	IP 54

Detection range (Semicircular)

Mounting height (A)	Sitting (B)	Walking (C)
2,2 m	25 m ² 7,0 m x 3,5 m	100 m ² R 8 m



Accessories

Surface frame PresenceLight

- Art.No.: 9070513
Details ► Page 249



SendoPro 868-A

- Art.No.: 9070675
Details ► Page 251



SendoClic

- Art.No.: 9070690
Details ► Page 251

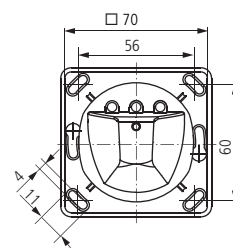
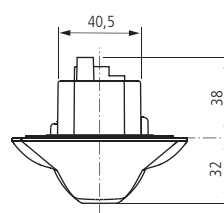
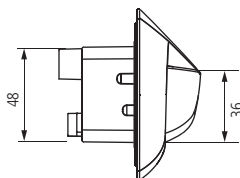
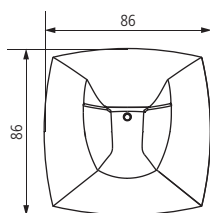


QuickSafe

- Art.No.: 9070531
Details ► Page 250



Scale drawings



Self contained outdoor weather station – Meteodata 140 KNX

Meteodata 140 KNX



Description

Meteodata 140 KNX

- Self contained outdoor weather station
- For measuring wind, rain, brightness and temperature
- For fully automatic blinds and sun protection control with automatic adjustment of blinds according to position of the sun
- Rain sensor with integrated heating
- The weather station can also be operated without mains supply. The heating of the rain sensor will not function then
- Measurement and evaluation directly on device
- Sun protection for up to three facades via 3 integrated brightness sensors

- 4 additional threshold channels for connection of external KNX sensors
- 6 logic channels
- Display of weather data e.g. with VARIA 826 KNX multi-function display

Meteodata 140 GPS KNX

As Meteodata 140 KNX, but:

- Integrated GPS receiver
- Automatic calculation of elevation and azimuth
- The weather station can also be operated without mains supply. The GPS module will not function then

Product selection

Type	Article number
Meteodata 140 KNX	1409200
Meteodata 140 GPS KNX	1409203

Technical data

	Meteodata 140 KNX	Meteodata 140 GPS KNX
Operating voltage	230 V AC	
Operating voltage KNX	Bus voltage, ≤10 mA	
Measuring range brightness	1–100000 lx	
Measuring range temperature	–30 °C ... +60 °C	
Measuring range wind speed	2–30 m/s	
Ambient temperature	–20 °C ... +55 °C	
Type of protection	IP 44	

Accessories

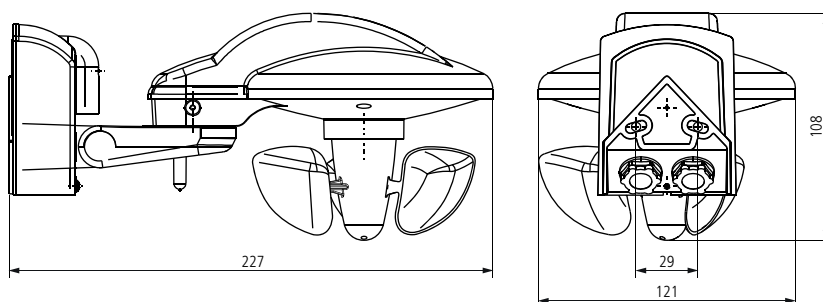
Mast mounting weather station

- Art.No.: 9070380
- Details ► Page 257



Scale drawings

Meteodata 140 KNX



Weather stations KNX

Weather station KNX



Weather station basic KNX



Description

Common functions

- Combination sensor
- Measurement and evaluation directly on device
- Sun protection for up to three facades possible (in combination with LUNA 133)

- Display of weather data, e.g. with VARIA multi-function display

Weather station KNX

- For measuring wind, rain, brightness and temperature
- Rain sensor with heater (with connection at 230 V AC)

Weather station basic KNX

- For measuring wind, brightness and temperature
- Without rain sensor
- 230 V AC connection not required
- Brightness range from 1–100,000 lux
- Temperature range –20 °C to +55 °C

Product selection

Type	Article number
Weather station KNX	1329201
Weather station basic KNX	1329205

Technical data

	Weather station KNX	Weather station basic KNX
Operating voltage	230 V AC	–
Operating voltage KNX	Bus voltage, ≤10 mA	
Measuring range brightness	1–100000 lx	
Measuring range temperature	–20 °C ... +55 °C	
Measuring range wind speed	2–20 m/s	
Ambient temperature	–20 °C ... +55 °C	
Type of protection	IP 44	

Accessories

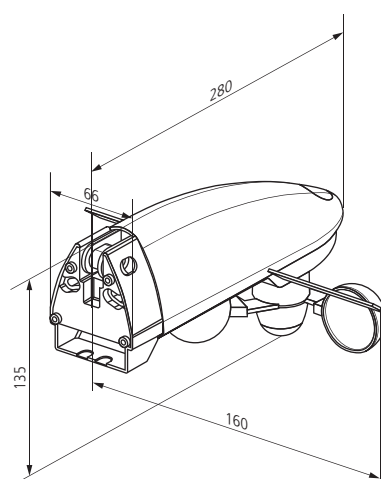
Mast mounting weather station

- Art.No.: 9070380
- Details ► Page 257

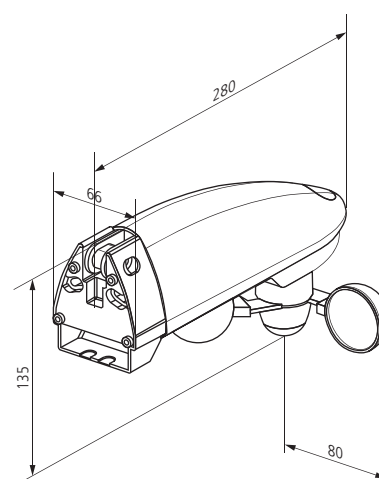


Scale drawings

Weather station KNX



Weather station basic KNX



Light level controller – LUNA 134 KNX



Description

- Light level controller
- External light sensor included in delivery
- For brightness-dependent controlling
- 10 channels
- 4 threshold values channels for connecting external KNX-sensors (e.g. temperature)
- 6 logic channels
- Up to 3 lights sensors can be connected
- Manual operation on device
- 4 keys for setting threshold and switch on/off delay
- DuoFix spring terminals
- Display back light (can be turned off)
- Thresholds can be shown or changed on display
- PIN coding

Product selection

Type	Article number
LUNA 134 KNX	1349200

Technical data

LUNA 134 KNX			
Operating voltage	110–240 V AC	On/off switching delay	0–20 min
Frequency	50–60 Hz	Width	3 modules
Operating voltage KNX	Bus voltage, ≤10 mA	Ambient temperature	–5 °C ... +45 °C
Stand-by consumption	0,8 W	Protection class	II
Measuring range brightness	1–100000 lx	Type of protection	IP 20

Accessories

Digital surface-mounted light sensor

- Art.No.: 9070415
Details ► Page 253



Digital flush-mounted light sensor

- Art.No.: 9070456
Details ► Page 254



Brightness and temperature sensor – LUNA 131 KNX



Description

- Brightness and temperature sensor
- For brightness and temperature dependent controlling in outdoor areas
- 5 freely configurable channels: 1 sun protection channel and 4 universal channels
- Sun protection channel with automated sun protection especially for blind, awning and shutter applications
- Universal channels allow linking of brightness and temperature
- Brightness range from 1–100,000 lux
- Temperature range –20 °C to +55 °C
- Learning object for brightness threshold

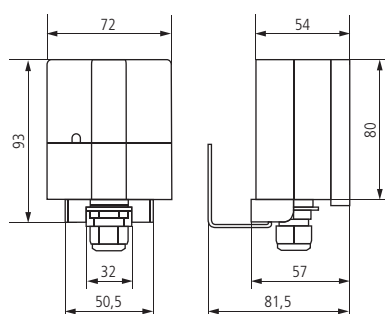
Product selection

Type	Article number
LUNA 131 S KNX	1319201

Technical data

LUNA 131 S KNX			
Operating voltage KNX	Bus voltage, ≤5 mA	Ambient temperature	–25 °C ... +55 °C
Measuring range brightness	1–100000 lx	Type of protection	IP 54
Measuring range temperature	–20 °C ... +55 °C		

Scale drawings



Brightness sensor – LUNA 133 KNX



Description

- Brightness sensor
- For brightness dependent controlling in outdoor areas
- Brightness range from 1–100,000 lux
- Ideally combinable with the Theben weather stations for individual control of several facades

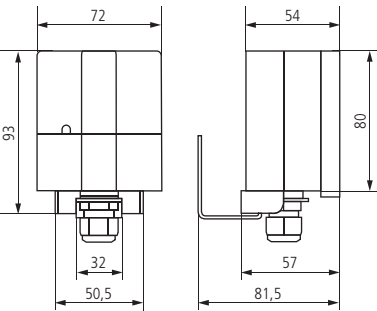
Product selection

Type	Article number
LUNA 133 KNX	1339200

Technical data

LUNA 133 KNX			
Operating voltage KNX	Bus voltage, ≤5 mA	Ambient temperature	–25 °C ... +55 °C
Measuring range brightness	1–100000 lx	Type of protection	IP 54

Scale drawings



Time transmitter for hour and date – ZS 600 DCF KNX



Description

- Time transmitter for hour and date
- Can also be used with DCF77 antenna
- LED for status display DCF reception
- Integrated voltage supply for DCF77 antenna
- Preset time and date (CET or CEST)
- Automatic summer/winter time switchover

Product selection

Type	Article number
ZS 600 DCF KNX	6009200

Technical data

ZS 600 DCF KNX			
Operating voltage KNX	Bus voltage, ≤ 10 mA	Ambient temperature	$-10^{\circ}\text{C} \dots +50^{\circ}\text{C}$
Width	2 modules	Protection class	III according to EN 60 730-1
Power reserve	10 years	Type of protection	IP 20
Time accuracy	$\leq \pm 1$ s/day (quartz) or DCF77 synchronous		

Accessories

Antenna DCF77 KNX

- Art.No.: 9070271
Details ► Page 247



Digital time switches

TR 648 top2 RC KNX



TR 648 top2 RC-DCF KNX



Description

Common functions

- Digital time switch with daily, weekly, yearly and astronomical time program
- 8 channels
- DuoFix spring terminals for 2 conductors each
- Text-oriented user guidance in display
- 800 memory locations
- Programming via key entry on device, OBELISK top2 programming software directly via KNX bus or by the OBELISK top2 memory card
- 8 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program

- Cycle program
- Extensive yearly clock functions
- Astronomical switching function (automatic calculation of sunrise and sunset times for the whole year)
- Permanent switching ON/OFF
- Count-down timer
- Integrated hour counter
- Holiday program
- 2 random programs
- Display backlight (can be turned off)
- PIN coding
- Automatic summer/winter time changeover
- Time and date synchronization of clocks (OSIRIA) or other bus participants

TR 648 top2 RC KNX

- Time synchronisation via connection of external DCF or GPS antennas, additional positioning for astronomical program with GPS

TR 648 top2 RC-DCF KNX

- Time synchronisation via connection of external DCF antenna
- Can be operated without mains supply

Product selection

Type	Article number
TR 648 top2 RC KNX	6489212
TR 648 top2 RC-DCF KNX	6489210 *

* Available May 2013

Technical data

	TR 648 top2 RC KNX	TR 648 top2 RC-DCF KNX
Operating voltage KNX	Bus voltage, ≤ 12 mA	
Operating voltage	110–240 V AC	–
Frequency	50–60 Hz	–
Stand-by consumption	0,2 W	–
Width	3 modules	
Number of channels	8	
Number of memory locations	800	
Time accuracy	$\leq \pm 0,5$ s/day (quartz) or DCF77/GPS	$\leq \pm 0,5$ s/day (quartz) or DCF77
Shortest switching times	1 s	
Display	LCD	
Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$	
Type of protection	IP 20	
Protection class	II according to EN 60 730-1	III according to EN 60 730-1

Accessories

Antenna top2 RC-GPS

- for TR 648 top2 RC-KNX
- Art.No.: 9070610
- Details ► Page 248



Antenna top2 RC-DCF

- Art.No.: 9070410
- Details ► Page 247



PC set OBELISK top2

- Art.No.: 9070409
- Details ► Page 247



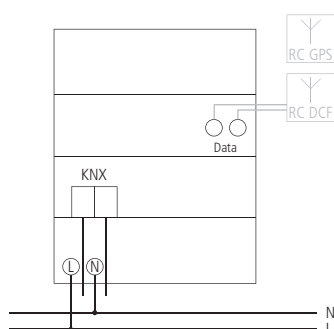
Memory card OBELISK top2

- Art.No.: 9070404
- Details ► Page 247

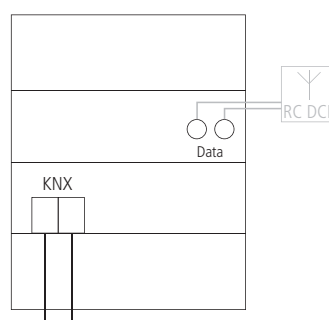


Connection diagrams

TR 648 top2 RC KNX



TR 648 top2 RC-DCF KNX



DALI Gateway KNX



Description

- The DALI Gateway KNX serves as an interface between the the DALI and the KNX system
- The group-oriented DALI gateway (16 groups) is used to control operating devices equipped with a DALI interface (e.g. electronic ballasts, LED converters, transformers etc.)
- A maximum of 64 DALI members can be connected to a DALI output. Every DALI member automatically receives a random DALI address through the gateway
- The assignment of the individual DALI members in groups of lights is performed using a separate software tool. Every group of lights can be addressed and monitored via the KNX

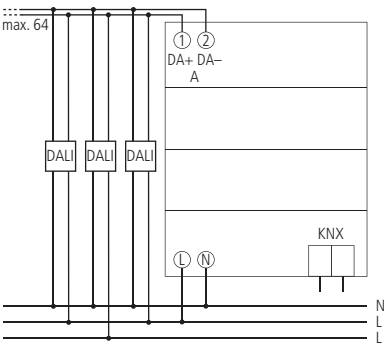
Product selection

Type	Article number
DALI Gateway KNX	9070722

Technical data

DALI Gateway KNX			
Operating voltage KNX	Bus voltage, <10 mA	Ambient temperature	−5 °C ... +45 °C
Operating voltage	110–240 V AC/DC	Protection class	II
Frequency	50–60 Hz	Type of protection	IP 20
Width	4 modules		

Connection diagram



KNX OT-Box



Description

- The KNT-OT-Box serves as an interface between the boilers with OT bus (bus system in heating and ventilation technology) and the KNX system (building system technology)
- This enables the bidirectional exchange of data between the OT boiler and the heat distribution via the KNX system (individual room control)
- Device and KNX bus module can be swapped independently of each other
- Removable KNX bus module
- Button for OT-test-program
- The following functions are available with the KNT OT box:
 - Customised flow control
 - Weather-compensation flow control
 - Control of domestic hot water
 - Energy optimization of domestic hot water with solar support
 - Legionella protection program
 - Screed drying program

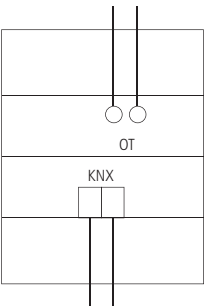
Product selection

Type	Article number
KNX-OT-Box	8559200

Technical data

KNX-OT-Box			
Operating voltage KNX	Bus voltage, ≤10 mA	Ambient temperature	0 °C ... +45 °C
Width	4 modules	Protection class	III
Rated impulse with stand voltage	4 kV	Type of protection	IP 20

Connection diagram



Power supply KNX

Power supply KNX 640 mA



Power supply 320 mA KNX



Power supply KNX 160 mA



Description

Common functions

- Power-supplying and monitoring of the KNX system voltage
- Reset key for 20 sec. bus reset
- Continuous short-circuit protection

Power supply KNX 640 mA

- 640 mA supply voltage
- 30 V DC auxiliary supply

Power supply 320 mA KNX

- 320 mA supply voltage

Power supply KNX 160 mA

- 160 mA supply voltage

Product selection

Type	Article number
Power supply KNX 640 mA	9070364
Power supply 320 mA KNX	9070699
Power supply KNX 160 mA	9070701

Technical data

	Power supply KNX 640 mA	Power supply 320 mA KNX	Power supply KNX 160 mA
Operating voltage	230 V AC		
Frequency	50–60 Hz		
Width	6 modules	4 modules	
KNX output	1 line with integrated throttle drive		
Nominal voltage KNX	30 V DC, ± 2 V, SELV		
Nominal current KNX	640 mA	320 mA	160 mA
Ambient temperature	–5 °C ... +45 °C		
Protection class	II according to EN 60 730-1		
Type of protection	IP 20		

Interface USB KNX, Line coupler KNX

Interface USB KNX



Line coupler S KNX



Description

Interface USB KNX

- USB interface
- For communication between PC and the KNX equipment to be programmed
- USB LED and KNX LED to display data transmission
- Usable from ETS3

Line coupler S KNX

- Line coupler
- For connecting KNX lines or areas
- Galvanic separation of the lines/areas
- Bus terminals for main line and subordinate line

- Telegrams can be filtered (to reduce telegram traffic)
- Can also be used as line amplifier (repeater)

Product selection

Type	Article number
Interface USB KNX	9070397
Line coupler S KNX	9070880

Technical data

	Interface USB KNX	Line coupler S KNX
Operating voltage KNX	Bus voltage, ≤ 10 mA	
Operating voltage	–	24 V DC
Width	2 modules	
Ambient temperature	–5 °C ... +45 °C	
Protection class	II	III
Type of protection	IP 20	

KNX indoor clocks

OSIRIA 220/230/240/241 AR KNX



OSIRIA 230/240 SR KNX



OSIRIA 241 BR KNX, OSIRIA 241 AR KNX



Description

OSIRIA 220 AR KNX, OSIRIA 230 AR KNX, OSIRIA 240 AR KNX

- KNX indoor clock, round, single-sided
- Black bar hour and minute hands, red second hand
- White metallic dial with black arabic numerals
- Impact-resistant plastic housing
- Matte border
- Flat, shock-resistant Plexiglas
- Diameter clock face: 250 mm/300 mm/400 mm

OSIRIA 230 SR KNX, OSIRIA 240 SR KNX

- KNX indoor clock, round, single-sided
- Black bar hour and minute hands, red second hand
- White metallic dial with black fine-line numerals
- Impact-resistant plastic housing
- Matte border
- Flat, shock-resistant Plexiglas
- Diameter clock face: 300 mm/400 mm

OSIRIA 241 BR KNX, OSIRIA 241 AR KNX

- KNX indoor, round, single-sided
- Silver metallic painted metallic housing (RAL 9006 whitealuminium)
- White metallic dial with black DIN bar numerals or arabic numbers
- Curved, shock-resistant Plexiglas
- Diameter clock face: 400 mm

Product selection

Dial dimensions	Housing material	Type of numerals	Type	Article number
Ø 250 mm	Plastic housing	Arabic numerals	OSIRIA 220 AR KNX	5009200
Ø 300 mm	Plastic housing	Arabic numerals	OSIRIA 230 AR KNX	5009210
		Fineline numerals	OSIRIA 230 SR KNX	5009211
Ø 400 mm	Plastic housing	Arabic numerals	OSIRIA 240 AR KNX	5009230
		Fineline numerals	OSIRIA 240 SR KNX	5009231
	Silver metallic painted metallic housing	Arabic numerals	OSIRIA 241 AR KNX	5009240
		Bar numerals	OSIRIA 241 BR KNX	5009241

Additional clocks
upon request.

OSIRIA 242 AR KNX/OSIRIA 242 SR KNX



OSIRIA 251 BQ KNX



OSIRIA 232 BQ KNX



Description

OSIRIA 242 AR KNX, OSIRIA 242 SR KNX

- KNX indoor clock, round, double-sided
- With wall or ceiling holder (150 mm)
- White dials
- Black Arabic numerals or Black fine line numerals
- Black bar hour and minute hands, red second hand
- White painted metallic housing
- Shock-resistant plexiglass
- Diameter clock face: 400 mm

OSIRIA 251 BQ KNX

- KNX indoor clock, square, single-sided
- Wall clocks protected against thrown balls e.g. for sports halls, schools, etc.
- White metallic dial with black DIN bar numerals
- Black bar hour and minute hands, red second hand
- Single-faced, robust, white painted metallic housing (RAL 9016) for heavy-duty applications
- Laminated safety glass
- 3-point fastening resistant to being pried out
- Clock face: 400 x 400 mm

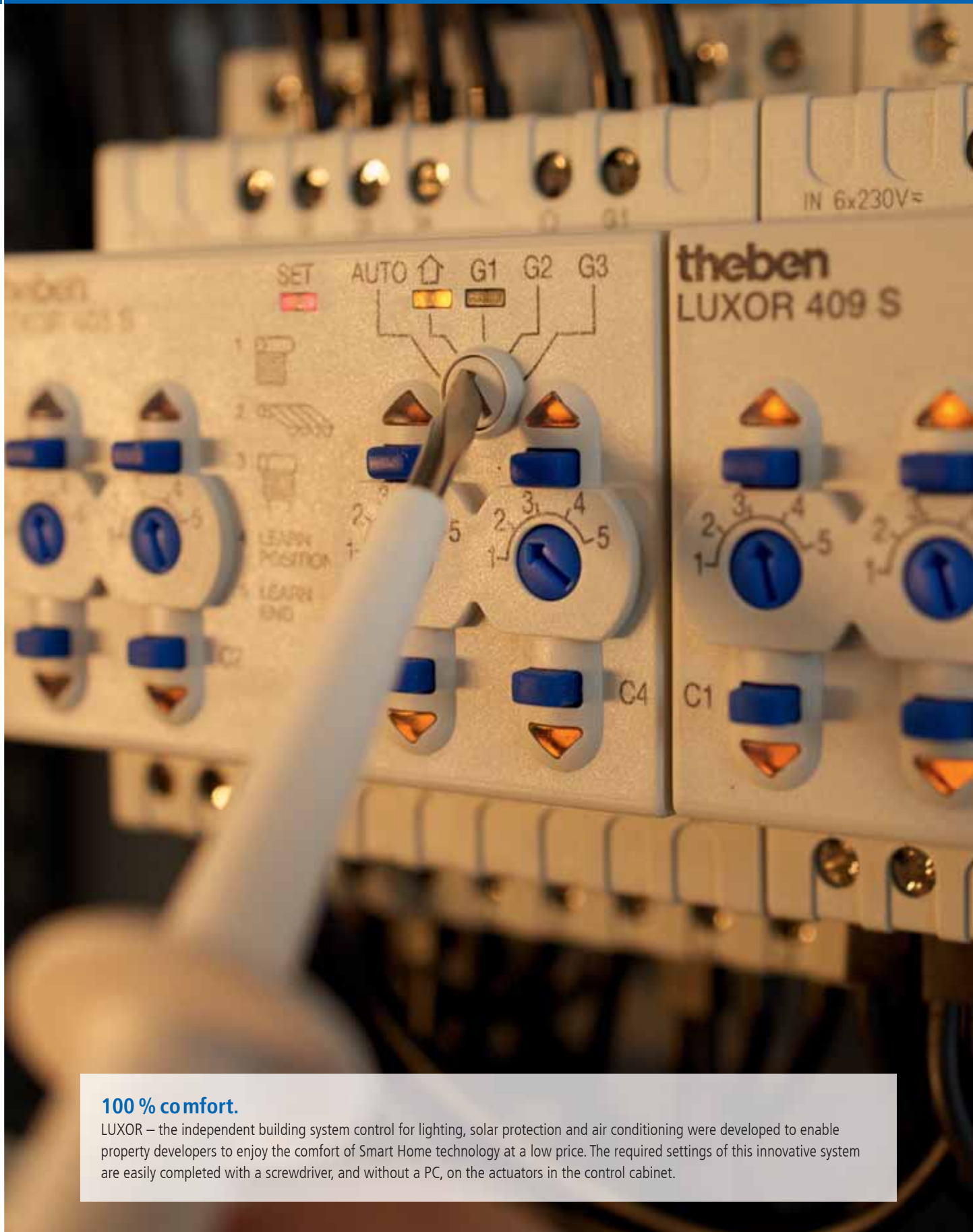
OSIRIA 232 BQ KNX

- KNX indoor clock, square, single-sided, for flush-mounted installation (for OP rooms)
- White metallic dial with black DIN bar numerals
- Black bar hour and minute hands, red second hand
- Stainless steel housing frame flush with tiles or wall V4A for wall installation (flush-mounted)
- Resistant to acids, cleaning agents and disinfectants; in the installed state protected against dust and water in acc. with protection rating IP 54 (DIN 40050)
- 3 mm flat mineral lens
- Clock face: 250 x 250 mm

Product selection

Dial dimensions	Housing material	Type of numerals	Type	Article number
Ø 400 mm	White painted metallic housing	Arabic numerals	OSIRIA 242 AR KNX	5009250
		Fineline numerals	OSIRIA 242 SR KNX	5009251
		Bar numerals	OSIRIA 251 BQ KNX	5009252
250 mm x 250 mm	Rustproof high quality steel housing	Bar numerals	OSIRIA 232 BQ KNX	5009223

Additional clocks
upon request.



100 % comfort.

LUXOR – the independent building system control for lighting, solar protection and air conditioning were developed to enable property developers to enjoy the comfort of Smart Home technology at a low price. The required settings of this innovative system are easily completed with a screwdriver, and without a PC, on the actuators in the control cabinet.

	Beschreibung	Type	Page
Switching			
	LUXOR switching	LUXOR 400	230
		LUXOR 404	230
		LUXOR 402	230
Dimming			
	LUXOR dimming	LUXOR 405	232
Shutter control			
	LUXOR shutter control	LUXOR 408 S	233
		LUXOR 409 S	233
Weather sensors			
	LUXOR weather sensors	LUXOR 412	234
		LUXOR 411	234
		LUXOR 413	234
Multifunction display			
	LUXOR multifunction display	LUXOR 426	236
Clock module			
	LUXOR cloxk	LUXOR 414	238
LUXOR Sets			
	LUXOR sets	LUXOR Set 3	239
		LUXOR Set 4	239
		LUXOR Set 5	239

LUXOR Switching

LUXOR 400



LUXOR 404



LUXOR 402



Description

Common functions

- Modular expandable system with central functions
- For switching electrical consumers
- Manual switch on device
- LEDs to display
- 2 time functions (staircase light function with switch-off warning, lag function)
- Upgradeable for up to 16 LUXOR modules
- Central ON/OFF, panic function and presence simulation

- LUXOR modules are connected via 2-wire bus cable (COM bus)
- Max. input cable length up to 100 m
- Input separate for connecting FI (RCD)
- Universal voltage input: 8–48 V AC/DC (e. g. for intercoms)
- Control for configuring central functions

LUXOR 400

- 4-channel basic device for lighting control
- Selector switch for configuring central functions
- Inputs U1 and I4 floating

LUXOR 404

- 4-channel upgrade device for lighting control
- Input I4 potential-free

LUXOR 402

- 2-channel upgrade device for lighting control
- Input I4 potential-free

Product selection

Type	Article number
LUXOR 400	4000000
LUXOR 404	4040000
LUXOR 402	4020000

Technical data

	LUXOR 400	LUXOR 404	LUXOR 402
Operating voltage	230 V AC		
Frequency	50 Hz		
Width	4 modules		2,5 modules
Installation type	DIN rail		
Stand-by consumption	1,7 W	1,3 W	
Number of channels	4		2
Type of contact	NO contact		
Connecting cable	230 V phase-independent supply cable, max. cable length 100 m		
Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m		
Switching capacity	16 A (at 250 V AC, $\cos \varphi = 1$), 6 A (at 250 V AC, $\cos \varphi = 0.6$)		
Ambient temperature	-10 °C ... +50 °C		
Type of protection	IP 20		
Protection class	II according to EN 60 730-1		

Accessories

Diode module

- Art.No.: 9070367
Details ► Page 254

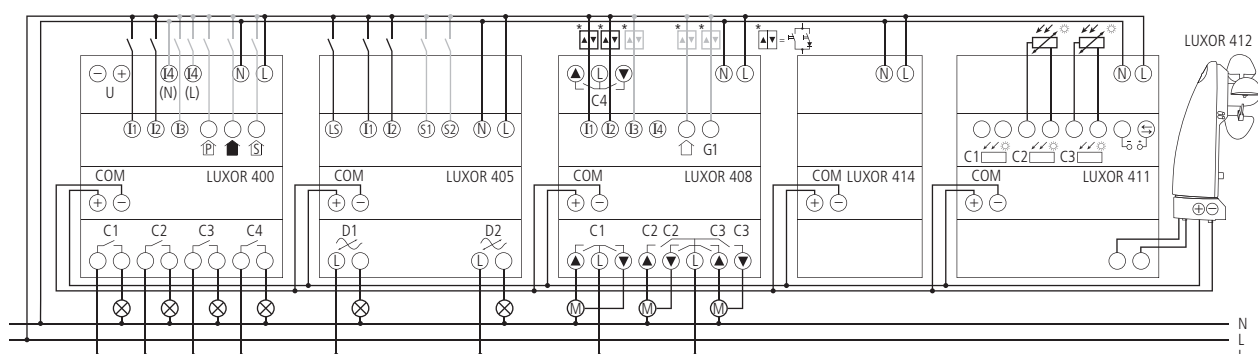


Front panel kit

- Art.No.: 9070001
Details ► Page 246

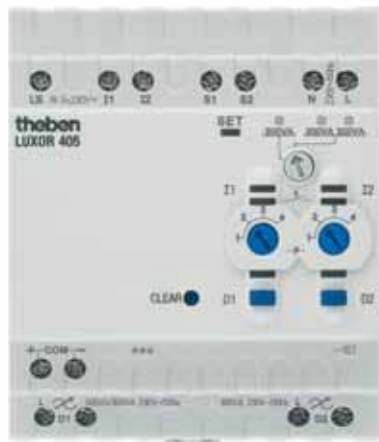


Connection diagrams



LUXOR Dimming

LUXOR 405



DMB 2 S



Description

LUXOR 405

- 2-channel universal dimmer
- For dimming electric consumers such as incandescent lamps, high-voltage halogen lamps, low-voltage halogen lamps with conventional or electronic transformers
- 300 W/VA (for 2 channels) or 500 W/VA (for 1 channel)
- For conventional and electronic transformers
- Can also be used without Base module
- Manual switch on device

DMB 2 S

- LEDs to display
- Upgradeable for up to 16 LUXOR modules
- LUXOR modules are connected via 2-wire bus cable (COM bus)
- One additional input per channel for motion detector
- With overcurrent display
- Input for up to 3 light settings
- 4 program options for dimming response
- Central functions: Presence simulation, central OFF, panic function, central ON

DMB 2 S

- 2 channel dimming output extension module "Dimmbooster"
- To double the output of basic and extension dimming actuators modules. e.g. to: 2 x 600 W/VA (2 channels) or 1 x 1,000 W/VA (1 channel)

Product selection

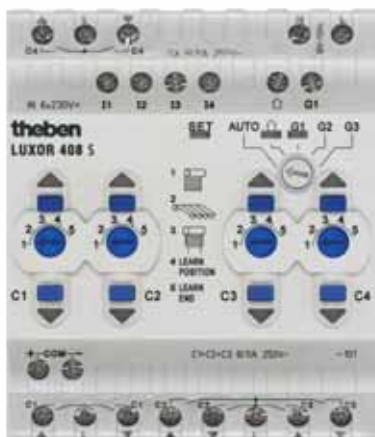
Type	Article number
LUXOR 405	4050000
DMB 2 S	4910272

Technical data

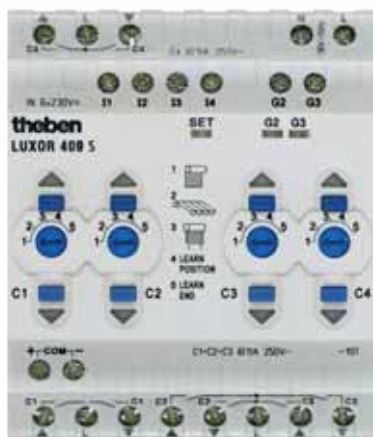
	LUXOR 405	DMB 2 S
Operating voltage	230 V AC	
Frequency	50 Hz	
Width	4 modules	
Installation type	DIN rail	
Stand-by consumption	1 W	0,8 W
Number of channels	2	
Dimming outputs	Triacs	
Connecting cable	230 V phase-independent supply cable, max. cable length 100 m	
Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m	
Ambient temperature	-10 °C ... +50 °C	
Type of protection	IP 20	
Protection class	II as per EN 60 730-1	

LUXOR shutter control

LUXOR 408 S



LUXOR 409 S



Description

Common functions

- For controlling shutters, awnings or blinds
- Separate control of 4 shutters with UP/DOWN/STOP
- Manual switch on device
- LEDs to display
- Controllable via standard shutter sensor
- Upgradeable for up to 16 LUXOR modules
- LUXOR modules are connected via 2-wire bus cable (COM bus)

- Setting option for panic function (via LUXOR 400)
- Storable intermediate position and turn for shading and ventilation
- 2 diode modules (9070367) supplied in delivery

LUXOR 408 S

- 4-channel roller shutter Base module
- Central UP/DOWN, panic 1 group

- With three group functions (individual, group and central control)
- Expandable via channel upgrade modules, time and sensor module and weather station

LUXOR 409 S

- 4-channel shutter upgrade module

Product selection

Type	Article number
LUXOR 408 S	4080100
LUXOR 409 S	4090100

Technical data

	LUXOR 408 S	LUXOR 409 S
Operating voltage	230 V AC	
Frequency	50 Hz	
Width	4 modules	
Installation type	DIN rail	
Stand-by consumption	1,3 W	
Number of channels	4	
Type of contact	NO contact	
Connecting cable	230 V phase-independent supply cable, max. cable length 100 m	
Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m	
Switching capacity	6 A (at 250 V AC, $\cos \varphi = 1$)	
Functions channels	Shutter, blinds and awning control	
Ambient temperature	-10 °C ... +50 °C	
Type of protection	IP 20	
Protection class	II as per EN 60 730-1	

LUXOR weather sensors

LUXOR 411



LUXOR 412



LUXOR 413



Description

LUXOR 411

- Sensor module
- For controlling awnings, shutters and blinds in combination with LUXOR 412 and/or 413 and integrated light sensors
- Setting threshold values on device
- LEDs to display
- Max. input cable length of sensor line is 100 m
- LUXOR modules are connected via 2-wire bus cable (COM bus)

LUXOR 412

- Weather sensor
- For controlling awnings, shutters and blinds depending on rain, wind velocity, temperature and brightness in combination with sensor module LUXOR 411
- Optional connection of up to two additional light sensors for additional facades
- Supply voltage via COM-Bus

LUXOR 413

- Wind sensor
- For controlling awnings, shutters and blinds depending on wind velocity in combination with sensor module LUXOR 411
- Extra power unit required
- Optional connection of up to three light sensors for 3 facades with automatic sun protection function

Product selection

Type	Article number
LUXOR 411	4110000
LUXOR 412	4120000
LUXOR 413	4130000

Technical data

	LUXOR 411	LUXOR 412	LUXOR 413
Operating voltage	230 V AC	COM-Bus	24 V DC
Frequency	50 Hz	–	
Width	4 modules	–	
Stand-by consumption	1,1 W	–	
Installation type	DIN rail	Wall installation or mast bracket	
Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m		
Setting range twilight value	1–100 lx		–
Setting range sun protection	1000–100000 lx		–
Measuring range wind speed	2–20 m/s		
Measuring range temperature	+0 °C ... +60 °C		–
Ambient temperature	–10 °C ... +50 °C	–20 °C ... +55 °C	
Type of protection	IP 20	IP 44	IP 43
Protection class	II according to EN 60 730-1		III according to EN 60 730-1

Accessories

Surface-mounted light sensor

- for LUXOR 411 + LUXOR 412
- Art.No.: 9070008
- Details ► Page 253



Mast mounting weather station

- for LUXOR 411 + LUXOR 413, LUXOR 413
- Art.No.: 9070380
- Details ► Page 257



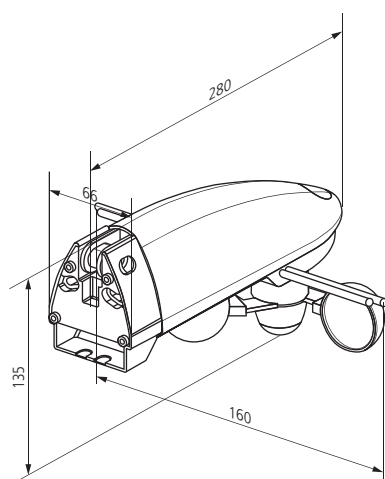
Power unit 24 V DC

- for LUXOR 413
- Art.No.: 9079330
- Details ► Page 257

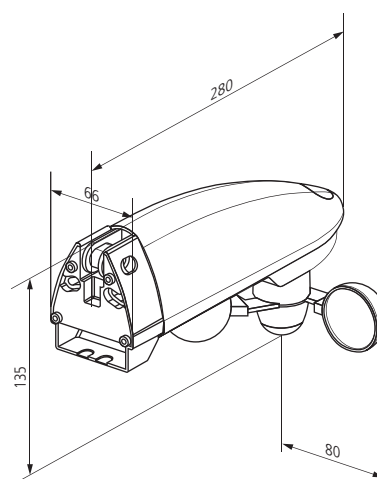


Scale drawings

LUXOR 412



LUXOR 413



LUXOR 426 central display and control unit



Description

- Central display and control unit for the LUXOR system
- Time, weekday, date as well as central and automatic functions are displayed
- Current weather conditions are displayed as well as min./max values
- Display with back-lighting
- Favourite sites can be selected from 6 pages
- 8 channel time switch
- For control of any outputs in LUXOR system, e.g. shutters, blinds, awnings, ventilation, lighting control as well as pond or recirculation pumps
- Heating temperature reduction in combination with a RAMSES room thermostat
- Manual switching on the device for central and group functions as well as manual and automatic mode
- Daily and weekly programs
- Astronomical program (dependent on sunrise and sunset)
- Freely programmable switching times as well as pre-programmed astronomical switching times
- Offset setting ± 120 min
- Easy location input via city list
- Individual link of time switch channels with the outputs
- Time controlled positioning of drives (LUXOR 408 S/409 S) as well as transmission of dimming values (LUXOR 405) as percentage values
- Blocking times for suppression of brightness or twilight signals from sensor module (LUXOR 411)
- Astronomical blocking times for time shifts for moving shutters/awnings up and down
- Automatic changeover summer/winter time
- PIN code
- Installation in flush-mounted socket

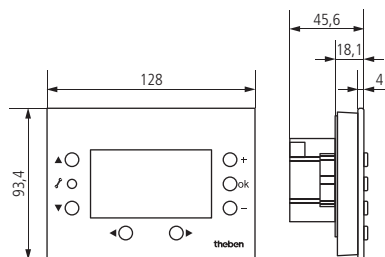
Product selection

Type	Article number
LUXOR 426	4260000

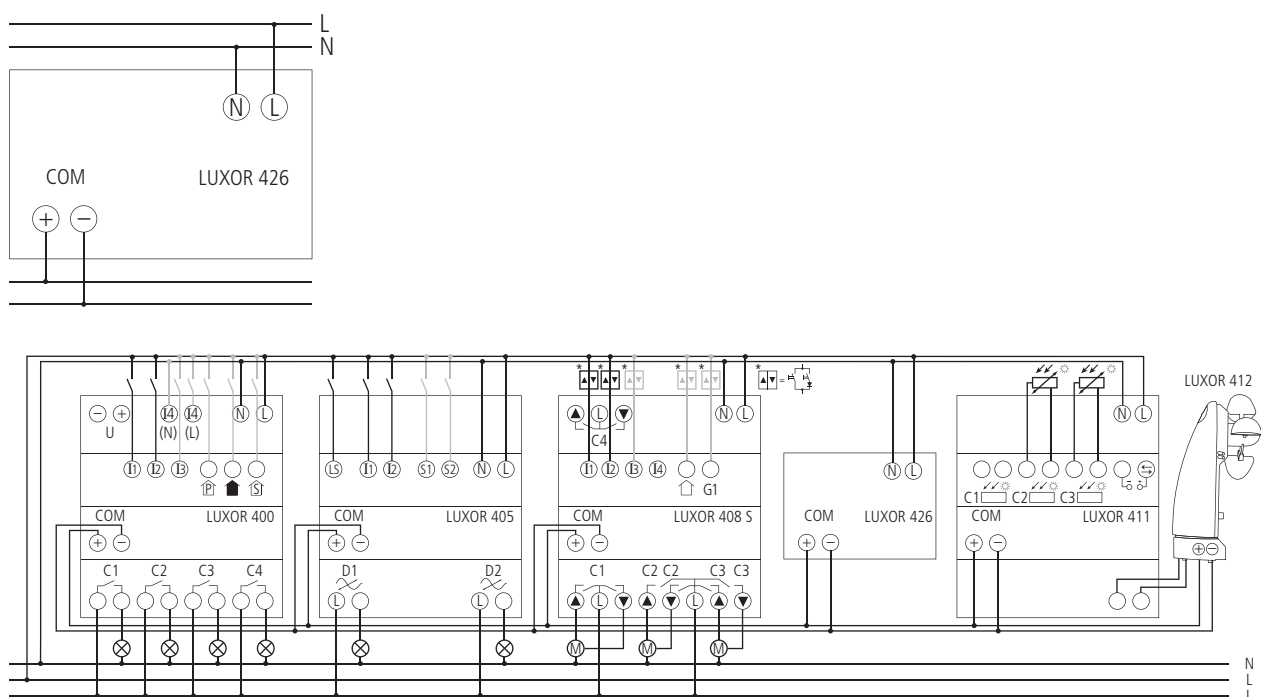
Technical data

LUXOR 426			
Operating voltage	230 V AC	Number of memory locations	350
Frequency	50 Hz	Program	Weekly program
Installation type	Wall installation or on flush-mounted socket	Ambient temperature	$-5^{\circ}\text{C} \dots +45^{\circ}\text{C}$
Stand-by consumption	1,1 W	Type of protection	IP 20
Number of channels	8	Protection class	II according to EN 60 335
Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m		

Scale drawings



Connection diagrams



LUXOR 414 time switch



Description

- 8-channel time switch
- For control of any outputs in LUXOR system, e.g. shutters, blinds and awnings or for lighting control
- Manual switch on device
- Daily and weekly programs
- Astronomical program (dependent on sunrise and sunset)
- Freely programmable switching times as well as pre-programmed astronomical switching times
- Easy location input via city list
- Individual link of time switch channels with the outputs via selector switch
- Positioning of drives (LUXOR 408/LUXOR 409) as well as transmission of dimming values (LUXOR 405) as percentage values
- Blocking times for suppression of brightness or twilight signals from sensor module (LUXOR 411)
- Astronomical blocking times for time shifts for moving shutters/awnings up and down
- Automatic summer/winter time changeover
- LUXOR modules are connected via 2-wire bus cable (COM bus)

Product selection

Type	Article number
LUXOR 414	4140000

Technical data

LUXOR 414			
Operating voltage	230 V AC	Connection for COM	EIB/KNX bus line type YCYM or Y(ST)Y or communication line J-Y(ST)Y/length up to 100 m
Frequency	50 Hz	Number of memory locations	128
Width	2,5 modules	Ambient temperature	−10 °C ... +50 °C
Installation type	DIN rail	Type of protection	IP 20
Stand-by consumption	1,3 W	Protection class	II according to EN 60 730-1
Number of channels	8		

LUXOR Sets

LUXOR Set 3



LUXOR Set 4



LUXOR Set 5



Description

LUXOR Set 3

- Set for the comfortable single family house with 10 separate lighting units and 4 time functions
- Additional dimming channels e. g. for living room and bedrooms
- This set also offers the advantage of central functions
- Suitable for 10 separate lighting units, 4 x time/switch and 4 x switch, 2 x dimming
- Consisting of: Box, 1 LUXOR 400, 1 LUXOR 404, 1 LUXOR 405

LUXOR Set 4

- Set for shutter and blind controlling
- 8 drives can be manually or automatically controlled according to time program or sunrise or sunset
- Blocking times for time shifts for moving shutters/awnings up and down in the early morning
- Additional comfortable central functions
- Suitable for shutter and blind 8 drives, 8 drives and 8 time channels with weekly program with astronomical function
- Consisting of: Box, 1 LUXOR 408 S, 1 LUXOR 409 S, 1 LUXOR 414

LUXOR Set 5

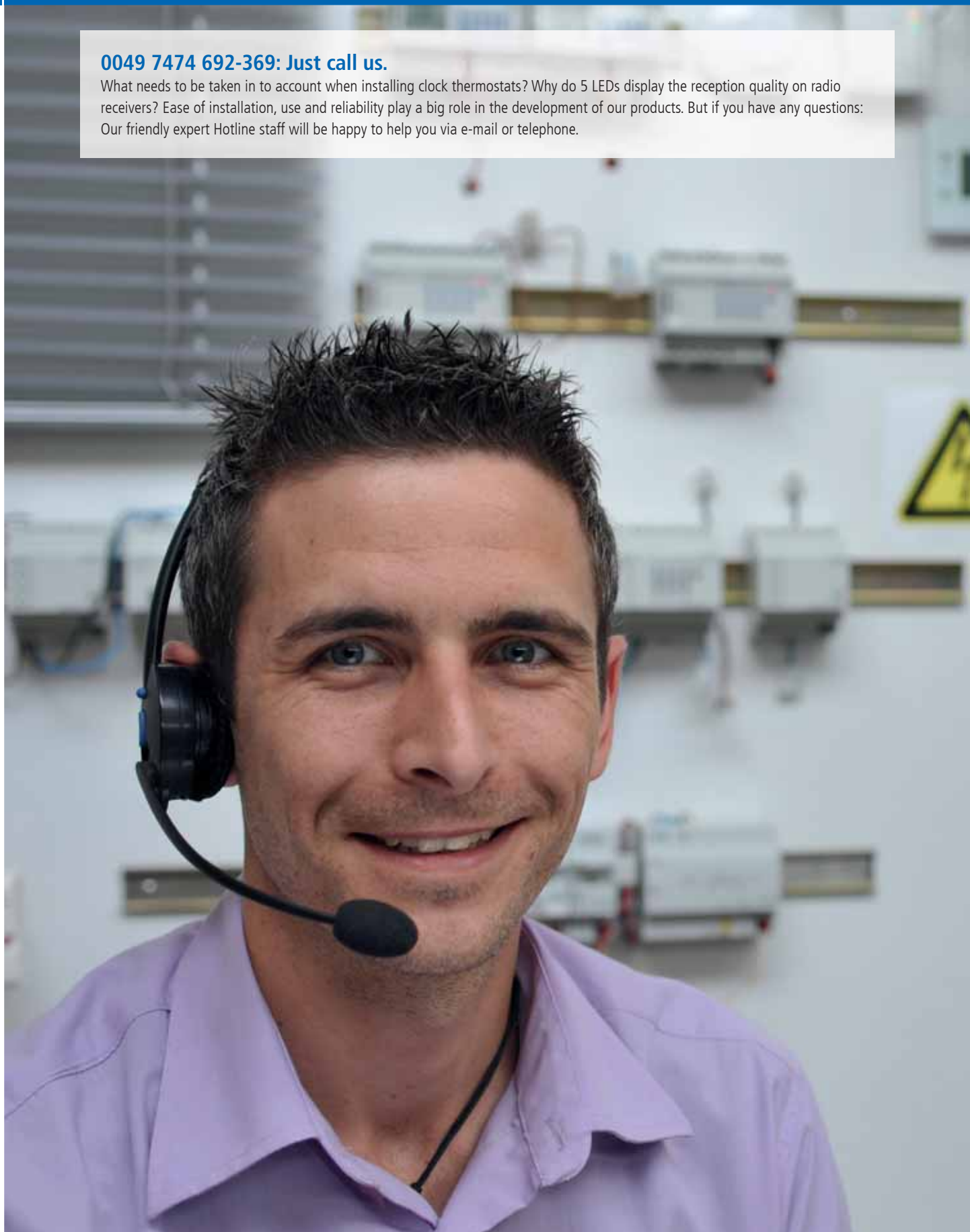
- Set for shutter and blind controlling
- 8 drives can be manually or automatically controlled according to time program or sunrise or sunset
- Blocking times for time shifts for moving shutters/awnings up and down in the early morning
- Additional comfortable central functions
- Suitable for shutter and blind 8 drives, 8 drives and 8 time channels with weekly program with astronomical function
- Consisting of: Box, 1 LUXOR 408 S, 1 LUXOR 409 S, 1 LUXOR 426

Product selection

Type	Article number
LUXOR Set 3	4990003
LUXOR Set 4	4990004
LUXOR Set 5	4990005

0049 7474 692-369: Just call us.

What needs to be taken in to account when installing clock thermostats? Why do 5 LEDs display the reception quality on radio receivers? Ease of installation, use and reliability play a big role in the development of our products. But if you have any questions: Our friendly expert Hotline staff will be happy to help you via e-mail or telephone.



	Number of inputs	Number of outputs	Operating voltage	Type	Page
Controller					
	6	4	100–240 V AC	PHARAO-II 10 (AC)	242
			24 V DC	PHARAO-II 11 (DC)	242
	8	6	100–240 V AC	PHARAO-II 14 (AC)	242
			24 V DC	PHARAO-II 15 (DC)	242
	15	9	100–240 V AC	PHARAO-II 24 (AC)	242
			24 V DC	PHARAO-II 25 (DC)	242
	–	4	220–240 V AC	PHARAO-II extension 4AR (AC)	242
		–	24 V DC	LUNA 131 DDC	244
	1	1	100–240 V AC	SUD 228 II	244

PHARAO controller devices

PHARAO-II 10 (AC)



PHARAO-II 24 (AC)



PHARAO-II extension 4AR (AC)



Description

Common functions

- Small control unit for house automation and industry
- Programming directly on device via eight buttons without interface cable
- Display back light with operator guidance in clear text
- Input and output switching status display
- Lifespan of relay contacts is 100,000 switching cycles at nominal current
- Assignment of programmed functions on front keys
- Internal EEPROM memory for max. 200 function blocks (5,000 bytes)
- Optional plug-in EEPROM for program transfer or dual programming of internal and plugged-in EEPROM
- 3-level password protection
- Realtime year clock with 1,000 switching times

- Graphical programming software for Windows 95/98/NT/2000/ME/XP with detailed online Help documentation
- Remote control/remote monitoring possible via modem/GSM modem
- Transmission of SMS, email or fax

PHARAO-II 10 (AC)

- Operating voltage 100–240 V AC
- 6 digital inputs, e.g. for keys, brightness and temperature switches
- 4 relay outputs

PHARAO-II 11 (DC)

- Operating voltage 24 V DC
- 6 digital/analogue inputs
- 4 relay outputs

PHARAO-II 14 (AC)

- Operating voltage 100–240 V AC
- 8 digital inputs, e.g. for keys, brightness and temperature switches
- 6 relay outputs

PHARAO-II 15 (DC)

- Operating voltage 24 V DC
- 8 digital/analogue inputs
- 6 relay outputs

PHARAO-II 24 (AC)

- Operating voltage 100–240 V AC
- 15 digital inputs, e.g. for keys, brightness and temperature switches
- 9 relay outputs

PHARAO-II 25 (DC)

- Operating voltage 24 V DC
- 15 digital/analogue inputs
- 9 relay outputs

PHARAO-II extension 4AR (AC)

- 4 channel relay output extension
- For PHARAO-II 14 (AC), PHARAO-II 24 (AC)

Product selection

Number of inputs	Number of outputs	Operating voltage	Type	Article number
6	4	100–240 V AC	PHARAO-II 10 (AC)	5750210
		24 V DC	PHARAO-II 11 (DC)	5759211
8	6	100–240 V AC	PHARAO-II 14 (AC)	5750014
		24 V DC	PHARAO-II 15 (DC)	5759015
15	9	100–240 V AC	PHARAO-II 24 (AC)	5750024
		24 V DC	PHARAO-II 25 (DC)	5759025
–	4	220–240 V AC	PHARAO-II extension 4AR (AC)	5759102

Technical data

	PHARAO-II 10 (AC)	PHARAO-II 11 (DC)	PHARAO-II 14 (AC)	PHARAO-II 15 (DC)	PHARAO-II 24 (AC)	PHARAO-II 25 (DC)	PHARAO-II extension 4AR (AC)
Operating voltage	100–240 V AC	24 V DC	100–240 V AC	24 V DC	100–240 V AC	24 V DC	220–240 V AC
Frequency	50–60 Hz	–	50–60 Hz	–	50–60 Hz	–	50–60 Hz
Stand-by consumption	1,2 W	0,4 W	1,3 W	0,4 W	1,3 W	0,4 W	–
Width	4 modules		7 modules				–
Installation type	DIN rail						Encajable
Type of contact	NO contact						
Switching capacity	8 A (at 250 V AC, cos ϕ = 1), 373 VA (at 250 V AC, inductive load)				–		2 A (at 250 V AC, cos ϕ = 1)
Switching capacity at 250 V AC	–				4 x 8 A (250 V AC, cos ϕ = 1), inductive load max. 373 VA, 5 x 2 A (250 V AC, cos ϕ = 1), inductive load max. 93 VA		–
Power reserve	20 days						–
Time accuracy	≤ ± 5 s/day (quartz)						–
Input frequency	5 Hz	20 Hz					–
Ambient temperature	–25 °C ... +55 °C						–
Type of protection	IP 20						–
Protection class	II according to EN 60 730-1						–

Accessories

Power unit 24 V DC

- Art.No.: 9079330
Details ► Page 257



Memory module PHARAO-II

- Art.No.: 9070328
Details ► Page 257



Programming software PHARAO

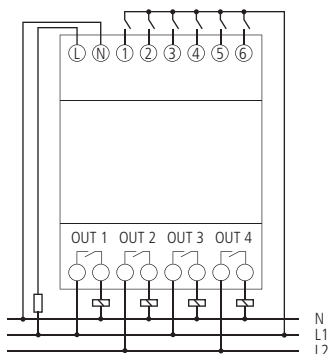
- Art.No.: 9070251
Details ► Page 257



Additional accessories

- GSM cable PHARAO-II
Details ► Page 257
- Programming cable PHARAO
Details ► Page 257

Connection diagram



PHARAO accessories

LUNA 131 DDC



SUD 228 II



Description

LUNA 131 DDC

- Combination sensor with analogue output signal
- Can be used for brightness and temperature measurement
- Each of the two measurement outputs represents a 0-10 V analogue output signal.
- The sensor can be connected directly to the analogue inputs of the PHARAO devices (24 V DC)
- Controls and regulators can be programmed with the signal converter, range compare and Schmitt trigger function modules
- External 24 V DC power unit required

SUD 228 II

- Charging switch for electric storage heaters
- Adjustable charging time and backward control
- If the ripple control receiver or the tariff time switch have been released for night-time off-peak tariff, the device starts the charging program for storage heating
- Charging time can be set from 0–9 hours
- Onscreen display of charging time which is repeated every 24 hours
- Backward control stops charging process at the end of off-peak period
- Manual switch can be connected for daytime charging

Product selection

Type	Article number
LUNA 131 DDC	1319700
SUD 228 II	2280577

Technical data

	LUNA 131 DDC	SUD 228 II
Operating voltage	24 V DC	100–240 V AC
Frequency	–	50–60 Hz
Stand-by consumption	–	1,2 W
Width	–	4 modules
Installation type	Surface-mounted	DIN rail
Type of contact	–	NO contact
Switching capacity	–	8 A (at 250 V AC, $\cos \varphi = 1$)
Measuring range brightness	10–50000 lx	–
Measuring range temperature	–30 °C ... +70 °C	–
Ambient temperature	–30 °C ... +70 °C	0 °C ... +55 °C
Type of protection	IP 54	IP 20
Protection class	–	II according to EN 60 730-1

Accessories

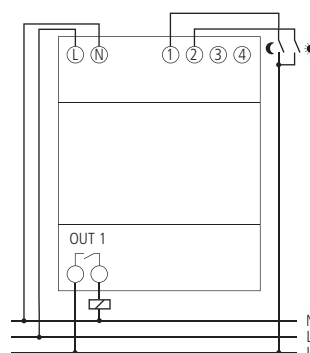
Power unit 24 V DC

- Art.No.: 9079330
Details ► Page 257



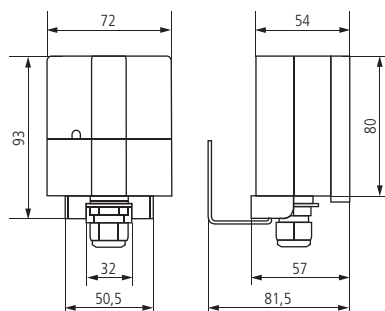
Connection example

SUD 228 II



Scale drawings

LUNA 131 DDC

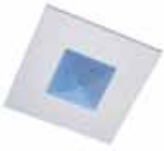
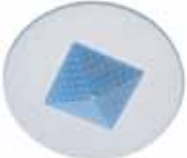


	Description	Suitable for	Type	Article number
Wall mounting kit 17,5 mm 	Terminal box cover plate for assembly, sealable	All DIN rail installation devices width 1 module	Wall mounting kit 17,5 mm	9070065
Wall mounting kit 35 mm 	Terminal box cover plate for assembly, sealable	All DIN rail installation devices width 2 modules	Wall mounting kit 35 mm	9070064
Wall mounting kit 52,5 mm 	Terminal box cover plate for assembly, sealable	All DIN rail installation devices width 3 modules	Wall mounting kit 52,5 mm	9070050
Wall mounting kit 70 mm 	Terminal box cover plate for assembly, sealable	All DIN rail installation devices width 4 modules	Wall mounting kit 70 mm	9070049
Wall mounting kit 105 mm 	Terminal box cover plate for assembly, sealable	All DIN rail installation devices width 6 modules	Wall mounting kit 105 mm	9070053
Terminal cover 52,5 mm 	Terminal box cover plate for assembly, sealable	- SUL 188 g - SUL 188 hw	Terminal cover 52,5 mm	9070061
Front panel kit 	- The front panel installation set is suitable for Theben distributor installation devices of 17.5 to 107.5 mm width - Walls from 1 to 5 mm thick	All DIN rail installation devices	Front panel kit	9070001

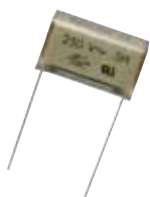
	Description	Suitable for	Type	Article number
Snap-on mounting 72 x 72 	■ Quick fastening for 35 mm profile rails	■ All devices for front panel/wall installation	Snap-on mounting 72 x 72	9070071
Multiple contact strip 	■ Multiple contact strip for soldering to PCBs	■ TR 684 top2	Multiple contact strip	9075141
PC set OBELISK top2 	■ Memory card, USB plug adapter, software (for Windows 2000/XP/Vista). Updates of existing OBELISK top2 software are available as free downloads at www.theben.de ■ Switching programs created on the PC by means of the convenient OBELISK top2 software can be transferred via USB interface to the OBELISK top2 memory card and from the card to the time switch and vice versa. Thus no PC or laptop is required on-site. Programming and the program printout can be done comfortably from the desk ■ As long as the OBELISK top2 memory card is inserted in the device, the switching program on the OBELISK top2 memory card can be used without having to delete the switching program on the device ■ Consisting of: Memory card, USB plug adapter, software ■ Updates of existing OBELISK top2 software are available as free downloads at www.theben.de	■ TR top2 ■ LUNA top2 ■ SELEKTA top2 ■ TR top2 KNX	PC set OBELISK top2	9070409
Memory card OBELISK top2 	■ Individual memory card	■ TR top2 ■ LUNA top2 ■ SELEKTA top2 ■ TR top2 KNX	Memory card OBELISK top2	9070404
Antenna DCF77 KNX 	■ Radio control via antenna with KNX time switches: To ensure good reception, do not install the antenna in cellars or on distribution boxes. Connection is made via separate 2-wire, unscreened high-voltage power cable (max. 100 m), up to 10 Theben top2 RC devices can be connected. Polarity, short-circuit and interruption of the antenna circuit are each visually displayed to help with installation.	■ ZS 600 DCF KNX	Antenna DCF77 KNX	9070271
Antenna top2 RC-DCF 	■ Radio control via antenna with top2 RC devices: To ensure good reception, do not install the antenna in cellars or on distribution boxes. Connection is made via separate 2-wire, unscreened high-voltage power cable (max. 100 m), up to 10 Theben top2 RC devices can be connected. Polarity, short-circuit and interruption of the antenna circuit are each visually displayed to help with installation.	■ TR top2 RC ■ LUNA top2 RC ■ SELEKTA top2 RC ■ TR top2 KNX	Antenna top2 RC-DCF	9070410

	Description	Suitable for	Type	Article number
Antenna top2 RC-GPS 	Worldwide time synchronisation and positioning via receiving GPS satellite signal. The antenna is connected by a 2 wire cable (max. 100 m) to Theben top2 RC devices (up to 5 devices can be connected depending on device type). A top2 GPS power unit (item number 907 0 892) is also required when connecting to TR 611 top2 RC, LUNA 121 top2 RC, LUNA 122 top2 RC or SELEKTA 171 top2 RC devices. No additional power unit is required when connecting to TR 641 top2 RC, TR 642 top2 RC, TR 644 top2 RC devices or several devices to one antenna. Positioning is only possible when connecting to TR 641 top2 RC, TR 642 top2 RC, TR 644 top2 RC and SELEKTA 171 top2 RC devices. Can not be used with TR 611 top2 RC 24 V and SELEKTA 171 top2 RC 24V	- TR top2 RC - LUNA top2 RC - SELEKTA top2 RC - TR 648 top2 RC KNX	Antenna top2 RC-GPS	9070610
Power unit top2 GPS 	- Required when connecting the antenna top2 RC-GPS to an individual TR 611 top2 RC, LUNA 121 top2 RC, LUNA 122 top2 RC or SELEKTA 171 top2 RC device (No additional power unit is required when connecting to a minimum of 2 devices) - Operating voltage: 230 V AC - Width: 2 modules	- TR top2 RC - LUNA top2 RC - SELEKTA top2 RC	Power unit top2 GPS	9070892
Cover 55 x 55 for BZ 	Cover for hour counter	BZ 142-1	Cover 55 x 55 for BZ	9070041
Cover 72 x 72 for BZ 	Cover for hour counter	BZ 142-1	Cover 72 x 72 for BZ	9070074
Front kit BZ 142-3 	Terminal box cover plate for hour counter	BZ 142-3	Front kit BZ 142-3	9070075
Clamp BZ 	Clamping bracket for hour counter	- BZ 142-1 - BZ 143-1 - BZ 146 - BZ 147	Clamp BZ	9070043

	Description	Suitable for	Type	Article number
Plug-in socket BZ 	■ Plug-in base for hour counter	■ BZ 142-3	Plug-in socket BZ	9070042
Surface frame PresenceLight 	■ Presence detector surface frame ■ Colour: Pure white ■ Additional colours available upon request	■ PresenceLight 180 ■ PresenceLight 360	Surface frame PresenceLight	9070513
Surface frame compact 	■ Presence detector surface frame ■ Colour: Pure white ■ Additional colours available upon request	■ compact office ■ compact passage ■ compact passimo	Surface frame compact	9070514
Surface frame ECO-IR 360 	■ Presence detector surface frame ■ Colour: Pure white ■ Additional colours available upon request	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	Surface frame ECO-IR 360	9070512
PlanoBox 1WH 	■ Presence detector surface frame ■ Colour: Pure white ■ Additional colours available upon request	■ PlanoCentro U	PlanoBox 1WH	9070731
Surface frame ECO-IR 180 	■ Presence detector surface frame ■ Colour: Pure white ■ Additional colours available upon request	■ ECO-IR 180A ■ ECO-IR 180-24V	Surface frame ECO-IR 180	9070511
QuickFix concrete round cover 	■ QuickFix concrete, flush-mounted socket for concrete ■ Flush ceiling installation ■ The presence detector is inserted into the false ceiling using a flush-mounted socket, just leaving pyramid lens visible ■ Colour: Pure white ■ Additional colours available upon request	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix concrete round cover	9070519

	Description	Suitable for	Type	Article number
QuickFix concrete square cover 	As QuickFix concrete round cover, but: ■ Square version	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix concrete square cover	9070518
QuickFix concrete flush-mounted box 	■ QuickFix flush-mounted socket concrete	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix concrete flush-mounted box	9070521
Junction casing, 115 x 115 x 100 mm 	■ Agro/Kaiser flush-mounted junction box/connection box 9908.01	■ PlanoCentro U	Junction casing, 115 x 115 x 100 mm	9070689
QuickFix round cover 	■ QuickFix housing, for false ceilings ■ Flush ceiling installation ■ The presence detector is inserted into the false ceiling, just leaving pyramid lense visible ■ Easy installation ■ Colour: Pure white ■ Additional colours available upon request	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix round cover	9070517
QuickFix square cover 	As QuickFix round cover, but: ■ Square version	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix square cover	9070516
QuickFix flush-mounted housing 	■ QuickFix flush-mounted housing ■ Incl. flush-mounted socket	■ ECO-IR 360A ■ ECO-IR 360C NT ■ ECO-IR DUAL-C NT ■ ECO-IR 360-24V ■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	QuickFix flush-mounted housing	9070522
QuickSafe 	■ QuickSafe safety cover ■ Secure protection against mechanical damage ■ Robust and solid design ■ Particularly impact resistant ■ 6 screws, 3 rawlplugs and three spacers ■ Protection class IK07	■ All ThebenHTS presence detectors	QuickSafe	9070531

	Description	Suitable for	Type	Article number
SendoClic 	■ Infrared remote control for ThebenHTS presence sensors ■ Suitable for PlanoCentro and PresenceLight KNX ■ Switching and dimming of lighting, scene control ■ 2 channels for 2 lighting groups ■ 2 programmable scenes ■ 5 group addresses for defining channels ■ Coding switch and programming key for the easy allocation of lighting groups and channels	■ PlanoCentro ■ PlanoCentro KNX ■ PresenceLight KNX ■ compact office DALI	SendoClic	9070690
SendoPro 868-A 	■ Infrared remote control for the convenient startup of HTS presence detectors ■ Suitable for PlanoCentro, compact, PresenceLight, ECO-IR C NT and ECO-IR DUAL-C NT ■ The SendoPro 868A management remote control for the electrician enables efficient start-up and flexible adaptation to new applications ■ Rapid adjustment of parameters to changed operating conditions without uninstalling detectors ■ Transmission of individual settings or complete configuration sets to the detector ■ Select configurations from PlanoCentro ■ Calling up of pre-defined value packets for typical rooms ■ Saving and calling up user-defined parameter sets on internal memory or SD card ■ Updates via SD card	■ All remote controlled ThebenHTS presence detectors	SendoPro 868-A	9070675
clic 	■ Infrared remote control for ThebenHTS presence sensors ■ Suitable for all presence detectors except all PlanoCentro and PresenceLight KNX ■ Switching and dimming of lighting, scene control ■ 2 channels for 2 lighting groups ■ 2 programmable scenes ■ 5 group addresses for defining channels ■ Coding switch and programming key for the easy allocation of lighting groups and channels	■ All remote controlled ThebenHTS presence detectors, except PlanoCentro, PresenceLight KNX and compact office DALI	clic	9070515
QuickSet plus 	■ Infrared remote control for the convenient start-up of ThebenHTS presence detectors ■ Suitable for all presence detectors except all PlanoCentro and PresenceLight KNX ■ Rapid adjustment to changed operating conditions without uninstalling detectors ■ Transmission of individual settings or complete value packages to the detector ■ Call up of pre-defined value packets for typical rooms ■ Storing and calling-up 8 user-defined value packets ■ Onscreen text guidance	■ All remote controlled ThebenHTS presence detectors, except PlanoCentro, PresenceLight KNX and compact office DALI	QuickSet plus	9070532
Bus coupling unit KNX 	■ Necessary for diverse presence detectors ■ For flush-mounted installation	■ ECO-IR 360EIB-AC ■ ECO-IR DUAL-EIB	Bus coupling unit KNX	9070524

	Description	Suitable for	Type	Article number
RC filter 	■ Suppression filter for presence and motion detectors	■ All presence and motion detectors	RC filter	9070523
Surface frame LUXA 103-200 	■ Motion detector surface frame	■ LUXA 103-200	Surface frame LUXA 103-200	9070504
LUXA corner angle black 	■ For corner installation of motion detectors ■ Wall installation, external corner installation	■ LUXA 101-150 ■ LUXA 101-180	LUXA corner angle black	9070625
LUXA corner angle white 	■ For corner installation of motion detectors ■ Wall installation, external corner installation	■ LUXA 101-150 ■ LUXA 101-180 ■ LUXA 101-360	LUXA corner angle white	9070626
SPHINX corner angle 	■ For corner installation of motion detectors ■ Wall installation, external corner installation	■ SPHINX 105-110 ■ SPHINX 105-220 ■ SPHINX 105-300 ■ SHINX 105-300 KNX	SPHINX corner angle	9070535
SPHINX RC 104 	■ User remote control for SPHINX 104 ■ ON/OFF (max. 8 h)/Automatic ■ Teach-in function for teaching in the current brightness value	■ SPHINX 104-360 ■ SPHINX 104-360/2 ■ SPHINX 104-360 AP ■ SPHINX 104-360/2 AP	SPHINX RC 104	9070538
SPHINX RC 104 Pro 	■ Service remote control for SPHINX 104 ■ ON/OFF ■ Teach-in function for teaching in the current brightness value ■ Predefined brightness values and switch-on times ■ Impulse, reset and test function ■ Block function	■ SPHINX 104-360 ■ SPHINX 104-360/2 ■ SPHINX 104-360 AP ■ SPHINX 104-360/2 AP	SPHINX RC 104 Pro	9070536

	Description	Suitable for	Type	Article number
SPHINX RC 105 	■ User remote control for SPHINX 105 ■ ON/OFF (2 hr, 4 hr, 8 hr) ■ Automatic ■ Teach-in function for teaching in the current brightness value	■ SPHINX 105-110 ■ SPHINX 105-220 ■ SPHINX 105-300 ■ SPHINX 105-300 KNX	SPHINX RC 105	9070539
SPHINX RC 105 Pro 	■ Service remote control for SPHINX 105 ■ ON/OFF ■ Teach-in function for teaching in the current brightness value ■ Predefined brightness values and switch-on times ■ Impulse, reset and test function ■ Block function ■ Creep under protection ON/OFF	■ SPHINX 105-110 ■ SPHINX 105-220 ■ SPHINX 105-300 ■ SPHINX 105-300 KNX	SPHINX RC 105 Pro	9070537
Adapter plate LUNA star 	■ The adapter plate simplifies the replacement of faulty twilight switches from Eberle, ESYLUX, Legrand, Grässlin, Hager, Merten, Senmatic, Theben etc. As the plate has standard fixing holes, no further holes need to be drilled in the facade, 2 installation screws included.	■ LUNA 126 star ■ LUNA 127 star ■ LUNA 128 star ■ LUNA 129 star-time	Adapter plate LUNA star	9070486
Surface-mounted light sensor 	■ Sensor rotatable ■ With mounting bracket and Screw terminals ■ Protection class IP 54 ■ Dimensions: 116x27x61 mm	■ LUNA 108 ■ LUXOR 411	Surface-mounted light sensor	9070008
Analogue surface-mounted light sensor 	■ Sensor rotatable ■ With mounting bracket and screw terminals ■ Protection class IP 55	■ LUNA 109 ■ LUNA 110 ■ LUNA 120 top2	Analogue surface-mounted light sensor	9070416
Digital surface-mounted light sensor 	■ Sensor rotatable ■ With mounting bracket and screw terminals ■ Protection class IP 55	■ LUNA 111 top2 ■ LUNA 112 top2 ■ LUNA 121 top2 RC ■ LUNA 122 top2 RC ■ LUNA 134 KNX	Digital surface-mounted light sensor	9070415

	Description	Suitable for	Type	Article number
Analogue flush-mounted light sensor 	■ Connecting cable 1.5 m ■ Protection class IP 65	■ LUNA 108 ■ LUNA 109 ■ LUNA 110 ■ LUNA 120 top2	Analogue flush-mounted light sensor	9070011
Digital flush-mounted light sensor 	■ Spring terminals ■ Protection class IP 66	■ LUNA 111 top2 ■ LUNA 112 top2 ■ LUNA 121 top2 RC ■ LUNA 122 top2 RC ■ LUNA 134 KNX	Digital flush-mounted light sensor	9070456
Diode module 	■ Required for special functions (group/central function) with LUXOR ■ DIMAX: Light scenes, two button operation ■ 2 modules supplied in delivery	■ LUXOR 400 ■ LUXOR 402 ■ LUXOR 404 ■ LUXOR 405 ■ LUXOR 408 S ■ LUXOR 409 S ■ DIMAX 534	Diode module	9070367
Socket RAMSES 	■ Plug-in socket for installing the RAMSES HF clock thermostat on the wall	■ RAMSES 813 top2 Set A/Set S/Set 1 ■ RAMSES 833 top2 Set 1/Set 2	Wall installation socket RAMSES	9070605
Adapter RAMSES 72x/78x 	■ Wallpaper/wall cover plate for replacement of RAMSES 3... devices with new clock thermostats, e.g. RAMSES 722	■ RAMSES 722 ■ RAMSES 722 S ■ RAMSES 782 ■ RAMSES 782 S ■ RAMSES 784 ■ RAMSES 784 S ■ RAMSES 721 ■ RAMSES 725	Adapter RAMSES 72x/78x	9070245
Adapter plate RAMSES 70x 	■ Adapter plate for flush-mounted socket 79 x 79 mm	■ RAMSES 701 - 709	Adapter plate RAMSES 70x	9070480
Adapter plate RAMSES 714 	■ Adapter plate for flush-mounted socket 79 x 79 mm	■ SOTHIS 715 ■ RAMSES 714 ■ RAMSES 714 A ■ RAMSES 714 A/FH	Adapter plate RAMSES 714	9070212

	Description	Suitable for	Type	Article number
Antenna RAMSES 813/833 	■ For 868 MHz with wall holder and 2 m screened connection cable (only required in event of poor reception quality)	■ RAMSES 813 top2 Set 1 ■ RAMSES 833 top2 Set 1/2 ■ RAMSES 784 HF Set 1	Antenna RAMSES 813/833	9070334
External temperature sensor 1 	■ External temperature sensor	■ RAMSES 366/1 top ■ RAMSES 366/2 top ■ RAMSES 713 S KNX ■ RAMSES 713 FC KNX ■ CHEOPS control KNX	External temperature sensor 1	9070191
External temperature sensor 2 	■ With temperature adjustment of ± 3 K	■ RAMSES 366/1 top ■ RAMSES 366/2 top	External temperature sensor 2	9070192
Temperature sensor RAMSES IP 65 	■ External temperature sensor ■ Protection class IP 65	■ RAMSES 831 top2 ■ RAMSES 832 top2 ■ RAMSES 833 top2 Sets	Temperature sensor RAMSES IP 65	9070459
Temperature sensor 	■ Temperature sensor for laying in floor ■ Type of protection IP 65	■ RAMSES 831 top2 ■ RAMSES 832 top2 ■ RAMSES 833 top2 Sets ■ RAMSES 712 KNX ■ RAMSES 713 S KNX ■ RAMSES 713 FC KNX ■ FCA 1 KNX	Temperature sensor	9070321
OT-Box Standard 	■ For expansion of the RAMSES 856 top2 OT system	■ RAMSES 856 top2 OT	OT-Box Standard	9070712
Flow temperature sensor RAMSES 	■ Also required for applications with 2 feed sensors	■ RAMSES 856 top2 OT	Flow temperature sensor RAMSES	9070371

	Description	Suitable for	Type	Article number
Actuator ALPHA 4 230 V 	■ Actuator for radiators, heating circuit distributors or individual heating circuits ■ Operating voltage 230 V AC ■ „First open function“ for easy installation and heating start-up ■ Plug-in installation on valve adapters ■ 100 % protection against damaging drives through leaking valves ■ Function and adjustment checking ■ Protection against disassembly by means of removable SaveGuard ■ Guaranteed overvoltage protection ■ Valve adapter not included in delivery	■ All clock thermostats ■ RAMSES 714 ■ RAMSES 751 ■ HMG4/HME 4 KNX	Actuator ALPHA 4 230 V	9070438
Actuator ALPHA 4 24 V 	As Actuator ALPHA 4 230 V, but: ■ Operating voltage 24 V AC/DC	■ All clock thermostats ■ HMG 4/HME 4 KNX ■ HMT 6/HMT 12 KNX	Actuator ALPHA 4 24 V	9070439
Valve adapter VA 78 	■ Valve adapters for Danfoss RA ■ Further valve adapters available upon request	■ ALPHA 4 230 V ■ ALPHA 4 24 V ■ CHEOPS control KNX ■ CHEOPS drive KNX	Valve adapter VA 80	9070437
Valve adapter VA 80 	■ Valve adapters for Onda, Schlösser(from 1993), Oventrop (M30 x 1.5), Heimeier, Herb, Therm-Concept, Frank, Roth (distributor), Dinotherm (distributor) ■ Further valve adapters available upon request	■ ALPHA 4 230 V ■ ALPHA 4 24 V ■ CHEOPS control KNX ■ CHEOPS drive KNX	Valve adapter VA 80	9070437
Plunge sensor RAMSES 	■ Additionally required for applications with domestic water control or boiler plunge sensor	■ RAMSES top2 OT	Plunge sensor RAMSES	9070379
Frame RAMSES 74x 	■ Frame for mechanical room thermostats ■ Without central part	■ RAMSES 741 ■ RAMSES 746 ■ RAMSES 748	Frame RAMSES 74x	9070603
Central part RAMSES 741/748 	■ Central part without switch section and setting button	■ RAMSES 741 ■ RAMSES 748	Central part RAMSES 741/748	9070602

	Description	Suitable for	Type	Article number
Central part RAMSES 746 	Central part with switch section and setting button	RAMSES 746	Central part RAMSES 746	9070601
Power unit CO ₂ -sensor 	24 V/12 W flush-mounted power unit (SELV)	AMUN 716 R	Power unit CO ₂ -sensor	9070494
Mast mounting weather station 	- For mast installation of the weather station - Diameter 50–60 mm	- LUXOR 412 - LUXOR 413 - Weather station KNX - Weather station basic KNX - Meteodata 140 KNX	Mast mounting weather station	9070380
GSM cable PHARAO-II 	- PHARAO-II GSM interface cable - Enables connection to be established and SMS data to be transmitted to mobile telephone, email address or fax machine. The interface for connecting the GSM cable is located below the plug-in upgrade modules.	PHARAO-II	GSM cable PHARAO-II	9070329
Memory module PHARAO-II 	- Plug-in EEPROM memory module (5 kByte) - External memory module for transferring and/or downloading the program from or to the internal EEPROM system memory. Internal program is deactivated for as long as the external memory module is plugged in (dual programming).	PHARAO-II	Memory module PHARAO-II	9070328
Power unit 24 V DC 	- Power pack for supply voltage from PHARAO controllers and sensors. Power unit sufficient for 5 x PhARAO-II 14/15 or 4 x PHARAO-II 24/25 controls - Width: 3 modules	- LUNA 131 DDC - PHARAO-II	Power unit 24 V DC	9079330
Programming cable PHARAO 	For series connection (RS 232) to enable control programs to be configured and parameterised. This cable is used to connect an analogue model for remote maintenance and remote control.	PHARAO-II	Programming cable PHARAO	9070252
Programming software PHARAO 	CD for Windows 95/98/NT/2000/ME/XP, software for PHARAO and PHARAO II generation	PHARAO-II	Programming software PHARAO	9070251

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2009000	PresenceLight 360B-KNX WH	7612748003750	200
2009050	PresenceLight 180B-KNX WH	7612748003835	212
2009812	PresenceLight 360B-KNX BK	7612748003767	200
2009813	PresenceLight 360B-KNX SR	7612748003774	200
2009815	PresenceLight 180B-KNX BK	7612748003842	212
2009816	PresenceLight 180B-KNX SR	7612748003859	212
2010000	compact office	7612748000698	62
2010001	compact office DIM	7612748000773	64
2010010	compact office DALI WH	7612748004054	66
2010011	compact office DALI BK	7612748004061	66
2010012	compact office DALI SR	7612748004078	66
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2010090	compact passage	7612748001626	68
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2010801	compact office SR	7612748002692	62
2010803	compact office DIM BK	7612748002715	64
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2010807	compact passage SR	7612748002753	68
2010809	compact passimo BK	7612748003361	70
2010810	compact passimo SR	7612748003378	70
2014000	compact office 24V	7612748001039	90
2014001	compact office 24V Lux	7612748001121	92
2014090	compact passage 24V	7612748001725	94
2014800	compact office 24V BK	7612748002777	90
2014801	compact office 24V SR	7612748002784	90
2014803	compact office 24V Lux BK	7612748002807	92
2014804	compact office 24V Lux SR	7612748002814	92
2014806	compact passage 24V BK	7612748002838	94
2014807	compact passage 24V SR	7612748002845	94
2019200	compact office EIB	7612748000940	202
2019280	compact passimo KNX WH	7612748003439	204
2019290	compact passage KNX	7612748001732	204
2019800	compact office EIB BK	7612748002869	202
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2020815	ECO-IR DUAL-C NT BK	7612748002173	76
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2024000	ECO-IR 360-24V	7612748000544	96
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2029201	ECO-IR 360EIB-AC	7612748000605	206
2029800	ECO-IR DUAL-EIB BK	7612748002265	206
2029801	ECO-IR DUAL-EIB SR	7612748002272	206
2029803	ECO-IR 360EIB-AC BK	7612748002296	206
2029804	ECO-IR 360EIB-AC SR	7612748002302	206
2030102	PlanoCentro 101-EWH	7612748002456	78
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2030202	PlanoCentro 101-UWH	7612748002494	78
2030203	PlanoCentro 101-UBK	7612748002500	78
2030204	PlanoCentro 101-USR	7612748002517	78
2030302	PlanoCentro 300-EWH	7612748003187	80
2030303	PlanoCentro 300-EBK	7612748003194	80
2030304	PlanoCentro 300-ESR	7612748003200	80
2030402	PlanoCentro 300-UWH	7612748003224	80
2030403	PlanoCentro 300-UBK	7612748003231	80
2030404	PlanoCentro 300-USR	7612748003248	80
2030502	PlanoCentro 201-EWH	7612748003095	80
2030503	PlanoCentro 201-EBK	7612748003101	80
2030504	PlanoCentro 201-ESR	7612748003118	80
2030602	PlanoCentro 201-UWH	7612748003132	80
2030603	PlanoCentro 201-UBK	7612748003149	80
2030604	PlanoCentro 201-USR	7612748003156	80
2040102	PlanoCentro 000-EWH	7612748003279	78
2040103	PlanoCentro 000-EBK	7612748003286	78
2040104	PlanoCentro 000-ESR	7612748003293	78
2040202	PlanoCentro 000-UWH	7612748003316	78
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4000000	LUXOR 400	4003468400005	230
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4050000	LUXOR 405	4003468405000	232
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5009252	OSIRIA 251 BQ KNX	4003468500279	227
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5340000	DIMAX 534	4003468534007	140
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5750210	PHARAO-II 10 (AC)	4003468575185	242
5759015	PHARAO-II 15 (DC)	4003468575109	242
5759025	PHARAO-II 25 (DC)	4003468575123	242
5759102	PHARAO-II extension 4AR (AC)	4003468575154	242
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6009200	ZS 600 DCF KNX	4003468600009	219
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6100103	TR 610 top2	4003468611685	10
6100110	TR 610 top2 G	4003468612590	10
6104100	TR 610 top2 24V	4003468613009	10
6110103	TR 611 top2	4003468612071	12
6110300	TR 611 top2 RC	4003468611838	12
6114100	TR 611 top2 24V	4003468613016	12
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6220103	TR 622 top2	4003468612170	12
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6350100	TR 635 top2	4003468630006	22
6360100	TR 636 top2	4003468630020	22
6410100	TR 641 top2	4003468641088	18
6410300	TR 641 top2 RC	4003468641118	18
6414300	TR 641 top2 RC 24V	4003468641125	18
6420100	TR 642 top2	4003468642085	18
6420300	TR 642 top2 RC	4003468642108	18
6424300	TR 642 top2 RC 24V	4003468642115	18
6440100	TR 644 top2	4003468644232	18
6440300	TR 644 top2 RC	4003468644218	18
6489210	TR 648 top2 RC-DCF KNX	4003468640005	220
6489212	TR 648 top2 RC KNX	4003468640012	220
6490104	EM 4 top2	4003468649008	20
6490900	EM LAN top2	4003468649015	20
6840100	TR 684-1 top2	4003468680254	24
6840101	TR 684-2 top2	4003468680261	24
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7220801	RAMSES 722 S	4003468722022	158
7250030	RAMSES 725	4003468725016	160
7319200	CHEOPS drive KNX	4003468731000	194
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7410130	RAMSES 741	4003468741023	166
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7840801	RAMSES 784 S	4003468784020	158
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8119132	RAMSES 811 top2	4003468811139	144
8120132	RAMSES 812 top2	4003468812037	146
8139501	RAMSES 813 top2 HF Set 1	4003468813218	148
8139503	RAMSES 813 top2 HF Set A	4003468813164	148
8139505	RAMSES 813 top2 HF Set S	4003468813188	148
8169132	RAMSES 816 top2 OT	4003468810002	152
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8320132	RAMSES 832 top2	4003468832035	146
8339501	RAMSES 833 top2 HF Set 1	4003468833049	150
8339502	RAMSES 833 top2 HF Set 2	4003468833056	150
8559200	KNX-OT-Box	4003468855034	223
8569132	RAMSES 856 top2 OT	4003468850084	154
9070001	Front panel kit	4003468900109	246
9070008	Surface-mounted light sensor	4003468900574	253
9070011	Analogue flush-mounted light sensor	4003468900604	254
9070041	Cover 55 x 55 for BZ	4003468902004	248
9070042	Plug-in socket BZ	4003468900697	249
9070043	Clamp BZ	4003468900703	248
9070049	Wall mounting kit 70 mm	4003468900727	246
9070050	Wall mounting kit 52,5 mm	4003468900734	246
9070061	Terminal cover 52,5 mm	4003468900802	246
9070064	Wall mounting kit 35 mm	4003468900826	246
9070065	Wall mounting kit 17,5 mm	4003468900833	246
9070071	Snap-on mounting 72 x 72	4003468900895	247
9070074	Cover 72 x 72 for BZ	4003468900925	248
9070075	Front kit BZ 142-3	4003468900932	248
9070191	External temperature sensor 1	4003468901915	255
9070192	External temperature sensor 2	4003468901922	255
9070212	Adapter plate RAMSES 714	4003468900796	254
9070245	Adapter RAMSES 72x/78x	4003468902059	254
9070251	Programming software PHARAO	4003468902844	257
9070252	Programming cable PHARAO	4003468902851	257
9070271	Antenna DCF77 KNX	4003468903056	247
9070321	Temperature sensor	4003468903360	255
9070328	Memory module PHARAO-II	4003468903414	257
9070329	GSM cable PHARAO-II	4003468903483	257
9070334	Antenna RAMSES 813/833	4003468909447	255
9070364	Power supply KNX 640 mA	4003468903582	224
9070367	Diode module	4003468903605	254
9070371	Flow temperature sensor RAMSES	4003468903629	255
9070379	Plunge sensor RAMSES	4003468903711	256
9070380	Mast mounting weather station	4003468903742	257
9070397	Interface USB KNX	4003468903995	225
9070404	Memory card OBELISK top2	4003468904053	247
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9070410	Antenna top2 RC-DCF	4003468904077	247
9070415	Digital surface-mounted light sensor	4003468904268	253
9070416	Analogue surface-mounted light sensor	4003468904275	253
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9070459	Temperature sensor RAMSES IP 65	4003468903810	255
9070480	Adapter plate RAMSES 70x	4003468904299	254
9070486	Adapter plate LUNA star	4003468907559	253
9070494	Power unit CO2-sensor	4003468904534	257
9070504	Surface frame LUXA 103-200	4003468904367	252
9070511	Surface frame ECO-IR 180	7612748000735	249
9070512	Surface frame ECO-IR 360	7612748000728	249
9070513	Surface frame PresenceLight	7612748001145	249
9070514	Surface frame compact	7612748000711	249
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9070516	QuickFix square cover	7612748000575	250
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9070519	QuickFix concrete round cover	7612748000964	250

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9070601	Central part RAMSES 746	4003468904572	257
9070602	Central part RAMSES 741/748	4003468904589	256
9070603	Frame RAMSES 74x	4003468904596	256
9070605	Socket RAMSES	4003468904657	254
9070610	Antenna top2 RC-GPS	4003468903254	248
9070625	LUXA corner angle black	4003468909522	252
9070626	LUXA corner angle white	4003468909515	252
9070675	SendoPro 868-A	7612748002524	251
9070689	Junction casing, 115 x 115 x 100 mm	7612748002661	250
9070690	SendoClic	7612748002678	251
9070699	Power supply 320 mA KNX	4003468904541	224
9070701	Power supply KNX 160 mA	4003468904558	224
9070712	OT-Box Standard	4003468904763	253
9070722	DALI Gateway KNX	4003468900048	222
9070731	PlanoBox 1WH	7612748003873	249
9070736	PlanoSet RQ EWH	—	84
9070737	PlanoSet RQ EBK	—	84
9070738	PlanoSet RQ ESR	—	84
9070740	PlanoSet RR EWH	—	84
9070741	PlanoSet RR EBK	—	84
9070742	PlanoSet RR ESR	—	84
9070880	Line coupler S KNX	4003468900253	225
9070892	Power unit top2 GPS	4003468904718	248
9075141	Multiple contact strip	4003468904688	247
9079330	Power unit 24 V DC	4003468903520	257
9070511	Surface frame ECO-IR 180	7612748000735	231
9070512	Surface frame ECO-IR 360	7612748000728	231
9070512	Surface frame ECO-IR 360	7612748000728	231
9070512	Surface frame ECO-IR 360	7612748000728	231
9070605	Socket RAMSES	4003468904657	236
9070610	Antenna top2 RC-GPS	4003468903254	230
9070625	LUXA corner angle black	4003468909522	234
9070626	LUXA corner angle white	4003468909515	234
9070675	SendoPro 868-A	7612748002524	233
9070689	Junction casing, 115 x 115 x 100 mm	7612748002661	232
9070690	SendoClic	7612748002678	232
9070699	Power supply 320 mA KNX	4003468904541	206
9070701	Power supply KNX 160 mA	4003468904558	206
9070722	DALI Gateway KNX	4003468900048	203
9070731	PlanoBox 1WH	7612748003873	231
9070892	Power unit top2 GPS	4003468904718	230
9079330	Power unit 24 V DC	4003468903520	239

Theben device type	Art.No.	Theben device type	Art.No.
Discontinued models		Successor	
FRI 77 h	0770008	FRI 77 g / FRI 77 h-2	0770033 / 0770802
LUNA 130 KNX	1309200	LUNA 134 KNX	1349200
BZ 142-1 110V	1421721	BZ 147	1470000
BZ 143-1	1430821	BZ 142-1 10V	1420821
BZ 143-1 24V	1434721	BZ 142-1 24V	1424721
BZ 147 24V	1479000	BZ 142-1 10-80 V DC	1420821
ECO-IR 180 EIB-AC	2029250	PresenceLight 180B-KNX WH	2009050
ECO-IR 180 EIB-AC BK	2029809	PresenceLight 180B-KNX BK	2009815
ECO-IR 180 EIB-AC SR	2029810	PresenceLight 180B-KNX SR	2009816
SYN 269 g	2690033	SUL 289 g	2890033
SUL 285/1 T	2850008	SUL 285/2 T	2850033
JMG 4 24V KNX	4900253	No successor	
JME 4 24V KNX	4900254	No successor	
TR 608 top	6080002	TR 608 top2	6080100
TR 612 S KNX	6129201	TR 648 top2 RC KNX	6489212
TR 635 top	6350002	TR 635 top2	6350100
TR 636 top	6360002	TR 636 top2	6360100
TR 644 S 12V	6448012	TR 642 top2 RC 24V	2x 6424300
TR 644 S 24V	6448024	TR 642 top2 RC 24V	2x 6424300
TR 644 S KNX	6449203	TR 648 top2 RC KNX	6489212
TR 644 S DCF KNX	6449204	TR 648 top2 RC KNX	6489212
TR 685/2TOP	6850012	TR 636 top2	6360100
RAMSES 714 A/FH	7140017	RAM 714 A	7140016
AMUN 716	7169101	No successor	
RAMSES 770 KNX	7709200	VARIA 826 KNX	8269200 / 8269201
RAMSES 782 S	7820801	RAMSES 782	7820030
VARIA 824 KNX	8249200	VARIA 826 KNX	8269200 / 8269201
RAMSES 855 top2 OT	8559132	RAMSES 856 top2 OT	8569132
GSM-Modem	9070396	No successor	
Line coupler KNX	9070398	Line coupler S KNX	9070880

REDUCED TEMPERATURE

Reduced room temperature during the night or when unoccupied, saves energy. Recommended temperature e.g. 16 °C.

CONNECTION TYPE

Contact type for connecting cables to device.

ADJUSTABLE OPERATING POINT AND THERMAL CIRCULATION

If room thermostats are unfavourably located, e.g. on external walls, the device operating point can be changed. Thermal circulation prevents rooms overheating. Adjustments can be made for especially fast or slow reacting heating systems.

WORKING VOLTAGE

Nominal voltage required for operating device. Safe operation is guaranteed in a tolerance range of $\pm 10\%$.

POWER CONSUMPTION

Power draw required to operate device – without switching capacity.

SUPPRESSION MEASURES

Despite internal safety measures, unusually strong interference fields can exceptionally interfere with microprocessor-controlled timers. Interference can be prevented by taking the following actions during installation:

- Avoid installing in the immediate vicinity of inductive consumers.
- Lay separate mains connections and use line filters if necessary
- Shield inductive consumer with Varistor or RC link.

FROST PROTECTION

Operating mode for room thermostats for protecting the heating and water system from frost damage, e.g. +8 °C.

POWER RESERVE

In the event of power loss, the timer continues to run for the duration of the power reserve thanks to a built-in power reserve. This removes the need to reset the timer. The power reserve details refer to the new condition and 20 °C ambient temperature. The power reserve does however diminish in relation to service life and temperature.

MANUAL SWITCH

Priority switch switches output to "Permanent ON", "Permanent OFF" or to "Auto" for automatic time control. "Perm" means manual permanent switching of mechanical timers.

CHANNELS

Number of switching outputs/inputs for timers, twilight switches, controls and actuators.

PROGRESS DISPLAY

Visual function check for mechanical timers.

LAMP LOADS

Energy saving lamps as well as sodium and mercury vapour lamps place a particular stress on the output contacts through high switch-on peaks. In isolated cases check whether a cut-off relay or cutout is required.

FULL POWER RESERVE

If the power reserve is provided by a rechargeable battery then the power reserve is only fully available after a certain charging time.

CONTACT OPENING WIDTH

With switching contacts a distinction is made between a 3 mm greater or lesser contact distance.

PROGRAM

Time-related operational sequence dependent on preset commands.

PULSE WIDTH MODULATION OR HYSTERESIS CONTROLLER

Thermostat with pulse width modulation clock cyclically and have varied switching periods. The cycle is adjustable. Hysteresis controllers switch on if the set hysteresis temperature range is exceeded or not achieved.

SWITCHING CAPACITY

is the maximum permissible loading of the switching contacts in amperes at the nominal voltage with resistive load. The details in brackets indicate the permissible inductive load at $\cos \varphi 0.6$ (e.g. motor load). The AX supplement indicates the permissible fluorescent lamp load.

SWITCHING PRE-SELECTION

Time limited manual change to switching period by anticipating the next switching command. E.g. OFF is manually changed to ON until the next successive OFF command in the time program. The automatic time program then resumes.

PROTECTION CLASS

Devices in Germany have to meet various protection classes to satisfy requirements against accidentally touching live components and against too high non-contact voltage.

- Protection class I:
All metal parts that can be touched during operation or maintenance must be connected to the earth conductor.
- Protection class II:
The devices are double or triple insulated and do not have an earth connection.
- Protection class III:
The devices are designed to be used with safety extra-low voltage and have neither internal nor external power circuits working on other voltages.

MEMORY LOCATIONS

They are designed to store switching times made up of information on the day of week (if necessary date) switching time and switching status.

EEPROM memory is not temporary storage and retains the information even without power supply for up to 10 years.

3 OR 4 WIRE SWITCHING

With staircase light timers the 3 or 4 wire riser can be used for keys or lights from floor to floor.

PERMISSIBLE AMBIENT TEMPERATURE

Temperature range that the device can function reliably in, e.g. constant ambient temperature.

COUNTING RANGE

Maximum number of operating hours that can be directly read.

SELV (SAFETY EXTRA-LOW VOLTAGE)

Voltage that does not exceed 42 V between the wires or between the wires and the earth where the idling voltage does not exceed 50 V. If SELV is taken from the mains supply then this must be achieved via a safety transformer or a converter with separate winding with insulation that meets the requirements of double or increased insulation.

PELV (PROTECTIVE EXTRA-LOW VOLTAGE)

An earthed electric circuit operated with SELV which is separated from other circuits by basic insulation and protective sheathing, double insulation or increased insulation.

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Productdatabase Manager: Arne Mohl

Realisation: Theben AG, Haigerloch

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General conditions for the supply of products and services of the electrical and electronics industry ("GL")*

for commercial transactions between businesses

I. General provisions

1. Legal relations between Supplier and Purchaser in connection with supplies and/or services of the Supplier (hereinafter referred to as "Supplies") shall be solely governed by the present GL. The Purchaser's general terms and conditions shall apply only if expressly accepted by the Supplier in writing. The scope of delivery shall be determined by the congruent mutual written declarations.

2. The Supplier herewith reserves any industrial property rights and/or copyrights pertaining to its cost estimates, drawings and other documents (hereinafter referred to as "Documents"). The Documents shall not be made accessible to third parties without the Supplier's prior consent and shall, upon request, be returned without undue delay to the Supplier if the contract is not awarded to the Supplier. Sentences 1 and 2 shall apply mutatis mutandis to the Purchaser's Documents; these may, however, be made accessible to those third parties to whom the Supplier has rightfully subcontracted Supplies.

3. The Purchaser has the non-exclusive right to use standard software and firmware, provided that it remains unchanged, is used within the agreed performance parameters, and on the agreed equipment. Without express agreement the Purchaser may make one back-up copy of standard software.

4. Partial deliveries are allowed, unless they are unreasonable to accept for the Purchaser.

5. The term „claim for damages“ used in the present GL also includes claims for indemnification for useless expenditure.

II. Prices, terms of payment, and set-off

1. Prices are ex works and excluding packaging; value added tax shall be added at the then applicable rate.

2. If the Supplier is also responsible for assembly or erection and unless otherwise agreed, the Purchaser shall pay the agreed remuneration and any incidental costs required, e. g. for traveling and transport as well as allowances.

3. Payments shall be made free Supplier's paying office.

4. The Purchaser may set off only those claims which are undisputed or nonappealable.

III. Retention of title

1. The items pertaining to the Supplies ("Retained Goods") shall remain the Supplier's property until each and every claim the Supplier has against the Purchaser on account of the business relationship has been fulfilled. If the combined value of the Supplier's security interests exceeds the value of all secured claims by more than 10 %, the Supplier shall release a corresponding part of the security interest if so requested by the Purchaser; the Supplier shall be entitled to choose which security interest it wishes to release.

2. For the duration of the retention of title, the Purchaser may not pledge the Retained Goods or use them as security, and resale shall be possible only for resellers in the ordinary course of their business and only on condition that the reseller receives payment from its customer or makes the transfer of property to the customer dependent upon the customer fulfilling its obligation to effect payment.

3. The Purchaser shall inform the Supplier forthwith of any seizure or other act of intervention by third parties.

4. Where the Purchaser fails to fulfil its duties, fails to make payment due, or otherwise violates its obligations the Supplier shall be entitled to rescind the contract and take back the Retained Goods in the case of continued failure following expiry of a reasonable remedy period set by the Supplier; the

statutory provisions providing that a remedy period is not needed shall be unaffected. The Purchaser shall be obliged to return the Retained Goods. The fact that the Supplier takes back Retained Goods and/or exercises the retention of title, or has the Retained Goods seized, shall not be construed to constitute a rescission of the contract, unless the Supplier so expressly declares.

IV. Time for supplies; delay

1. Times set for Supplies shall only be binding if all Documents to be furnished by the Purchaser, necessary permits and approvals, especially concerning plans, are received in time and if agreed terms of payment and other obligations of the Purchaser are fulfilled. If these conditions are not fulfilled in time, times set shall be extended reasonably; this shall not apply if the Supplier is responsible for the delay.

2. If non-observance of the times set is due to force majeure such as mobilization, war, rebellion or similar events, e. g. strike or lockout, such time shall be extended accordingly. The same shall apply if the Supplier does not receive its own supplies in due time or in due form.

3. If the Supplier is responsible for the delay (hereinafter referred to as "Delay") and the Purchaser has demonstrably suffered a loss therefrom, the Purchaser may claim a compensation as liquidated damages of 0.5 % for every completed week of Delay, but in no case more than a total of 5 % of the price of that part of the Supplies which due to the Delay could not be put to the intended use.

4. Purchaser's claims for damages due to delayed Supplies as well as claims for damages in lieu of performance exceeding the limits specified in No. 3 above are excluded in all cases of delayed Supplies, even upon expiry of a time set to the Supplier to effect the Supplies. This shall not apply in cases of mandatory liability based on intent, gross negligence, or due to loss of life, bodily injury or damage to health. Rescission of the contract by the Purchaser based on statute is limited to cases where the Supplier is responsible for the delay. The above provisions do not imply a change in the burden of proof to the detriment of the Purchaser.

5. At the Supplier's request, the Purchaser shall declare within a reasonable period of time whether it, due to the delayed Supplies, rescinds the contract or insists on the delivery of the Supplies.

6. If dispatch or delivery, due to Purchaser's request, is delayed by more than one month after notification of the readiness for dispatch was given, the Purchaser may be charged, for every additional month commenced, storage costs of 0.5 % of the price of the items of the Supplies, but in no case more than a total of 5 %. The parties to the contract may prove that higher or, as the case may be, lower storage costs have been incurred.

V. Passing of risk

1. Even where delivery has been agreed freight free, the risk shall pass to the Purchaser as follows:

- a) if the Supplies do not include assembly or erection, at the time when the Supplies are shipped or picked up by the carrier. Upon the Purchaser's request, the Supplier shall insure the Supplies against the usual risks of transport at the Purchaser's expense;
- b) if the Supplies include assembly or erection, at the day of taking over in the Purchaser's own works or, if so agreed, after a fault-free trial run.

2. The risk shall pass to the Purchaser if dispatch, delivery, the start or performance of assembly or erection, the taking over in the Purchaser's own works, or the trial run is delayed for reasons for which the Purchaser is responsible or if the Purchaser has otherwise failed to accept the Supplies.

VI. Assembly and erection

Unless otherwise agreed in written form, assembly and erection shall be subject to the following provisions:

1. The Purchaser shall provide at its own expense and in due time:

- a) all earth and construction work and other ancillary work outside the Supplier's scope, including the necessary skilled and unskilled labor, construction materials and tools,
- b) the equipment and materials necessary for assembly and commissioning such as scaffolds, lifting equipment and other devices as well as fuels and lubricants,
- c) energy and water at the point of use including connections, heating and lighting,
- d) suitable dry and lockable rooms of sufficient size adjacent to the site for the storage of machine parts, apparatus, materials, tools, etc. and adequate working and recreation rooms for the erection personnel, including sanitary facilities as are appropriate in the specific circumstances; furthermore, the Purchaser shall take all measures it would take for the protection of its own possessions to protect the possessions of the Supplier and of the erection personnel at the site,
- e) protective clothing and protective devices needed due to particular conditions prevailing on the specific site.

2. Before the erection work starts, the Purchaser shall unsolicitedly make available any information required concerning the location of concealed electric power, gas and water lines or of similar installations as well as the necessary structural data.

3. Prior to assembly or erection, the materials and equipment necessary for the work to start must be available on the site of assembly or erection and any preparatory work must have advanced to such a degree that assembly or erection can be started as agreed and carried out without interruption. Access roads and the site of assembly or erection must be level and clear.

4. If assembly, erection or commissioning is delayed due to circumstances for which the Supplier is not responsible, the Purchaser shall bear the reasonable costs incurred for idle times and any additional traveling expenditure of the Supplier or the erection personnel.

5. The Purchaser shall attest to the hours worked by the erection personnel towards the Supplier at weekly intervals and the Purchaser shall immediately confirm in written form if assembly, erection or commissioning has been completed.

6. If, after completion, the Supplier demands acceptance of the Supplies, the Purchaser shall comply therewith within a period of two weeks. In default thereof, acceptance is deemed to have taken place. Acceptance is also deemed to have been effected if the Supplies are put to use, after completion of an agreed test phase, if any.

VII. Receiving supplies

The Purchaser shall not refuse to receive Supplies due to minor defects.

VIII. Defects as to quality

The Supplier shall be liable for defects as to quality ("Sachmängel", hereinafter referred to as "Defects"), as follows:

1. Defective parts or defective services shall be, at the Supplier's discretion, repaired, replaced or provided again free of charge, provided that the reason for the Defect had already existed at the time when the risk passed.
2. Claims for repair or replacement are subject to a statute of limitations of 12 months calculated from the start of the statutory statute of limitations; the same shall apply mutatis mutandis in the case of rescission and reduction. This shall not apply where longer periods are prescribed by law according to Sec. 438 para. 1 No. 2 (buildings and things used for a building), Sec. 479 para. 1 (right of recourse), and Sec. 634a para. 1 No. 2 (defects of a building) German Civil Code ("BGB"), in the case of intent, fraudulent concealment of the Defect or non-compliance with guaranteed characteristics (Beschaffenheitsgarantie). The legal provisions regarding suspension of the statute of limitations ("Ablaufhemmung", "Hemmung") and recommencement of limitation periods shall be unaffected.
3. Notifications of Defect by the Purchaser shall be given in written form without undue delay.
4. In the case of notification of a Defect, the Purchaser may withhold payments to an amount that is in a reasonable proportion to the Defect. The Purchaser, however, may withhold payments only if the subject-matter of the notification of the Defect involved is justified and incontestable. The Purchaser has no right to withhold payments to the extent that its claim of a Defect is time-barred. Unjustified notifications of Defect shall entitle the Supplier to demand reimbursement of its expenses by the Purchaser.
5. The Supplier shall be given the opportunity to repair or to replace the defective good ("Nacherfüllung") within a reasonable period of time.
6. If repair or replacement is unsuccessful, the Purchaser is entitled to rescind the contract or reduce the remuneration; any claims for damages the Purchaser may have according to No. 10 shall be unaffected.
7. There shall be no claims based on Defect in cases of insignificant deviations from the agreed quality, of only minor impairment of usability, of natural wear and tear, or damage arising after the passing of risk from faulty or negligent handling, excessive strain, unsuitable equipment, defective civil works, inappropriate foundation soil, or claims based on particular external influences not assumed under the contract, or from non-reproducible software errors. Claims based on defects attributable to improper modifications or repair work carried out by the Purchaser or third parties and the consequences thereof are likewise excluded.
8. The Purchaser shall have no claim with respect to expenses incurred in the course of supplementary performance, including costs of travel, transport, labor, and material, to the extent that expenses are increased because the subject-matter of the Supplies has subsequently been brought to another location than the Purchaser's branch office, unless doing so complies with the normal use of the Supplies.
9. The Purchaser's right of recourse against the Supplier pursuant to Sec. 478 BGB is limited to cases where the Purchaser has not concluded an agreement with its customers exceeding the scope of the statutory provisions governing claims based on Defects. Moreover, No. 8 above shall apply mutatis mutandis to the scope of the right of recourse the Purchaser has against the Supplier pursuant to Sec. 478 para. 2 BGB.

10. The Purchaser shall have no claim for damages based on Defects. This shall not apply to the extent that a Defect has been fraudulently concealed, the guaranteed characteristics are not complied with, in the case of loss of life, bodily injury or damage to health, restrictions to liberty and/or intentionally or grossly negligent breach of contract on the part of the Supplier. The above provisions do not imply a change in the burden of proof to the detriment of the Purchaser. Any other or additional claims of the Purchaser exceeding the claims provided for in this Article VIII, based on a Defect, are excluded.

IX. Industrial property rights and copyright; defects in title

1. Unless otherwise agreed, the Supplier shall provide the Supplies free from third parties' industrial property rights and copyrights (hereinafter referred to as "IPR") with respect to the country of the place of delivery only. If a third party asserts a justified claim against the Purchaser based on an infringement of an IPR by the Supplies made by the Supplier and used in conformity with the contract, the Supplier shall be liable to the Purchaser within the time period stipulated in Article VIII No. 2 as follows:
 - a) The Supplier shall choose whether to acquire, at its own expense, the right to use the IPR with respect to the Supplies concerned or whether to modify the Supplies such that they no longer infringe the IPR or replace them. If this would be impossible for the Supplier under reasonable conditions, the Purchaser may rescind the contract or reduce the remuneration pursuant to the applicable statutory provisions.
 - b) The Supplier's liability to pay damages is governed by Article XI.
 - c) The above obligations of the Supplier shall apply only if the Purchaser (i) immediately notifies the Supplier of any such claim asserted by the third party in written form, (ii) does not concede the existence of an infringement and (iii) leaves any protective measures and settlement negotiations to the Supplier's discretion. If the Purchaser stops using the Supplies in order to reduce the damage or for other good reason, it shall be obliged to point out to the third party that no acknowledgement of the alleged infringement may be inferred from the fact that the use has been discontinued.
2. Claims of the Purchaser shall be excluded if it is responsible for the infringement of an IPR.
3. Claims of the Purchaser are also excluded if the infringement of the IPR is caused by specifications made by the Purchaser, by a type of use not foreseeable by the Supplier or by the Supplies being modified by the Purchaser or being used together with products not provided by the Supplier.
4. In addition, with respect to claims by the Purchaser pursuant to No. 1 a) above, Article VIII Nos. 4, 5, and 9 shall apply mutatis mutandis in the event of an infringement of an IPR.
5. Where other defects in title occur, Article VIII shall apply mutatis mutandis.
6. Any other claims of the Purchaser against the Supplier or its agents or any such claims exceeding the claims provided for in this Article IX, based on a defect in title, are excluded.

X. Impossibility of performance; adaption of contract

1. To the extent that delivery is impossible, the Purchaser is entitled to claim damages, unless the Supplier is not responsible for the impossibility. The Purchaser's claim for damages is, however, limited to an amount of 10 % of the value of

the part of the Supplies which, owing to the impossibility, cannot be put to the intended use. This limitation shall not apply in the case of mandatory liability based on intent, gross negligence or loss of life, bodily injury or damage to health; this does not imply a change in the burden of proof to the detriment of the Purchaser. The Purchaser's right to rescind the contract shall be unaffected.

2. Where unforeseeable events within the meaning of Article IV No. 2 substantially change the economic importance or the contents of the Supplies or considerably affect the Supplier's business, the contract shall be adapted taking into account the principles of reasonableness and good faith. To the extent this is not justifiable for economic reasons, the Supplier shall have the right to rescind the contract. If the Supplier intends to exercise its right to rescind the contract, it shall notify the Purchaser thereof without undue delay after having realized the repercussions of the event; this shall also apply even where an extension of the delivery period has previously been agreed with the Purchaser.

XI. Other claims for damages; statute of limitations

1. The Purchaser has no claim for damages based on whatever legal reason, including infringement of duties arising in connection with the contract or tort.
2. The above shall not apply in the case of mandatory liability, e. g. under the German Product Liability Act ("Produkthaftungsgesetz"), in the case of intent, gross negligence, loss of life, bodily injury or damage to health, or breach of a condition which goes to the root of the contract ("wesentliche Vertragspflichten"). However, claims for damages arising from a breach of a condition which goes to the root of the contract shall be limited to the foreseeable damage which is intrinsic to the contract, unless caused by intent or gross negligence or based on liability for loss of life, bodily injury or damage to health. The above provision does not imply a change in the burden of proof to the detriment of the Purchaser.
3. To the extent that the Purchaser has a claim for damages, it shall be timebarred upon expiration of the statute of limitations pursuant to Article VIII No. 2. The same shall apply to the Purchaser's claims in connection with actions undertaken to avoid any damage (e. g. callback). In the case of claims for damages under the German Product Liability Act, the statutory statute of limitations shall apply.

XII. Venue and applicable law

1. If the Purchaser is a businessman, sole venue for all disputes arising directly or indirectly out of the contract shall be the Supplier's place of business. However, the Supplier may also bring an action at the Purchaser's place of business.
2. Legal relations existing in connection with this contract shall be governed by German substantive law, to the exclusion of the United Nations Convention on contracts for the International Sale of Goods (CISG).

XIII. Severability clause

The legal invalidity of one or more provisions of this Agreement in no way affects the validity of the remaining provisions. This shall not apply if it would be unreasonable for one of the parties to be obligated to continue the contract.

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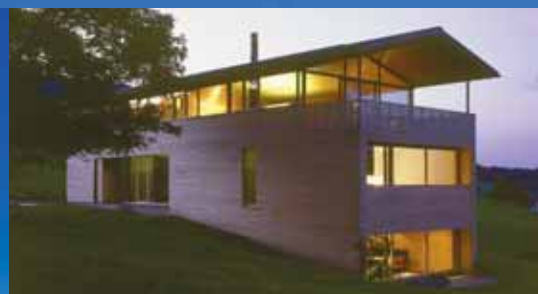
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