



DIN 1.0/2.3 / DIN 1.6/5.6 / Type 43

R118 / R120 / R129 / R214

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DIN 1.6/5.6

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Introduction



50Ω

DC - 10 GHz
DC - 4 GHz (Eco)

GENERAL

- Standard coaxial connectors
- Comply with CECC and IEC standard
- Two interface system: screw-on and slide-on

APPLICABLE STANDARDS

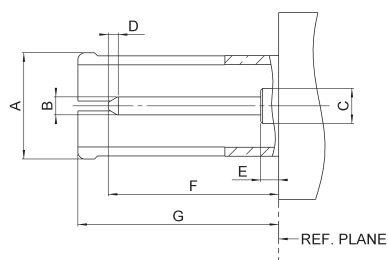
- DIN 47297
- CECC

APPLICATIONS

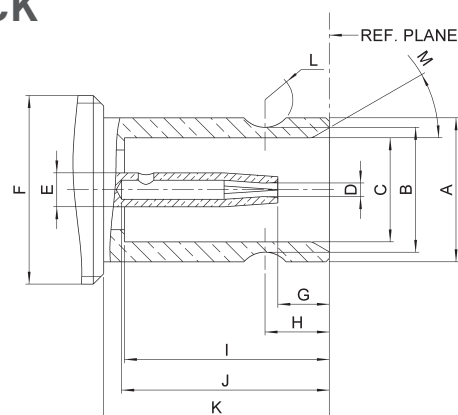
- Civil and military telecommunication

Interface

PLUG



JACK



Letter	mm		inch	
	min.	max.	min.	max.
A DIA	Diameter to meet gauge test requirements			
B DIA	0.475	0.52	.018	.020
C DIA	1 nominal		.039 nominal	
D	-	0.4	-	.015
E	-	1.15	-	.045
F	-	5.5	-	.217
G	5.4	5.7	.212	.224

Letter	mm		inch	
	min.	max.	min.	max.
A DIA	4.03	4.15	.158	.163
B DIA	3.525	3.6	.139	.142
C DIA	3	3.06	.118	.120
D DIA	Diameter to meet gauge test requirements			
E DIA	1 nominal		.039 nominal	
F DIA	M6 x 0.5 Slide M5.5 x 0.5 Screw + Slide			
G	1.15	1.75	.045	.069
H	1.8	1.9	.071	.075
I	5.8	5.9	.232	.228
J	5.5	-	.216	-
K	6.4	6.5	.252	.256
L RAD	0.8		.031	
M	28°	32°	28°	32°

Characteristics**R118A XXX XXX - screw - on and R120A XXX XXX - slide - on**

Test/characteristics	Values/remarks
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ELECTRICAL CHARACTERISTICS

Impedance	50Ω
Frequency range	DC - 4 GHz
V.S.W.R.	1.35 max
Test Voltage	750 Vrms
Operating Voltage	250 Vrms
Insulation resistance	200 MΩ min

MECHANICAL CHARACTERISTICS

Durability	100 matings
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ENVIRONMENTAL CHARACTERISTICS

Temperature range	-40°C to + 85°C
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MATERIALS AND PLATING

	Materials	Platings
Coupling nut	Brass	Nickel
Body	Brass	Nickel
Male center contact	Brass	Gold
Female center contact	Beryllium copper/Bronze	Gold
Insulator	PTFE/Polypropylene	

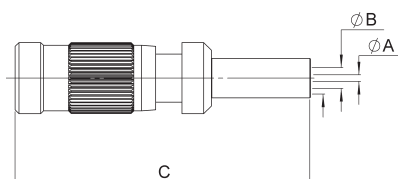
PACKAGING

Packaging	100 pieces bulk Unit packaging
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ECO DIN 1.0/2.3

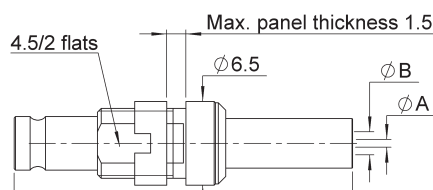
Plug, jacks and receptacles

STRAIGHT PLUGS CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable group dia.	Part number	Fig	Quantity per Pack	Minimum order quantity	Note
RG174/RG316/RD316	2.6/50	R118A 074 215	1	100 pieces	1000 pieces	Screw-on

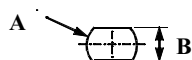
STRAIGHT BULKHEAD JACKS CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable group dia.	Part number	Fig	Panel drilling	Quantity per Pack	Minimum order quantity	Note
RG174/RG316/RD316	2.6/50	R118A 311 215	1	P01	100 pieces	1000 pieces	Screw-on

Panel drilling

P01



mm		
	Maxi	mini
A	5.7	5.6
B	4.65	4.55

Introduction



75Ω

DC - 1 GHz

GENERAL

- Standard coaxial connectors
- Screw-on type

APPLICABLE STANDARDS

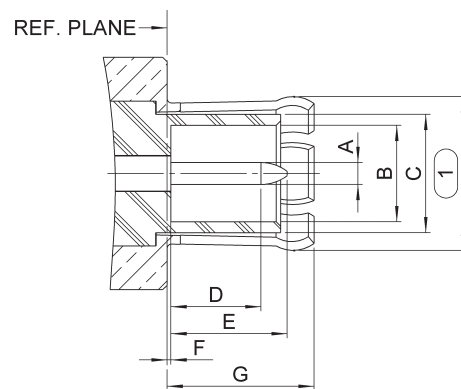
- DIN 47295
- CECC

APPLICATIONS

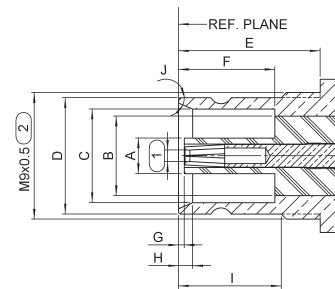
- Civil and military telecommunication

Interface

PLUG



JACK



Letter	mm		inch	
	min.	max.	min.	max.
A DIA	0.97	1.03	.038	.040
B DIA	4		.157	
C DIA	5.6		.220	
D	3.9	4.3	.153	.169
E	-	5.5	-	.217
F	-	0.15	-	.006
G	6.4	6.6	.252	.260

Letter	mm		inch	
	min.	max.	min.	max.
A DIA	-	3.8	-	.149
B DIA	5.6		.220	
C DIA	6.6	6.69	.260	.269
D DIA	8.1	8.25	.325	.319
E	9.7	-	.382	-
F	6.7	-	.264	-
G	0.25	0.75	.010	.030
H	0.9	1.1	.035	.043
I	7	7.5	.276	.296
J	19°	21°	19°	21°

- 1) Outer or center contact should meet calibration test of DIN 47295 standard
- 2) No threading; for a slide-on or snap-on connector

1.6/5.6 - DIN 47295

Characteristics

Test/characteristics	Values/remarks
ELECTRICAL CHARACTERISTICS	
Impedance	75Ω
Frequency range (see also reflection factor)	DC - 1 GHz
Reflection factors	
flexible cables (IEC 96-75-4-1)	$r \leq 0.01$ at 0.1 GHz 0.02 at 0.5 GHz 0.10 at 1.0 GHz
semi-rigid cables (.141 cable)	$r \leq 0.03$ at 1.0 GHz 0.06 at 2.0 GHz 0.08 at 4.0 GHz
Resistance of center contact	≤ 4 mΩ
Resistance of outer contact	≤ 2 mΩ
Insulation resistance	≥ 500 MΩ
Test voltage at sea level (1)	
flexible cables (IEC 96-75-4-1)	1.5 kV
semi-rigid cables (.141 cable)	1.0 kV
Test voltage at 70 000 ft (20 km) (1)	
flexible cables (IEC 96-75-4-1)	300 V
semi-rigid cables (.141 cable)	200 V
RF leakage (screen efficiency) connector only	$\leq 5 \cdot 10^{-40}$

(1) Indicated voltages are actual values for a 50 to 60 Hz a.c. current. The operating voltage will depend on the required safety margin

MECHANICAL CHARACTERISTICS

Center contact axial force	40 N
Mating/unmating	
unmating torque	0.3 Nm max
mating force (axial)	10 N max
unmating force (axial)	2.2 N min
Bending moment	1.0 Nm
Cabling	
cable resistance flexible cables (IEC 96-75-4-1)	50 N
semi-rigid cables (cable .141)	200 N
Cable torsion resistance	
flexible cables (IEC 96-75-4-1)	0.3 Nm
semi-rigid cables (cable .141)	1.0 Nm
Durability	1000 cycles

ENVIRONMENTAL CHARACTERISTICS

Test class	55/155/21 - 40/085/21
Vibrations	
acceleration	98 m/s ²
frequency range	10 to 2000 Hz
Hermeticity on flange and on connector	
leakage rate	1 cm ³ /h
pressure diff.	100 110 kPa

ECO version R 129 A XXX XXX

ELECTRICAL CHARACTERISTICS

Impedance	75Ω
Frequency range	DC - 1 GHz
VSWR	1.22 max
Test Voltage	1500 Vrms
Operating Voltage	500 Vrms
Insulation resistance	500 MΩ min
Durability	100 matings
Temperature range	-40°C + 85°C

MATERIALS AND PLATING

Components	Materials	Platings
Coupling nut	Brass	Nickel
Body	Brass	Nickel
Male center contact	Brass	Gold
Female center contact	Beryllium copper/Bronze	Gold
Insulator	PTFE/Polypropylene	

PACKAGING

Packaging	100 pieces bulk
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Plugs and jacks

STRAIGHT PLUGS FOR FLEXIBLE CABLES

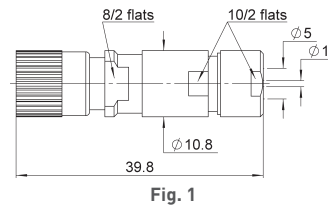


Fig. 1

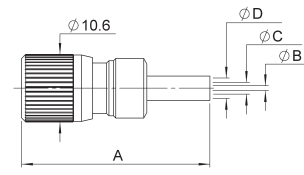


Fig. 2

Cable group	Cable group dia.	Part number	Fig	Dimensions mm				Note
				A	B	C	D	
S3+S4		R129A 010 215	1					ECO version - Clamp type
RG179	2.6/75/S	R129 074 000	2	30	0.8	1.9	3.25	Crimp type
		R129A 074 000		30	0.6	1.75		
L910/34	4/75	R129A 083 000		27.6	0.6	2.6		ECO version - Crimp type

RIGHT ANGLE PLUGS FOR FLEXIBLE CABLES

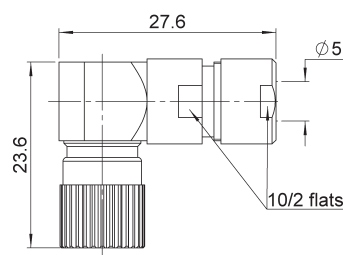


Fig. 1

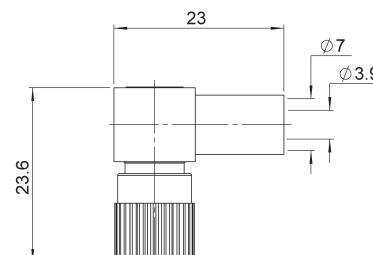


Fig. 2

Cable group	Cable group dia.	Part number	Fig	Note
S3 + S4		R129A 160 215	1	ECO version - Clamp type
RG59/RG62	6/75/S	R129A 184 000	2	ECO version - Crimp type

STRAIGHT BULKHEAD JACKS FOR FLEXIBLE CABLE

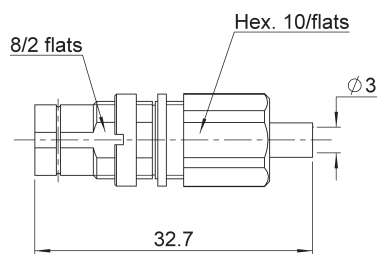


Fig. 1

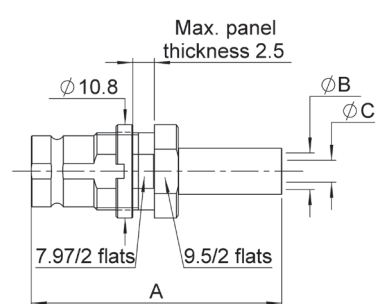
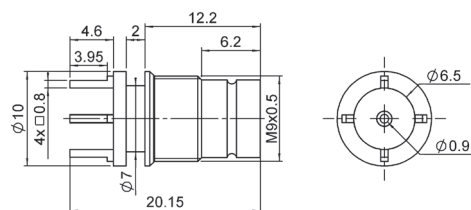


Fig. 2

Cable group	Cable group dia.	Part number	Fig	Dimensions mm			Panel drilling	Note
				A	B	C		
RG179	2.6/75/S	R129A 301 215	1				P01	ECO version - Clamp type
L910/34	4/75	R129A 347 000	2	30		2.6		ECO version - Crimp type

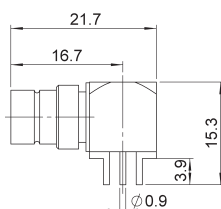
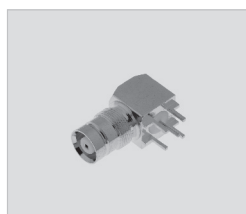
Receptacles and adapters

STRAIGHT PCB FEMALE RECEPTACLE



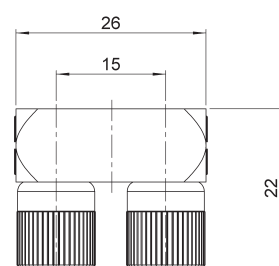
Part number	Panel drilling	Note
R129A 576 030	P03+P04	ECO version

RIGHT ANGLE PCB FEMALE RECEPTACLE



Part number	Panel drilling	Note
R129A 666 000	P02	ECO version

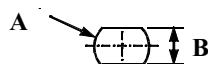
IN SERIES ADAPTERS



Part number	Note
R129A 790 000	U type male - male ECO version

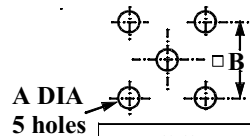
Panel drilling

P01



	mm	
	Maxi	mini
A	9.3	9.2
B	8.3	8.2

P02



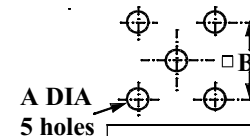
	mm	
	Maxi	mini
A	1.4	1.3
B	5.2	5.0

P03



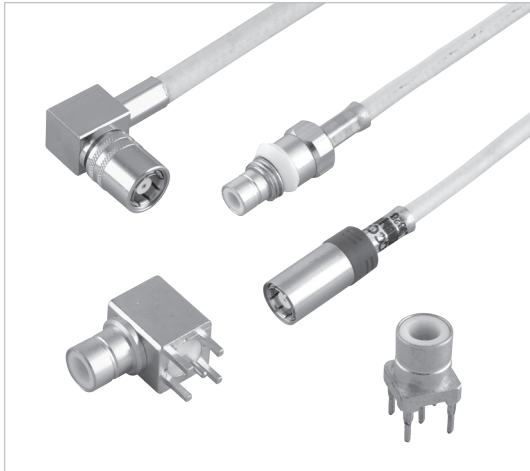
	mm	
	Maxi	mini
A	9.3	9.2

P04



	mm	
	Maxi	mini
A	1.3	1.2
B	5.21	5.11

Introduction



75Ω

DC - 3 GHz

GENERAL

- Standard coaxial connectors
- Reliable lock coupling
- 3 types: Standard Density (12.7mm)
High Density (10mm)
Ultra High Density (9mm)

APPLICABLE STANDARDS

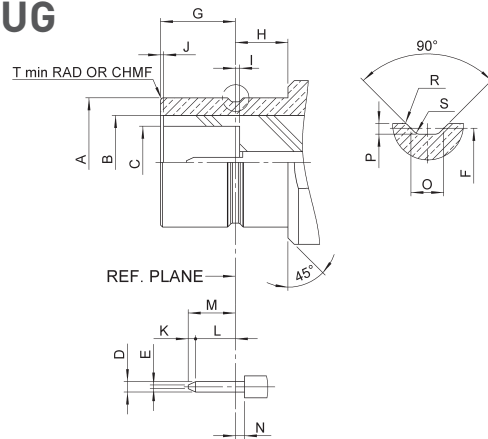
- BS9210 F0022

APPLICATIONS

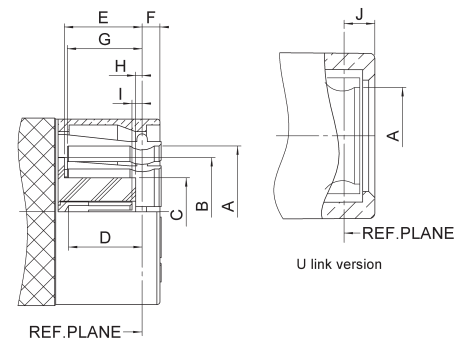
- Telecom DDF (Digital Distribution Frames)

Interface

PLUG



JACK



Letter	mm		inch	
	min.	max.	min.	max.
A DIA	6.20	6.23	.244	.245
B DIA	5.25 NOM		.207 NOM	
C DIA	3.4	3.475	.134	.137
D DIA	0.48	0.52	.019	.02
E DIA	0.125	0.225	.005	.009
F DIA	5.97	6.02	.235	.237
G	3.5	3.55	.138	.14
H	2.4	2.55	.095	.1
I	0.05	0.175	.002	.007
J	0.00	0.10	0.00	.004
K	0.25	0.35	.01	.014
L	1.35		.053	
M		2.05		.081
N		0.18		.007
O	0.58 NOM		.023 NOM	
P	0.15	0.25	.006	.01
R	0.05	0.15	.002	.006
S		0.13		.005
T	0.1	0.2	.004	.008

Letter	mm		inch	
	min.	max.	min.	max.
A DIA	6.31	6.36	.248	.25
B DIA	5.25 NOM		.207 NOM	
C DIA	3.22	3.30	.127	.13
D	3.2	3.53	.126	.139
E	3.63	3.83	.143	.151
F		1.8		.071
G	3.61	3.77	.142	.148
H	0.23	0.38	.009	.015
I	0.23	0.48	.009	.019
J	1.475	1.97	.058	.078

Characteristics

TYPE 43 GENERAL TECHNICAL SPECIFICATION

Radiall 75Ω coaxial Type 43 connectors are designed to meet or exceed the requirements of BS9210 F0022. The following information is subject to change without notice. The performance values shown are typical and may not relate to all connector styles available.

Test/characteristics	Values/remarks
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ELECTRICAL CHARACTERISTICS

Impedance	75Ω
Frequency range	DC - 3 GHz
Temperature range	-40°C to + 100°C
V.S.W.R. (Straight Connectors)	1.20 max
V.S.W.R. (Right Angle Connectors)	1.25 max
Voltage Rating	500 Vrms max
Dielectric Withstanding Voltage	1500 Vrms min
Insulation resistance	5000 MΩ min

MECHANICAL CHARACTERISTICS

Durability	250 matings
Cable retention (Plug connectors) (Socket connectors)	60 to 220 N min***
Center contact retention (Plug connectors) (Socket connectors)	22 N min
Weight	10 g (grams) typical

MATERIALS AND PLATING

Components	Materials	Platings
Body Components*	Brass	Selective Gold
Outer contact	Bronze	Selective Gold
Center contact (male)	Brass	Gold
Center contact (female)	Beryllium Copper	Gold
Insulator	PTFE	Not applicable
Panel Grommet	Polyacetal	Not applicable
Ferrule	Brass	Nickel
Panel Mounting Hardware**	Brass or Phosphor Bronze	Nickel

* In general all Type 43 series connector bodies are gold plated in mating areas.

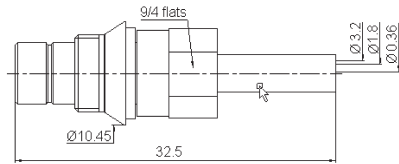
As a note the single piece Type 43 connector body is gold plated in the mating area with other surfaces being nickel coated. All multi-piece connector bodies comprise of a gold plated front body (mating area) and a nickel plated back body (crimp area).

** Panel mounting hardware includes components such as - nut, washer, spacer etc.

*** Note, **lower cable retention value** for RG179 - 60 N min and BT3002/TZC 75024 - 150 N min

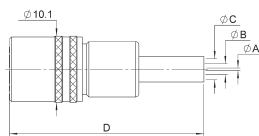
Plugs, sockets and receptacles - standard density

STRAIGHT PLUG CRIMP TYPE FOR FLEXIBLE CABLE



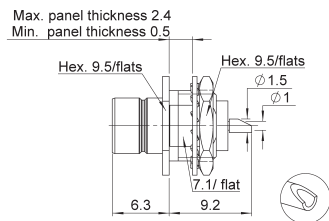
Cable group	Cable group dia.	BT Reference	Part number	Panel drilling	Packaging
BT3002	3.6/75/D	P43/5 GTIS	R214 313 722	P03	20 pieces

STRAIGHT SOCKETS CRIMP TYPE FOR FLEXIBLE CABLES



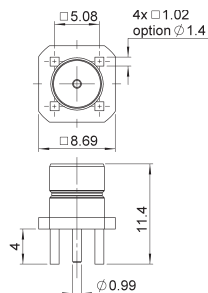
Cable group	Cable group dia.	BT Reference	Part number	Dimensions				Packaging
				A	B	C	D	
RG179	2.6/75/S	S 43/4 FS	R214 083 902	0.38	1.73	3.25	3.2	20 pieces
BT3002	3.6/75/D	S 43/5 FS	R214 083 922	0.36		4.47		

STRAIGHT BULKHEAD RECEPTACLE WITH SOLDER POT



Part number	Panel drilling	Packaging
R214 553 000	P02	Unit

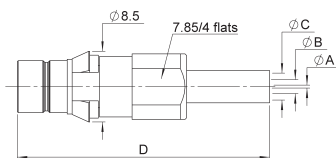
STRAIGHT PCB PLUG RECEPTACLES



BT Reference	Part number	Panel drilling	Packaging
P 43/1 D	R214 426 704	P01	100 pieces

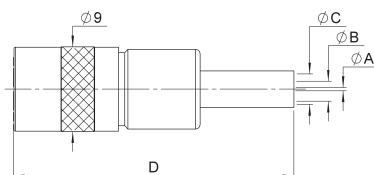
Plugs - high density, sockets and ultra high density

STRAIGHT PLUGS CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable group dia.	BT Reference	Part number	Dimensions				Panel drilling	Packaging
				A	B	C	D		
RG179	2.6/75/S	HDC 43/4 GTIS	R214 318 702	0.38	1.73	3.25	35	P04	20 pieces
RA8000	2.75/75/D	HDC 43/8 GTIS	R214 318 732	0.36	2.10	4.06			
BT3002	3.6/75/D	HDC 43/5 GTIS	R214 318 722	0.36	2.10	4.47			
RA7000	4.5/75/D	HDC 43/7 GTIS	R214 325 742	0.69	3.00	5.48			

STRAIGHT SOCKETS CRIMP TYPE FOR FLEXIBLE CABLES



Cable group	Cable group dia.	BT Reference	Part number	Dimensions				Packaging
				A	B	C	D	
RG179	2.6/75/S	HDC 43/4FS	R214 088 902	0.38	1.73	3.25	32	20 pieces
BT3002	3.6/75/D	HDC 43/5FS	R214 088 922	0.35	2.10	4.47	30	

STRAIGHT PLUG CRIMP TYPE FOR FLEXIBLE CABLES

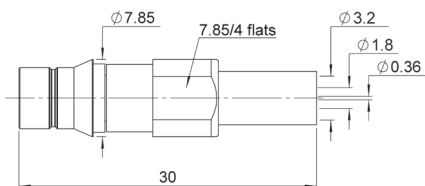


Fig. 1

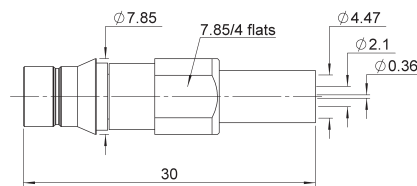


Fig. 2

Cable group	Cable group dia.	BT Reference	Part number	Fig	Panel drilling	Packaging
RG179	2.6/75/S	UHDC 43/4 GTIS	R214 320 702	1	P05	20 pieces
BT3002	3.6/75/D	UHDC 43/5 GTIS	R214 320 722	2		

U LINKS

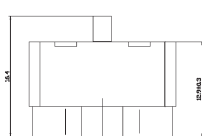
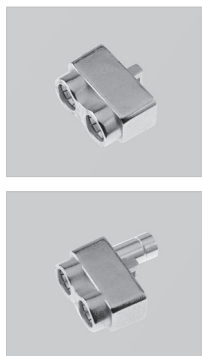


Fig. 1

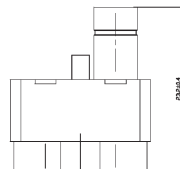


Fig. 2

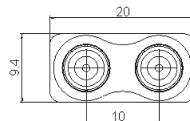
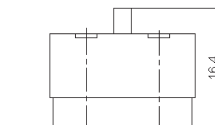


Fig. 3

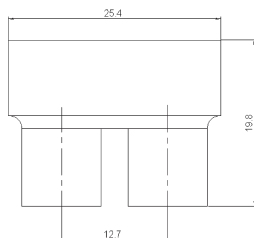


Fig. 4

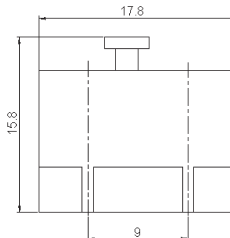


Fig. 5

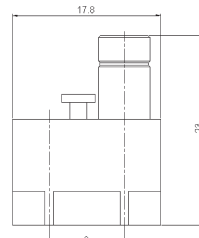
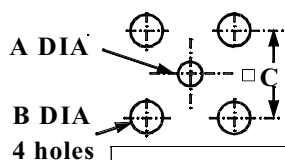


Fig. 6

Panel drilling

P03



A diagram of a circular cross-section. A horizontal dashed line passes through the center, and a vertical dashed line also passes through the center. Dimension A is indicated by a horizontal arrow pointing from the left edge to the center. Dimension B is indicated by a vertical double-headed arrow on the right side, spanning the height of the circle.

P05

	mm	
	Maxi	mini
A	7.35	7.05

Our Most Important Connection is with You.™

NOTE