



ACCESSORIES

ACCESSORIES FOR DIFFERENT APPLICATION'S NEEDS

From connectors to couplings, Eltra offers a comprehensive range of accessories to satisfy generic and specific application requirements.

Perfectly matching the corresponding transducers, these accessories provide the basis for a cost-effective integration within your system.

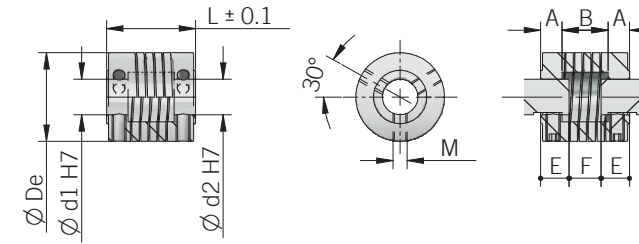
STANDARD ELASTIC COUPLINGS

Eltra elastic couplings are essential parts for the motion transmission to the encoder shaft. The couplings are made with aluminium alloy and are composed by a cylindrical body with an helical groove that determines:

- torsional rigidity
- ability to compensate for slight shaft misalignments
- ability to absorb shaft axial play

Elastic coupling can be supplied with different coupling diameters.

MECHANICAL DIMENSIONS



For proper installation it is recommended to insert shafts in the coupling observing "E" dimensions

dimensions in mm

ORDERING CODE

G	25	A	6 / 8
SERIES precision elastic coupling G			
MODEL 20 / 23 / 25 / 30 refer to the table for available P/N			
SHAFT FIXING TYPE shaft fixing with grub screw A			
HOLE DIAMETER d1 4 ... 10 mm 6			
(DO NOT ADD IF d2 = d1) HOLE DIAMETER d2 6 ... 14 mm 8			

STANDARD COUPLINGS

	P / N	Material	De	L	d1	d2	A	B	M	E	F	Torque (Nm) (Ozin)
G20A4/6	94070087	aluminium	20	20	4	6	6	8	M3	7	6	0,25 (35,40)
G20A6	94070006	aluminium	20	20	6	6	6	8	M3	7	6	0,25 (35,40)
G23A6/8	94070092	aluminium	23,5	20	6	8	6	8	M4	7	6	0,3 (42,48)
G23A6/10	94070093	aluminium	23,5	20	6	10	6	8	M4	7	6	0,3 (42,48)
G23A8/11	94070212	aluminium	23,5	20	8	11	6	8	M4	7	6	0,3 (42,48)
G23A10	94070095	aluminium	23,5	20	10	10	6	8	M4	7	6	0,3 (42,48)
G25A6	94070042	aluminium	25	25	6	6	7	11	M4	8	9	0,4 (56,64)
G25A6/8	94070024	aluminium	25	25	6	8	7	11	M4	8	9	0,4 (56,64)
G25A6/10	94070023	aluminium	25	25	6	10	7	11	M4	8	9	0,4 (56,64)
G25A8	94070026	aluminium	25	25	8	8	7	11	M4	8	9	0,4 (56,64)
G25A8/10	94070027	aluminium	25	25	8	10	7	11	M4	8	9	0,4 (56,64)
G25A8/11	94070104	aluminium	25	25	8	11	7	11	M4	8	9	0,4 (56,64)
G25A9,52	94070030	aluminium	25	25	9,52 (3/8")	9,52 (3/8")	7	11	M4	8	9	0,4 (56,64)
G25A9(H7)	94070150	aluminium	25	25	9	9	7	11	M4	8	9	0,4 (56,64)
G 25 A 10	94070012	aluminium	25	25	10	10	7	11	M4	8	9	0,4 (56,64)
G25A10/12	94070014	aluminium	25	25	10	12	7	11	M4	8	9	0,4 (56,64)
G25A11	94070067	aluminium	25	25	11	11	7	11	M4	8	9	0,4 (56,64)
G30A6	94070113	aluminium	25	30	6	6	8	14	M4	9	12	0,4 (56,64)
G30A6/8	94070037	aluminium	25	30	6	8	8	14	M4	9	12	0,4 (56,64)
G30A6/10	94070034	aluminium	25	30	6	10	8	14	M4	9	12	0,4 (56,64)
G30A6,35/14	94070197	aluminium	25	30	6,35 (1/4")	14	8	14	M4	9	12	0,4 (56,64)
G30A8	94070036	aluminium	25	30	8	8	8	14	M4	9	12	0,4 (56,64)
G30A10	94070051	aluminium	25	30	10	10	8	14	M4	9	12	0,4 (56,64)

please directly contact our offices for other holes diameter, preferred P/N in bold

SPECIAL APPLICATION COUPLINGS

Special application couplings are designed to meet extreme coupling conditions such as high torque or severe axial or radial play. Please refer to single product description to identify right elastic coupling for your application.

GS-DA SERIES

GS-DA series are double loop plastic coupling with medium torsional stiffness, low restoring forces with impact and vibration damping effect. It allows a smooth running, maintenance-free motion and a reliable compensation of radial, lateral and angular misalignments. It is also thermally and electrically insulated.

GS-EA SERIES

GS-EA series are heavy duty helix coupling for multi-purpose use for backlash-free and angularly aligned transmission of rotary motions with high torsional stiffness with medium restoring forces. It gives vibration-damping effect and optimum compensation of misalignments. It is produced from a single piece and has clamping hubs for shaft connections without causing any surface defects.

GS-EP SERIES

GS-EP series are low-cost shaft couplings manufactured using injection moulding technology with medium torsional stiffness, low restoring forces and vibration damping effect. Metal inserts in the hubs allows reliable shaft connection and thanks to free slot area the shafts may project into the coupling. It is also electrically insulated.

GS-M SERIES

GS-M series are multi-purpose couplings used for backlash-free transmission of rotary motions with high vibration-damping effect, good compensation of misalignments and low torsional stiffness and low restoring forces. It has no moving parts, very robust design.

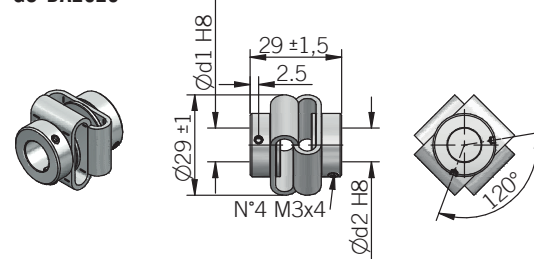
GS-O SERIES

GS-O series are elastic couplings where rotation is transmitted through a central disc that slides over the tenons on the hubs under controlled preload conditions to eliminate backlash. These couplings provide generous radial compensation and easy maintenance.

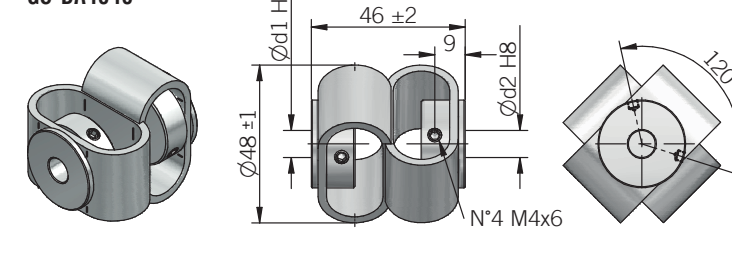
GS-S SERIES

GS-S series are bellows couplings for backlash-free and angularly aligned transmission with high vibration-damping effect, optimum compensation of misalignments with very high torsional stiffness and low restoring forces. Design is very robust due to stainless steel bellows and also has clamping hubs for shaft connections without causing any surface defects.

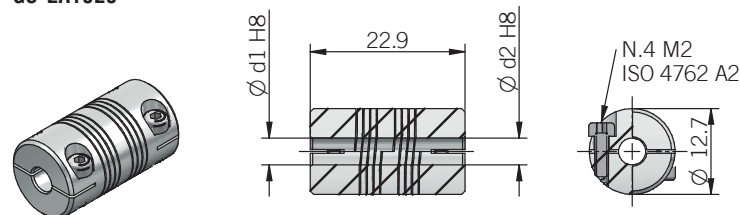
GS-DA2928



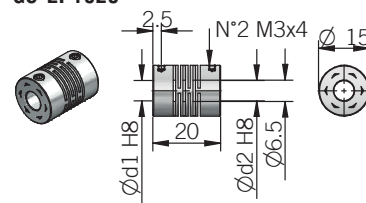
GS-DA4848



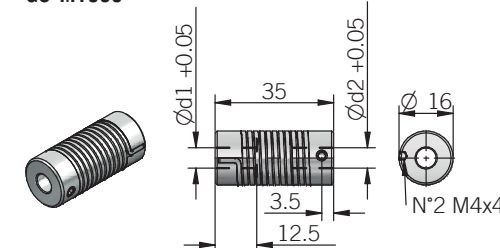
GS-EA1323



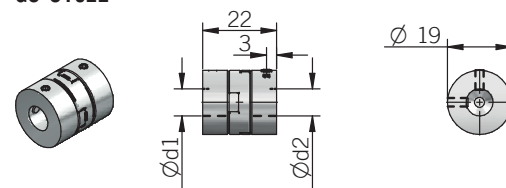
GS-EP1520



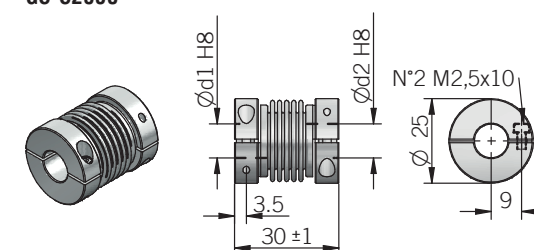
GS-M1635



GS-O1922



GS-S2530



dimensions in mm

SPECIAL APPLICATION ELASTIC COUPLINGS ORDERING CODE

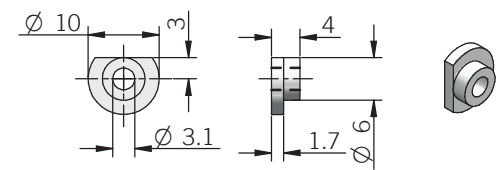
	P / N	Description
GS-DA2928-6 (former GS32A6)	94070188	Double loop plastic coupling 29 x 28 mm (ø 6 / 6 mm hole)
GS-DA2928-8 (former GS01A8)	94070050	Double loop plastic coupling 29 x 28 mm (ø 8 / 8 mm hole)
GS-DA2928-10 (former GS11A10)	94070091	Double loop plastic coupling 29 x 28 mm (ø 10 / 10 mm hole)
GS-DA4848-10 (former GS15A10)	94070112	Double loop plastic coupling 48 x 48 mm (ø 10 / 10 mm hole)
GS-EA1323-4 (former G13A4)	94070219	Aluminium coupling 13 x 23 mm (ø 4 / 4 mm hole)
GS-EP1520-6 (former GS21A6)	94070143	Plastic coupling with helical groove 15 x 20 mm (ø 6 / 6 mm hole)
GS-EP1520-4 (former GS22A4)	94070149	Plastic coupling with helical groove 15 x 20 mm (ø 4 / 4 mm hole)
GS-M1635-8 (former GS13A8)	94070115	Spring coupling 16 x 35 mm (ø 8 / 8 mm hole)
GS-M1635-10 (former GS30A10)	94070184	Spring coupling 16 x 35 mm (ø 10 / 10 mm hole)
GS-O1922-6 (former GS02A6)	94070061	Decomposable coupling Oldham 19 x 22 mm (ø 6 / 6 mm hole)
GS-O1922-10 (former GS16A10)	94070117	Decomposable coupling Oldham 19 x 22 mm (ø 10 / 10 mm hole)
GS-O1922-10/12 (former GS41A10/12)	94070218	Decomposable coupling Oldham 19 x 22 mm (ø 10 / 12 mm hole)
GS-S2530-10 (former GS25A10)	94070171	High pulses bellows coupling 25 x 30 mm (ø 10 / 10 mm hole)

please directly contact our offices for other models

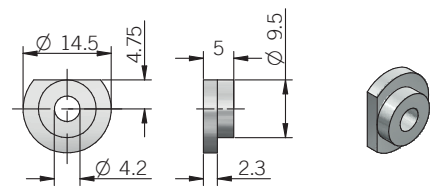
TECHNICAL DATA

	DA2928	DA4848	EA1323	EP1520	M1635	O1922	S2530
Max speed (rpm)	3000	3000	5000	12000	3000	3000	10000
Max torque (Nm) (Ozin)	0,5 (70,80)	2 (283,22)	2 (283,22)	0,3 (42,48)	0,5 (70,80)	1,7 (240,74)	2 (283,22)
Max offset radial (mm)	± 2	± 3	± 0,17	± 0,3	± 1	± 0,2	± 0,3
Max offset axial (mm)	± 2	± 4	± 0,25	± 0,2	± 1	± 0,1	± 0,4
Max offset angular (°)	± 10	± 12	± 5	± 2,5	± 5	± 0,5	± 4
Moment of inertia (gcm²)	41	106	1,2	2	10	6,7	29,8
Max clamping torque (Nm) (Ozin)	1 (141,61)	1 (141,61)	0,3 (42,48)	0,7 (99,12)	1,5 (212,41)	0,94 (133,11)	1 (141,61)
Temperature range (°C) (°F)	-30° ... +80 (-22° ... +176)	-30° ... +80 (-22° ... +176)	-40° ... +140 (-40° ... +284)	-10° ... +80 (14° ... +176)	-30° ... +120 (-22° ... +248)	-20° ... +60 (-4° ... +140)	-30° ... +120 (-22° ... +248)
Weight (g) (oz)	33 (1,16)	85 (3,00)	5 (0,18)	6 (0,21)	28 (0,99)	12 (0,42)	20 (0,71)
Flange material	steel galvanized	steel galvanized	aluminium	PA 66 glass fiber reinforced	zinc die casting	aluminium	aluminium
Insert material	poliurethan	poliurethan	aluminium	aluminium	spring steel	acetal	stainless steel

FIXING CLAMPS



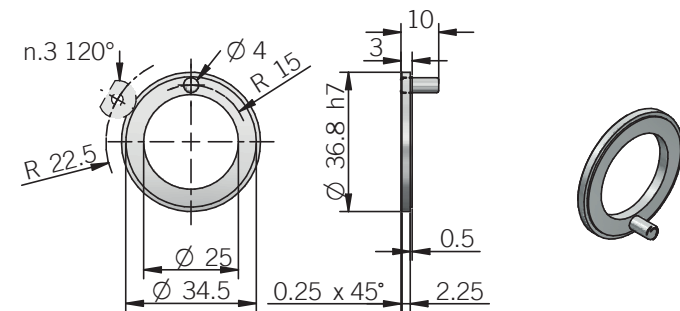
Description	P/N	Material	Scope of delivery	Applicable to model
kit n.3 fixing clamps	94080011	aluminum	n.3 fixing clamps	36B - 36K



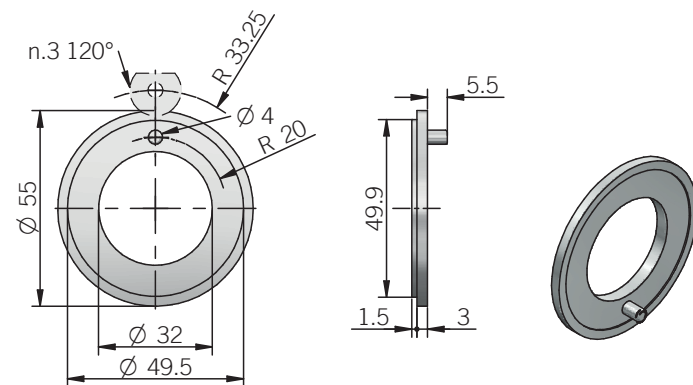
Description	P/N	Material	Scope of delivery	Applicable to model
kit n.3 fixing clamps	94080001	aluminum	n.3 fixing clamps	40A IP66 - 40N - 40X - 49C/P - 50A/B - 58B - 63A - 80A - 90A

dimensions in mm

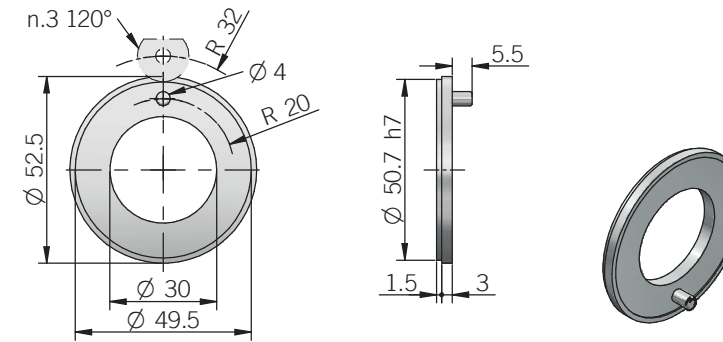
MECHANICAL FLANGES



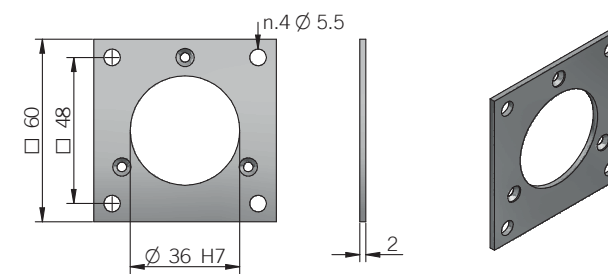
Description	P/N	Material	Scope of delivery	Applicable to model
FLG004 - resolver flange size 15	94010076	aluminum	n.1 flange	36K



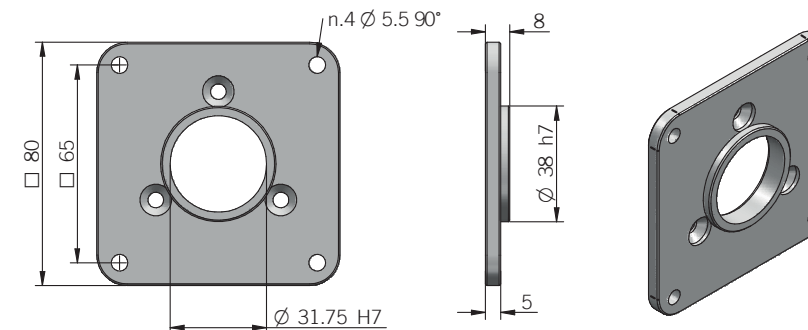
Description	P/N	Material	Scope of delivery	Applicable to model
FLG000 - resolver flange size 19 (01 version)	94010087	aluminum	n.1 flange	49C/P



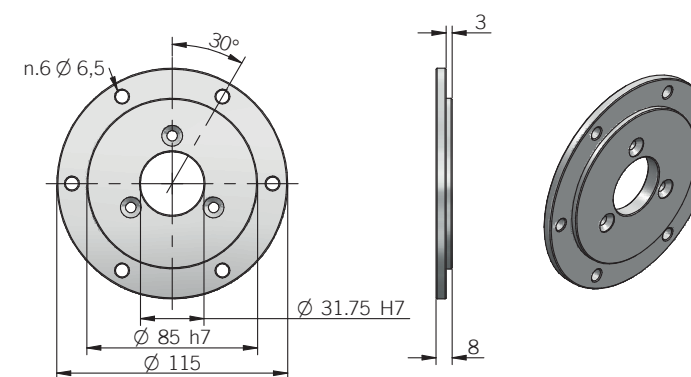
Description	P/N	Material	Scope of delivery	Applicable to model
FLG001 - resolver flange size 19 (14 version)	94010065	aluminum	n.1 flange	49C/P



Description	P/N	Material	Scope of delivery	Applicable to model
58C square flange	94990048	aluminum	n.1 58C square flange n.3 M3x6 screws	58C



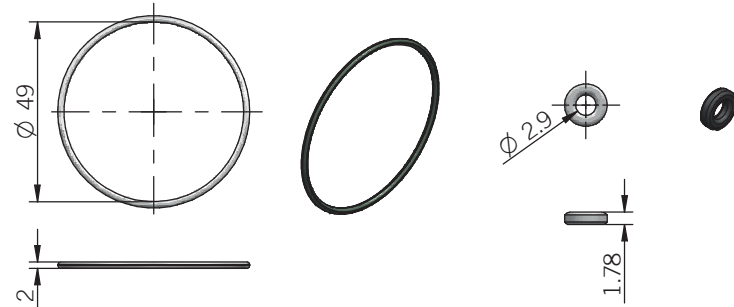
Description	P/N	Material	Scope of delivery	Applicable to model
63A square flange	94990049	aluminum	n.1 63A square flange n.3 M5x10 screws	63A



Description	P/N	Material	Scope of delivery	Applicable to model
63A REO-444 flange	94990050	aluminum	n.1 63A REO-444 flange n.3 M5x10 screws	63A

dimensions in mm

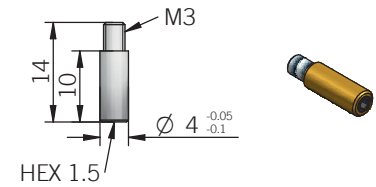
ORING KIT



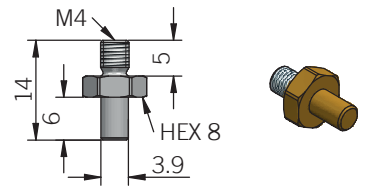
dimensions in mm

Description	P/N	Material	Scope of delivery	Applicable to model
EH30 IP54 kit	94990053	NBR	n.1 OR 49x2 n.2 OR 2012	30M - 30MH

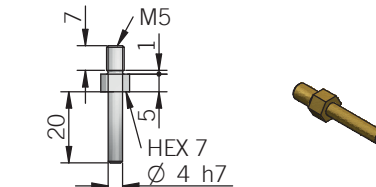
TORQUE PINS



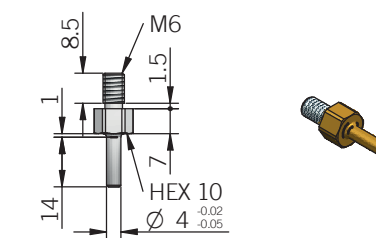
Description	P/N	Material	Scope of delivery	Applicable to model
M3 4 mm torque pin	94990067	Brass	n.1 torque pin	63F - 63FB - 63PBF - 63PCF



Description	P/N	Material	Scope of delivery	Applicable to model
M4 3,9 mm torque pin	94990079	Brass	n.2 torque pins	88PE

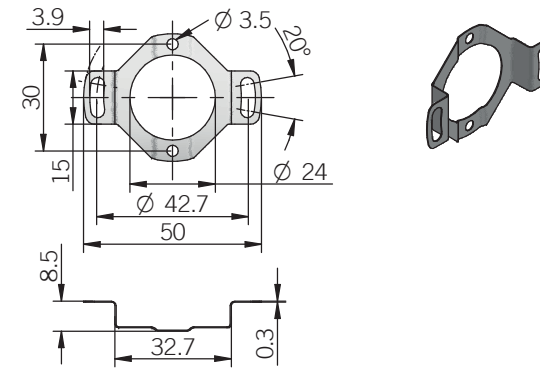


Description	P/N	Material	Scope of delivery	Applicable to model
M5 4mm torque pin	94990068	Brass	n.1 torque pin	80C - 80K - 80P - 80PG



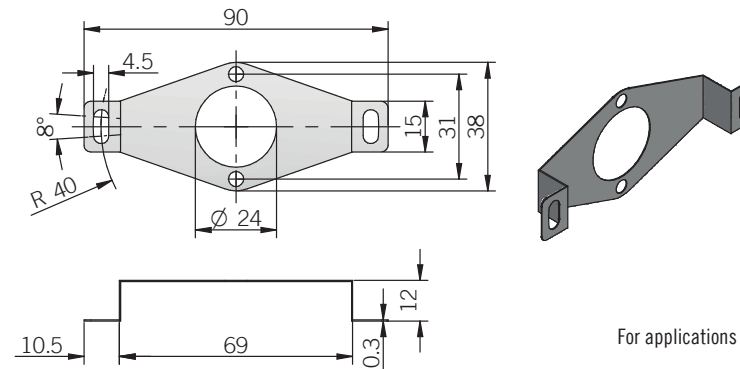
Description	P/N	Material	Scope of delivery	Applicable to model
M6 4mm torque pin	94990069	Brass	n.1 torque pin	63F - 63FB - 63PBF - 63PCF

TORQUE SUPPORT KIT



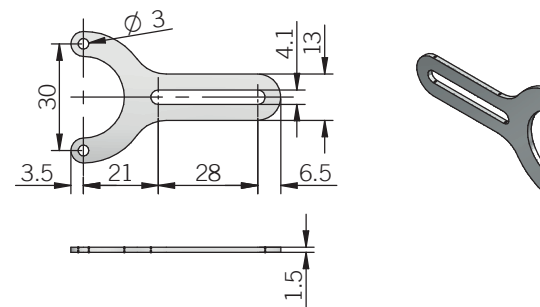
For applications with high dynamics and moderate axial play and low radial play

Description	P/N	Material	Scope of delivery	Applicable to model
ø 42,7 mm elastic spring	94990046	1.4310 AISI 301	n.1 encoder spring n.2 M3x4 screws	38F



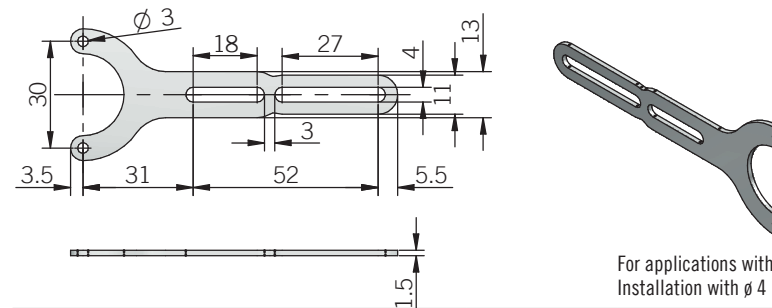
For applications with high dynamics and moderate axial play and low radial play

Description	P/N	Material	Scope of delivery	Applicable to model
ø 80 mm elastic spring	94990047	1.4310 AISI 301	n.1 encoder spring n.2 M3x4 screws	36F - 38F



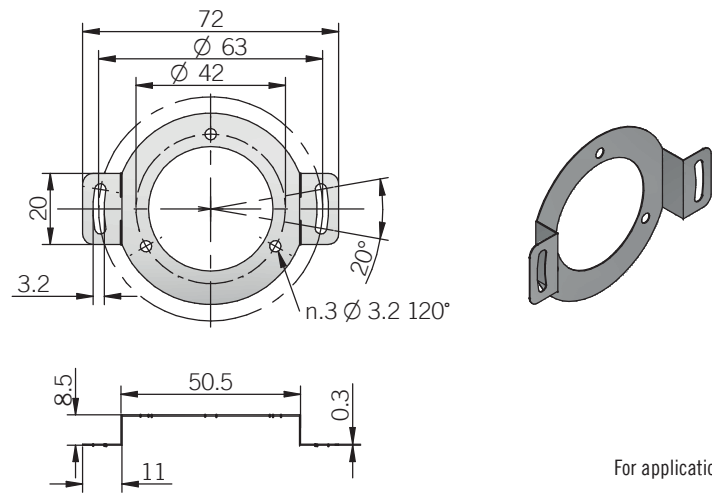
For applications with low dynamics and high axial play and low radial play. Installation with ø 4 mm cylindrical pin. Do not install with rigid fixing (e.g. screw)

Description	P/N	Material	Scope of delivery	Applicable to model
38F bracket kit 21 ... 49 mm	94990054	Stainless steel	n.1 bracket n.2 M3x6 screws	36F - 38F



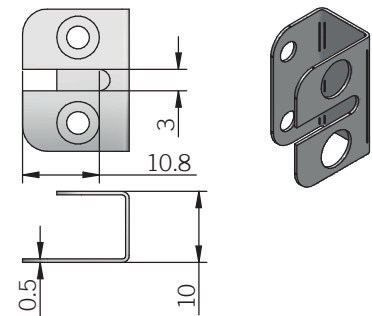
For applications with low dynamics and high axial play and low radial play. Installation with ø 4 mm cylindrical pin. Do not install with rigid fixing (e.g. screw)

Description	P/N	Material	Scope of delivery	Applicable to model
38F bracket kit 31 ... 83 mm	94990045	Stainless steel	n.1 bracket n.2 M3x6 screws	36F - 38F



For applications with high dynamics and moderate axial play and low radial play

Description	P/N	Material	Scope of delivery	Applicable to model
ø 63 mm elastic spring	94990022	1.4310 / AISI 301	n.1 encoder spring n.3 M3x4 screws	63FB - 63GB - 63PB - 63PBF - 63PC - 63PCF

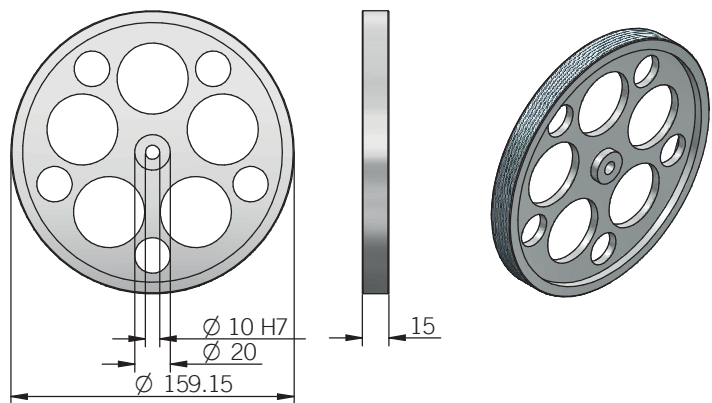


For applications with low dynamics and high axial play and low radial play. Installation with ø 3 mm cylindrical pin. Do not install with rigid fixing.

Description	P/N	Material	Scope of delivery	Applicable to model
88P-88PE torque stop kit	94990051	1.4310 / AISI 301	n.1 torque stop n.2 M3x4 screws	88P - 88PE

dimensions in mm

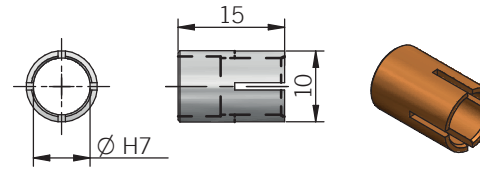
MEASURING WHEELS



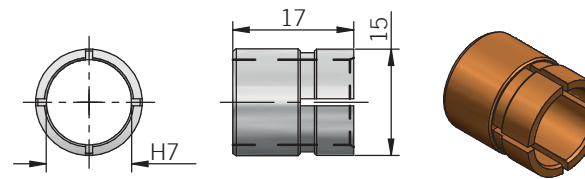
dimensions in mm

Description	P/N	Material	Scope of delivery	Applicable to model
Measuring wheel weight 260 g (9.17 oz)	94990070	aluminum	n.1 measuring wheel n.1 M5x16 screw	RL - RM 500

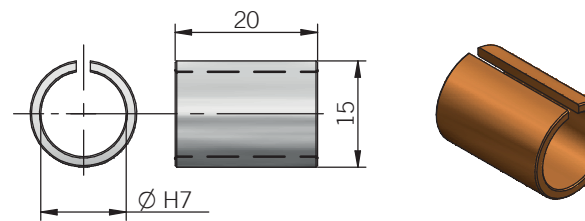
SHAFT ADAPTERS



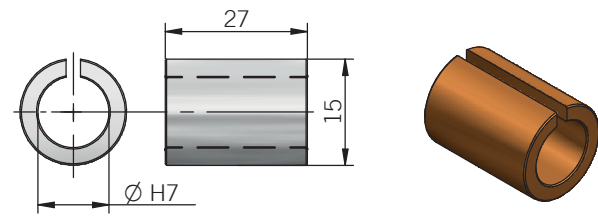
Description	P/N	Material	Scope of delivery	Applicable to model
Shaft adapter 10/8 mm	94990082	Bronze	n.1 shaft adapter	36F - 36G
Shaft adapter 10/6,35 mm (1/4")	94990083			
Shaft adapter 10/6 mm	94990084			
Shaft adapter 10/5 mm	94990085			
Shaft adapter 10/4 mm	94990086			



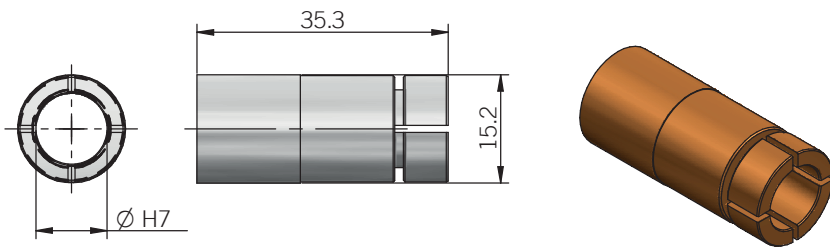
Description	P/N	Material	Scope of delivery	Applicable to model
Shaft adapter 15/12 mm	94990087	Bronze	n.1 shaft adapter	50F - 50G
Shaft adapter 15/10 mm	94990088			
Shaft adapter 15/8 mm	94990089			
Shaft adapter 15/6 mm	94990090			
Shaft adapter 15/5 mm	94990091			



Description	P/N	Material	Scope of delivery	Applicable to model
Shaft adapter 15/12 mm	94990071	Bronze	n.1 shaft adapter	EA 58F - 63F - 63G EAL 58F - 63F - 63G EAR 58F - 63F - 63G EAM 58F - 63F - 63G EAML 58F - 63F - 63G EAMR 58F - 63F - 63G
Shaft adapter 15/11 mm	94990072			
Shaft adapter 15/10 mm	94990073			
Shaft adapter 15/9,52 mm (3/8")	94990074			
Shaft adapter 15/8 mm	94990075			
Shaft adapter 15/6 mm	94990076			



Description	P/N	Material	Scope of delivery	Applicable to model
Shaft adapter 15/12 mm	94990077	Bronze	n.1 shaft adapter	AAM 58F - 58FR
Shaft adapter 15/10 mm	94990078			

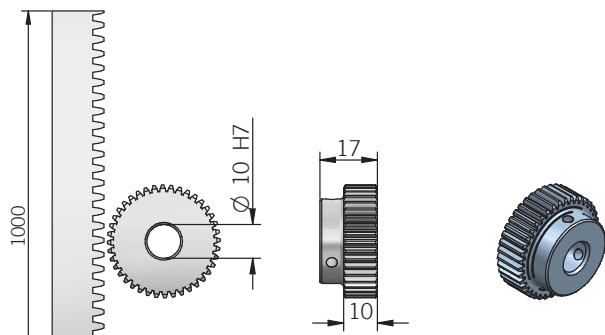


Description	P/N	Material	Scope of delivery	Applicable to model
Shaft adapter 15/12 mm	94990066	Bronze	n.1 shaft adapter	80PG
Shaft adapter 15/10 mm	94990065			

dimensions in mm, for further shaft adapter diameters please directly contact our offices

EC34 ACCESSORIES

Rack and cogged wheel
 $p = 2,5$ $z = 40$ $m = 0,796$

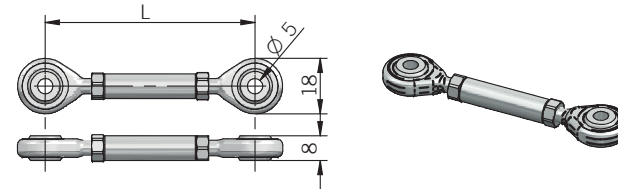


FORMULAS
 modulus $m = Dp/z$
 step $p = m \times \pi$
 primitive diameter $Dp = m \times z$
 cog number $z = Dp/m$

dimensions in mm

Description	P/N	Material	Scope of delivery	Applicable to model
Cogged wheel $M = 0,796$ / $P = 2,5$ / $Z = 40$	94080003	C45 steel	n.1 cogged wheel	EC 34A
Rack $P = 2,5$ / 1m length	94080012		n.1 1m P 2,5 rack	

TORQUE ARMS

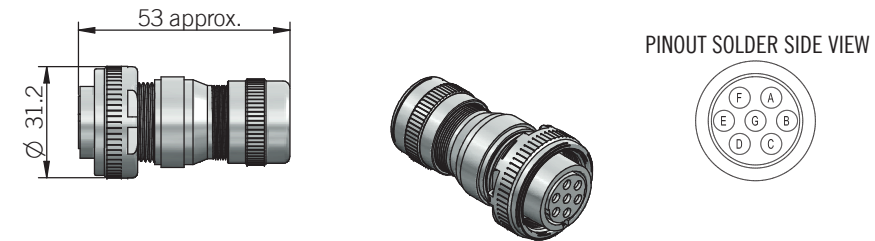


For applications with low axial and radial play

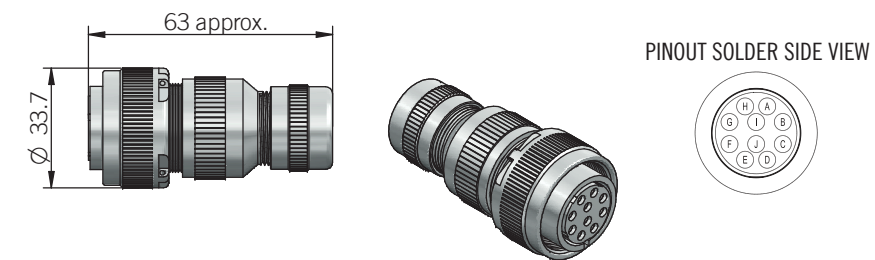
dimensions in mm

Description	P/N	Material	Scope of delivery	Applicable to model
Torque arm L = 80 MM	94010061	Steel	n. 1 torque arm n. 2 M5 x 12 UNI ISO 7380	88PET - 120P
Torque arm L = 110 MM	94010070			
Torque arm L = 140 MM	94010071			

CONNECTORS



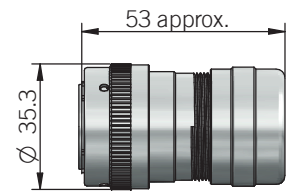
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M07FV Field-attachable MIL straight 7 pin - socket IP67	94990121	Metal	Solder max 1,3 mm ² / AWG 16 Cable gland range ϕ 5 ... 10 mm -40° ... +125°C (-40° ... +257°F)	n.1 connector	M connector (7 pin)



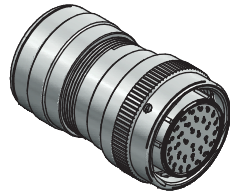
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M10FV Field-attachable MIL straight 10 pin - socket IP67	94990119	Metal	Solder max 1,3 mm ² / AWG 16 Cable gland range ϕ 5 ... 10 mm -40° ... +100°C (-40° ... +212°F)	n.1 connector	M connector (10 pin)



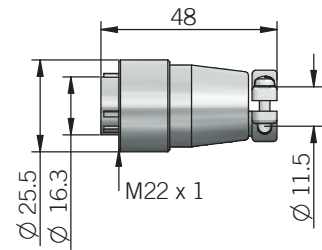
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M19FV Field-attachable MIL straight 19 pin - socket IP67	94990123	Metal	Solder max 0,5 mm ² / AWG 20 Cable gland range ϕ 5 ... 10 mm -40° ... +125°C (-40° ... +257°F)	n.1 connector	M connector (19 pin)



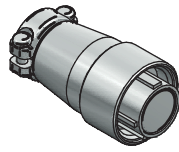
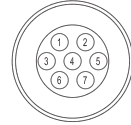
PINOUT SOLDER SIDE VIEW



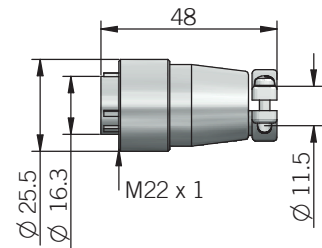
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M32FV Field-attachable MIL straight 32 pin - socket IP67	94990128	Metal	Screw max 0,5 mm ² / AWG 20 Cable gland range ø 9 ... 15 mm -40° ... +125°C (-40° ... +257°F)	n.1 connector	M connector (32 pin)



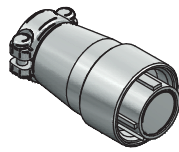
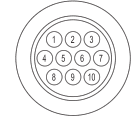
PINOUT SOLDER SIDE VIEW



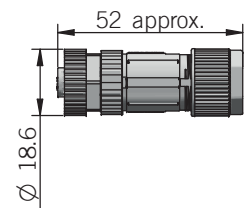
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. J07FV Field-attachable J07 straight 7 pin JIS-C-5432 - socket IP40	94990131	Metal / Plastic	Solder max ø 1,5 mm -25° ... +85°C (-13° ... +185°F)	n.1 connector	J connector (7 pin)



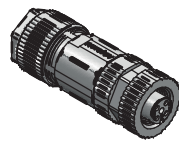
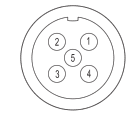
PINOUT SOLDER SIDE VIEW



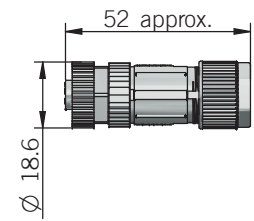
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. J10FV Field-attachable J10 straight 10 pin JIS-C-5432 - socket IP40	94990133	Metal / Plastic	Solder max ø 1 mm -25° ... +85°C (-13° ... +185°F)	n.1 connector	J connector (10 pin)



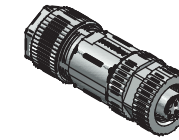
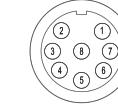
PINOUT SOLDER SIDE VIEW



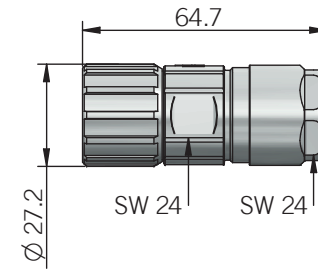
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M12FV 5P Field-attachable M12 straight 5 pin A-coded socket IP67	94990117	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 7 mm -40° ... +85°C (-40° ... +185°F)	n.1 connector	M12 connector (5 pin) - A coded



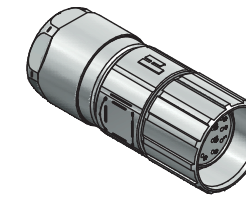
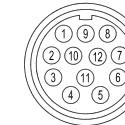
PINOUT SOLDER SIDE VIEW



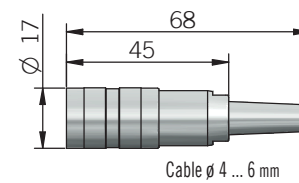
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. M12FV 8P Field-attachable M12 straight 8 pin A-coded socket IP67	94990118	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 7 mm -40° ... +85°C (-40° ... +185°F)	n.1 connector	M12 connector (8 pin) - A coded



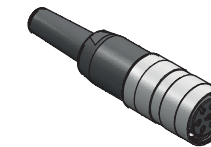
PINOUT SOLDER SIDE VIEW



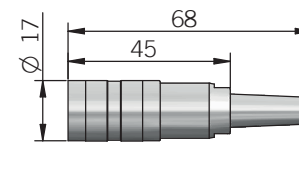
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. H12FV CCW Field-attachable M23 straight 12 pin socket IP67	94990137	Metal	Solder max ø 1 mm Cable gland range ø 3 ... 7 mm -40° ... +125°C (-40° ... +257°F)	n.1 connector	H connector (12 pin) - M23 CCW



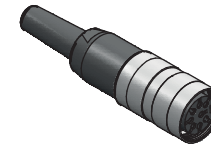
PINOUT SOLDER SIDE VIEW



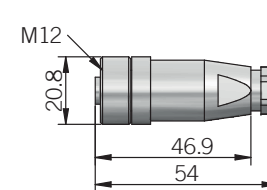
Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. C05FV Field-attachable C091 M16 straight 5 pin - socket IP40	94990135	Metal / Plastic	Screw max 0,5 mm ² / AWG 20 Cable range ø 4 ... 6 mm -40° ... +100°C (-40° ... +212°F)	n.1 connector	C connector (5 pin)



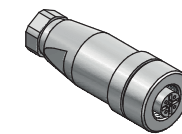
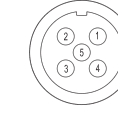
PINOUT SOLDER SIDE VIEW



Description	P/N	Material	Specifications	Scope of delivery	Mating with
CONN. C08FV Field-attachable C091 M16 straight 8 pin IEC 60130-9 - socket IP40	94990142	Metal / Plastic	Screw max 0,5 mm ² / AWG 20 Cable range ø 4 ... 6 mm -40° ... +100°C (-40° ... +212°F)	n.1 connector	C connector (8 pin)

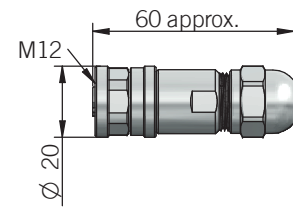


PINOUT SOLDER SIDE VIEW



Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
CONN. M12FV 5P PLASTIC Field-attachable M12 straight 5 pin A-coded socket - IP67	94990114	Plastic	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 3.5 ... 6 mm -40° ... +90°C (-40° ... +194°F)	n.1 connector	FXX - PFN - ETC POWER connector

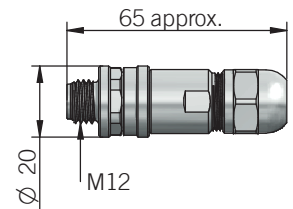




PINOUT SOLDER SIDE VIEW



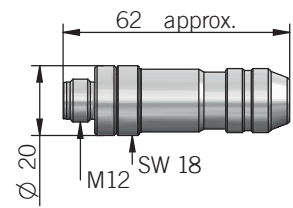
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
CONN. M12 FV PROFIBUS Field-attachable M12 straight 5 pin B-coded socket - IP67	94990144	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 9 mm -25° ... +90°C (-13° ... +194°F)	n.1 connector	FXX BUS IN connector



PINOUT SOLDER SIDE VIEW



Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
CONN. M12MV PROFIBUS Field-attachable M12 straight 5 pin B-coded plug - IP67	94990145	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 9 mm -25° ... +90°C (-13° ... +194°F)	n.1 connector	FXX BUS OUT connector



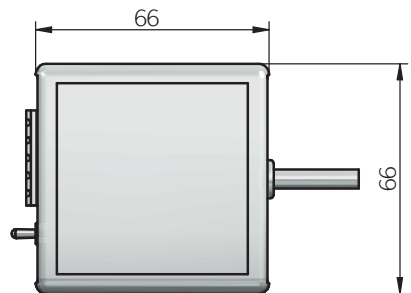
PINOUT SOLDER SIDE VIEW



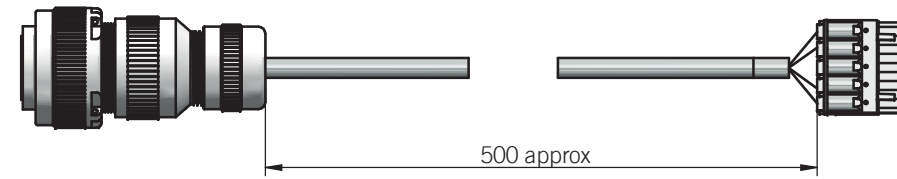
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
CONN. M12MV ETHERNET Field-attachable M12 straight 4 pin D-coded plug - IP67	94990115	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 6 ... 8 mm -40° ... +85°C (-40° ... +185°F)	n.1 connector	PFN - ETC I/O connector

IP rating when plugged with proper cable, dimensions in mm

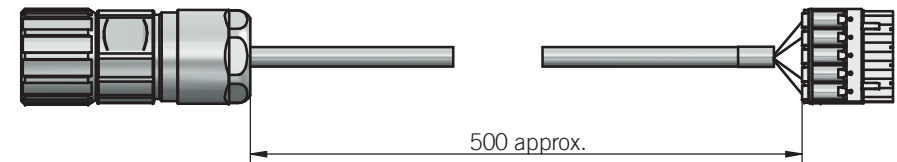
EMIP ACCESSORIES



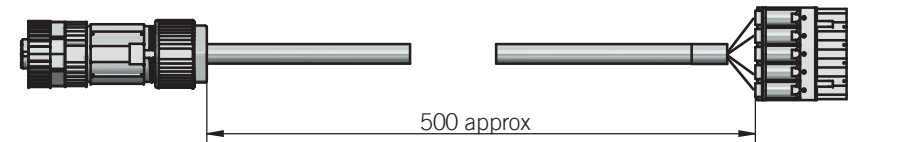
Description	P/N	Material	Scope of delivery	Applicable to model
UPT-001 USB tool for PC programming	94990170	Plastic	Programmer box with USB cable (length 1,8m) n.2 push-in connectors	EMIP



Description	P/N	Material	Scope of delivery	Applicable to model
UPT-001 M10 cable adapter	94030308	Metal	n.1 M10 socket with cable and push-in connector	EMIP



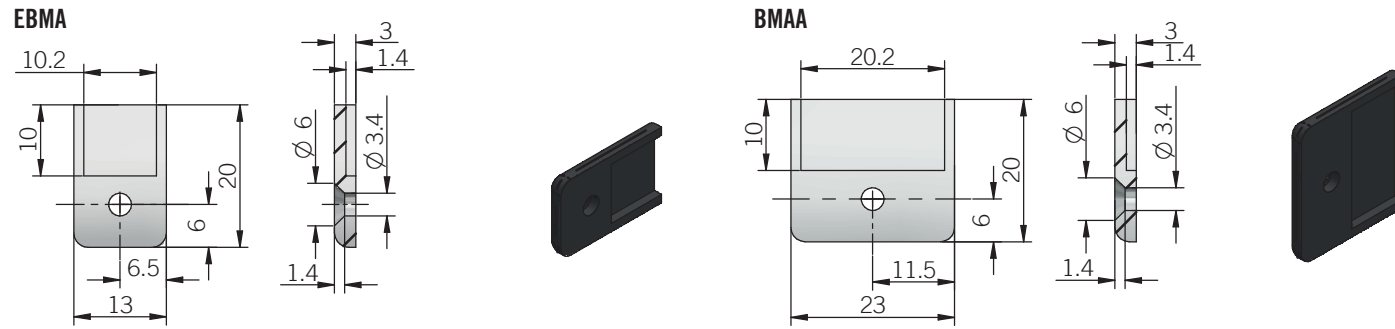
Description	P/N	Material	Scope of delivery	Applicable to model
UPT-001 H12 (M23) cable adapter	94030307	Metal	n.1 H12 socket with cable and push-in connector	EMIP



Description	P/N	Material	Scope of delivery	Applicable to model
UPT-001 M12 cable adapter	94030310	Metal	n.1 M12 socket with cable and push-in connector	EMIP

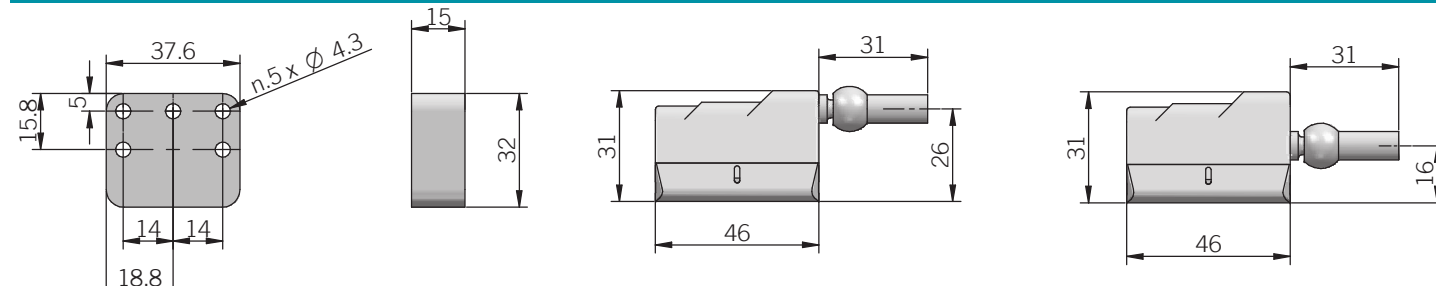
dimensions in mm

CLIPS FOR MAGNETIC TAPE



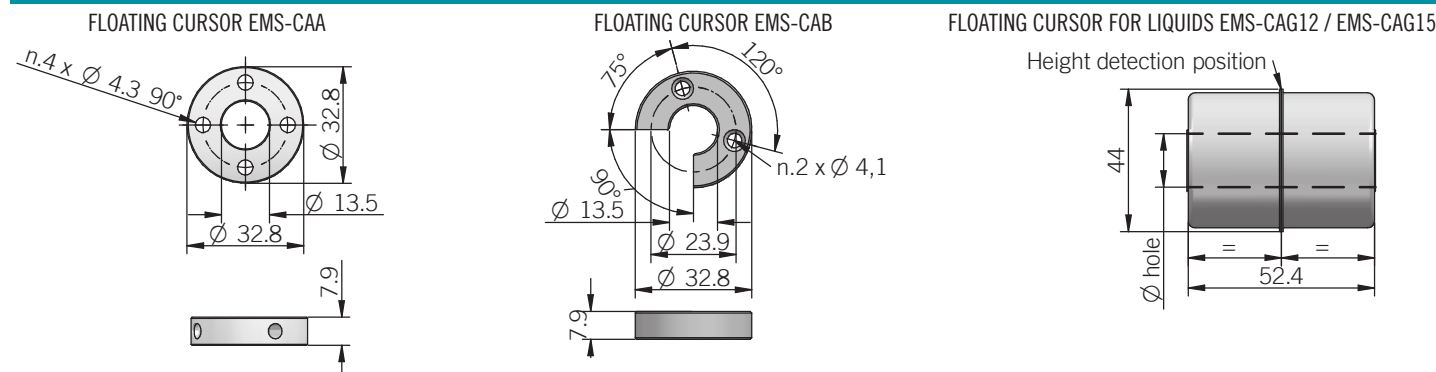
Description	P/N	Material	Scope of delivery	Applicable to model
EBMA fixing clips	94990055	Polyamide	n.10 clips	EBMA
BMAA fixing clips	94990056	Polyamide	n.10 clips	BMAA

CURSORS FOR EMSPA - EMSPB - EMSPS



Function	Description	P/N	Function	Description	P/N	Function	Description	P/N
Floating cursor	EMSPA-EMSPS-ST42 EMS-CSF ^{2V} EMS-CSF ¹	95490027 95490012	Sliding cursor axial joint high	EMSPA-EMSPS-ST50 EMS-CSA ^{2V} EMS-CSA ¹	95490028 95490000	Sliding cursor axial joint low	EMSPA-EMSPS-ST42 EMS-CSB ^{2V} EMS-CSB ¹	95490029 95490001

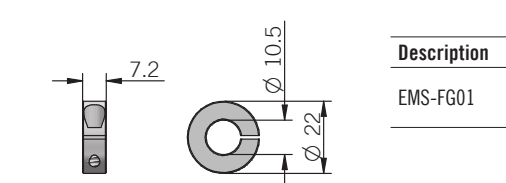
FLOATING CURSORS FOR EMSSA - EMSSS



Description	P/N	Material	Scope of delivery
EMS-CAA.2V EMS-CAA ¹	95590016 95590000	aluminum	n.4 M4 brass nuts n.8 D4 brass washers n.4 M4x25 brass screws
EMS-CAB.2V EMS-CAB ¹	95590017 95590001	aluminum	n.4 M4 brass nuts n.4 D4 brass washers n.2 M4x25 brass screws
EMS-CAC.2V EMS-CAC ¹	95590018 95590011	aluminum	/
EMS-CAG12.2V EMS-CAG12 ¹	95590019 95590012	AISI 316 stainless steel	12 mm hole
EMS-CAG15 ¹	95590013	AISI 316 stainless steel	15 mm hole

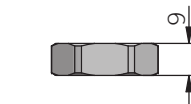
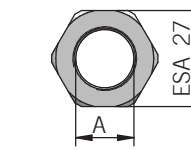
dimensions in mm
¹ only for spare parts for magnetostrictive transducers sold before February 2020, please contact our offices for availability

COLLAR CLAMPING FOR EMS-CAG12 / EMS-CAG15



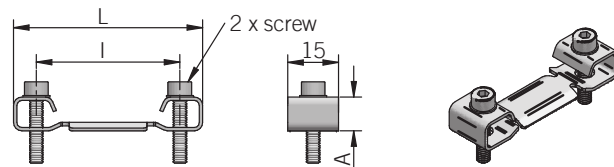
Description	P/N	Material	Scope of delivery
EMS-FG01	95590014	AISI 316 stainless steel	n.1 D3 AISI 316 washer n.1 M3x8 AISI 316 screw

HEX NUT



dimensions in mm

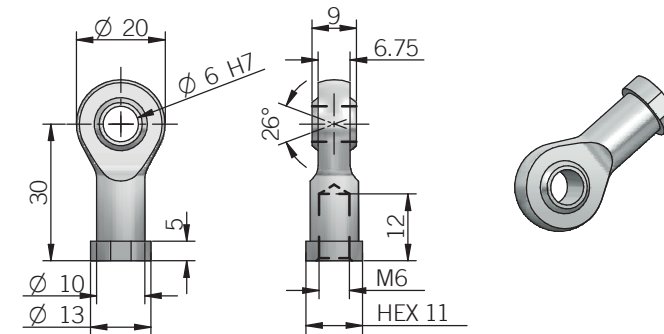
BRACKETS



dimensions in mm

Description	P/N	Center-to-center (I)	Overall dimension (L)	Height (A)	Screw (M)	Applicable to model
EMSPA-EMSPS-ST42	95490011	42,5	56	12,4	M4	EMSPA - EMSPS
EMSPA-EMSPS-ST50	95490010	50	63,5	12,4	M5	EMSPA - EMSPS
EMSPB-ST42	95490022	42,5	56	10	M4	EMSPB
EMSPB-ST50	95490026	50	63,5	10	M5	EMSPB

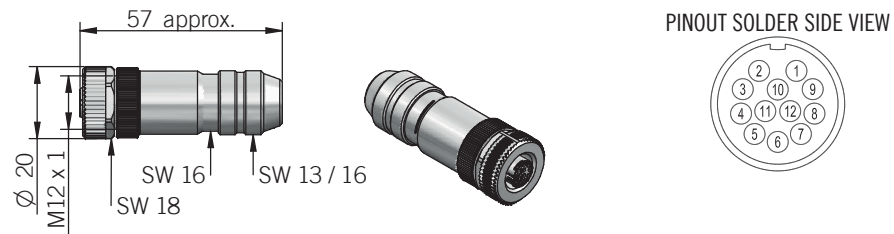
EPLA BALL JOINT



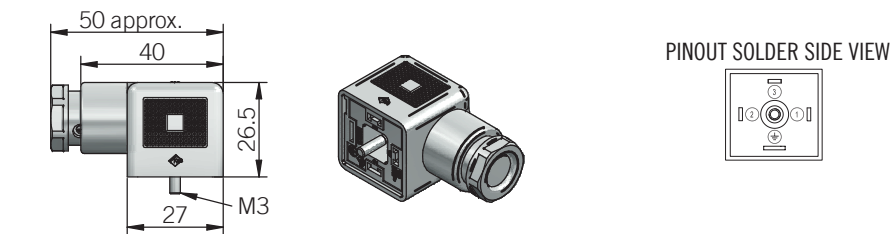
dimensions in mm

Description	P/N	Material	Scope of delivery	Applicable to model
EPLA-SN01	95390003	Steel	n.1 Ø 6 mm ball joint	EPLA

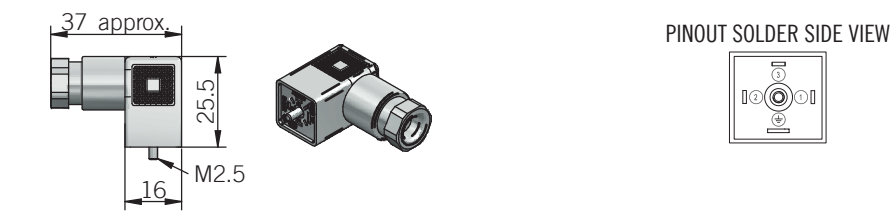
CONNECTORS



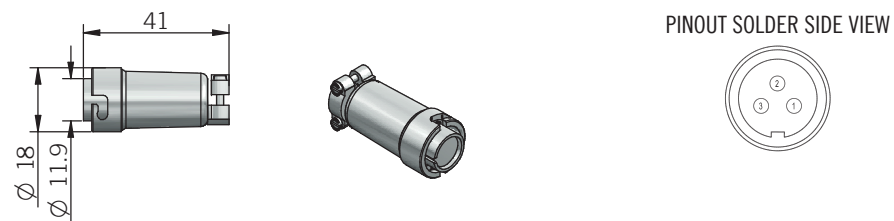
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
CONN. M12FV 12P Field-attachable M12 straight 12 pin A-coded socket IP67	94990116	Metal	Solder max 0,25 mm ² / AWG 24 Cable gland range ø 6 ... 8 mm -40° ... +85°C (-40° ... +185°F)	n.1 connector	TMAA



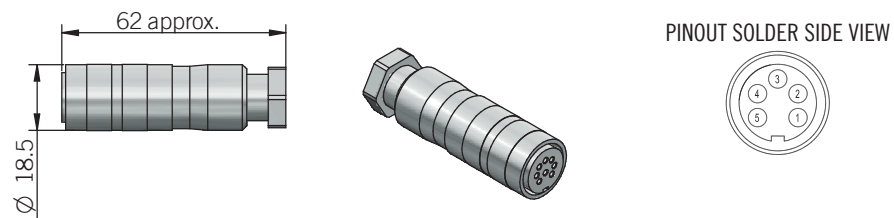
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EPLA/C-EMSPB C04FV 90° IP 65 Field-attachable 90 degrees 4 pin 43650-A socket	95390004	Plastic	Screw max 1,50 mm ² / AWG 16 Cable gland range ø 6 ... 8 mm -30° ... +125°C (-22° ... +257°F)	n.1 connector	EPLA - EPLC - EMSPB



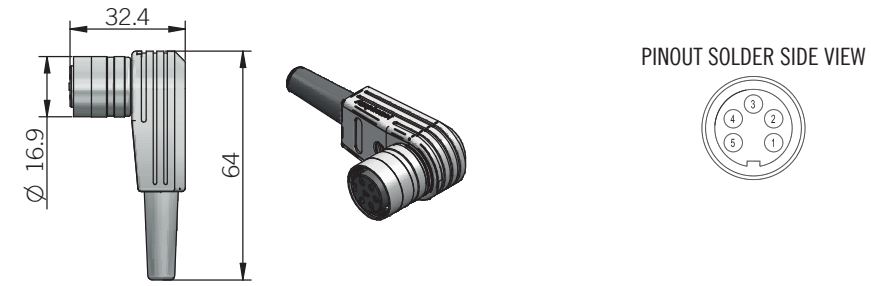
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EPLB-C04FV 90° IP 65 Field-attachable 90 degrees 4 pin 43650-C socket	95390001	Plastic	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 6 mm -40° ... +90°C (-40° ... +194°F)	n.1 connector	EPLB



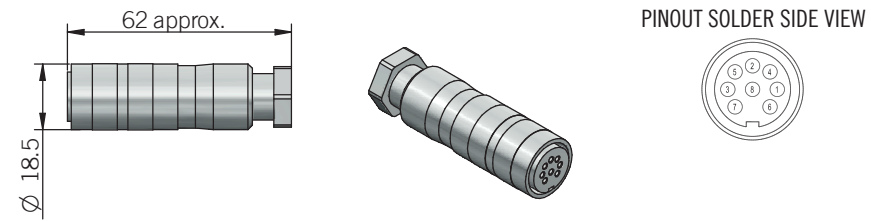
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EPL-C03FV Field-attachable straight 3 pin socket IP40	95390002	Metal	Solder max ø 1,1 mm Cable gland range ø 5 ... 8 mm -25° ... +85°C (-13° ... +185°F)	n.1 connector	EPLA - EPLB



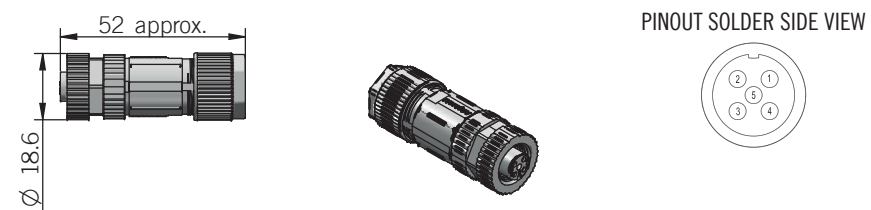
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EPL-C05FV IP 67 Field-attachable straight 5 pin DIN 45322 socket	95390005	Metal / Plastic	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 6 ... 8 mm -30° ... +95°C (-22° ... +203°F)	n.1 connector	EPLA - EPLB - EPLC - EPLT



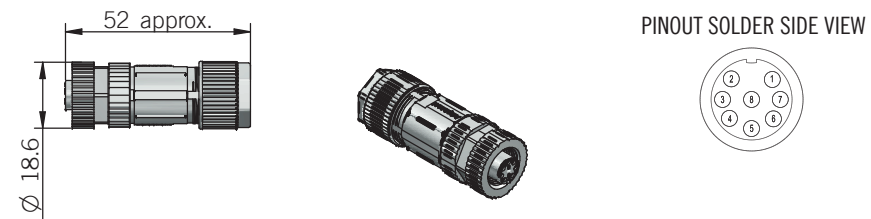
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EPL-C05FV 90° IP 40 Field-attachable 90 degrees 5 pin DIN 45322 socket	95390007	Metal / Plastic	Solder max 0,5 mm ² / AWG 20 Cable range ø 4 ... 6 mm -40° ... +100°C (-40° ... +212°F)	n.1 connector	EPLA - EPLB - EPLC - EPLT



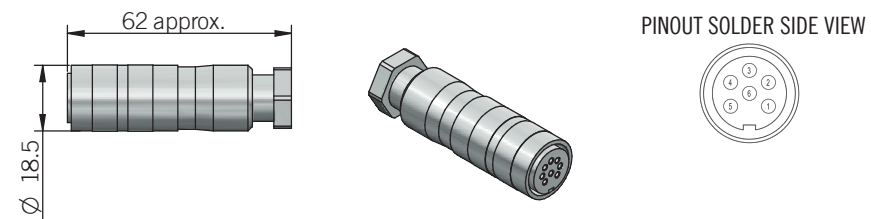
Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EMS-C08FV IP 67 Field-attachable M16 straight 8 pin DIN 45326 socket	95490025	Metal / Plastic	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 6 ... 8 mm -30° ... +95°C (-22° ... +203°F)	n.1 connector	EMSPA - EMSPS



Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EMS-S05FV IP67 Field-attachable M12 straight 5 pin A-coded socket	95490002	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 7 mm -30° ... +85°C (-22° ... +185°F)	n.1 connector	EMSPA - EMSPB



Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EMS-S08FV IP67 Field-attachable M12 straight 8 pin A-coded socket IP67	95490002	Metal	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 4 ... 7 mm -30° ... +85°C (-22° ... +185°F)	n.1 connector	EMSPA - EMSPB

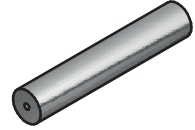


Description	P/N	Material	Specifications	Scope of delivery	Applicable to model
EMS-C06FV IP 67 Field-attachable M16 straight 6 pin DIN 45322 socket	95490015	Metal / Plastic	Screw max 0,75 mm ² / AWG 18 Cable gland range ø 6 ... 8 mm -30° ... +95°C (-22° ... +203°F)	n.1 connector	EMSPA - EMSPS - EMSSA - EMSSS

IP rating when plugged with proper cable, dimensions in mm

CABLES

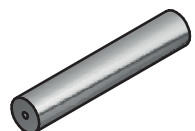
Eltra cables are high quality screened cables to provide reliable transmission between the sensor and the subsequent electronics. Thanks to the different cable materials (PVC or PUR, for fixed or flexible installation), to the rugged and compact design they can be used in harsh operating conditions. Eltra provides non-assembled, partially or fully assembled cables as accessories with preferred cable lengths are 1,5 / 2 / 3 / 5 / 10 m. The cables are not appropriate for outside usage (no direct UV and/or moisture exposure), please contact directly our Offices



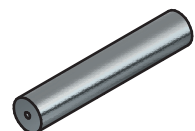
Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 5 POLI xx M / 5 CORES CABLE xx M 5 cores PVC flame retardant shielded cable	Outer sheat material PVC - silver grey diameter 5,2 ± 0,15 mm Conductors sheat material PVC Conductors cross section AWG 24 / 0,22 mm ² Shield AL/PET foil + drain wire	Fixed installation -25° ... +85°C (-13°... +185°F) Bending radius min 60 mm Minimum temperature installation -5°C (+23°F)	red black green yellow blue



Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 5 POLI CAT. xx M / 5 CORES FLEX CABLE xx M 5 cores PUR drag chain shielded cable	Outer sheat material PUR - black diameter 5,2 ± 0,15 mm Conductors sheat material PVC Conductors cross section AWG 24 / 0,22 mm ² Braid tinned copper 90% coverage	Flexible installation -20° ... +80°C (-4°... +185°F) Bending radius min 60 mm Travel speed 100 m/min max Acceleration 5 m/s ² max Minimum temperature installation -5°C (+23°F)	red black green yellow blue



Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 8 POLI xx M / 8 CORES CABLE xx M 8 cores PVC flame retardant shielded cable	Outer sheat material PVC - silver grey diameter 5,7 ± 0,15 mm Conductors sheat material PVC Conductors cross section AWG 24 / 0,22 mm ² Shield AL/PET foil + drain wire	Fixed installation -25° ... +85°C (-13°... +185°F) Bending radius min 60 mm Minimum temperature installation -5°C (+23°F)	red black green yellow blue brown or grey



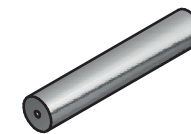
Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 8 POLI HT xx M / 8 CORES HT CABLE xx M 8 cores PVC flame retardant high temperature shielded cable	Outer sheat material PVC - anthracite grey Outer diameter 5,6 ± 0,1 mm Conductors sheat material PVC Conductors cross section AWG 24 / 0,22 mm ² Shield AL/PET foil + drain wire	Fixed installation -40° ... +105°C (-40°... +221°F) Bending radius min 60 mm Minimum temperature installation -5°C (+23°F)	red black green yellow blue grey



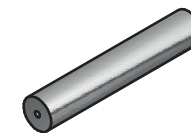
Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 8 POLI TP xx M / 8 CORES TP CABLE xx M 8 cores twisted pairs PVC flame retardant shielded cable	Outer sheat material PVC - black Outer diameter 5,6 ± 0,1 mm Conductors sheat material PVC Conductors cross section 4 x 2 x AWG 26 / 0,14 mm ² Braid tinned copper > 82% coverage	Fixed installation -30° ... +105°C (-22°... +221°F) Bending radius min 60 mm Minimum temperature installation -5°C (+23°F)	red black green brown yellow orange white red/blue



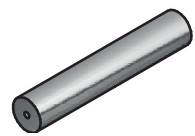
Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 8 POLI CAT. xx M / 8 CORES FLEX CABLE xx M 8 cores PUR drag chain shielded cable	Outer sheat material PUR - black diameter 5,7 +0 / -0,15 mm Conductors sheat material PVC Conductors cross section AWG 26 / 0,14 mm ² Braid tinned copper 90% coverage	Flexible installation -20° ... +85°C (-4°... +185°F) Bending radius min 60 mm Travel speed 100 m/min max Acceleration 5 m/s ² max Minimum temperature installation -5°C (+23°F)	red black green yellow blue brown orange white



Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 12 POLI xx M / 12 CORES CABLE xx M 12 cores PVC flame retardant shielded cable	Outer sheat material PVC - silver grey Outer diameter 6,5 ± 0,1 mm Conductors sheat material PVC Conductors cross section AWG 24 / 0,22 mm ² Shield AL/PET foil + drain wire	Fixed installation -20° ... +85°C (-4°... +185°F) Bending radius min 60 mm Minimum temperature installation -5°C (+23°F)	red black green yellow blue brown orange white grey violet grey/pink red/blue

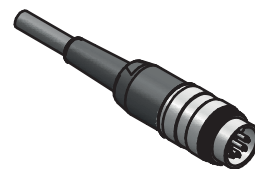
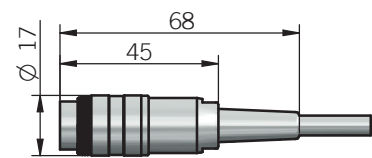


Description	Technical data	Operating temperature	Conductor colours
SPZ.CAVO 16 POLI xx M / 16 CORES CABLE xx M 16 cores PVC flame retardant shielded cable	Outer sheat material PVC - grey Outer diameter 7 mm approx Conductors sheat material PVC Conductors cross section AWG 26 / 0,14 mm ² Braid tinned copper 85% coverage	Fixed installation -40° ... +85°C (-40°... +185°F) Bending radius min 50 mm Minimum temperature installation -5°C (+23°F)	red black green yellow blue brown orange white grey violet grey/pink red/blue white/green brown/green white/yellow yellow/brown



Description	Technical data	Operating temperature	Conductor colours																																
SPZ.CAVO 32 POLI xx M / 32 CORES CABLE xx M 32 cores PVC flame retardant shielded cable	Outer sheat material PVC - grey Outer diameter 10 mm approx Conductors sheat material PVC Conductors cross section AWG 26 / 0,14 mm ² Braid tinned copper 85% coverage	Fixed installation -40° ... +85°C (-40°... +185°F) Bending radius min 50 mm Minimum temperature installation -5°C (+23°F)	<table border="0"> <tr><td>red</td><td>white/grey</td></tr> <tr><td>black</td><td>brown/grey</td></tr> <tr><td>green</td><td>white/pink</td></tr> <tr><td>yellow</td><td>brown/pink</td></tr> <tr><td>blue</td><td>white/blue</td></tr> <tr><td>brown</td><td>brown/blue</td></tr> <tr><td>pink</td><td>white/red</td></tr> <tr><td>white</td><td>brown/red</td></tr> <tr><td>grey</td><td>white/black</td></tr> <tr><td>violet</td><td>brown/black</td></tr> <tr><td>grey/pink</td><td>grey/green</td></tr> <tr><td>red/blue</td><td>yellow/grey</td></tr> <tr><td>white/green</td><td>pink/green</td></tr> <tr><td>brown/green</td><td>yellow/pink</td></tr> <tr><td>white/yellow</td><td>green/blue</td></tr> <tr><td>yellow/brown</td><td>yellow/blue</td></tr> </table>	red	white/grey	black	brown/grey	green	white/pink	yellow	brown/pink	blue	white/blue	brown	brown/blue	pink	white/red	white	brown/red	grey	white/black	violet	brown/black	grey/pink	grey/green	red/blue	yellow/grey	white/green	pink/green	brown/green	yellow/pink	white/yellow	green/blue	yellow/brown	yellow/blue
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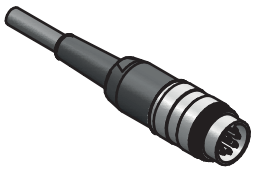
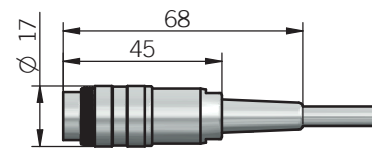
PIGTAILS WITH PLUG



PINOUT FRONT VIEW



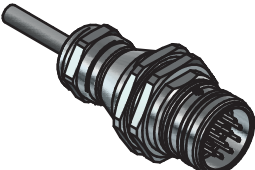
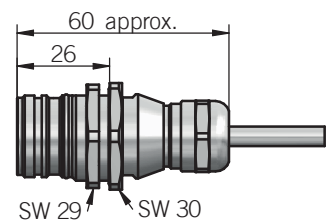
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+C Pigtail with metal/plastic 5 pin C091 M16 IP40 plug connector	ER30E500Z5/28P4X3PR+C.162	NPN open collector (with or without zero) push-pull (with or without zero)	CONN.C05FV (P/N 94990135)



PINOUT FRONT VIEW



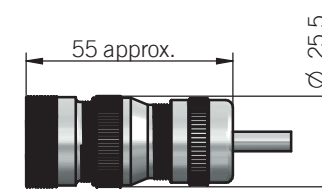
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+C Pigtail with metal/plastic 8 pin C091 M16 IEC 60130-9 IP40 plug connector	EH30M1000Z5L6X6PR+C.162	line driver (with or without zero) RS-422 (with or without zero)	CONN.C08FV (P/N 94990142)



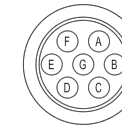
PINOUT FRONT VIEW



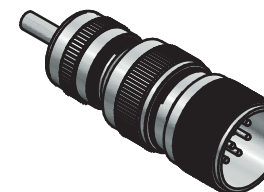
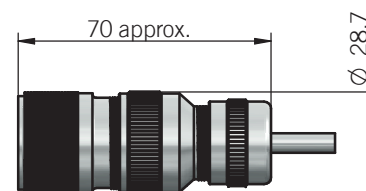
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+H (incremental) / PR+HA (absolute) Pigtail with metal 12 pin M23 CCW plug connector	ER58B1000Z5L6S3PR+H.162 EMA36B12G8/30SPZE6X8PR+HA.162	NPN open collector (with or without zero) push-pull (with or without zero) line driver (with or without zero) RS-422 (with or without zero) SSI (with or without reset)	CONN.H12FV CCW (P/N 94990137)



PINOUT FRONT VIEW



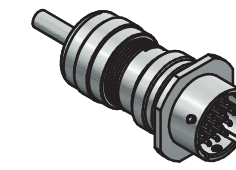
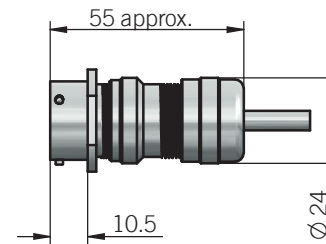
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+M (incremental) / PR+MC (absolute) Pigtail with metal 7 pin MIL plug connector	ER38F500S5L10XXPR+M.162 EMA50F1024G8/30SPX15X3PR+MC.162	NPN open collector (with or without zero) push-pull (with or without zero) line driver (without zero) RS-422 (without zero) SSI (without reset)	CONN.M07FV (P/N 94990121)



PINOUT FRONT VIEW



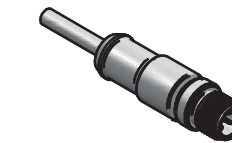
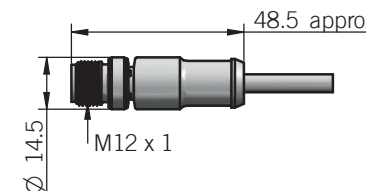
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+M (incremental) / PR+MD (absolute) Pigtail with metal 10 pin MIL plug connector	EH80C1024Z5/28L10X6PR+M.162 EAMR63D12/13B8/30SZE10XPR+MD.162	line driver (with zero) RS-422 (with zero) SSI (with reset)	CONN.M10FV (P/N 94990119)



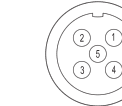
PINOUT FRONT VIEW



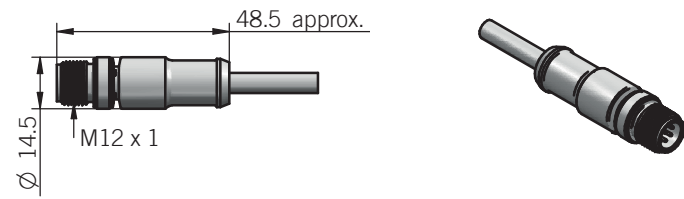
Description	Ordering code example	Electrical interfaces supported	Mating with
PR+M (incremental) / PR+MA (absolute) Pigtail with metal 19 pin MIL plug connector	EF36K6L1000Z5L10X6PR+M.162 EMA50F1024G8/30UPX12X3PR+MA.162	NPN open collector (EF series, with or without zero) push-pull (EF series, with or without zero) RS-422 (EF series, with or without zero) Bit parallel (singleturn models)	CONN.M19FV (P/N 94990123)



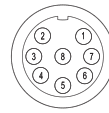
PINOUT FRONT VIEW



Description	Ordering code example	Electrical interfaces supported	Mating with
PR+M12 Pigtail with M12 5 pin M12 A-coded plug connector	ER40A150S5/28P6X6PR+M12.162 EAL58C16B12/30V010X10XPR+M12.162	NPN open collector (with or without zero) push-pull (with or without zero) Analogue (voltage or current 3 wires)	CONN.M12FV 5P (P/N 94990117)



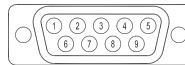
PINOUT FRONT VIEW



Description	Ordering code example	Electrical interfaces supported	Mating with
PR+M12 Pigtail with 8 pin M12 A-coded plug connector	EMI38F10Z5/30RS6XXPR+M12.162 EMA50A4096B8/30SPZE6X3PR+M12.162	line driver (with or without zero) RS-422 (with or without zero) SSI (with or without reset) Analogue (current 4 wires)	CONN.M12FV 8P (P/N 94990118)

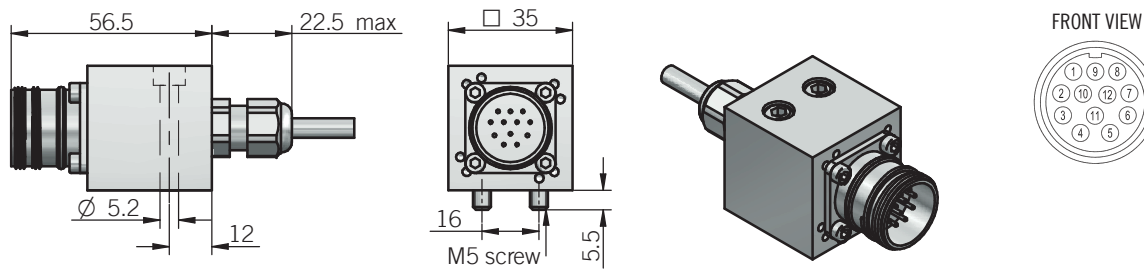


PINOUT FRONT VIEW

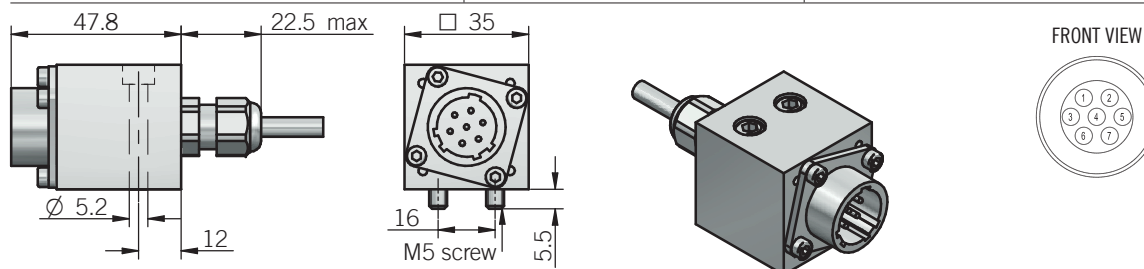


Description	Ordering code example	Electrical interfaces supported	Mating with
PR+V Pigtail with plastic 9 pin SUB-DE plug connector	ER63A250Z5/28P10X6PR+V.162	NPN open collector (with or without zero) push-pull (with or without zero) line driver (with or without zero) RS-422 (with or without zero)	CONN.M10FV (P/N 94990119)

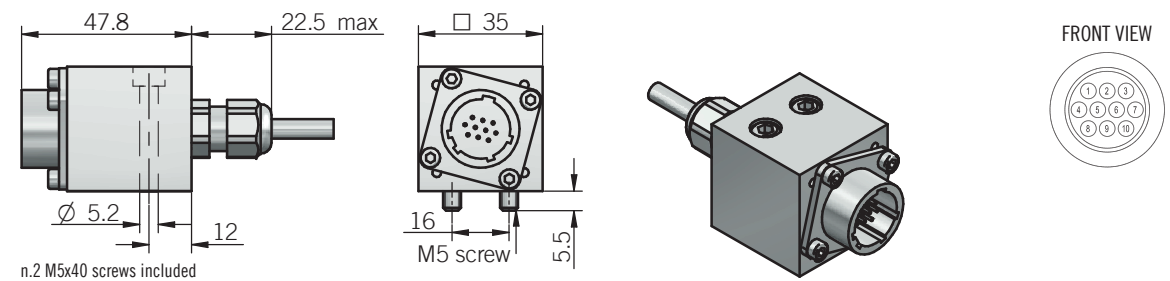
PIGTAIL WITH CONNECTOR BLOCK & PLUG



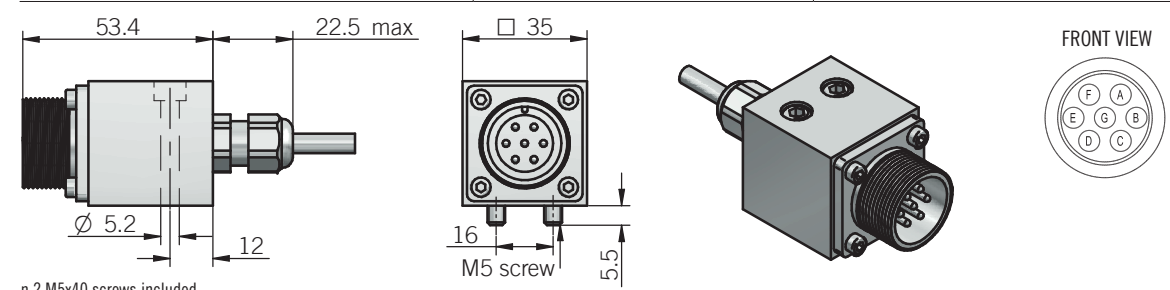
Description	Ordering code example	Electrical interfaces supported	Mating with
HR.445 Pigtail with black anodized aluminium connector block & 12 pin M23 CCW IP67 plug	EH80P2048Z5L14X3HR.162+445	NPN open collector (with or without zero) push-pull (with or without zero) line driver (with or without zero) RS-422 (with or without zero)	CONN.H12FV CCW (P/N 94990137)



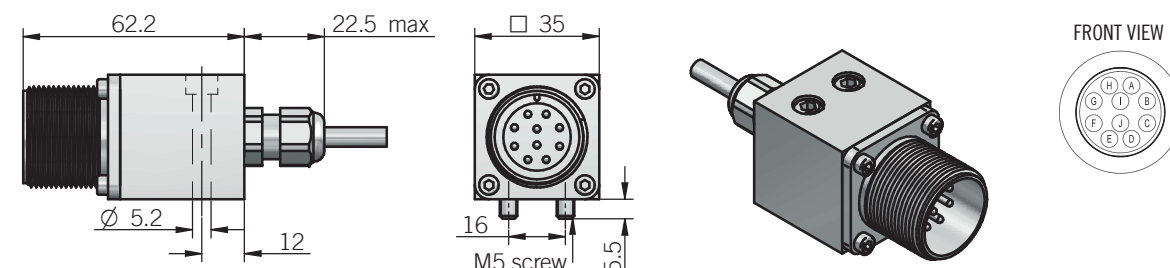
Description	Ordering code example	Electrical interfaces supported	Mating with
JR.445 Pigtail with black anodized aluminium connector block & 7 pin JIS-C-5432 IP40 plug	EH30M1024S5L6X3JR.162+445	NPN open collector (with or without zero) push-pull (with or without zero) line driver (without zero) RS-422 (without zero)	CONN.J07FV (P/N 94990131)



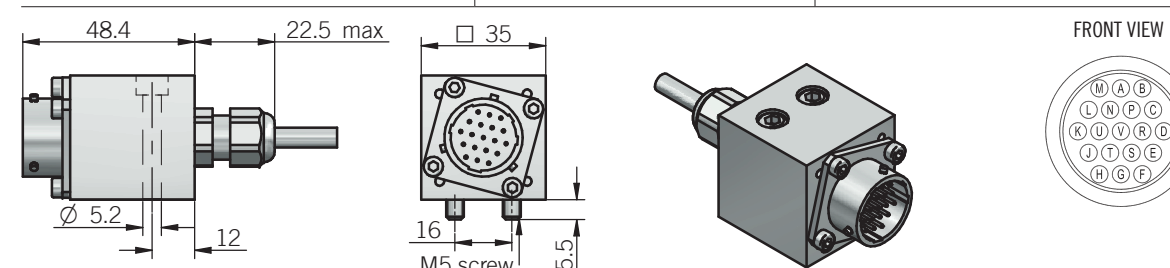
Description	Ordering code example	Electrical interfaces supported	Mating with
JR.445 Pigtail with black anodized aluminium connector block & 10 pin JIS-C-5432 IP40 plug	ER40A2000Z5/28L6X6JR.162+445	line driver (with zero) RS-422 (with zero)	CONN.J10FV (P/N 94990133)



Description	Ordering code example	Electrical interfaces supported	Mating with
MR.445 Pigtail with black anodized aluminium connector block & 7 pin IP67 MIL plug	EL63GB100Z5/28P15X3MR.162+445	NPN open collector (with or without zero) push-pull (with or without zero) line driver (without zero) RS-422 (without zero)	CONN.M07FV (P/N 94990121)



Description	Ordering code example	Electrical interfaces supported	Mating with
MR.445 Pigtail with black anodized aluminium connector block & 10 pin IP67 MIL plug	ER38F1000Z5/30L10XXMR.162+445	line driver (with zero) RS-422 (with zero)	CONN.M10FV (P/N 94990119)



Description	Ordering code example	Electrical interfaces supported	Mating with
MR.445 Pigtail with black anodized aluminium connector block & 19 pin IP67 MIL plug	EF36K6L1000Z5L10X6MR.162+445	NPN open collector (EF series, with or without zero) push-pull (EF series, with or without zero) RS-422 (EF series, with or without zero)	CONN.M19FV (P/N 94990123)

dimensions in mm