











Table of contents

Connection Technology	Page
Standard	
Selection Guide M12 Connection technology	264
Connector M12x1 8-pin	271
4-, 5- and 7-pin connectors	290
Connectors M23	291
Connector M23	293
PVC, PUR cables	294
Cables – sold by the metre	295
Profibus-DP	
Selection Guide Profibus DP	265
Terminating resistor	274
Connectors M12	273
Lead through	275
Bus interface with pre-assembled connector	276
Cable plug combinations	278
Bus cable with SUB-D connector	280
Connector/couplings for self-assembly	283
PUR cables with connectors	
Cable plug combinations for power supply	284
CANopen/DeviceNet	
Selection Guide CANopen/DeviceNet	267
Connectors	286
Terminating resistor	287
Cable plug combinations	288

Selection help M12

Picture	PIN assignment	Type	Use	Order code	Suitable for encoders	Page
		M12 straight coupling, 8 pins, self-assembly	Incremental encoders Absolute encoders	05.CMB-8181-0	5000,5020, 5853, 5873, 5863, 5883	271
		M12 straight coupling, 8 pins, self-assembly	Incremental encoders Absolute encoders	05.CMBS-8181-0	5000, 5020, 5853, 5873, 5863, 5883	271
		M12 straight coupling, 8 pins, single-ended, PVC cable, length 2...15 m	Incremental encoders	2m: 05.WAKS8-2/P00 5m: 05.WAKS8-5/P00 10m: 05.WAKS8-10/P00 15m: 05.WAKS8-15/P00	5000, 5020	268
		M12 straight coupling, 8 pins, single-ended, PUR cable, length 2...15 m	Incremental encoders	2m: 05.WAKS8-2/S366 5m: 05.WAKS8-5/S366 10m: 05.WAKS8-10/S366 15m: 05.WAKS8-15/S366	5000, 5020	270
		M12 right-angle coupling, 8 pins, single-ended, PVC cable, length 2...30 m	Incremental encoders	2m: 05.WWAKS8-2/P00 5m: 05.WWAKS8-5/P00 10m: 05.WWAKS8-10/P00 15m: 05.WWAKS8-15/P00 30 m: 05.WWAKS8-30/P00	5000, 5020	269

Selection help Profibus

Picture	PIN assignment	Type	Use	Order code	Suitable for encoders	Page
		M12 straight coupling, 5 pins for PROFIBUS-DP cables	Profibus	05.BMWS 8151-8.5	5858,5860,5868,5878,5888,9080	272
		M12 straight coupling, 5 pins for PROFIBUS-DP cables	Profibus	05.BMSWS 8151-8.5	5858,5860,5868,5878,5888,9080	272
		M12 right-angle coupling, 5 pins for PROFIBUS-DP cables	Profibus	05.BMWS 8251-8.5	5858,5860,5868,5878,5888,9080	273
		M12 right-angle coupling, 5 pins for PROFIBUS-DP cables	Profibus	05.BMSWS 8251-8.5	5858,5860,5868,5878,5888,9080	273
		Terminating resistor	Profibus	05.RSS4.5-PDP-TR	5858,5860,5868,5878,5888,9080	274
		M12 lead-through	Profibus	05.FKW-FSW45/M12	5858,5860,5868,5878,5888,9080	275
		M12 straight coupling, single-ended, PUR cable, length 6 ... 15 m	Profibus, Bus in	6m: 05.RKSW451-6M 10m: 05.RKSW451-10M 15m: 05.RKSW451-15M	5858,5860,5868,5878,5888,9080	276
		M12 straight connector, single-ended, PUR cable, length 6 ... 15 m	Profibus, Bus out	6m: 05.RSSW451-6M 10m: 05.RSSW451-10M 15m: 05.RSSW451-15M	5858,5860,5868,5878,5888,9080	276
		M12 right-angle coupling, single-ended, PUR cable, length 6 ... 15 m	Profibus, Bus in	6m: 05.WKSW451-6M 10m: 05.WKSW451-10M 15m: 05.WKSW451-15M	5858,5860,5868,5878,5888,9080	277
		M12 right-angle connector, single-ended, PUR cable, length 6 ... 15 m	Profibus, Bus out	6m: 05.WSSW451-6M 10m: 05.WSSW451-10M 15m: 05.WSSW451-15M	5858,5860,5868,5878,5888,9080	277
		M12 straight connector, M12 straight coupling, PUR cable, length 2 ... 15 m	Profibus, Bus out-Bus in	2m: 05.RSSW-RKSW451-2M 6m: 05.RSSW-RKSW451-6M 10m: 05.RSSW-RKSW451-10M 15m: 05.RSSW-RKSW451-15M	5858,5860,5868,5878,5888,9080	278
		M12 right-angle connector, M12 right-angle coupling, PUR cable, length 2 ... 15 m	Profibus, Bus out-Bus in	2m: 05.WSSW-WKSW451-2M 6m: 05.WSSW-WKSW451-6M 12m: 05.WSSW-WKSW451-10M 15m: 05.WSSW-WKSW451-15M	5858,5860,5868,5878,5888,9080	279

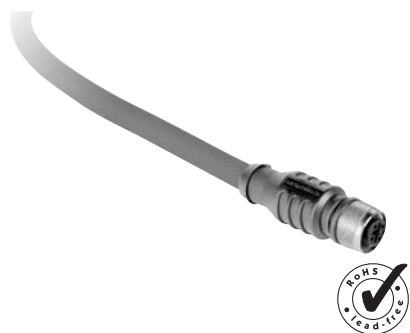
Selection help Profibus

Picture	Pin assignment	Type	Use	Order code	Suitable for encoder	Page
		Sub-D connector with terminating resistor, single-ended, PUR cable, length 0.5... 2m		0.5 m: 05.D9T-451-0.5M 2 m: 05.D9T-451-2M		280
		Sub-D connector with terminating resistor, M12 coupling, PUR cable, length 0.5... 2m		0.5 m: 05.RKSW-D9T451-0.5M 2 m:		281
		Sub-D connector with terminating resistor, M12 coupling, PUR cable, length 0.5... 2m		0.5 m: 05.RSSW-D9T451-0.5M 2 m:		281
		M12 straight connector-Sub-D-connector-M12 straight coupling, PUR cable, length 2x0.5m... 2x2m		2x0.5 m: 05.RSSW-D9-RKSW451-0.5M-0.5M 2x2 m: 05.RSSW-D9-		282
		M12 straight coupling-Sub-D-connector-M12 straight coupling, PUR cable, length 2x0.5m... 2x2m		2x0.5 m: 05.RKSW-D9-RKSW451-0.5M-0.5M 2x2 m: 05.RKSW-D9-		282
		4-pin plug-and-socket connector, M12 straight coupling, self-assembly	Profibus voltage supply	05.H8141-0	5858,5860,5868, 5878,5888,9080	283
		4-pin plug-and-socket connector, M12 right-angle coupling, self-assembly	Profibus voltage supply	05.H8241-0	5858,5860,5868, 5878,5888,9080	283
		4-pin plug-and-socket connector, M12 straight connector, self-assembly	Profibus voltage supply	05.HS8141-0	5858,5860,5868, 5878,5888,9080	283
		4-pin plug-and-socket connector, M12 right-angle connector, self-assembly	Profibus voltage supply	05.HS8241-0	5858,5860,5868, 5878,5888,9080	283
		M12 straight coupling, single-ended, PUR/PVC cable, length 2...10 m	Profibus voltage supply	2 m: 05.WAK4-2/S90 10 m: 05.WAK4-10/S90	5858,5860,5868, 5878,5888,9080	284
		M12 right-angle coupling, single-ended, PUR/PVC cable, length 2...10m	Profibus voltage supply	2m:05.WWAK4-2/S90 10m: 05.WWAK4-10/S90	5858,5860,5868, 5878,5888,9080	284
		M12 straight connector-M12 straight coupling, PUR/PVC cable, length 2...10m	Profibus voltage supply	2m: 05.WAK-2-WAS4/S90 5m: 05.WAK-5-WAS4/S90 10m: 05.WAK-10-WAS4/S90	5858,5860,5868, 5878,5888,9080	285

Selection help CANopen/DeviceNet

Picture	Pin assignment	Type	Use	Order code	Suitable for encoder	Page
		M12 self-assembly coupling	CANopen/ DeviceNet in	05.B-8151-0/9 05.B-8251-0/9	5858,5860,5868, 5878,5888,9080	286
		M12 self-assembly connector	CANopen/ DeviceNet out	05.BS-8151-0/9 05.BS-8251-0/9	5858,5860,5868, 5878,5888,9080	286
		Terminating resistor	CANopen/DeviceNet	05.RSE 57 TR2	5858,5860,5868, 5878,5888,9080	287
		CBC5 open connector/M12*1 coupling combination, cable length 2m	CANopen/DeviceNet for control connection	05.CBC5 572-2M	5858,5860,5868, 5878,5888,9080	287
		M12 straight connector, single-ended, PVC cable, length 6...15m	CANopen/ DeviceNet out	6m: 05.RSC-572-6M 15m: 05.RSC-572-15M	5858,5860,5868, 5878,5888,9080	288
		M12 straight coupling, single-ended, PVC cable, length 6...15m	CANopen/ DeviceNet in	6m: 05.RKC-572-6M 15m: 05.RKC-572-15M	5858,5860,5868, 5878,5888,9080	288
		M12 straight connector - M12 straight coupling, PVC cable, length 0.5...15m	CANopen/DeviceNet in/out	0.5m: 05.RSC-RKC-572-0.5M 1m: 05.RSC-RKC-572-1M 2m: 05.RSC-RKC-572-2M 4m: 05.RSC-RKC-572-4M 10m: 05.RSC-RKC-572-10M 15m: 05.RSC-RKC-572-15M	5858,5860,5868, 5878,5888,9080	289
		M12 right-angle connector M12 right-angle coupling, PVC cable, length 0.5...6m	CANopen/DeviceNet in/out	0.5m: 05.WSC-WKC-572-0.5M 2m: 05.WSC-WKC-572-2M 6m: 05.WSC-WKC-572-6M	5858,5860,5868, 5878,5888,9080	289

M12 x 1, 8 pins, for encoders with M12 connector



Your benefit

- Prepared M12 x 1 couplings
- Saves time and costs
- Various lengths up to 15 m available, lengths over 15 m upon request
- Easy on-site installation

Product features

- IP 67
- 8 pins
- Single-ended

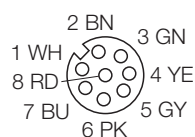
Characteristics:

Coupling:	
Coupling:	M12 x 1
Connector/coupling body:	blue TPU plastic
Contact:	gold-plated brass
Connecting nut:	nickel-plated brass, shielded
Temperature:	-30 ... +90 °C
Protection:	IP 67 screwed
Rated current:	8 pins 2 A; 12 pins 1.5 A

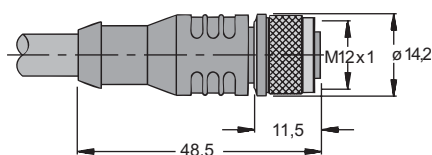
Cable	
Rating:	30 V
Cable \varnothing	6.2 \pm 0.2 mm
Colour:	grey, similar to Ral 7040
Conductor specifications:	shielded, 8 x 0.25 mm ²

PIN assignment:

8 pins



Dimensions:



Order codes and cable lengths 8 pins:

05.WAKS8-2/P00	straight 8-pin coupling, PVC cable, length 2 m
05.WAKS8-5/P00	straight 8-pin coupling, PVC cable, length 5 m
05.WAKS8-10/P00	straight 8-pin coupling, PVC cable, length 10 m
05.WAKS8-15/P00	straight 8-pin coupling, PVC cable, length 15 m

M12 x 1, 8 pins, for encoders with M12 connector



Your benefit

- Pre-assembled M12 x 1 couplings
- Saves time and costs
- Various lengths up to 30 m available, lengths over 30 m upon request
- Easy on-site installation

Product features

- PVC or PUR cables
- PUR cables: oil and seawater resistant
- PUR cables: suitable for drag chain installations
- IP 67
- 8 pins
- Single-ended

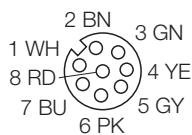
Characteristics:

Coupling:	
Coupling:	M12 x 1
Connector/coupling body:	blue TPU plastic
Contact:	gold-plated brass
Connecting nut:	nickel-plated brass, shielded
Temperature:	-30 ... +90 °C
Protection:	IP 67 screwed
Rated current:	2 A

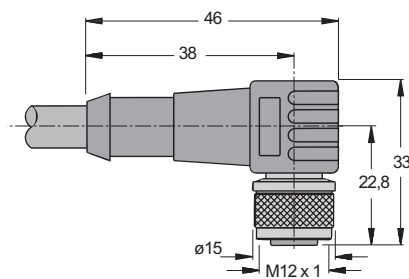
Cable:	
Rating:	30 V
Cable ø	6.2 ±0.2 mm
Colour:	grey, similar to Ral 7040
Conductor specifications:	shielded, 8 x 0.25 mm ²

PIN assignment:

8 pins



Dimensions:



Order codes and cable lengths 8 pins:

05.WWAKS8-2/P00	right-angle 8-pin coupling, PVC cable, length 2 m
05.WWAKS8-5/P00	right-angle 8-pin coupling, PVC cable, length 5 m
05.WWAKS8-15/P00	right-angle 8-pin coupling, PVC cable, length 15 m
05.WWAKS8-30/P00	right-angle 8-pin coupling, PVC cable, length 30 m

M12 x 1, 8 pins, for encoders with M12 connector



Your benefit

- Pre-assembled M12 x 1 couplings
- Saves time and costs
- Various lengths up to 15 m available, lengths over 15 m upon request
- Easy on-site installation

Product features

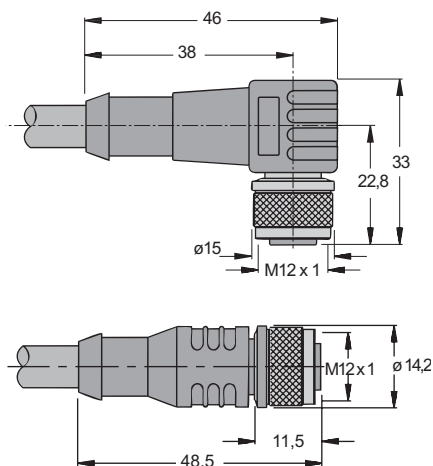
- PUR cables
- Oil and seawater resistant
- Suitable for drag chain installations
- IP 67
- 8 pins
- Single-ended

Characteristics :

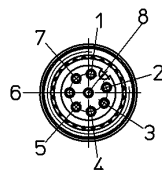
Coupling:	
Coupling:	M12 x 1
Connector/coupling body:	moulded polyurethane
Contact:	gold-plated brass
Connecting nut:	nickel-plated brass, shielded
Temperature:	-40 ... +80 °C
Protection :	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

Cable:	
Rating:	240 V, 80 °C
Material:	Outer jacket: polyether-polyurethane Wire isolation: Polypropylene Oil resistant acc. to VDE 0472, Section 803 Flame resistant acc. to VDE 0472, Section 804 / B Sea water resistant, halogen-free
Cable ø	6.5 ±0.2 mm
Colour:	grey, similar to Ral 7040
Conductor specifications:	white, brown, green, yellow, grey, pink, blue, red 8 x 0.25 mm ² , Cu wires bright-soft 32 x 0.10 mm, screened
Temperature range:	fixed routing: -50 ... +80 °C mobile routing: -40 ... +80 °C
Bending radius:	min. 10 x cable ø for mobile use

Dimensions:



PIN assignment:



Connection diagram:

white	—	1
brown	—	2
green	—	3
yellow	—	4
grey	—	5
pink	—	6
blue	—	7
red	—	8

Order codes and cable lengths:

05.WAKS8-2/S366	straight 8-pin coupling, single-ended, length 2 m
05.WAKS8-10/S366	straight 8-pin coupling, single-ended, length 10 m
05.WAKS8-15/S366	straight 8-pin coupling, single-ended, length 15 m
05.WWAKS8-10/S366	straight 8-pin coupling, single-ended, length 10 m

M12 x 1 high-grade connectors



New:

- High-grade connectors
- M12 thread
- Screw connection for cable strand

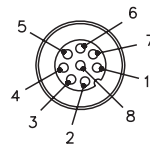
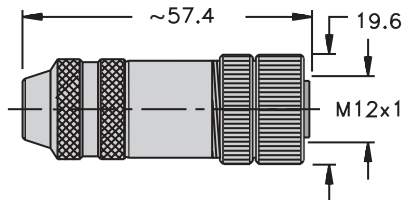
Mechanical characteristics:

Materials:	
Body and contact carrier:	brass (CuZn), nickel-plated surface
Contact surface:	Optaloy (CuSnZs)
Cross section for connector:	0.75 mm ² , screwed
Temperature:	-40 ... +85 °C
Protection acc. to EN 60529:	IP 67

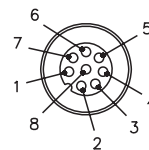
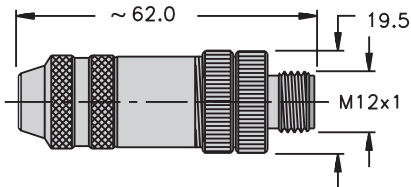
Electrical characteristics:

Rated voltage/contact:	60 V
Rated current/contact:	2 A

Coupling:



Connector:



Order code:

05.CMB-8181-0	8-pin coupling
05.CMBS-8181-0	8-pin connector

M12 connectors



Your benefit

- Straight self-assembly connectors for use with PROFIBUS-DP cable, M12 x 1
- Shieldable body
- Easy on-site installation without soldering

Product features

- Couplings or connectors
- Reverse-coded (counter-clockwise pin numbering)
- -40 ... +85 °C
- Contact material gold-plated copper alloy



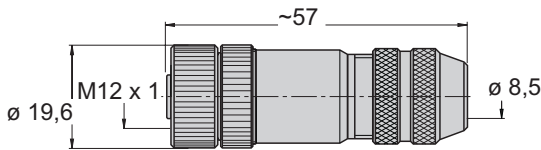
Mechanical characteristics:

Materials:	
Body and contact carrier:	brass (CuZn), nickel-plated surface
Contact surface:	alloy (CuSnZs)
Coupling nuts:	nickel-plated brass
Cross section for connector:	0.75 mm ² , screwed
Temperature:	-40 ... +85 °C
Protection acc. to EN 60529:	IP 67

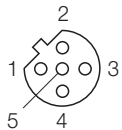
Electrical characteristics:

Rated voltage/contact:	30 V AC/36 V DC
Rated current/contact:	4 A

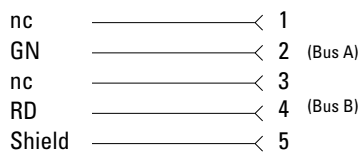
Coupling: Dimensions:



PIN assignment: M12 x 1 coupling

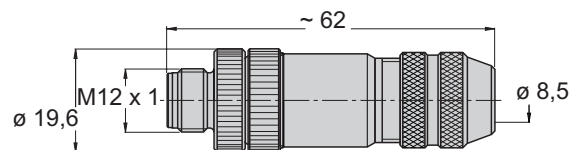


Connection diagram:

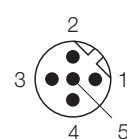


Order code: 05.BMWS 8151-8.5

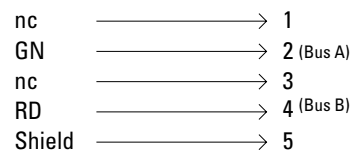
Connector: Dimensions:



PIN assignment: M12 x 1 connector

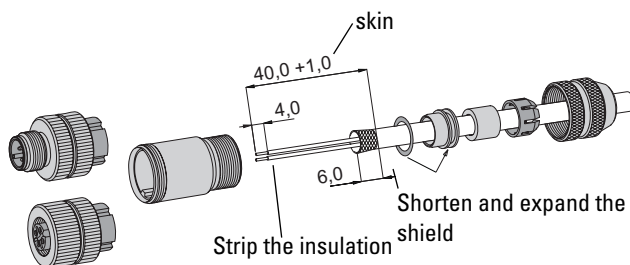


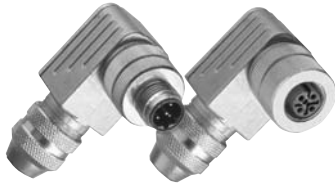
Connection diagram:



Order code: 05.BMSWS 8151-8.5

Connector mounting :





Your benefit

- Right-angle, self-assembly connectors for use with PROFIBUS-DP cable, M12 x 1
- Shieldable body
- Easy on-site installation without soldering
- Coupling/connector insert rotatable 90° to right angle body

Product features

- -40 ... + 85 °C
- Contact material gold plated copper alloy
- 5-pin, reverse-coded (counter-clockwise pin numbering)

Mechanical characteristics:

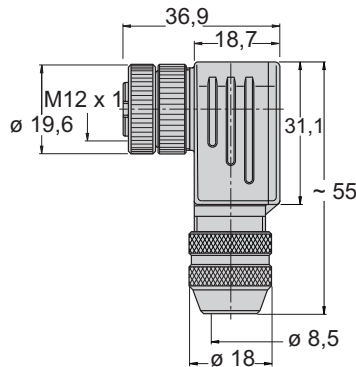
Materials:	
Body and contact carrier:	brass (CuZn), nickel-plated surface
Contact surface:	alloy (CuSnZs)
Coupling nuts:	nickel-plated brass
Cross section for connector:	0.75 mm ² , screwed
Temperature:	-40 ... +85 °C
Protection acc. to EN 60529:	IP 67

Electrical characteristics:

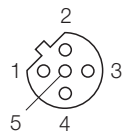
Rated voltage:	30 V AC/36 V DC
Rated current/contact:	4 A

Coupling:

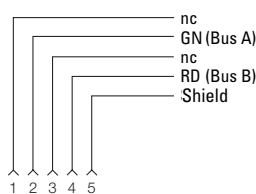
Dimensions:



PIN assignment:

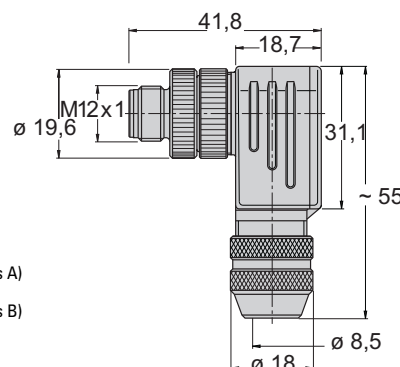


Connection diagram:

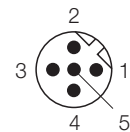


Connector:

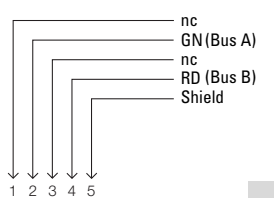
Dimensions:



PIN assignment:



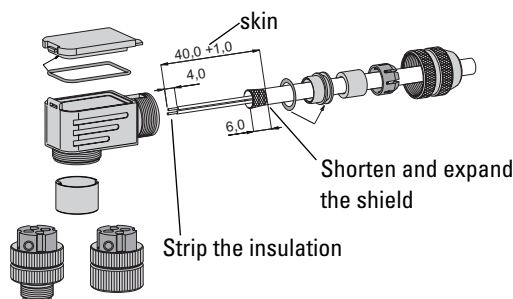
Connection diagram:



Order code: 05.BMWS 8251-8.5

Order code: 05.BMSWS 8251-8.5

Connector mounting



Profibus-DP terminating resistor



Your benefit

- Terminating resistor with M12 x 1 connector for a simple visually identifiable bus-drop in the field
- For a simple extension of the Profibus-DP net
- Tough moulded polyurethane body
- Heavy-duty internal wiring

Product features

- Reverse-coded (counter-clockwise pin numeration)
- -40 ... +80 °C
- Contact material gold-plated copper alloy



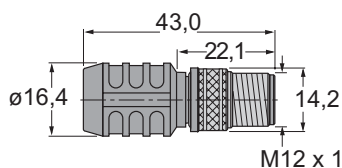
Mechanical characteristics:

Materials:	
Body and contact carrier:	oil resistant polyurethane
Contact material:	gold plated copper alloy
Coupling nut:	nickel-plated brass
Temperature:	-40 ... +80 °C
Protection acc. to EN 60 529:	IP 67

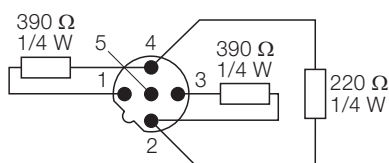
Electrical characteristics:

Rated voltage:	50 V DC
Internal resistance:	390 Ω 1/4 W, 220 Ω 1/4 W

Dimensions:

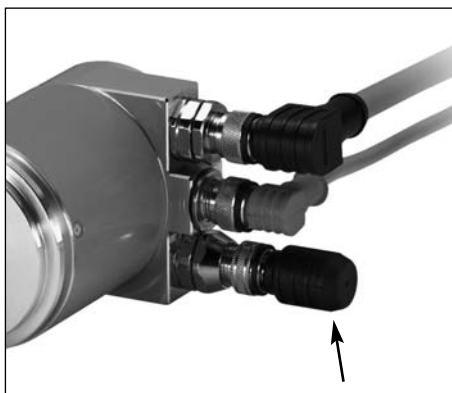
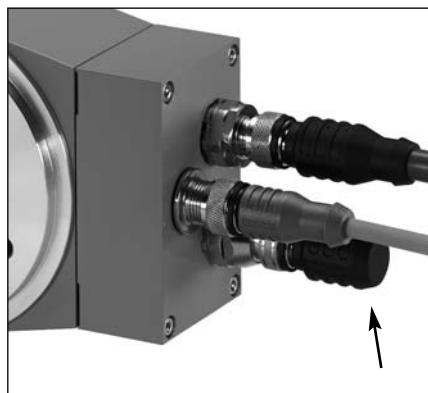


Pin assignment:



Order code: 05.RSS4.5-PDP-TR

Example of use: Profibus-DP encoder



Lead-through M12 x 1



Your benefit

- Enclosure lead-through for Profibus systems
- Shieldable body
- Easy field installation

Product features

- Reverse-coded
- -40 ... +105 °C
- Hole size \varnothing 12,7 mm
- 5-pin, reverse-coded according to PNO guidelines

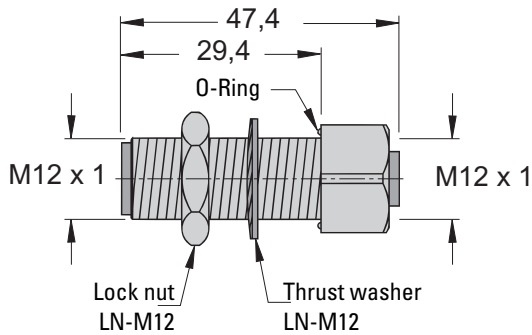


Mechanical characteristics:

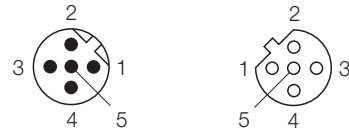
Materials:	
Body:	nickel-plated brass
Contact carrier:	PA 6
Contact material:	gold-plated brass
Temperature:	-40 ... +105 °C
Protection acc. to EN 60529:	IP 67 and NEMA 1, 3, 4, 6

Lead-through:

Dimensions:



PIN assignment:



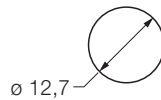
Connector M12 x 1

Coupling M12 x 1

Connection diagram:



Hole pattern:



The pins are 1:1 looped through

Order code: 05.FKW FSW 45/M12

PUR Bus interface with pre-assembled connector, single-ended



Your benefit

- M12 x 1 pre-assembled connectors and couplings
- Saves time and costs
- Various lengths up to 15 meters available, lengths over 15 meters upon request
- Easy field installation
- Identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- Polyurethane connector
- 5-pin, reverse-coded according to PNO-guidelines
- Single-ended

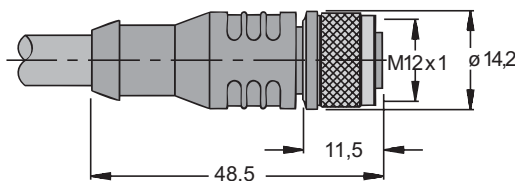
Characteristics:

Connector:	
Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass, shielded
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

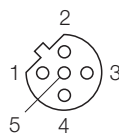
Cable:	
Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire isolation
Colour:	violet
Conductor specifications:	2 x 0.34 mm ² , stranded bare copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen/drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

Coupling:

Dimensions:



PIN assignment:



Connection diagram:

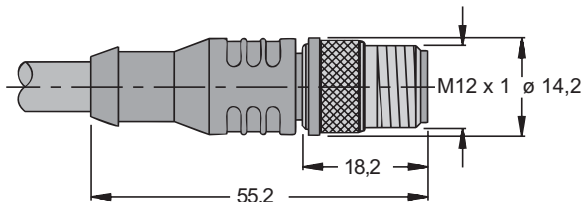


Order code and cable lengths:

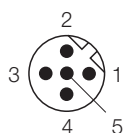
05.RKSW451-6M	straight M12 coupling – single-ended, PUR cable 6.0 meters
05.RKSW451-10M	straight M12 coupling – single-ended, PUR cable 10 meters
05.RKSW451-15M	straight M12 coupling – single-ended, PUR cable 15 meters

Connectors:

Dimensions:



PIN assignment:



Connection diagram:



Order code and cable lengths:

05.RSSW451-6M	straight M12 connector – single-ended PUR cable 6.0 meters
05.RSSW451-10M	straight M12 connector – single-ended PUR cable 10 meters
05.RSSW451-15M	straight M12 connector – single-ended PUR cable 15 meters

PUR Bus interface with pre-assembled connector, single-ended



Your benefit

- M12 x 1 right-angle connector and combinations
- Saves time and costs
- Various lengths up to 15 meters, available lengths over 15 meters upon request
- 5-pin, reverse-coded according to PNO-Code
- Easy field installation
- Identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- Polyurethane connector
- Single-ended

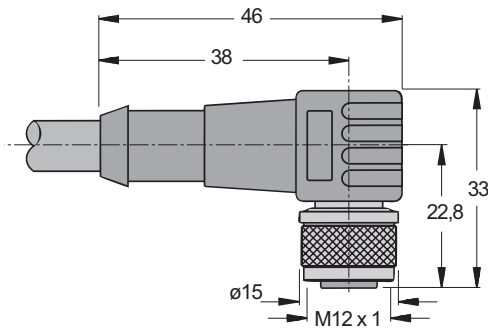
Characteristics:

Connector:	
Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass, shielded
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

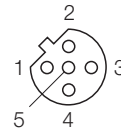
Cable:	
Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire isolation
Colour:	violet
Conductor specifications:	red, green 2 x 0.34 mm ² , stranded bare copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen / drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded, tinned copper

Coupling:

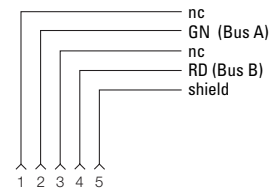
Dimensions:



PIN assignment:



Connection diagram:

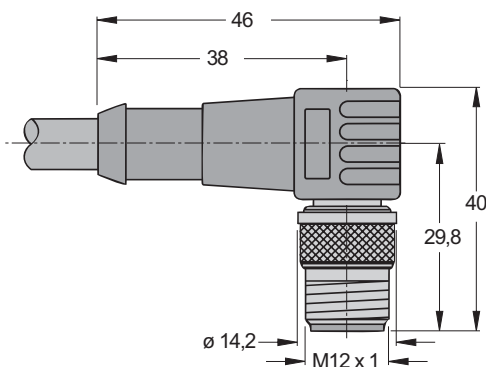


Order code and cable lengths:

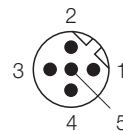
- 05.WKSW451-6M
right-angle M12 coupling – single-ended, PUR cable 6.0 meters
- 05.WKSW451-10M
right-angle M12 coupling – single-ended, PUR cable 10 meters
- 05.WKSW451-15M
right-angle M12 coupling – single-ended, PUR cable 15 meters

Connector:

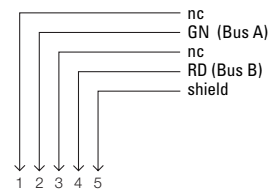
Dimensions:



PIN assignment:



Connection diagram:



Order code and cable lengths:

- 05.WSSW451-6M
right-angle M12 connector – single-ended PUR cable, 6.0 meters
- 05.WSSW451-10M
right-angle M12 connector – single-ended PUR cable, 10 meters
- 05.WSSW451-15M
right-angle M12 connector – single-ended PUR cable, 15 meters

PUR Bus interface pre-assembled connector/coupling-combinations



Your benefit

- M12 x 1 pre-assembled connector/ coupling-combinations
- Saves time and costs
- Various lengths up to 15 meters available, lengths over 15 meters upon request
- Easy field installation
- Identification of the bus wire by colour-system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- connector made of polyurethane
- 5-pin, reverse-coded according to PNO guidelines

Characteristics:

Connector:

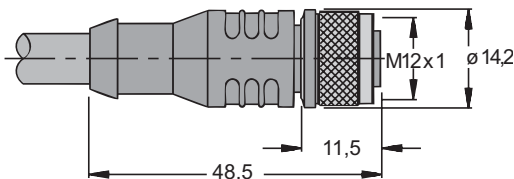
Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold-plated brass
Coupling nut:	nickel-plated brass, screened
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

Cable:

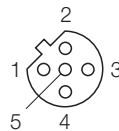
Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire isolation
Colour:	violet
Conductor-specifications:	2 x 0.34 mm ² , stranded bare brass, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen / drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

Coupling:

Dimensions:



PIN assignment:

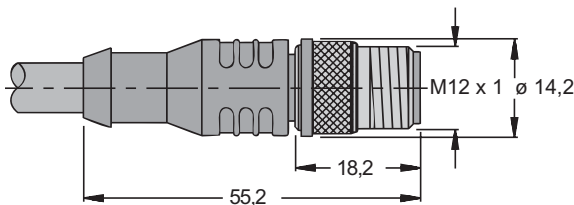


Connection diagram:

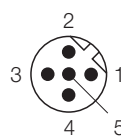


Connector:

Dimensions:



PIN assignment:



Connection diagram:



Order code and cable lengths:

05.RSSW-RKSW451-2M	straight M12 connector – straight M12 coupling, PUR cable 2.0 meters
05.RSSW-RKSW451-6M	straight M12 connector – straight M12 coupling, PUR cable 6.0 meters
05.RSSW-RKSW451-10M	straight M12 connector – straight M12 coupling, PUR cable 10 meters
05.RSSW-RKSW451-15M	straight M12 connector – straight M12 coupling, PUR cable 15 meters

PUR-Bus interface pre-assembled connector/coupling-combinations



Your benefit

- M12 x 1 pre-assembled connector/coupling-combinations
- saves time and costs
- various lengths up to 15 m available lengths over 15 m upon request
- easy field installation
- identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- Connector made of polyurethane
- 5-pin, reverse-coded according to PNO guidelines

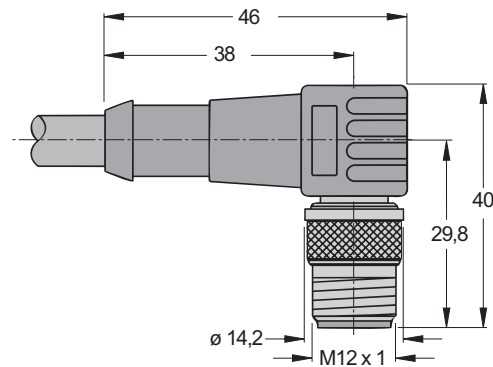
Characteristics:

Connector:	
Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

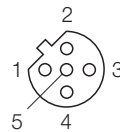
Cable:	
Rating:	36 V, 80 °C
Materials:	PUR outer jacket, PE wire insulation
Colour:	violet
Conductor specifications:	red, green 2 x 0.34 mm ² , stranded bare copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen / drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded, tinned copper

Connector:

Dimensions:



PIN assignment:

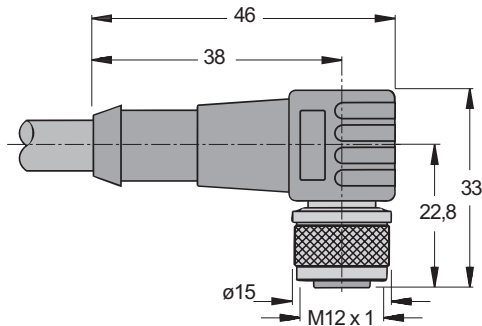


Connection diagram:

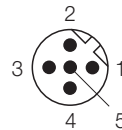


Coupling:

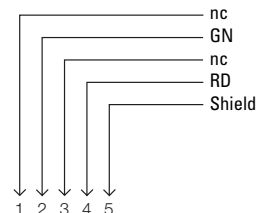
Dimensions:



PIN assignment:



Connection diagram:



- 05.WSSW-WKSW451-2M right angle M12 connector – right angle M12 coupling PUR cable 2.0 meters
- 05.WSSW-WKSW451-6M right angle M12 connector – right angle M12 coupling PUR cable 6.0 meters
- 05.WSSW-WKSW4 51-10M right angle M12 connector – right angle M12 coupling PUR cable 10 meters
- 05.WSSW-WKSW451-15M right angle M12 connector – right angle M12 coupling PUR cable 15 meters

PUR Bus interface pre-assembled, single-ended



Your benefit

- Connector plug combinations with SUB-D-connector
- With or without terminating resistor
- One or two cable outlets
- Easy field installation
- Identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- Single-ended, couplings or connectors

Characteristics:

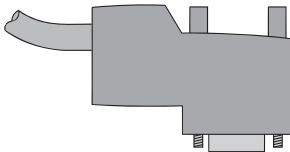
Connector:

Connector:	SUB-D-connector
Protection:	IP 20

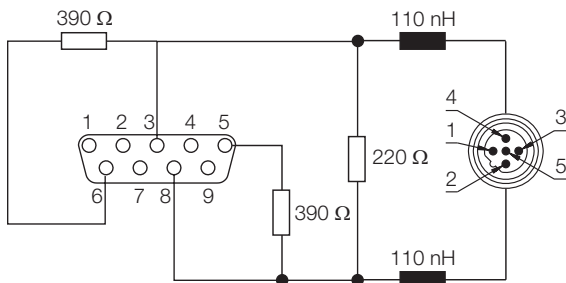
Cable:

Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire insulation
Colour:	violet
Conductor-specifications:	red, green 2 x 0.34 mm ² , stranded bare brass, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen/ drain:	stranded tinned copper, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

1-cable outlet:



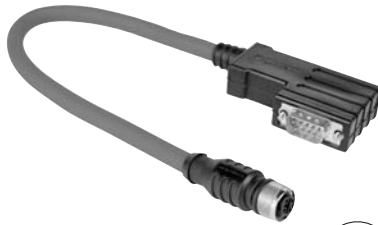
Connection example with M12-connector



Order code and cable lengths:

05.D9T-451-0.5M	Sub-D connector with terminating resistor – single-ended, PUR cable 0.5 meters
05.D9T-451-2M	Sub-D connector with terminating resistor – single-ended, PUR cable 2.0 meters

PUR Bus interface pre-assembled, with SUB-D connector



Your benefit

- Saves time and costs
- Pre-assembled connectors with SUB-D-connector and M12-connector
- With terminating resistor
- Easy field installation
- Identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- Connector of polyurethane
- 5-pin, reverse-coded according to PNO guidelines

Characteristics:

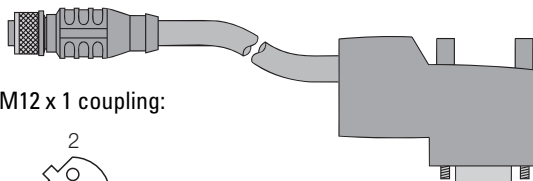
M12-Connectors:

Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +80 °C
Protection:	M12: IP 67 and NEMA 1, 3, 4, 6, 13 SUB-D-connector: IP 20
Rated current:	4 A

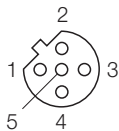
Cable:

Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire insulation
Colour:	violet
Conductor specifications:	red, green 2 x 0.34 mm ² , stranded tinned copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km rated current - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen / drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

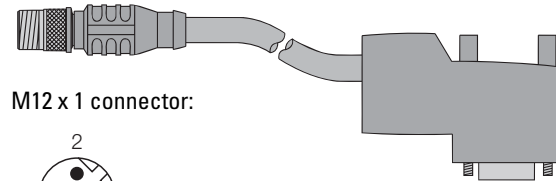
Picture with coupling:



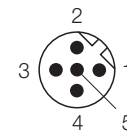
M12 x 1 coupling:



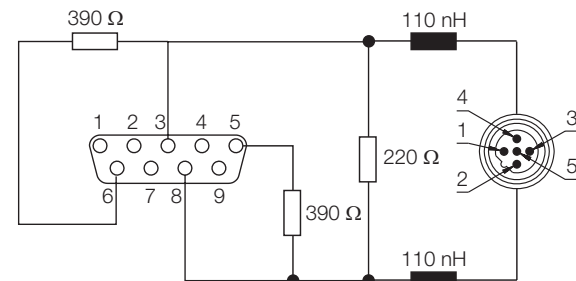
Picture with connector:



M12 x 1 connector:



Example of connection with M12-connector:



Order code and cable lengths:

05.RKSW-D9T451-0.5M	Sub-D connector with terminating resistor, M12 coupling, PUR cable 0.5 meters
05.RKSW-D9T451-2M	Sub-D connector with terminating resistor, M12 coupling, PUR cable 2.0 meters
05.RSSW-D9T451-0.5M	Sub-D connector with terminating resistor, M12 connector, PUR cable 0.5 meters
05.RSSW-D9T451-2M	Sub-D connector with terminating resistor, M12 connector, PUR cable 2.0 meters

Bus interface pre-assembled, with SUB-D connector



Your benefit

- Saves time and costs
- Pre-assembled connectors with SUB-D-connector and M12-connector
- Easy field installation
- Identification of the bus wire by colour system: connector/coupling blue, cable violet

Product features

- PUR-cable
- May be used in trailing cable installations and oil resistant
- IP 67
- Connector of polyurethane
- With or without terminating resistor
- 5-pin reverse-coded according to PNO guidelines

Characteristics:

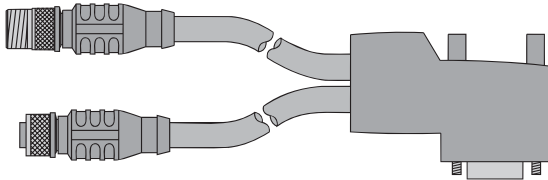
M12-connector:

Connector/coupling:	M12 x 1, reverse-coded, according to PNO guidelines
Connector-/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass, screened
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13 SUB-D-connector IP 20
Rated current:	4 A

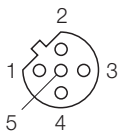
Cable:

Rating:	36 V, 80 °C
Materials:	PUR-outer jacket, PE-wire insulation
Colour:	violet
Conductor-specifications:	2 x 0.34 mm ² , stranded bare copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen/drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

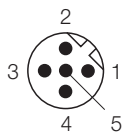
Picture with connector and coupling:



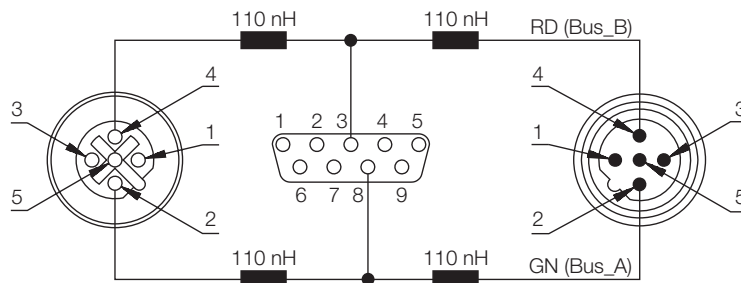
M12 x 1 coupling:



M12 x 1 connector:



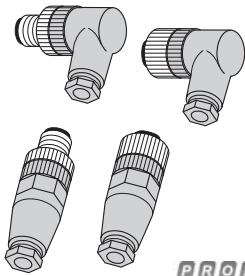
Connection example:



Order code and cable lengths:

05.RSSW-D9-RKSW451-0.5M-0.5M	straight M12 connector – Sub-D connector – straight M12 coupling, PUR cable 2 x 0.5 m
05.RSSW-D9-RKSW451-2M-2M	straight M12 connector – Sub-D connector – straight M12 coupling, PUR cable 2 x 2 m
05.RKSW-D9-RKSW451-0.5M-0.5M	straight M12 coupling – Sub-D connector – straight M12 coupling, PUR cable 2 x 0.5 m
05.RKSW-D9-RKSW451-2M-2M	straight M12 coupling – Sub-D connector – straight M12 coupling, PUR cable 2 x 2.0 m

M12 Connection technology for power supplies



Your benefit

- Connector/couplings for self-assembly
- M12 connection technique

Product features

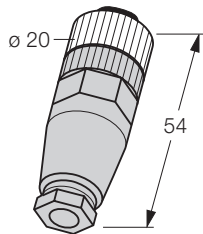
- Up to 80 °C
- IP 67
- 4 pins

Characteristics:

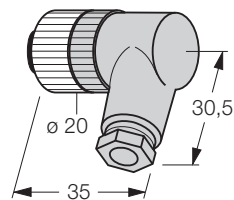
Rating:	125 V AC/150 V DC
Rated current:	4 A
Ambient temperature:	-40 ... +80 °C
Materials:	handle part: PBT coupling nuts: CuZn-Ni
Protection:	IP 67

Coupling:

straight

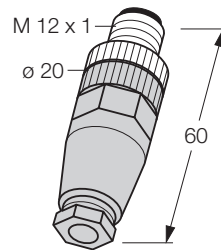


right angle

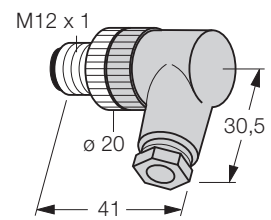


Connector:

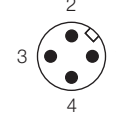
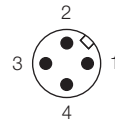
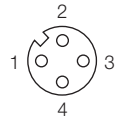
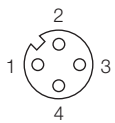
straight



right angle

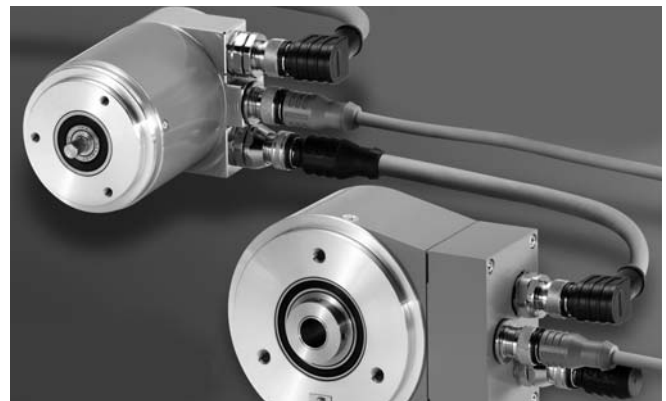


Pin assignment



Order code:

05.H8141-0	4-pin connector M12 coupling straight
05.H8241-0	4-pin connector M12 coupling right-angle
05.HS8141-0	4-pin connector M12 connector straight
05.HS8241-0	4-pin connector M12 connector right-angle



Connection technology for power supplies



Your benefit

- Coupling with PUR-cable
- M12 connection technology
- Straight and right-angle couplings
- Identification of the supply wire by colour system: connectors/coupling blue, cable grey

Product features

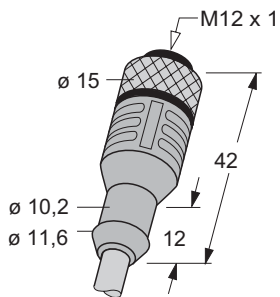
- From -40 °C up to 80 °C
- IP 67
- PUR/PVC-cable
- Cable lengths up to 10 meters
- 4 pins
- Single-ended

Characteristics:

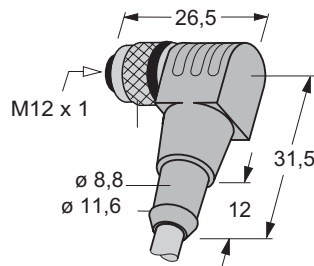
Rated voltage:	250 V AC/300 V DC
Rated current:	4 A
Ambient temperature:	connectors: $-40 \dots +80\text{ °C}$ cables: $-25 \dots +80\text{ °C}$
Materials:	handle part: PVC coupling nut: CuZn-Ni cable: sheath: PUR/insulation of leads: PVC
Protection:	IP 67

Coupling:

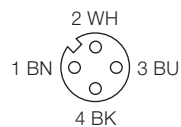
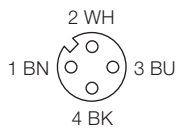
straight



right angle



Pin assignment:



Order code:

05.WAK4-2/S90	straight M12 coupling – single-ended, PUR/PVC cable 2 meters
05.WAK4-10/S90	straight M12 coupling – single-ended, PUR/PVC cable 10 meters
05.WWAK4-2/S90	right angle M12 coupling – single-ended, PUR/PVC cable 2 meters
05.WWAK4-10/S90	right angle M12 coupling – single-ended, PUR/PVC cable 10 meters

M12 Connection technology for power supplies



Your benefit

- Extension cable with connector and coupling
- Straight connector and coupling
- Identification of the supply wire by colour system: connector/coupling blue, cable grey

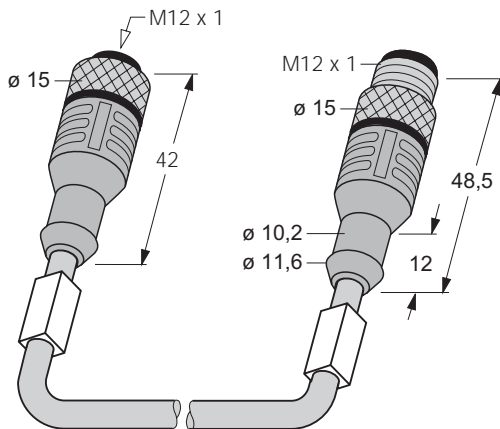
Product features

- Up to 80 °C
- IP 67
- Cable lengths up to 10 m
- 4 pins
- M12 connection technology

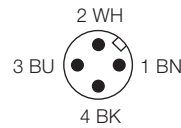
Characteristics:

Rated voltage:	250 V AC/300 V DC
Rated current:	4 A
Ambient temperature:	connector: -40 ... +80 °C cable: -25 ... +80 °C
Materials:	handle part: PUR coupling nut: CuZn-Ni cable: PUR/PVC
Protection:	IP 67

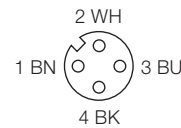
Dimensions



Pin allocation - connector



Pin allocation - coupling



Order code:

05.WAK4-2-WAS4/S90	straight M12 connector – straight M12 coupling PUR/PVC cable 2 meters
05.WAK4-5-WAS4/S90	straight M12 connector – straight M12 coupling PUR/PVC cable 5 meters
05.WAK4-10-WAS4/S90	straight M12 connector – straight M12 coupling PUR/PVC cable 10 meters

M12 connector



Your benefit

- Straight self-assembly connectors for use with DeviceNet and CANopen cable, M12 x 1
- Facilitate field installation without soldering

Product features

- Couplings or connectors
- -40 ... +85 °C
- Contact material nickel-plated copper alloy
- UL and CSA approved



DeviceNet.
CANopen

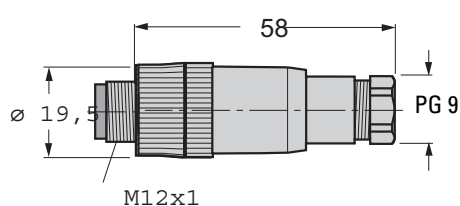
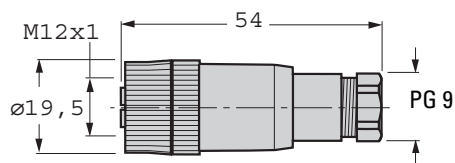


Characteristics:

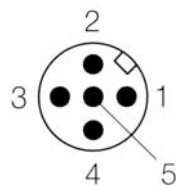
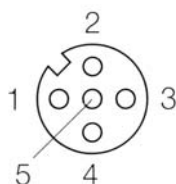
Connector:

Connector/coupling:	M12 x 1
Connector/coupling body:	polyester, black PBT
Contact materials:	nickel-plated copper alloy
Connector-inserts	PTB, spacings to VDE 0110. group C
Coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +85 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6p
Rated current:	3 A, 36 V DC
Max. cable diameter:	6 ... 8 mm

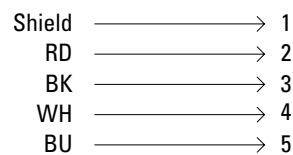
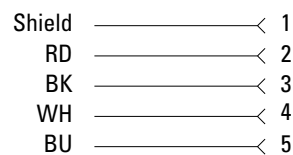
Dimensions:



Pin assignment:



Connection diagram:



Order code:

Coupling: 05.B 8151-0/9

Connectors: 05.B 8251-0/9

Bus terminating resistor



**DeviceNet.
CANopen**



Your benefit

- Terminating resistor with M12 x 1 connector for a simple visually identifiable bus-drop in the field
- For a simple extension of the DeviceNet network
- Tough moulded polyurethane body
- Heavy duty internal wiring

Product features

- -40 ... + 80 °C
- contact material nickel-plated brass or stainless steel.

Mechanical characteristics:

Materials:	
Body and contact carrier:	oil resistant polyurethane
Contact materials:	gold plated copper alloy
coupling nut:	nickel-plated brass
Temperature:	-40 ... +80 °C
Protection EN 60529:	IP 67

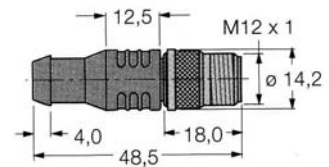
Electrical characteristics:

Rated voltage:	24 V DC
Internal resistance:	120 Ω 1/4 W

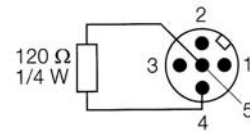
Order code:

05.RSE 57 TR2

Dimensions:



Pin assignment:



Open connector/ M12 pre-assembled Bus cable

**DeviceNet.
CANopen**



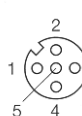
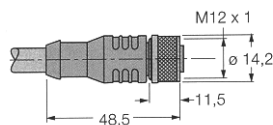
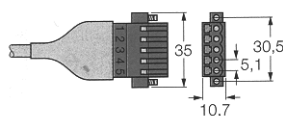
Your benefit

- Pre-assembled CBC5 open connector/ M12 x 1 coupling combination
- For connection to the PLC (DeviceNet scanner/PLC)
- Saves time and costs
- Easy field installation

Characteristics:

Connector:	CBS5
Connector/coupling:	M12 x 1
Connector/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +80 °C
Protection (CBS5):	IP 20
Rated current:	4 A

Cable:	
Certified:	AWM 300 V
Conductor specifications:	Power supply: black, red; 2/17 AWG, 2 x 1.04 mm ² , DCR 16.9Ω/km, Insulation PVC
	Data transmission line: blue/white; 2/20 AWG, DCR 34.1Ω/km, Insulation PE
Cable	grey diameter 8.4 mm
Shield	foil, drain 20 AWG 0.52 mm ²



- 1 = Shield
- 2 = RD (V+)
- 3 = BK (V-)
- 4 = WH (CAN-H)
- 5 = BU (CAN L)

Order code:

2 m cable length: 05.CBC5 572-2M

Bus cable with pre-assembled connector, single-ended



Your benefit

- M12 x 1 pre-assembled connectors and couplings
- Saves time and costs
- Various lengths up to 15 meters, lengths over 15 meters upon request
- Easy field installation
- Identification of the bus wire by colour system.



Product features

- Cable meets the ODVA specification for thin cable or cable type I
- PVC cable
- May be used in drag chain installations
- Oil resistant
- IP 67
- Polyurethane connectors
- Single-ended

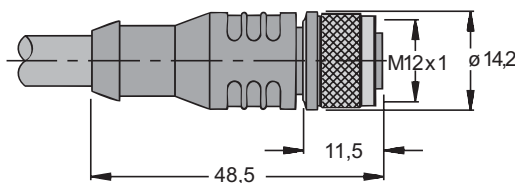
Characteristics:

Connector:	
Connector/coupling:	M12 x 1
Connector/coupling body:	moulded polyurethane
Contacts:	gold-plated brass
coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

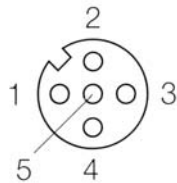
Cable:	
Rating:	36 V, 80 °C
Material:	PVC outer jacket, PE Insulation
Colour:	grey
Conductor specifications:	Power supply: red, black; 2 x 0.32 mm ² 2/22 AWG , DCR 54.1 Ω/km, Insulation PVC Data transmission line: white, blue; 2 x 0.32 mm ² 2/22 AWG , Outer jacket PVC grey, Outer diameter 7.3 mm Aluminum shield, draw wire 2/22 AWG 0.32 mm ²

Coupling:

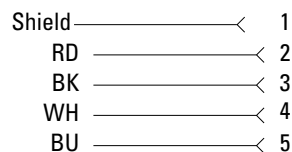
Dimensions:



Pin assignment:

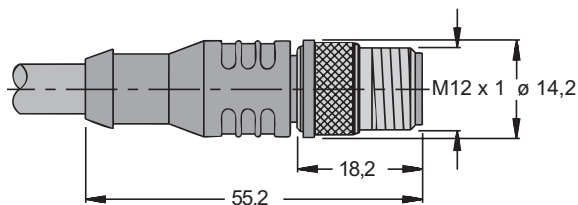


Connection diagram:

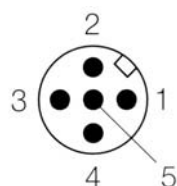


Connector:

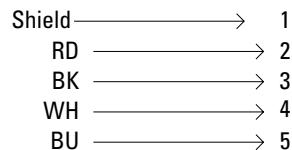
Dimensions:



Pin assignment:



Connection diagram:



Order code:

05.RKC 572- 6 M	straight M12 coupling – single-ended, PVC cable, grey, 6 m long
05.RKC 572-15 M	straight M12 coupling – single-ended, PVC cable, grey, 15 m long
05.RSC 572- 6 M	straight M12 connector – single-ended, PVC cable, grey, 6 m long
05.RSC 572-15 M	straight M12 connector – single-ended, PVC cable, grey, 15 m long

Bus cable with pre-assembled connector/coupling combination



DeviceNet
CANopen

Your benefit

- M12 x 1 pre-assembled connector/coupling combinations
- Saves time and costs
- Various lengths up to 15 meters, lengths over 15 meters upon request
- Easy field installation
- Identification of the bus wire by colour system.



Product features

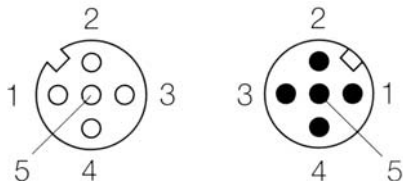
- Cable meets the ODVA specification for thin cable or cable type I
- PVC cable
- IP 67
- Polyurethane connectors

Characteristics:

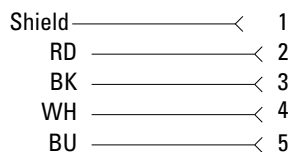
Connector:	
Connector/coupling:	M12 x 1
Connector/coupling body:	moulded polyurethane
Contacts:	gold plated brass
Coupling nut:	nickel-plated brass screened
Temperature:	-40 ... +80 °C
Protection:	IP 67 and NEMA 1, 3, 4, 6, 13
Rated current:	4 A

Cable:	
Rating:	36 V, 80 °C
Material:	PVC outer jacket, PE Insulation
Colour:	grey
Conductor specifications:	Power supply: red, black; 2 x 0.32 mm ² 2/22 AWG , DCR 54.1 Ω/km, insulation PVC Data transmission line: white, blue; 2 x 0.32 mm ² 2/22 AWG , Outer jacket PVC grey, Outer diameter 7.3 mm Aluminum shield, draw wire 2/22 AWG 0.32 mm ²

Pin assignment:



Connection diagram:



Order code:

Execution:

Connectors straight, coupling straight

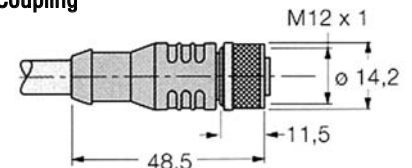
05.RSC-RKC-572- 0.5 M	straight M12 connector–straight M12 coupling, PVC cable grey, 0.5 m long
05.RSC-RKC-572- 1 M	straight M12 connector–straight M12 coupling, PVC cable grey, 1.0 m long
05.RSC-RKC-572- 2 M	straight M12 connector–straight M12 coupling, PVC cable grey, 2.0 m long
05.RSC-RKC-572-4M	straight M12 connector–straight M12 coupling, PVC cable grey, 4.0 m long
05.RSC-RKC-572-10 M	straight M12 connector–straight M12 coupling, PVC cable grey, 10 m long
05.RSC-RKC-572-15 M	straight M12 connector–straight M12 coupling, PVC cable grey, 15 m long

Execution:

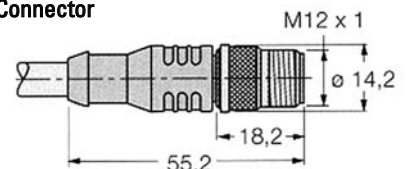
Right-angle connectors, right-angle coupling

05.WSC-WKC-572- 0.5 M	right-angle M12 connec.–right-angle M12 coup., PVC cable grey, 0.5 m long
05.WSC-WKC-572- 2 M	right-angle M12 connec.–right-angle M12 coup., PVC cable grey, 2.0 m long
05.WSC-WKC-572- 4 M	right-angle M12 connec.–right-angle M12 coup., PVC cable grey, 4.0 m long
05.WSC-WKC-572- 6 M	right-angle M12 connec.–right-angle M12 coup., PVC cable grey, 6.0 m long

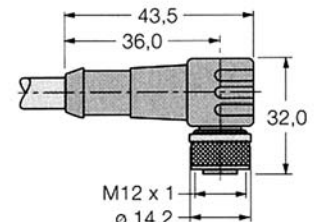
Coupling



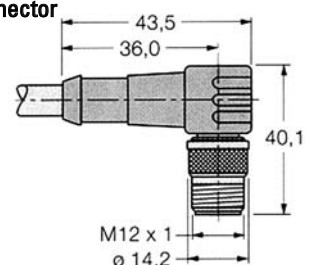
Connector



Coupling



Connector



Connectors



- Wide choice of connectors
 - Female or male
 - 5 pins, 7 pins and 10 pins
 - Connectors with MS
 - Right-angle plug
- Note:
On page 215 you will find complete connectors assembled with cables (PVC, PUR or TPE cable).

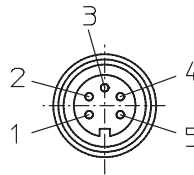
Round connectors:

Order description

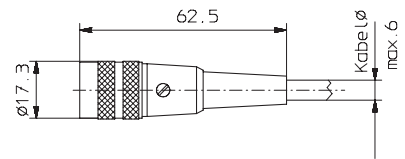
5-pin cable connector
female

Order code 8.0000.5022.0000

Pin assignment

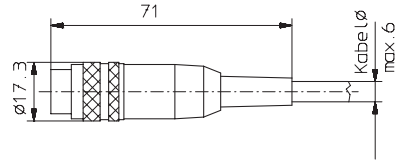
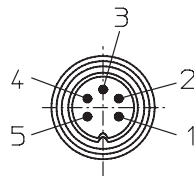


Dimensions:



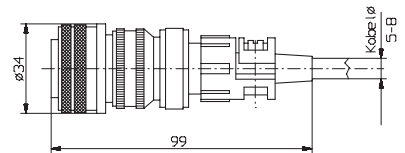
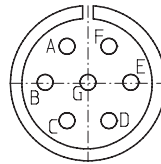
5-pin coupling
male

Order code 8.0000.5025.0000



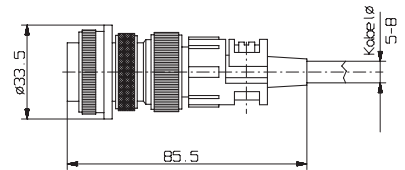
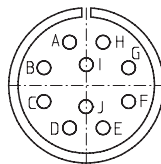
7-pin cable connector
female

Order code 8.0000.5052.0000



10-pin cable connector
female

Order code 8.0000.5062.0000



Round connectors series M23x1 male:



- Wide choice of connectors
- 9 pins, 12 pins and 17 pins
- Robust construction, metal body
- Pin inserts can be supplied wired clockwise or counter clockwise
- Note:
These connectors are also available pre-assembled with PVC, PUR or TPE cables.



Round connectors:

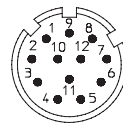
Stock types
all connectors and cables
can be delivered from
stock

Order description:

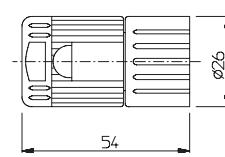
Plug connector, 12 pins
pin assignment ccw

Order code 8.0000.5011.0000

Pin assignment

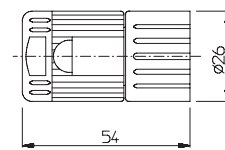
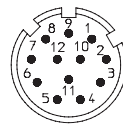


Dimensions



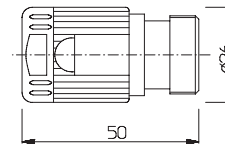
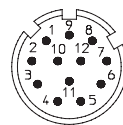
Plug connector, 12 pins
pin assignment cw

Order code 8.0000.5011.0001



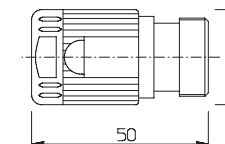
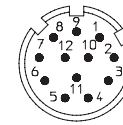
Plug connector with coupling thread,
12 pins, pin assignment ccw

Order code 8.0000.5015.0001



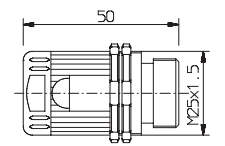
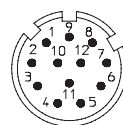
Plug connector with coupling thread,
12 pins, pin assignment cw

Order code 8.0000.5015.0002



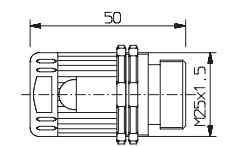
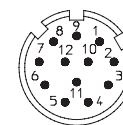
Plug connector with coupling thread,
12 pins, with central fastening
pin assignment ccw

Order code 8.0000.5015.0000



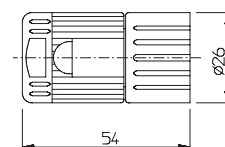
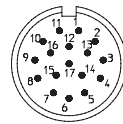
Plug connector with coupling thread,
12 pins, with central fastening
pin assignment cw

Order code 8.0000.5015.0003



Plug connector, 17 pins
pin assignment cw

Order code 8.0000.5041.0000



Round connectors series M23x1 female



- Wide choice of connectors
- 9 pins, 12 pins and 17 pins
- Robust construction, metal body
- Pin sockets can be supplied wired clockwise or counter clockwise

Note:

These connectors are also available pre-assembled with PVC, PUR or TPE cables.



Round connectors

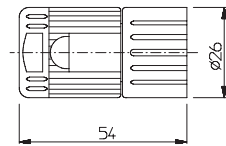
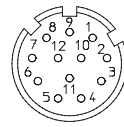
Order description:

Pin assignment

Dimensions:

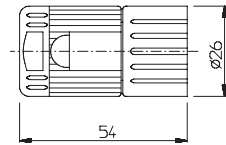
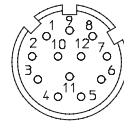
Stock types
all connectors and cables
can be delivered from
stock

12-pin plug connector
Pin socket assignment cw



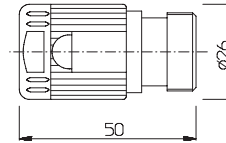
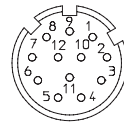
Order code 8.0000.5012.0000

12-pin plug connector
Pin socket assignment ccw



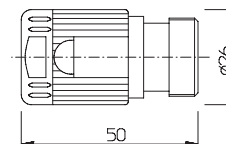
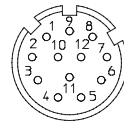
Order code 8.0000.5012.0001

12 pin-coupling
Pin socket assignment cw



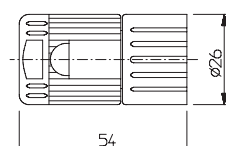
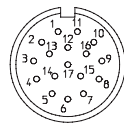
Order code 8.0000.5016.0000

12 pin-coupling
Pin socket assignment ccw



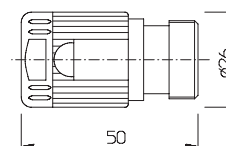
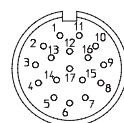
Order code 8.0000.5016.0001

17-pin plug connector
Pin socket assignment ccw



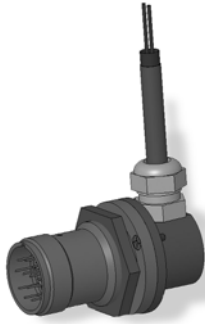
Order code 8.0000.5042.0000

17-pin coupling
Pin socket assignment ccw



Order code 8.0000.5046.0000

M23 connectors for connection to fan cowls



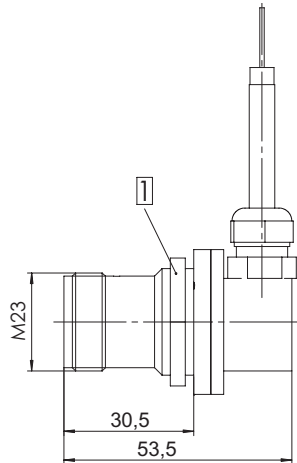
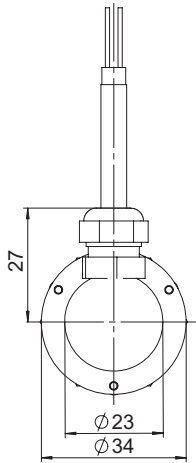
Your benefit

- Right angle connector with fixing nut, offering optimal installation height
- For lead-through to ventilator plates on geared motors or control cabinets
- 9, 12 or 17 pins, project-oriented

Product features

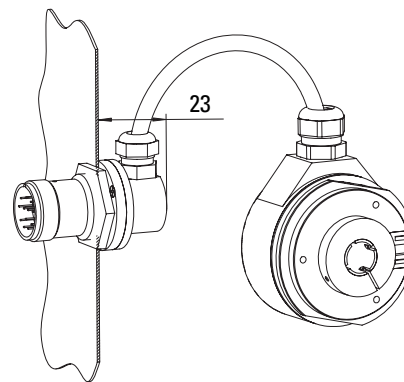
- Needs only 23 mm high installation space
- IP 66 when screwed-in
- Mechanically solid construction
- Pin inserts

Dimensions:



1 M25 x 1,5

Installation/mounting example:



Order code:

Can only be ordered in conjunction with encoders and cable outlet.

Cable

Unprepared, cut to length

Description	PUR electronic trailing cable	PVC electronic cable LiYCY	PVC electronic cable LiYCY	PVC electronic cable LiYCY
Order code	8.0000.6100	8.0000.6200	8.0000.6300	8.0000.6400
Areas of application and features:	highly flexible, weather proof, robust with a generally better resistance to chemicals than PVC. Suitable for machine tool industry	Suitable for easy non critical applications	Suitable for easy non critical applications	Suitable for 1-channel encoders with RS 422 interface
Number of conductors:	12 core + shield	12 core + shield	5 core + shield	2 x 2 core + shield
Cross section:	10 x 0.14 mm ² + 2 x 0.5 mm ²	12 x 0.14 mm ²	5 x 0.14 mm ²	2 x 2 x 0.25 mm ²
Permanent working temp. range:				
Flexible installation:	-30 ... +70 °C	-5 ... +70 °C	-5 ... +70 °C	-5 ... +70 °C
Secured installation:	-50 ... +90 °C	-30 ... +80 °C	-30 ... +80 °C	-30 ... +80 °C
Bending radius:				
Flexible installation:	min. 70 mm	min. 100 mm	min. 75 mm	min. 75 mm
Secured installation:	min. 50 mm	min. 100 mm	min. 75 mm	
Cable ø	approx. 6.9 ±0.2mm	approx. 6.9 ±0.2 mm	approx. 4.7 ±0.2 mm	approx. 6.5 ±0.2 mm



Description:	TPE electronic cable LiYCY (TP)	PVC electronic cable LiYCY (TP)	PVC electronic cable LiYCY
Order code	8.0000.6E00	8.0000.6900	8.0000.6700
Areas of application and features:	For high temperatures or voltages Sine wave encoders	For SSI and 4 ... 20 mA output twisted paired cond.	For absolute encoders with parallel interface twisted paired conductors
Number of conductors:	12 cross + Shield	12 cross + Shield	cross + Shield
Cross section:	5 x 2 x 0.14 mm ² + 2 x 0.5 mm ²	6 x 2 x 0.14 mm ²	18 x 0.14 mm ²
Permanent working temp. range			
Flexible installation	-40° ... +110 °C	-5° ... +70 °C	-5° ... +70 °C
Secured installation	-60° ... +135 °C	-30° ... +80 °C	-20° ... +80 °C
Bendings radius			
Flexible installation	min. 90 mm	min. 110 mm	min. 100 mm
Secured installation	min. 70 mm	min. 75 mm	min. 100 mm
Cable ø	approx. 8.5 ±0.4 mm	approx. 7.3 ±0.2mm	approx. 7.8 ±0.2mm
	halogen-free		



Order code:

8.0000.6X00.XXXX

Type of cable

Length in meters

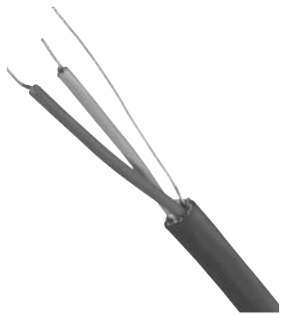
e.g. (0025 => 25 m)

available lengths:

2, 3, 5, 8, 10, 15, 20, 25 and 30 m

other lengths upon request

Profibus-DP cable



Your benefit

- Colour-coded for Profibus-DP systems
- Highly flexible stranded-wire construction
- Oil and abrasion resistant outer jacket
- Halogen-free

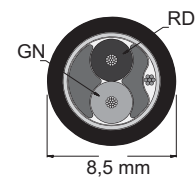
Product features

- PUR exhibits excellent oil resistance
- Can be used in drag chain installations

Characteristics:

Rating:	36 V, 80 °C
Materials:	TPUS-outer jacket, PE-wire isolation
Colour:	violet
Conductor specifications:	red, green 2 x 0.34 mm ² , stranded bare copper, 7 x 0.25 mm, twisted pair, 300 V, PE, 80 °C, DC resistance - 50 Ω/km current rating - 4 A, rated impedance 150 Ω ±15 Ω at 3 ... 20 MHz, rated capacitance conductor to conductor 30 pF/m
Screen/drain:	tinned copper braid, aluminum foil coverage 100% 0.5 mm ² stranded tinned copper

Cable profile



Order code:

05.KABEL451.XXX

— Cable length [m]
Example: 010 is 10 m

DeviceNet- Cable



Your benefit

- Highly flexible stranded-wire construction
- Oil and abrasion resistant outer jacket
- Halogen-free

Product features

- PUR exhibits excellent oil resistance
- Can be used in drag chain installations

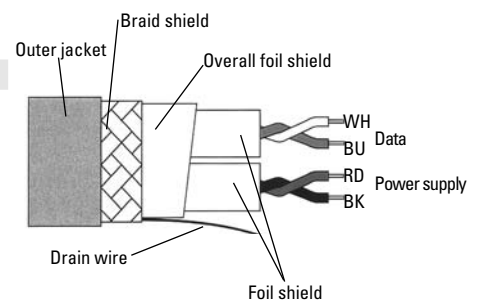
Characteristics:

Certified	AWM 300 V
Conductor specifications:	Power supply: black, red; 2/17 AWG, 2 x 1,04 mm ² DCR 16,9Ω/km, insulation PVC Data transmission: blue, white; 2/20 AWG, DCR 34.1Ω/km, insulation PE
Outer jacket	PUR, colour: grey outer diameter 8.4 mm
Shield	Aluminum foil, drain wire 20 AWG 0.52 mm ² screen braiding of copper wire
Network standard:	ODVA

Order code:

05.KABEL5723.XXX

— Cable length [m]
Example: 010 is 10 m



Pre-assembled cables



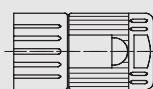
- Compatible with Kübler encoders
- Saves on installation time, thanks to pre-wiring
- Reduces the possibility of wiring errors
- Eliminates risks of short-circuits
- Available lengths: 2, 3, 5, 8, 10, 15, 20, 25 and 30m; other lengths upon request.

Stock types
all connectors and cables
can be delivered from stock

Pre-assembled cables for incremental encoders:

Suitable for encoders with push-pull output, inverted push-pull and RS 422 type series 5800, 5802, 5820, 5822, 9000. Assembled with 12-pin plug connector (female)

Order code 8.0000.6101.XXXX
(XXXX = length in m)



Includes plug connector type 8.0000.5012.0000 and cable type 8.0000.6100.XXXX (PUR cable 10 x 0.14 mm² + 2 x 0.5 mm²)

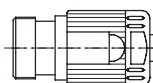
PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	PK	BN	BU	RD	GN	YE	–	GY	–	WH 0.5 mm ²	WH	BN 0.5 mm ²

Shield applied on the connector housing

Suitable for encoders with push-pull output, type series 5800, 5802, 5820, 5822, 9000 and A020. Assembled with 12-pin plug connector (female) with coupling thread

Order code 8.0000.6103.XXXX
(XXXX = length in m)



Includes plug connector type 8.0000.5016.0000 and cable type 8.0000.6100.XXXX (PUR cable 10 x 0.14 mm² + 2 x 0.5 mm²)

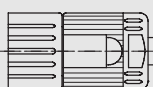
PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	PK	BN	BU	RD	GN	YE	–	GY	–	WH 0.5 mm ²	WH	BN 0.5 mm ²

Shield applied on the connector housing

Suitable for encoders with push-pull output, inverted push-pull and RS 422 type series 5800, 5802, 5820, 5822, 9000 and A020. Assembled with 12-pin plug connector (female)

Order code 8.0000.6201.XXXX
(XXXX = length in m)



Includes plug connector type 8.0000.5012.0000 and cable type 8.0000.6200.XXXX type 8.0000.6200.XXXX

PVC Cable 12 x 0.14 mm²

PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	PK	RD BU	BU	RD	GN	YE	–	GY	–	WH	GY PK	BN

Shield applied on the connector housing

Pre-assembled cables



- Compatible with Kübler encoders
- Saves on installation time, thanks to pre-wiring
- Reduces the possibility of wiring errors
- Eliminates risks of short-circuits
- Available lengths: 2, 3, 5, 8, 10, 15, 20, 25 and 30m; other lengths upon request.

Stock types
all connectors and cables can be delivered from stock



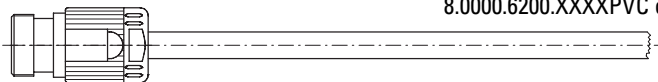
Pre-assembled cables for incremental encoders:

Suitable for encoders with push-pull output, type series 5800, 5802, 5820, 5822, 9000 and A020.

Assembled with 12-pin plug connector (female) with coupling thread

Order code 8.0000.6203.XXXX
(XXXX = length in m)

Includes plug connector type 8.0000.5016.0000 and cable type 8.0000.6200.XXXXPVC cable 12 x 0.14 mm²



PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	PK	RD BU	BU	RD	GN	YE	–	GY	–	WH	GY PK	BN

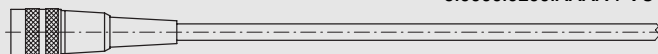
Shield applied on the connector housing

Suitable for encoders with push-pull output, type series 5810, 9010.

Assembled with 5-pin plug connector (female)

Order code 8.0000.6311.XXXX
(XXXX = length in m)

Includes plug connector type 8.0000.5022.0000 and cable type 8.0000.6200.XXXX PVC cable 5 x 0.14 mm²



PIN – cable colour assignment

PIN:	1	2	3	4	5
Cable colour:	WH	BN	GN	YE	GY

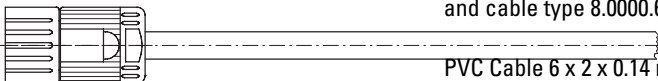
Shield applied on the connector housing

Suitable for encoders with RS 422 type or Voltage Sine Wave output, type series 5800, 5802, 5803, 5804, 5820, 5822, 5823, 5824, 9000, A020.

Assembled with 12-pin plug connector (female)

Order code 8.0000.6901.XXXX
(XXXX = length in m)

Includes plug connector type 8.0000.5012.0000 and cable type 8.0000.6900.XXXX



PVC Cable 6 x 2 x 0.14 mm²

PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	PK	RD BU	BU	RD	GN	YE	–	GY	–	WH	GY PK	BN

Shield applied on the connector housing

Pre-assembled cables



- Compatible with Kübler encoders
- Saves on installation time, thanks to pre-wiring
- Reduces the possibility of wiring errors
- Eliminates risks of short-circuits
- Available lengths: 2, 3, 5, 8, 10, 15, 20, 25 and 30 m; other lengths upon request.

Stock types
all connectors and cables
can be delivered from stock

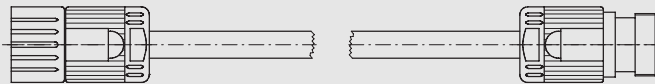


Cable plug combinations for incremental encoders:

Suitable for all incremental encoders with push-pull output or RS 422 interface, type series 58xx and 90xx
12-pin female plug to 12-pin male plug with coupling thread

Order code 8.0000.6905.XXXX
(XXXX = length in m)

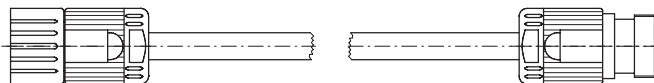
PVC cable 6 x 2 x 0.14 mm²



Suitable for encoders with push-pull output, type series 5803, 5823, 5804 and 5824
12-pin female plug to 12-pin male plug with coupling thread

Order code 8.0000.6E04.XXXX
(XXXX = length in m)

TPE cable 5 x 2 x 0.14 mm² + 2 x 0.5 mm²



Pre-assembled cables



- Compatible with Kübler encoders
- Saves on installation time, thanks to pre-wiring
- Reduces the possibility of wiring errors
- Eliminates risks of short-circuits
- Available lengths: 2, 3, 5, 8, 10, 15, 20, 25 and 30m; other lengths upon request.

Stock types
all connectors and cables can be delivered from stock



Cable plug combinations for absolute encoders

Suitable for encoders with up to 14-bit parallel output, type series 5850, 5852, 5870, 5872. Assembled with 17-pin plug connector (female)

Order code 8.0000.6741.XXXX
(XXXX = length in m)

Connector type 8.0000.5042.0000 and cable type 8.0000.6700.XXXX PVC cable 18 x 0.14 mm²



PIN – cable colour assignment

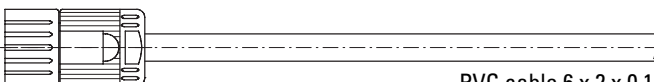
PIN:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY PK	RD BU	WH GN	BN GN	WH YE	YE BN	WH GY

Shield applied on the connector housing

Suitable for encoders with SSI and analogue output, type series 5850, 5862, 5870, 5882, 9081. Assembled with 12-pin plug connector (female)

Order code 8.0000.6901.XXXX.0031
(XXXX = length in m)

Connector type 8.0000.5012.0000 and cable Type 8.0000.6900.XXXX PVC Cable 6 x 2 x 0.14 mm²



PVC cable 6 x 2 x 0.14 mm²

PIN – cable colour assignment

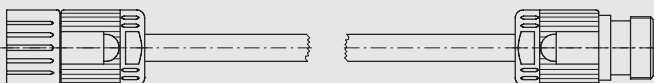
PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY PK	RD BU

Shield applied on the connector housing

Suitable for encoders with SSI and analogue output, type series 5850, 5862, 5870, 5882, 9081, 12-pin female plug to 12-pin male plug with coupling thread female plug

Order code 8.0000.6905.XXXX.0032
(XXXX = length in m)

Connector type 8.0000.5012.0000 and cable typ 8.0000.6900.XXXX



PIN – cable colour assignment

PIN:	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour:	WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY PK	RD BU

Shield applied on the connector housing