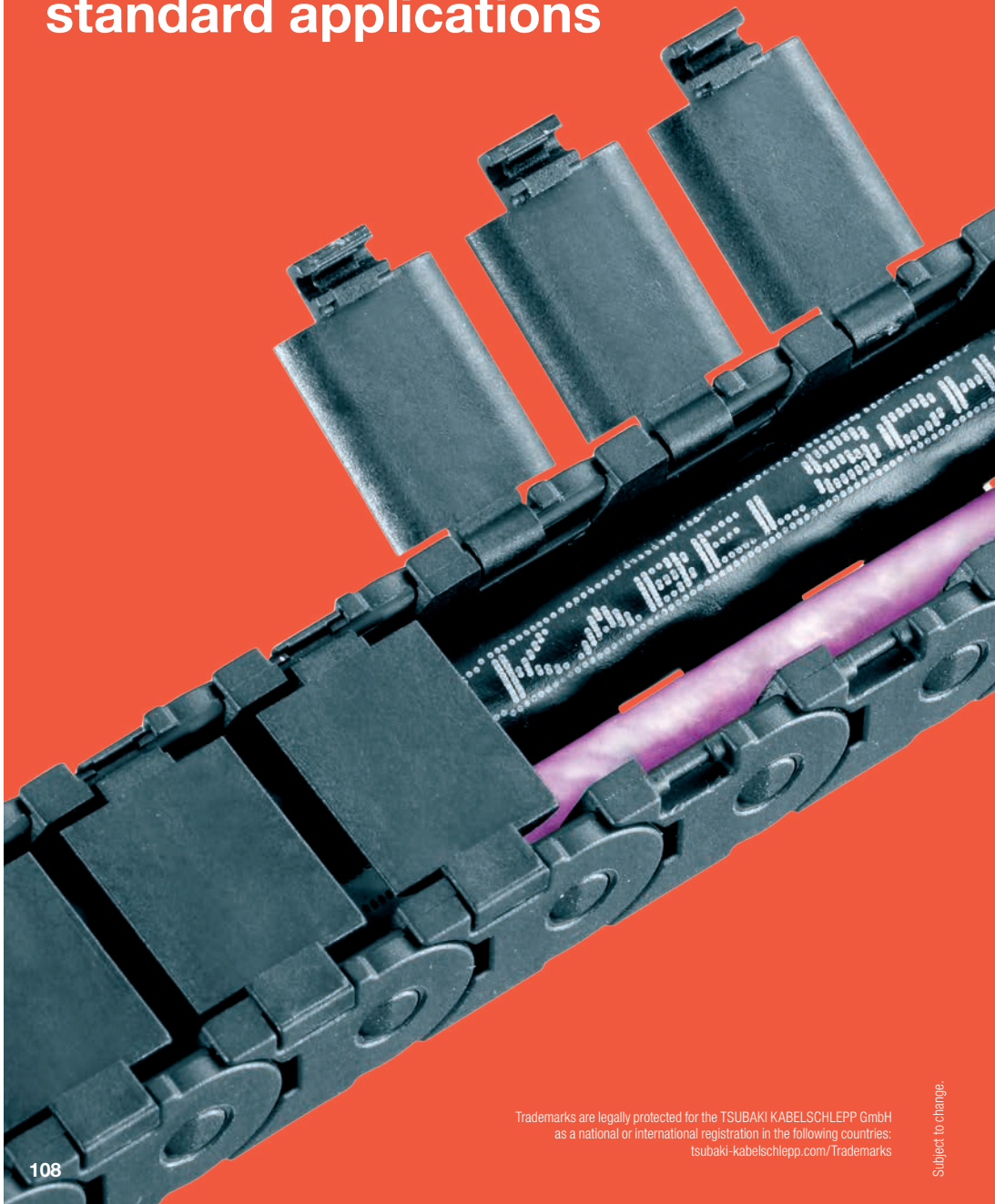
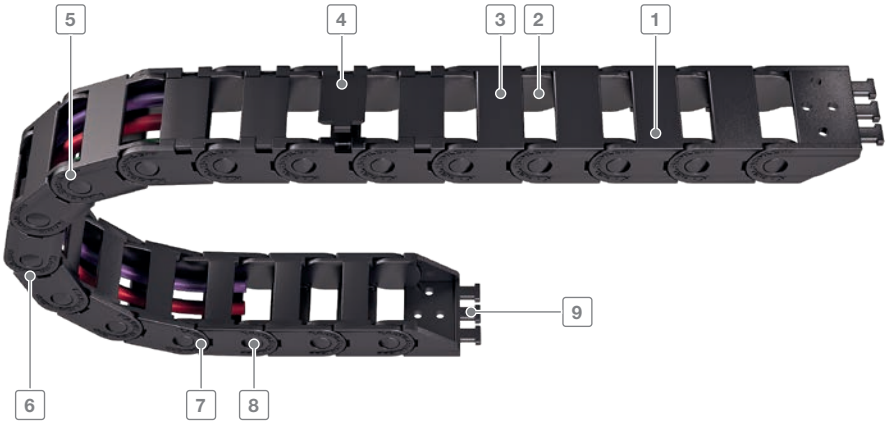
MONO series

Cable carriers for standard applications



MONO series | Overview



1 Plastic chain links
2 Inside space is gentle on the cables – no interfering edges
3 Types with single-part links
4 Types with opening crossbars
5 High torsional rigidity through large link surface
6 Extensive unsupported length and high additional loads through optimised stroke system
7 Easy to shorten and extend
8 Long service life through large bolt hole connection
9 End connectors with integrated strain relief

Features

- Cost-effective cable carrier
- Easy and fast installation
- Many types available immediately ex-stock world wide
- Long service life
- Great unsupported lengths compared to the unit size
- High torsional rigidity
- Easy to install

Small types for narrow installation spaces

Fast shortening/extending with push-to-connect chain links

Different connection variants through simple reconnecting of the end connectors

MONO series | Overview

Type	Opening variant	Stay variant	h_i [mm]	h_G [mm]	B_i [mm]	B_k [mm]	B_i-grid [mm]	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable-d_{max} [mm]
MONO 0130/..32/..34											
		0132	10	12.5	6 – 40	12 – 46	–	13	20 – 37	0.5	8
		0130	10	12.5	6 – 40	12 – 46	–	13	20 – 37	0.5	8
		0134	10	12.5	6 – 30	12 – 26	–	13	20 – 37	0.5	8
MONO 0180/..82/..84											
		0182	15	18	10 – 40	18 – 48	–	18	28 – 50	1	12
		0180	15	18	10 – 40	18 – 48	–	18	28 – 50	1	12
		0184	15	18	15 – 40	23	–	18	28 – 50	1	12
MONO 0202											
		0202	11	15	6 – 20	13 – 27	–	20	18 – 50	1.2	8.5

Key for abbreviations on page 16

Design guidelines from page 64

Technical support:
technik@kabelschlepp.de

MONO series | Overview

Unsupported arrangement			Gliding arrangement			Inner Distribution				Installation variants			Page
Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s²]	Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
1.15	10	50	40	3	30	–	–	–	–	●	●	–	114
1.15	10	50	40	3	30	–	–	–	–	●	●	–	115
1.15	10	50	–	–	–	–	–	–	–	●	●	–	116
1.55	10	50	70	3	30	–	–	–	–	●	●	–	120
1.55	10	50	70	3	30	–	–	–	–	●	●	–	121
1.55	10	50	–	–	–	–	–	–	–	●	●	–	122
1.95	10	50	70	3	30	–	–	–	–	●	●	●	126

0130/..32/..34

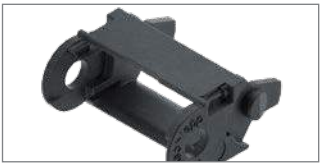

Pitch
13 mm


Inner height
10 mm


Inner widths
6 – 40 mm


Bending radii
20 – 37 mm

Types



Type 0132 ..... page 114

Closed frame (design 020)
- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.

Type 0130 ..... page 115

Frame with outside opening crossbars (design 030)
- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Outside:** openable.

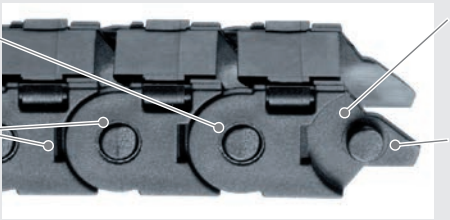
Type 0134 ..... page 116

Frame with inside opening crossbars (design 040)
- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Inside:** openable.

Optimised cable carrier geometry:

Easy to shorten and extend

Long service life through large bolt hole connection



High torsional rigidity through large link surface

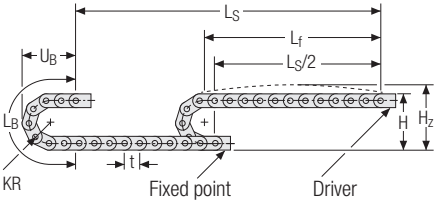
Extensive unsupported length and high additional loads through optimised stroke system

Key for abbreviations on page 16

Design guidelines from page 64

Technical support:
technik@kabelschlepp.de

Unsupported arrangement

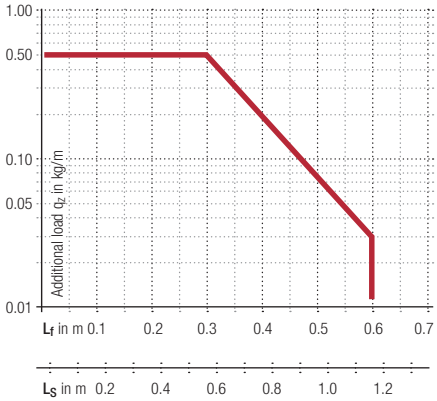


KR [mm]	H [mm]	Hz [mm]	LB [mm]	UB [mm]
20	52.5	62.5	89	40
28	68.5	78.5	114	48
37	86.5	96.5	142	57

Load diagram for unsupported length depending on the additional load.

Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight q_k = 0.16 kg/m with B_i 15 mm. For other inner widths, the maximum additional load changes.



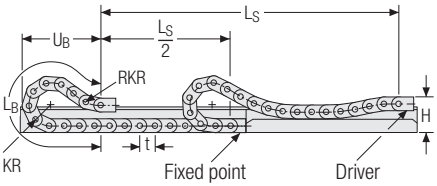
Speed
up to 10 m/s

Acceleration
up to 50 m/s²

Travel length
up to 1.15 m

Additional load
up to 0.5 kg/m

Gliding arrangement



Speed
up to 3 m/s

Acceleration
up to 30 m/s²

Travel length
up to 40 m

Additional load
up to 0.5 kg/m

The gliding cable carrier must be guided in a channel. See p. 782.

Only designs 020 and 030 can be used for a gliding arrangement.

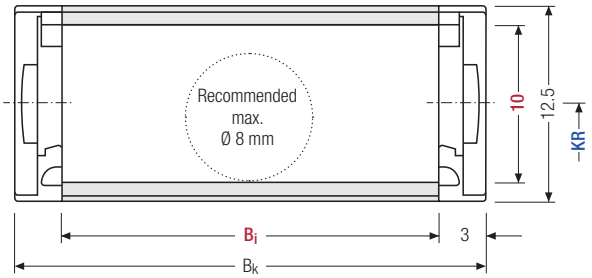
0132 | Dimensions · Technical data

Type 0132 – closed frame

- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 6 – 40 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type.
Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]						B_k [mm]	KR [mm]			q_k [kg/m]
10	12.5	6	10	15	20	30*	40	$B_i + 6$	20	28	37	0.091 – 0.162

* On request

Order example

MONO	.	0132	.	15	.	28	-	390	VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]	Stay arrangement

Key for abbreviations on page 16

Design guidelines from page 64

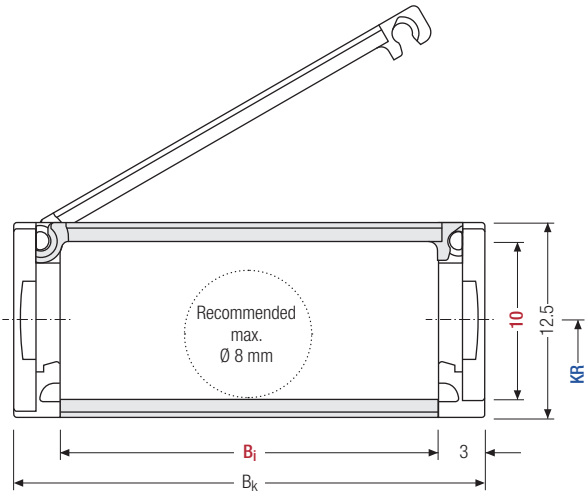
Technical support:
technik@kabelschlepp.de

Type 0130 – with outside opening crossbars

- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Outside:** openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 6 – 40 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]					B_k [mm]	KR [mm]			q_k [kg/m]
10	12.5	6	10	15	20	40	$B_i + 6$	20	28	37	0.097 – 0.178

Order example

MONO	0130	15	28	390	VS
Series	Type	B_i [mm]	KR [mm]	L_k [mm]	Stay arrangement

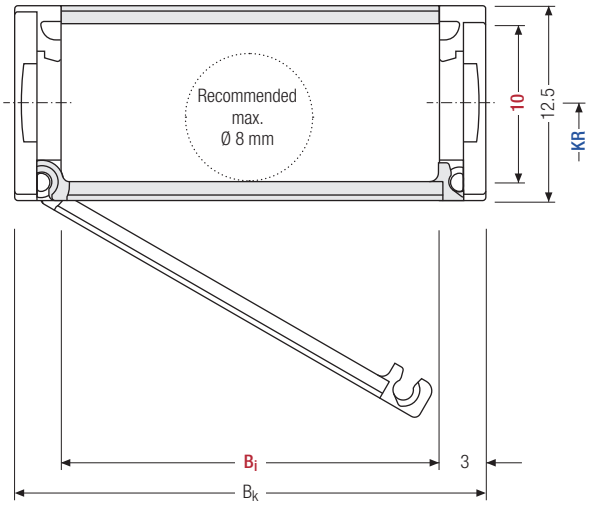
0134 | Dimensions · Technical data

Type 0134 – with inside opening crossbars

- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Outside:** openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 6 – 20 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type.
Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]					B_k [mm]	KR [mm]			q_k [kg/m]
10	12.5	6	10	15	20	30	$B_i + 6$	20	28	37	0.099 – 0.132

Order example

MONO	.	0134	.	15	.	28	-	390	VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]	Stay arrangement

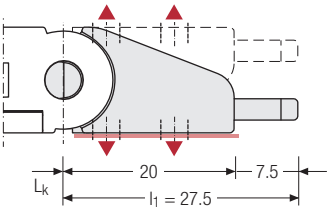
Key for abbreviations on page 16

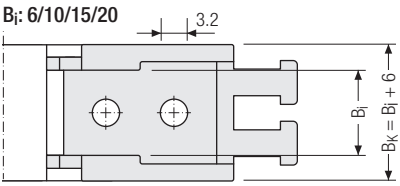
Design guidelines from page 64

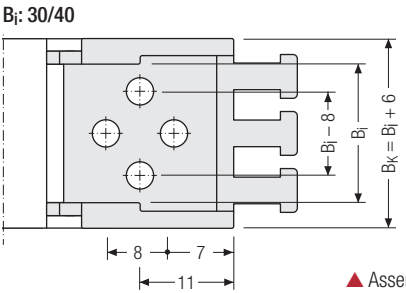
0130/..32/..34 | End connectors

Single-part end connectors – plastic
(with integrated strain relief)

The plastic end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.



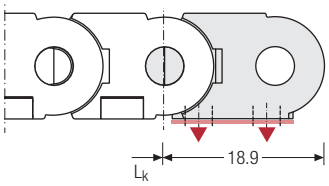


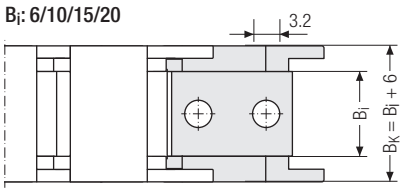


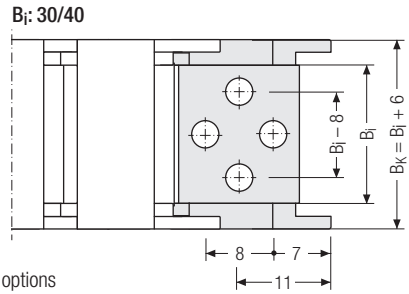
B_i [mm]

Single-part end connectors – plastic

The plastic end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.



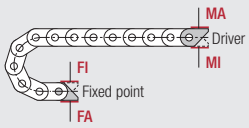




▲ Assembly options

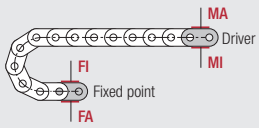
Connection point
- **F** – fixed point
- **M** – driver

Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside



Connection point
- **F** – fixed point
- **M** – driver

Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside



Order example

End connector	.	F	A
End connector	.	M	A
End connector		Connection point	Connection type

Depending on the design, the connection angles can be swivelled up to 12 °.

0180/..82/..84


Pitch
18 mm


Inner height
15 mm


Inner widths
10 – 40 mm


Bending radii
28 – 50 mm

Types

Type 0182 ..... page 120

Closed frame (design 020)
- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.

Type 0180 ..... page 121

Frame with outside opening crossbars (design 030)
- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Outside:** openable.

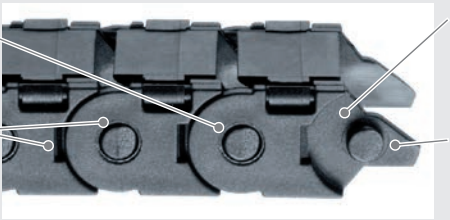
Type 0184 ..... page 122

Frame with inside opening crossbars (design 040)
- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Inside:** openable.

Optimised cable carrier geometry:

Easy to shorten and extend

Long service life through large bolt hole connection



High torsional rigidity through large link surface

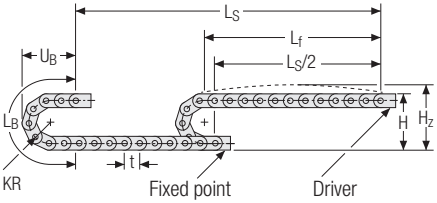
Extensive unsupported length and high additional loads through optimised stroke system

Key for abbreviations on page 16

Design guidelines from page 64

Technical support:
technik@kabelschlepp.de

Unsupported arrangement

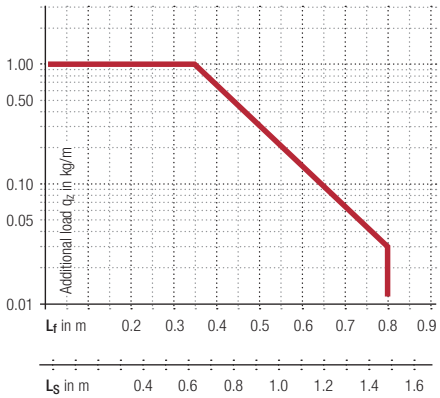


KR [mm]	H [mm]	Hz [mm]	LB [mm]	UB [mm]
28	74	89	124	55
37	92	107	153	64
50	118	133	194	77

Load diagram for unsupported length depending on the additional load.

Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight q_k = 0.25 kg/m with B_i 10 mm. For other inner widths, the maximum additional load changes.



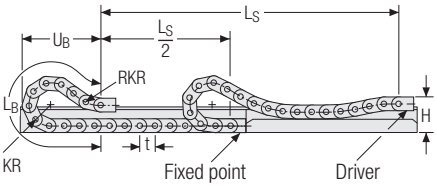
Speed
up to 10 m/s

Acceleration
up to 50 m/s²

Travel length
up to 1.5 m

Additional load
up to 1.0 kg/m

Gliding arrangement



Speed
up to 3 m/s

Acceleration
up to 30 m/s²

Travel length
up to 70 m

Additional load
up to 1.0 kg/m

The gliding cable carrier must be guided in a channel. See p. 782.

Only designs 020 and 030 can be used for a gliding arrangement.

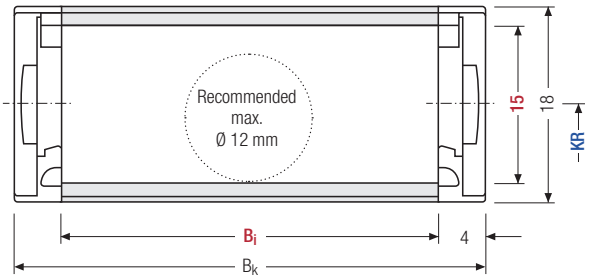
0182 | Dimensions · Technical data

Type 0182 – closed frame

- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 10 – 40 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type.
Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]					B_k [mm]	KR [mm]			q_k [kg/m]
15	18	10	15	20	30	40	$B_i + 8$	28	37	50	0.123 – 0.186

Order example

MONO	.	0182	.	30	.	37	-	720		VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]		Stay arrangement

Key for abbreviations on page 16

Design guidelines from page 64

Technical support:
technik@kabelschlepp.de

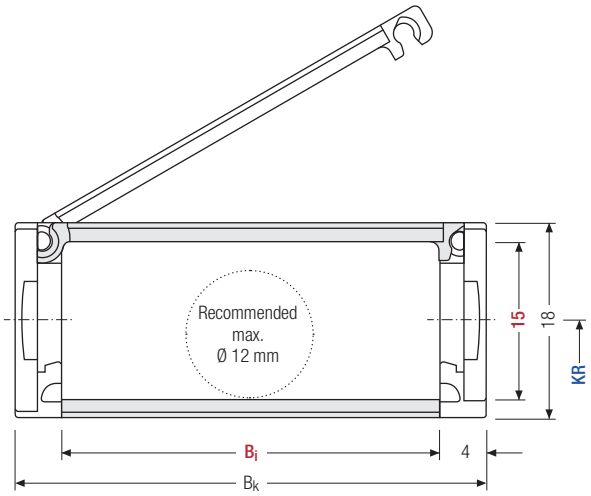
0180 | Dimensions · Technical data

Type 0180 – with outside opening crossbars

- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Outside:** openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 10 – 40 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]					B_k [mm]	KR [mm]			q_k [kg/m]
15	18	10	15	20	30	40	$B_i + 8$	28	37	50	0.169 – 0.252

Order example

MONO	.	0180	.	30	.	37	-	720		VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]		Stay arrangement

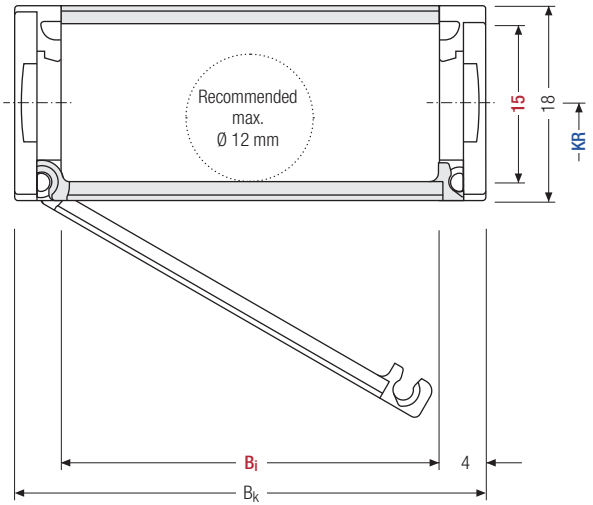
0184 | Dimensions · Technical data

Type 0184 – with inside opening crossbars

- Weight optimised plastic frame with high torsional rigidity.
- Openable at any position.
- **Inside:** openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 15 – 30 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type.
Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]				B_k [mm]	KR [mm]			q_k [kg/m]
15	18	15	20	30	40	$B_i + 8$	28	37	50	0.133

Order example

MONO	.	0184	.	15	.	37	-	720	VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]	Stay arrangement

Key for abbreviations on page 16

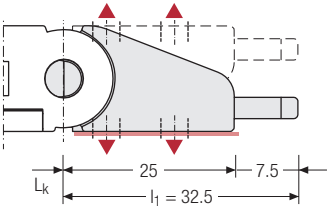
Design guidelines from page 64

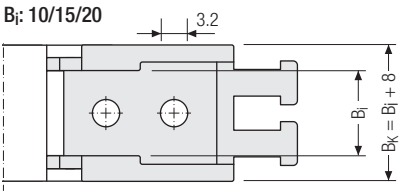
Technical support:
technik@kabelschlepp.de

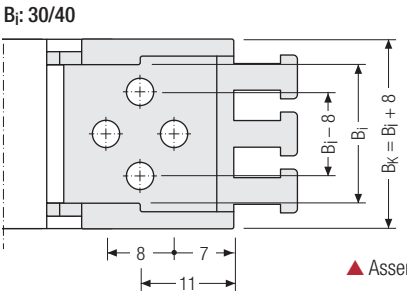
0180/..82/..84 | End connectors

Single-part end connectors – plastic
(with integrated strain relief)

The plastic end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.

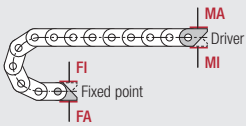






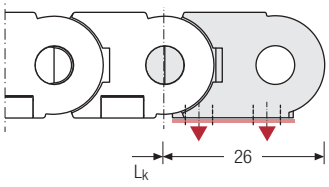
Connection point
- **F** – fixed point
- **M** – Driver

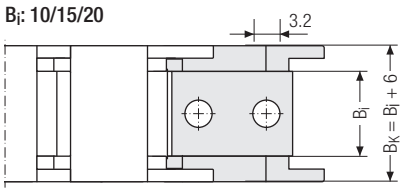
Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside

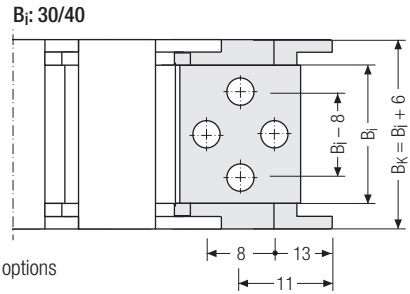


Single-part end connectors – plastic

The plastic end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.



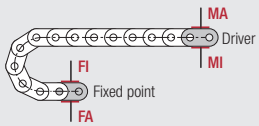




▲ Assembly options

Connection point
- **F** – fixed point
- **M** – Driver

Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside



Order example

End connector	.	F	A
End connector	.	M	A
End connector		Connection point	Connection type

0202

Pitch
20 mm

Inner height
11 mm

Inner widths
6 – 20 mm

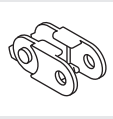
Bending radii
18 – 50 mm

Types

Type 0202 ..... page **126**

Closed frame (design 020)

- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.



Fast cable laying – 0202 slotted version

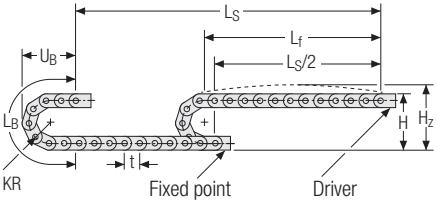
The slotted variant of the MONO 0202 allows fast and easy pressing in of cables without opening the cable carrier. That saves time and therefore money. It is particularly suitable for cables with pre-assembled connectors. Please contact us!

Key for abbreviations on page 16

Design guidelines from page 64

Technical support:
technik@kabelschlepp.de

Unsupported arrangement

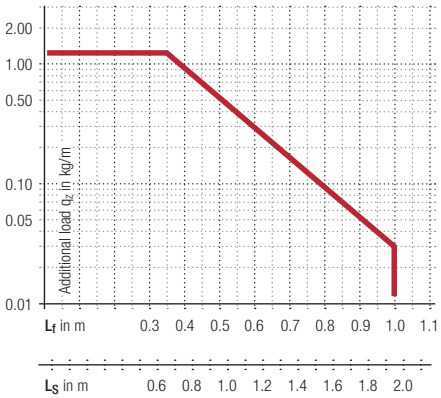


KR [mm]	H [mm]	Hz [mm]	LB [mm]	UB [mm]
18	51	61	97	45.5
28	71	81	128	55.5
38	91	101	160	65.5
50	115	125	198	77.5

Load diagram for unsupported length depending on the additional load.

Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight q_k = 0.18 kg/m with B_i 10 mm. For other inner widths, the maximum additional load changes.



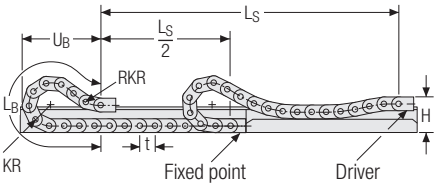
Speed
up to 10 m/s

Acceleration
up to 50 m/s²

Travel length
up to 1.95 m

Additional load
up to 1.25 kg/m

Gliding arrangement



Speed
up to 3 m/s

Acceleration
up to 30 m/s²

Travel length
up to 70 m

Additional load
up to 1.25 kg/m

The gliding cable carrier must be guided in a channel. See p. 782.

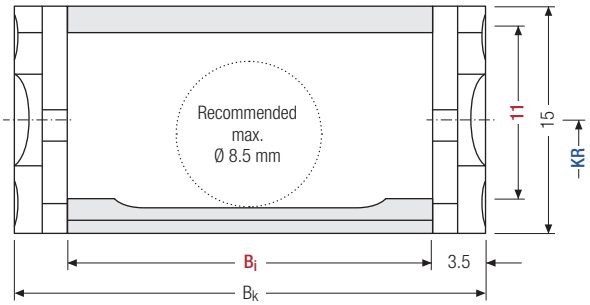
0202 | Dimensions · Technical data

Type 0202 – closed frame

- Weight optimised, closed plastic frame with high torsional rigidity.
- **Outside/inside:** not openable.

Stay arrangement on each chain link **(VS: fully-stayed)**

B_i 6 – 20 mm



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h_i [mm]	h_G [mm]	B_i [mm]				B_k [mm]	KR [mm]				q_k [kg/m]
11	15	6	10	15	20	$B_i + 7$	18	28	38	50	0.14 – 0.17

Order example

MONO	.	0202	.	10	.	28	-	460		VS
Series		Type		B_i [mm]		KR [mm]		L_k [mm]		Stay arrangement

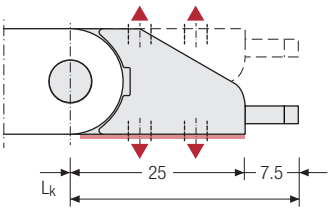
Key for abbreviations on page 16
Design guidelines from page 64

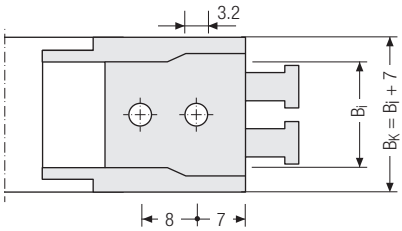
Technical support:
technik@kabelschlepp.de

0202 | End connectors

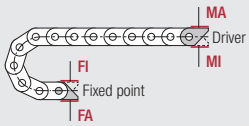
Single-part end connectors – plastic (with integrated strain relief)

The plastic end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.





▲ Assembly options



Connection point
F – fixed point
M – driver

Connection type
A – threaded joint outside (standard)
I – threaded joint inside

Order example

End connector	.	F	A
End connector	.	M	A
End connector		Connection point	Connection type

Additional product information online

Installation instructions, etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/support**

Configure your cable carrier here: **onlineengineer.de**