

Optional field bus connection with I/O function (CMS), B-design

- B-design
- Bus coupler with driver
- Field bus protocol PROFIBUS DP, CANopen, DeviceNet, EtherNET/IP, PROFINET IO



Version	Bus coupler with driver
Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-15% / +20%
Operating voltage, actuators	24 V DC
Protection class	IP65
I/O module extension,max.	6
Weight	See table below
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Field bus protocol	Port
		1
R412003484	PROFIBUS DP	Plug (male), M12, 5-pin, B-coded
R412008516	PROFIBUS DP	Plug (male), M12, 5-pin, B-coded
R412005747	CANopen	Plug (male), M12, 5-pin, A-coded
R412008518	CANopen	Plug (male), M12, 5-pin, A-coded
R412004346	DeviceNet	Plug (male), M12, 5-pin, A-coded
R412008517	DeviceNet	Plug (male), M12, 5-pin, A-coded
R412012755	EtherNET/IP	-
R412014581	PROFINET IO	Socket (female), M12x1, 4-pin, D-coded
R412014583	PROFINET IO	Socket (female), M12x1, 4-pin, D-coded

Part No.	Port	power supply
	2	
R412003484	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412008516	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded
R412005747	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008518	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412004346	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412008517	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded
R412012755	Socket (female), M12, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded
R412014581	Socket (female), M12x1, 4-pin, D-coded	Plug (male), M12x1, 4-pin, A-coded
R412014583	Socket (female), M12x1, 4-pin, D-coded	Plug (male), 7/8"-16UNF, 5-pin

Part No.	Number of outputs for valve coils	Port
		Valve system
R412003484	24	Socket, 2.0 mm strip, 2x13-pin
R412008516	32	Socket, 2.0 mm strip, 3x13-pin

Part No.	Number of outputs for valve coils	Port
		Valve system
R412005747	24	Socket, 2.0 mm strip, 2x13-pin
R412008518	32	Socket, 2.0 mm strip, 3x13-pin
R412004346	24	Socket, 2.0 mm strip, 2x13-pin
R412008517	32	Socket, 2.0 mm strip, 3x13-pin
R412012755	32	Socket, 2.0 mm strip, 3x13-pin
R412014581	32	-
R412014583	32	-

Part No.	Power consumption electronics	Max. power consumption per coil	Weight	Fig.	
R412003484	0,12 A	0,063 mA	0,84 kg	Fig. 1	1)
R412008516	0,12 A	0,063 mA	0,84 kg	Fig. 1	1)
R412005747	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412008518	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412004346	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412008517	0,12 A	0,063 mA	1 kg	Fig. 1	1)
R412012755	0,12 A	0,063 mA	1 kg	Fig. 2	2)
R412014581	0,1 A	0,1 mA	0,91 kg	Fig. 1	1)
R412014583	0,1 A	0,1 mA	0,91 kg	Fig. 3	1)

Scope of delivery incl. 2 tie rod extensions and seal, The following operating instructions can be found in the Media Center for:↔PROFIBUS DP: R499050016↔CANopen: R412005742↔DeviceNet: R499050019↔EtherNET/IP: R412012728

1) Connection with two valve voltage circuits.

2) Connection with two valve voltage circuits., Only star topology

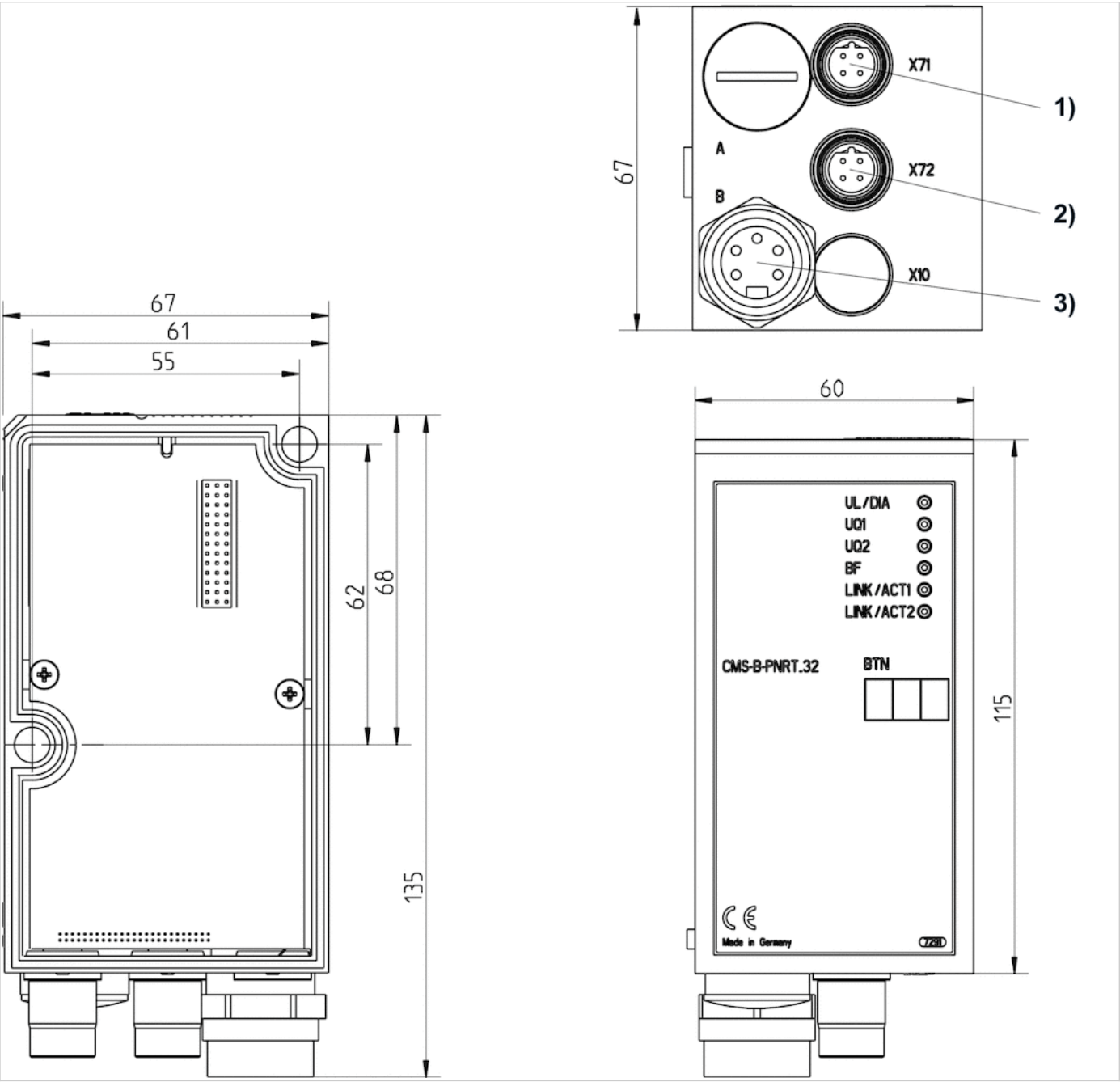
Technical information

Caution: A reduced temperature range in accordance with the operating instructions may need to be considered in ATEX applications. You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

Material	
Housing	Die-cast aluminum

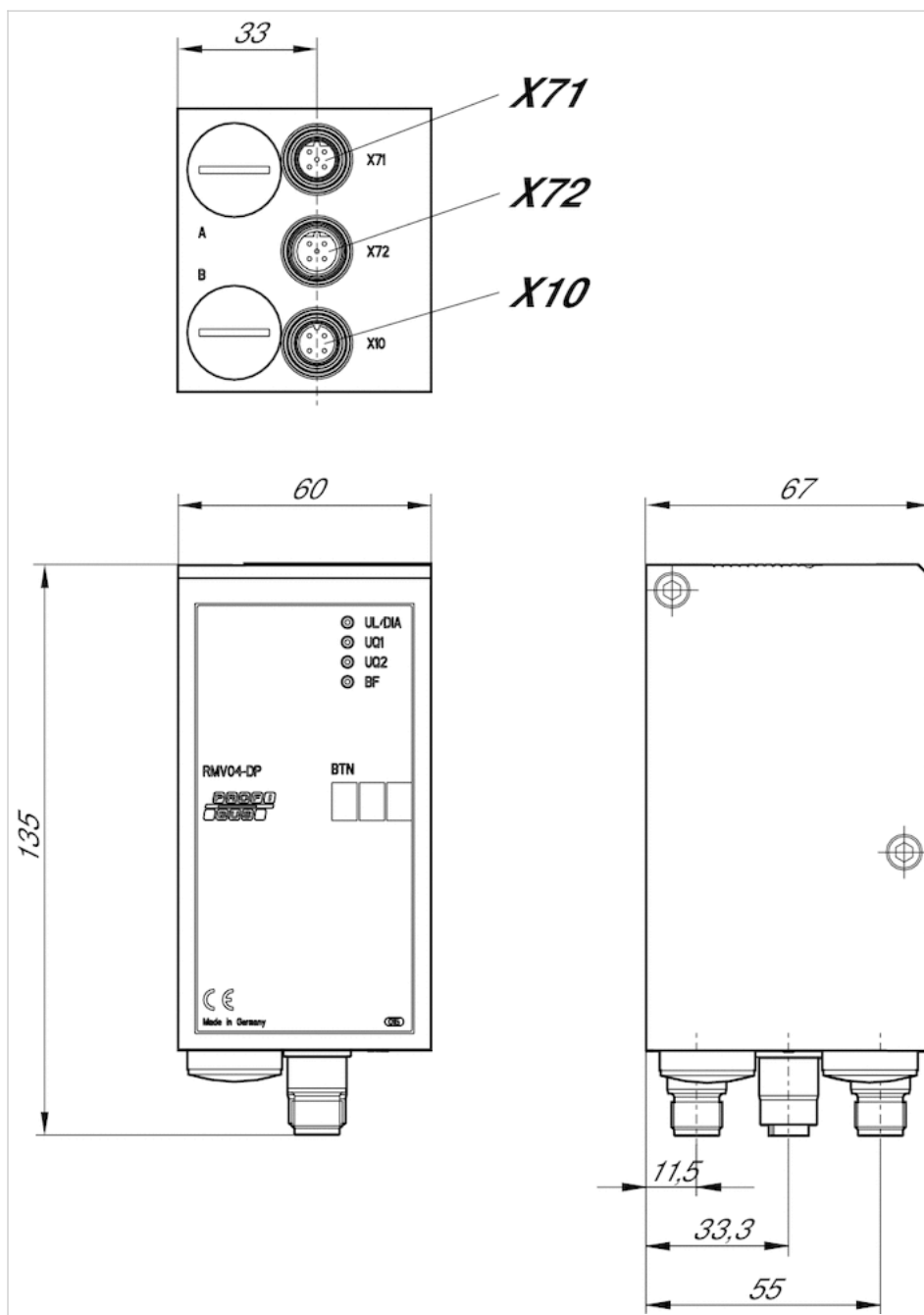
Fig. 3



1) Bus IN 2) Bus OUT 3) Power supply

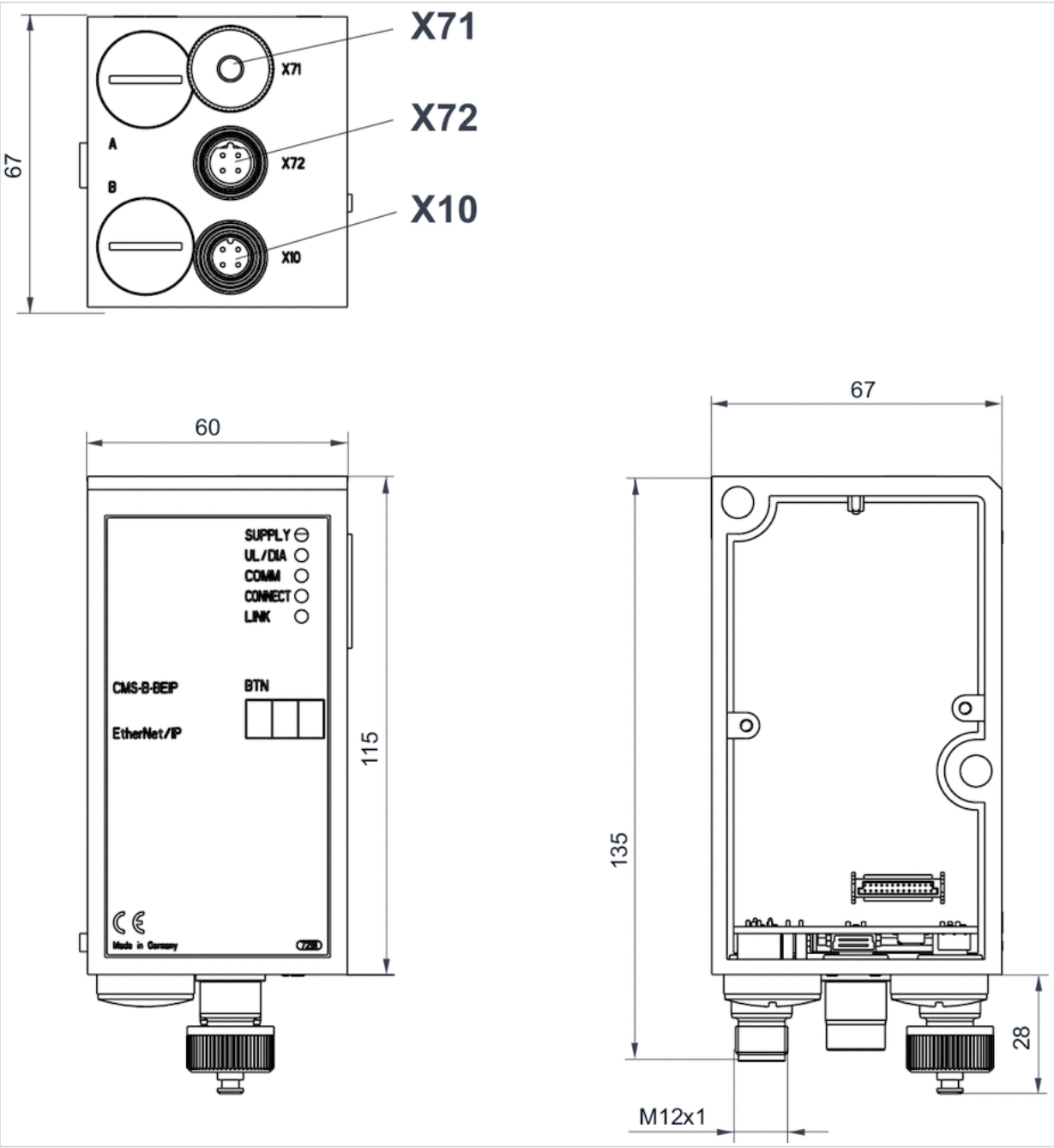
Dimensions

Fig. 1



X71, (Bus IN), M12x1X72, (Bus OUT), M12x1X10, (Power), M12x1

Fig. 2



X71 = optional interfaceX72 = BusX10 = Power

Series CMS

- M8x1, M12x1
- B-design
- I/O module, active



Version	I/O module, active
Ambient temperature min./max.	0 ... 50 °C
Operational voltage electronics	24 V DC
Protection class	IP65
Weight	0,47 kg
The delivered product may vary from that in the illustration.	

Technical data

Part No.	I/O module version	I/O connection	I/O connection	Fig.
			Number	
R412003489	Digital inputs	Socket (female), M8, 3-pin	8	Fig. 1
R412000871	Digital inputs	Socket (female), M12, 5-pin, A-coded	4	Fig. 2

Scope of delivery incl. 2 tie rod extensions and seal, Manual: PROFIBUS DP - R499050016, DeviceNet - R499050019, Interbus - R412005743, CANopen - R412005742

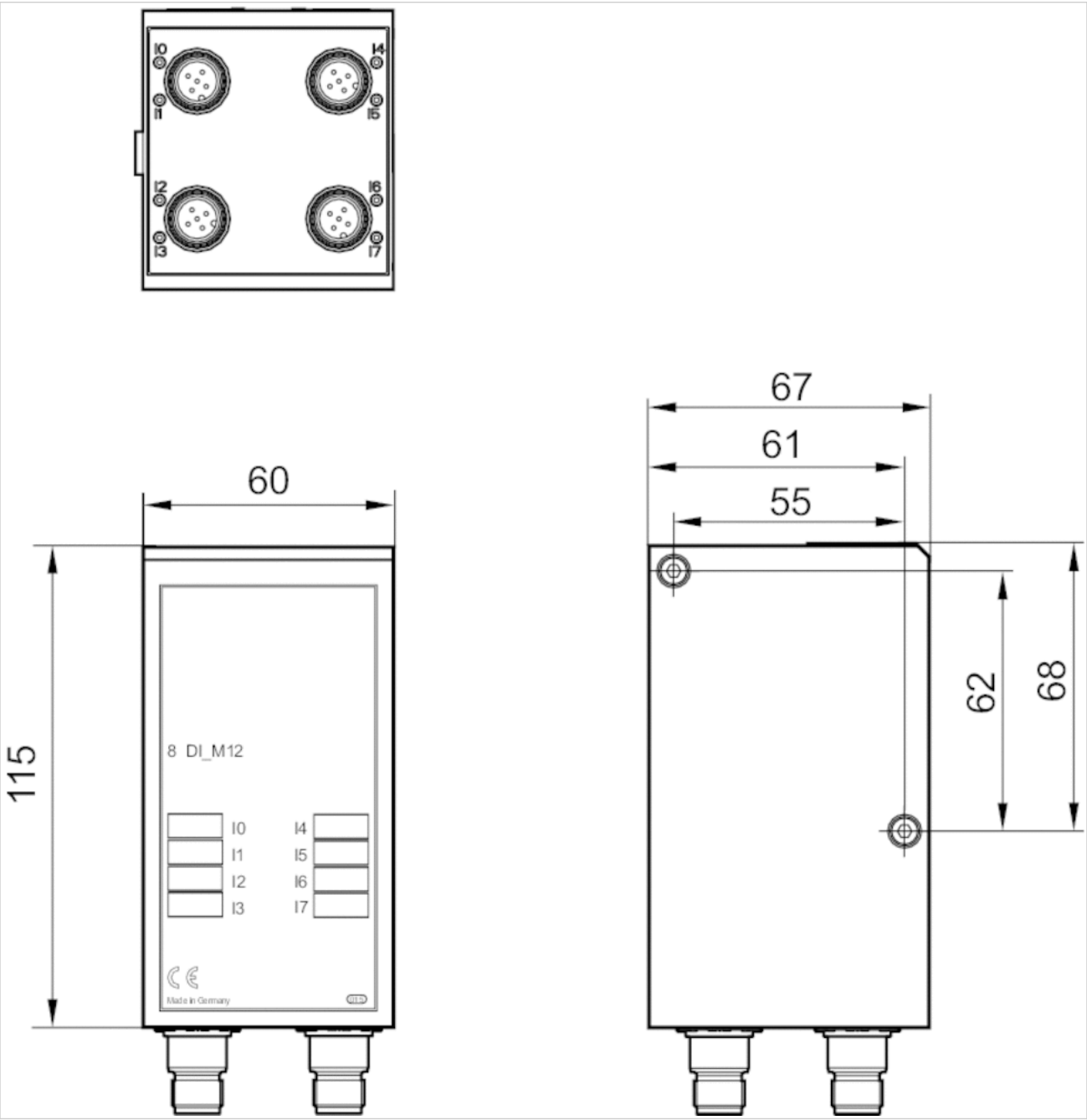
Technical information

Max. 6 input or 6 output modules may be used.
 You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

Technical information

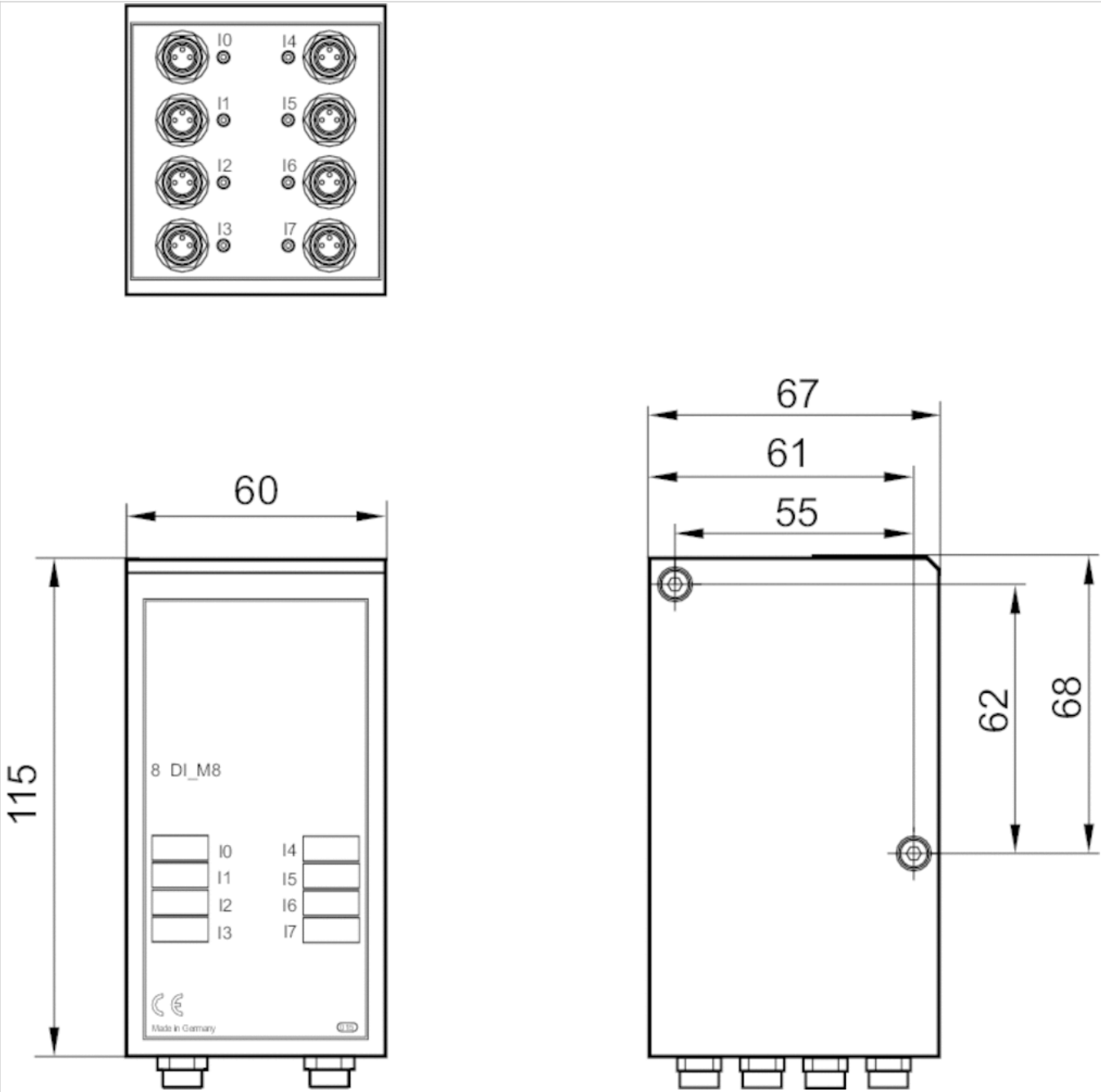
Material	
Housing	Die-cast aluminum

Fig. 2



Dimensions

Fig. 1



End plate left

- For CMS bus coupler, B-design, For DDL driver with I/O function, For link structure AS-i, B-design with I/O function



Weight0,141 kg

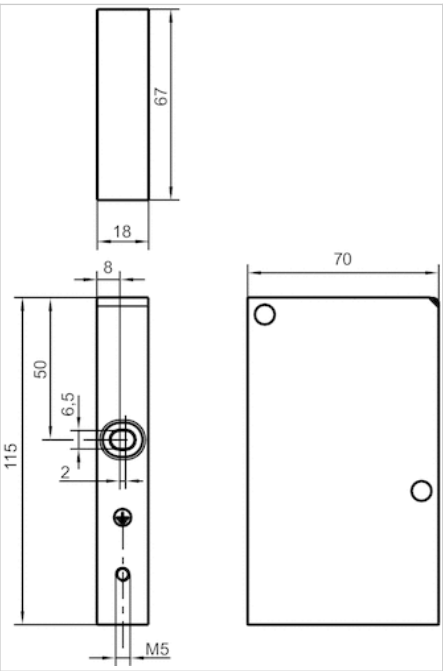
Technical data

Part No.	Type
R412003490	End plate left

Includes screws and seals.

Dimensions

Dimensions

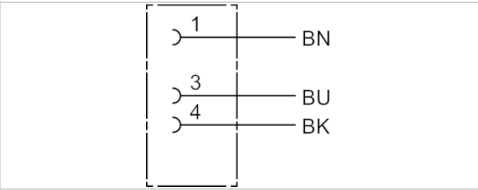


Round plug connector, Series CON-RD

- Plug, M8x1, 3-pin, A-coded, angled, 90°
- open cable ends
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	-25 ... 80 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP68
Wire cross-section	0,25 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Weight
R412021678	4 A	3	41 mm	4,1 mm	2 m	0,06 kg
R412021679	4 A	3	41 mm	4,1 mm	5 m	0,121 kg
R412021680	4 A	3	41 mm	4,1 mm	10 m	0,224 kg

suitable for dynamic laying

Technical information

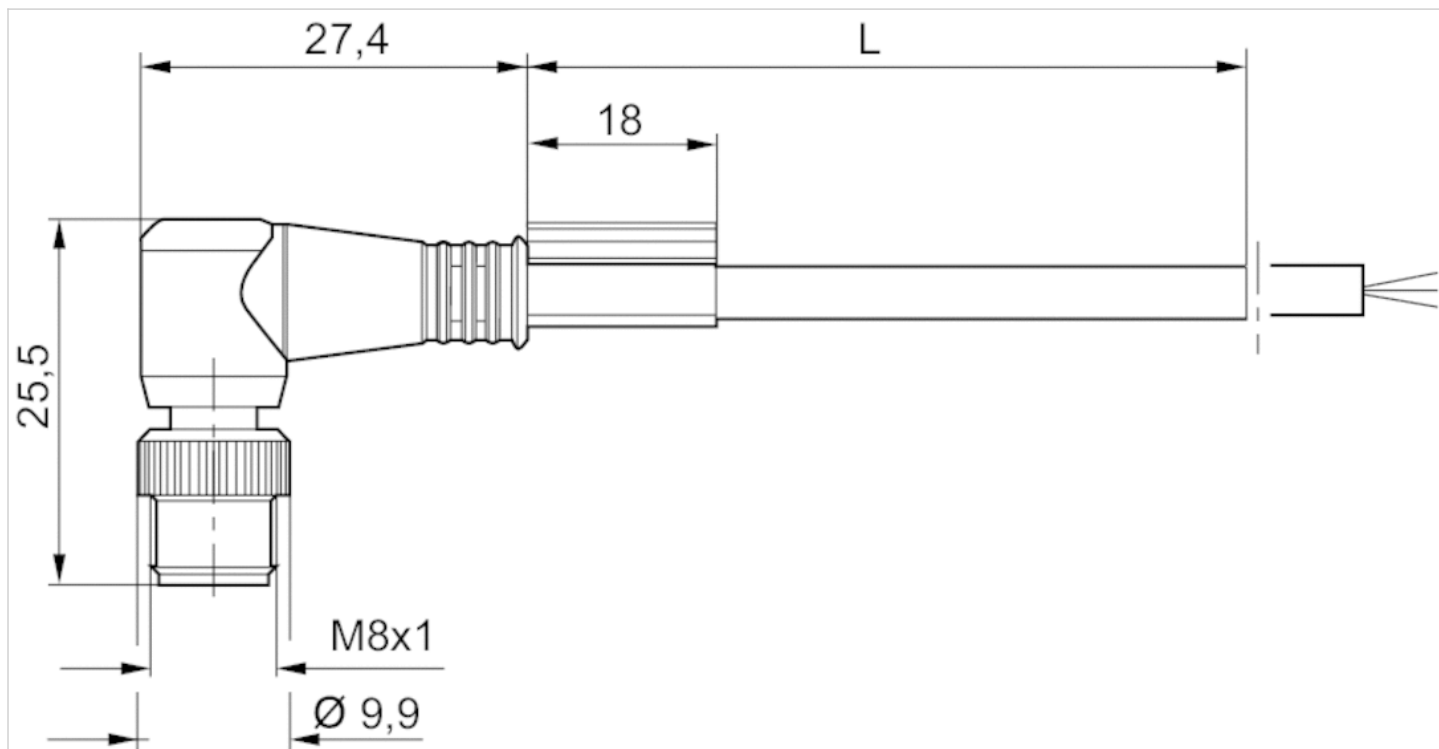
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

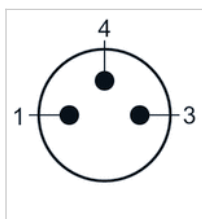
Dimensions



L = length

Pin assignments

Plug pin assignment



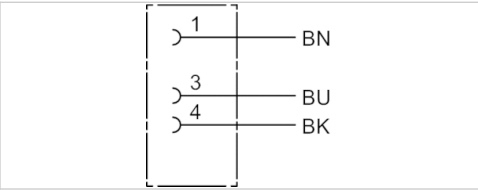
(1) BN=brown(3) BU=blue(4) BK=black

Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, straight, 180°
- Plug, A-coded, angled, 90°
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V, AC/DC
Protection class	IP68
Wire cross-section	0,25 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Weight
R412021681	4 A	3	41 mm	4,1 mm	1 m	0,045 kg
R412021682	4 A	3	41 mm	4,1 mm	2 m	0,064 kg
R412021683	4 A	3	41 mm	4,1 mm	5 m	0,131 kg

suitable for dynamic laying

Technical information

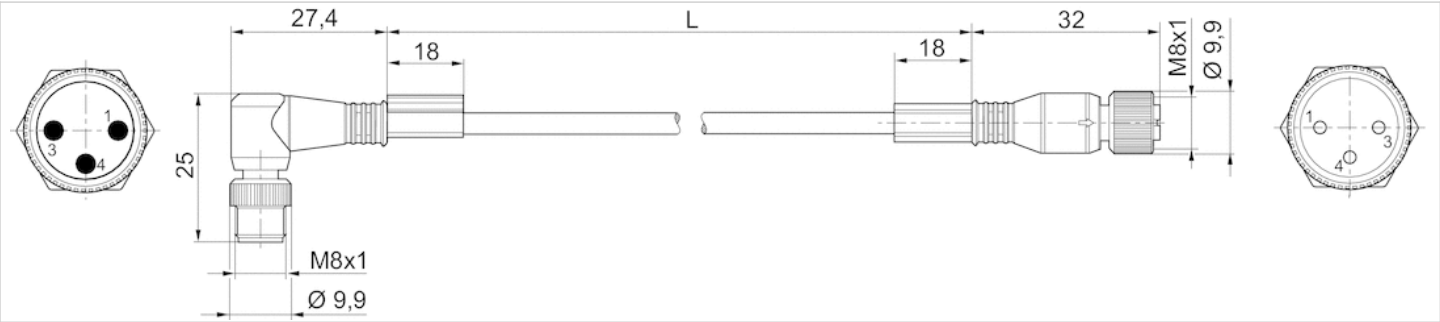
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

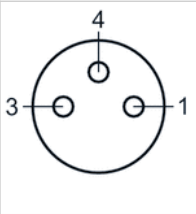
Dimensions

Dimensions



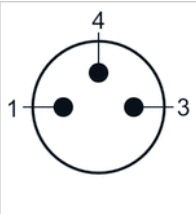
L = length

Pin assignment socket



Pin assignments

Plug pin assignment



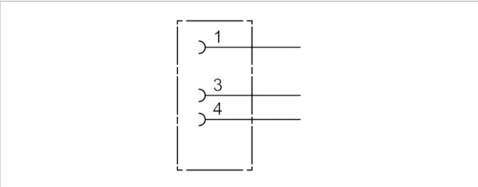
Round plug connector, Series CON-RD

- Plug, M8x1, 3-pin, A-coded, angled, 90°
- unshielded



Connection type
 Ambient temperature min./max.
 Operationalvoltage
 Protection class
 Weight

Screws
 -25 ... 85 °C
 48 V, AC/DC
 IP67
 0,01 kg
 The delivered product may vary from that in the illustration.



Technical data

Part No.	Max. current	Contact assignment	suitable cable-Ø min./max
R412021677	4 A	3	3,5 / 6 mm

Technical information

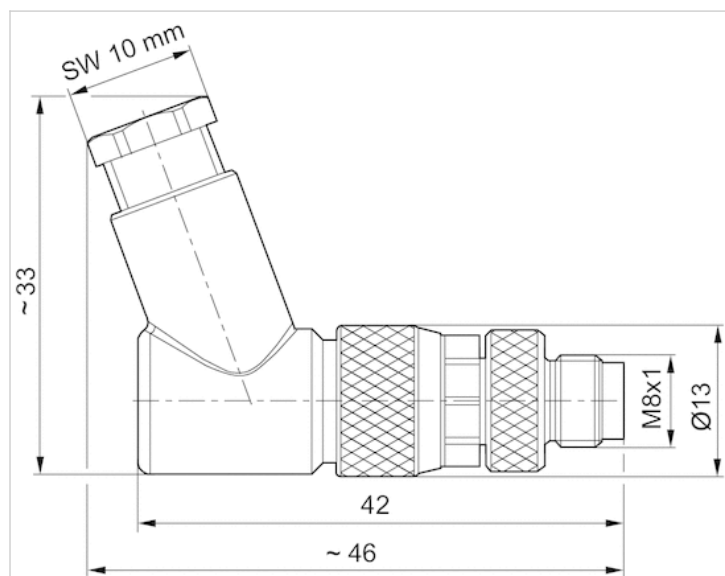
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

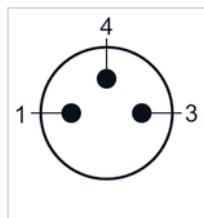
Dimensions

Dimensions



Pin assignments

Plug pin assignment

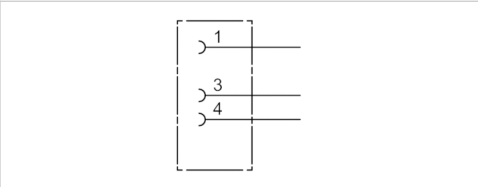


Round plug connector, Series CON-RD

- Plug, M8x1, 3-pin, A-coded, straight, 180°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,01 kg



Technical data

Part No.	Max. current	Contact assignment	suitable cable-Ø min./max
R412021676	4 A	3	3,5 / 5 mm

Technical information

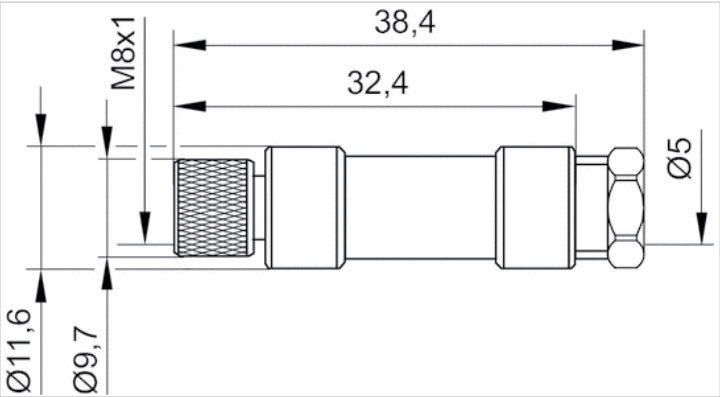
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

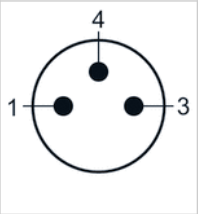
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M8x1, 3-pin, A-coded, straight, 180°
- open cable ends
- with cable
- unshielded



Ambient temperature min./max.	-25 ... 80 °C
Operationalvoltage	30 V, AC/DC
Protection class	IP67
Wire cross-section	0,25 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
8946203602	3 A	3	4,5 mm	3 m	0,06 kg
8946203612	3 A	3	4,5 mm	5 m	0,143 kg
8946203622	3 A	3	4,5 mm	10 m	0,281 kg

Technical information

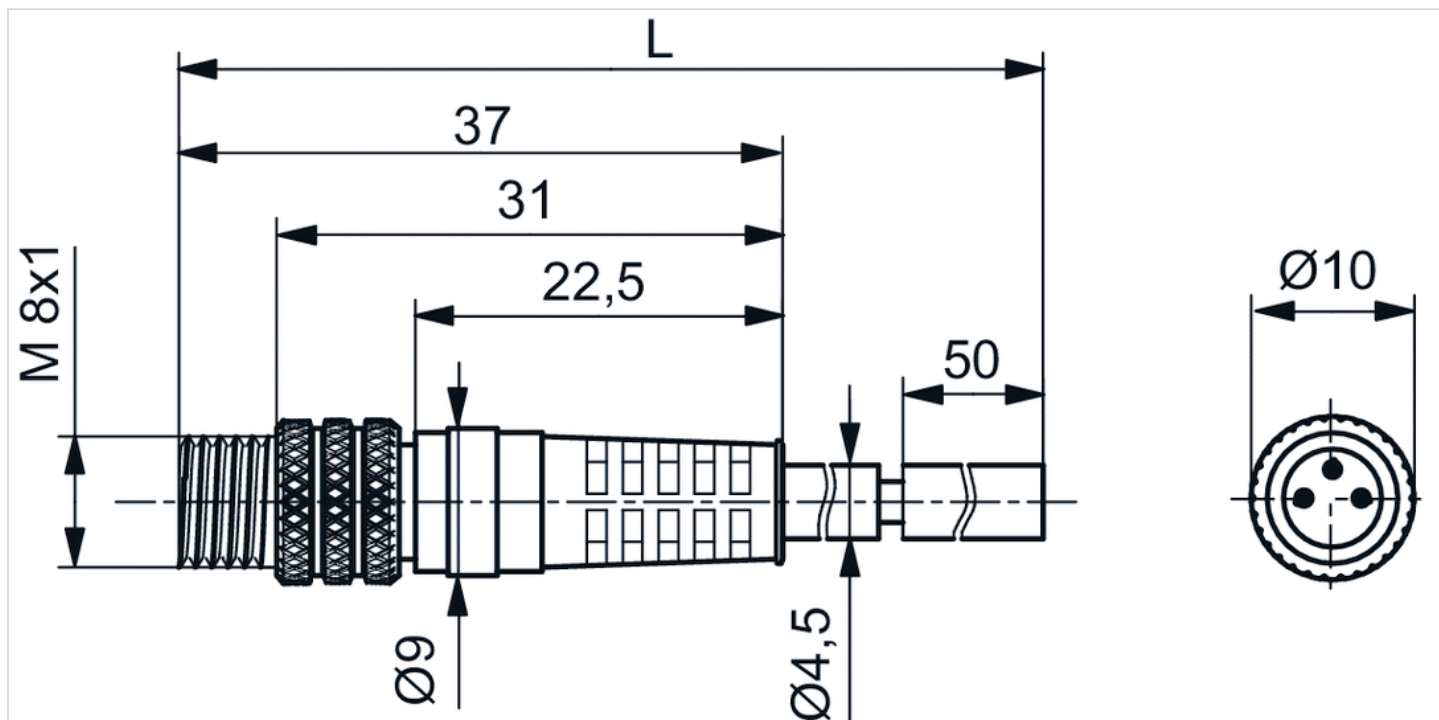
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyvinyl chloride

Dimensions

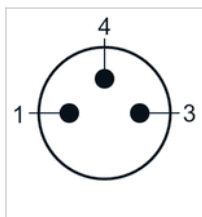
Dimensions



L = length

Pin assignments

Plug pin assignment



(1) BN=brown(3) BU=blue(4) BK=black

Adapter, Series CON-AP

- Socket, M12x1, 3-pin, A-coded, straight, 180°
- Plug, M8x1, A-coded, straight, 180°
- unshielded



Ambient temperature min./max.	-25 ... 85 °C
Operational voltage	48 V, AC/DC
Protection class	IP67
Weight	0,013 kg

Technical data

Part No.	Max. current	Contact assignment
R412021684	4 A	3

Technical information

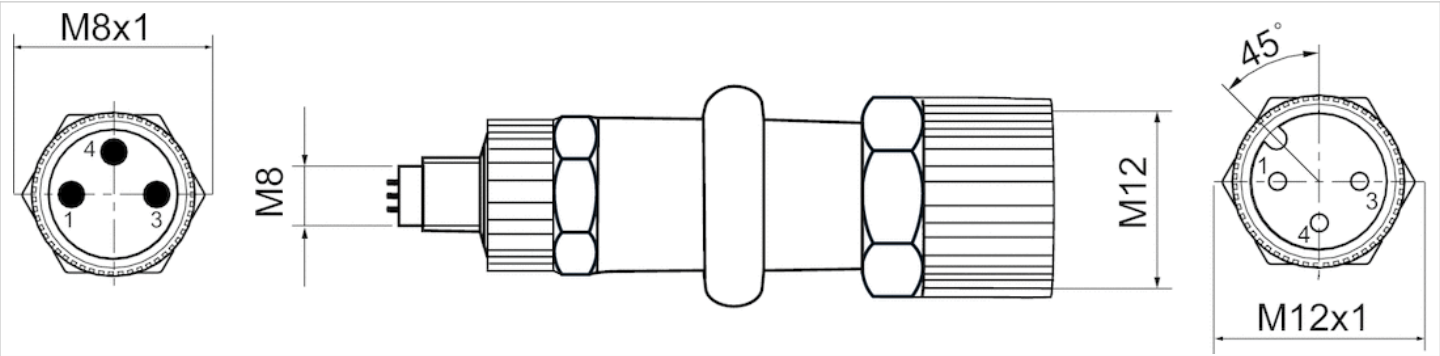
The specified protection class is only valid in assembled and tested state.

Technical information

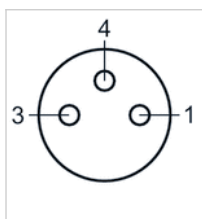
Material	
Housing	Polyurethane

Dimensions

Dimensions

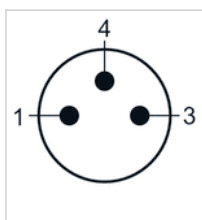


Pin assignment socket



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, straight, 180°
- Plug, A-coded, straight, 180°
- with cable
- unshielded



Protection class

Weight

IP68

See table below

Technical data

Part No.	Number of wires	Cable-Ø	Cable length	Weight
8946203702	3	4,5 mm	1 m	0,038 kg
8946203712	3	4,5 mm	2 m	0,067 kg
8946203722	3	4,5 mm	5 m	0,148 kg

Technical information

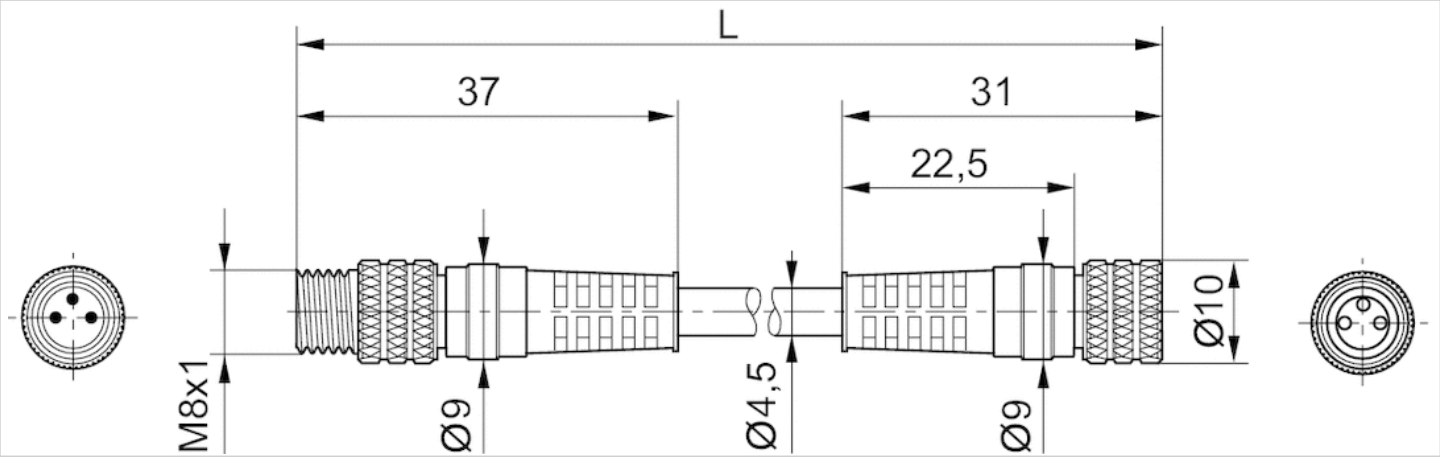
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

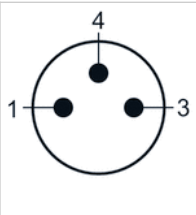
Dimensions

Dimensions



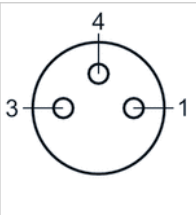
L = length

Plug pin assignment



Pin assignments

Pin assignment socket



Data final plug, Series CON-RD

- Plug, M12x1, 4-pin, B-coded, straight, 180°
- for PROFIBUS DP



Ambient temperature min./max.	-25 ... 80 °C
Protection class	IP67
Weight	0,013 kg

Technical data

Part No.
8941054064

Technical information

The specified protection class is only valid in assembled and tested state.

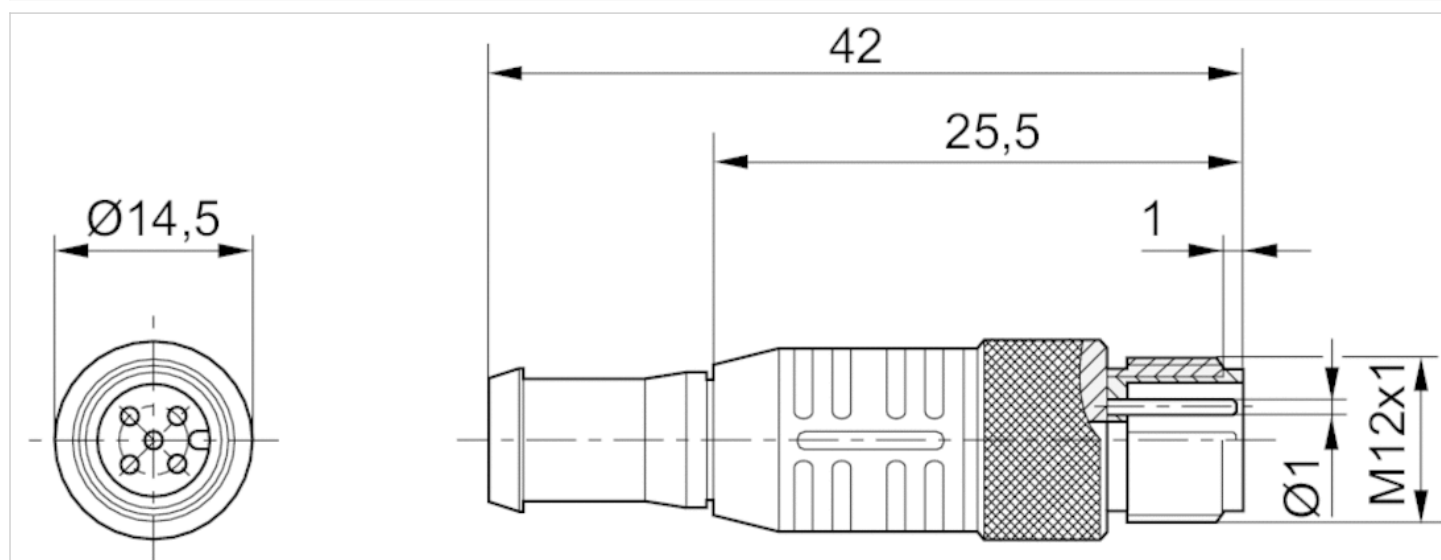
PROFIBUS DP bus termination plug

Technical information

Material	
Housing	Thermoplastic elastomer

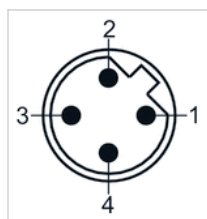
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Data final plug, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet



Ambient temperature min./max.	0 ... 60 °C
Protection class	IP67
Weight	0,011 kg

Technical data

Part No.
8941054264

Technical information

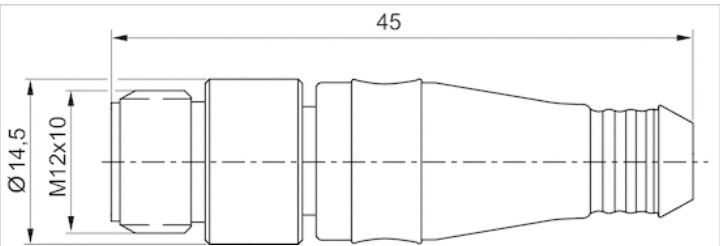
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Thermoplastic elastomer

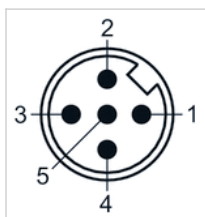
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, straight, 180°
- Plug, M12x1, A-coded, straight, 180°
- with cable
- unshielded



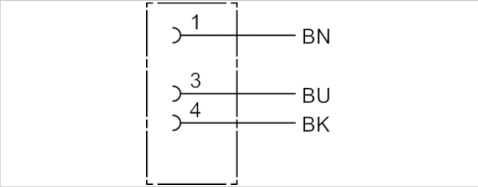
Protection class

Weight

IP68

0,073 kg

The delivered product may vary from that in the illustration.



Technical data

Part No.	Number of wires	Cable length
8946203462	3	2 m

Technical information

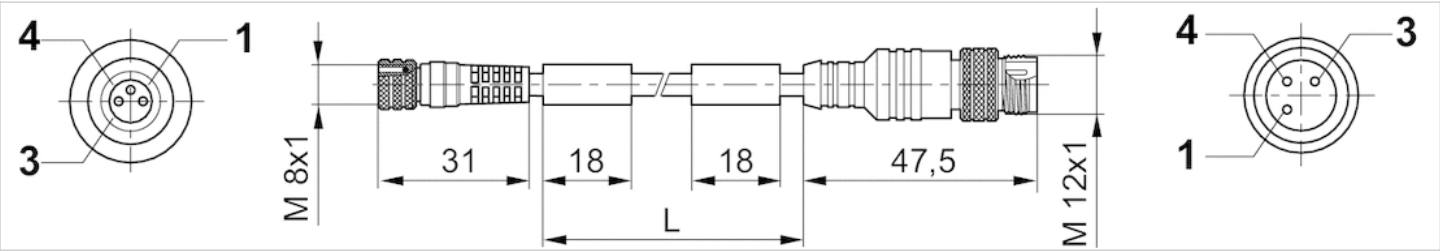
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

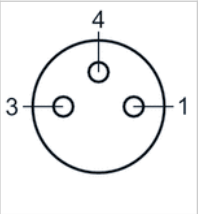
Dimensions

Dimensions



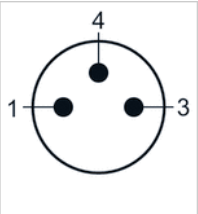
L = length

Pin assignment socket



Pin assignments

Plug pin assignment

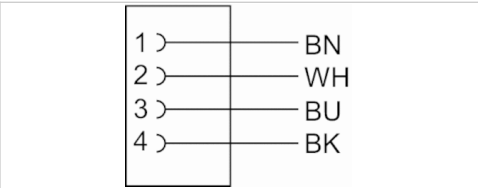


Y-Plug connector, series CON-RD

- Plug, M12x1, 4-pin, A-coded, straight, 180°
- 2, open cable ends, 3-pin
- 3-pin
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 80 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Mounting screw tightening torque	0,8 Nm
Weight	0,122 kg



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length
R412021688	4 A	4	4,3 mm	2 m

with self-clinching screw

Technical information

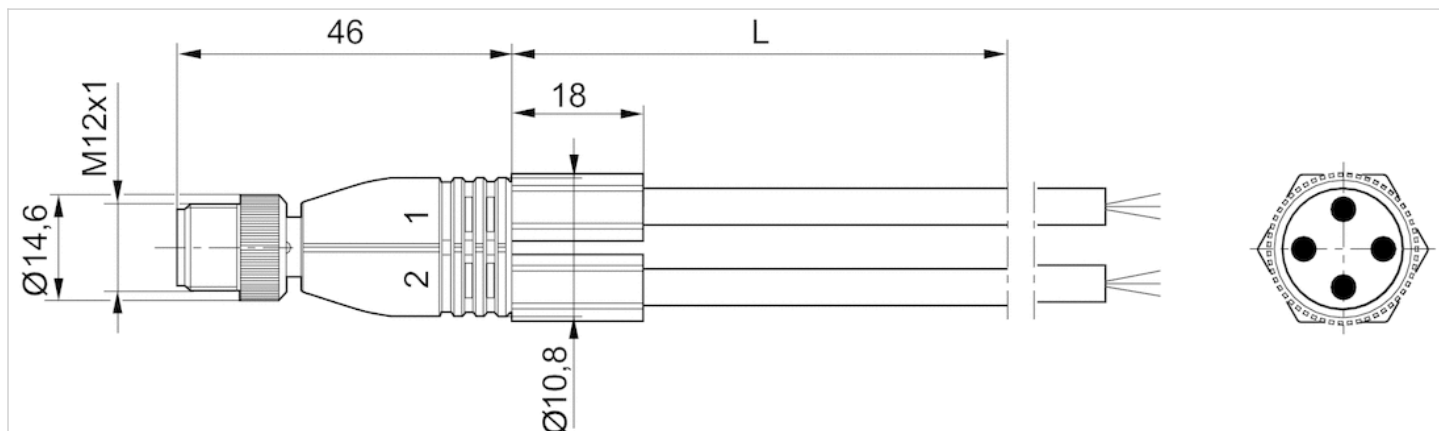
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

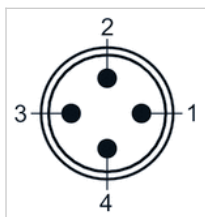
Dimensions



L = length

Pin assignments

Plug pin assignment



Line 1: (1) BN = brown, (3) BU =blue, (4) BK = black

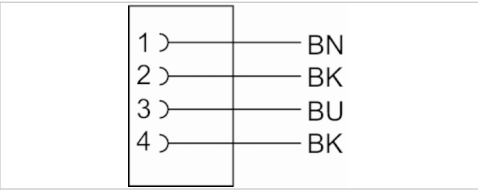
Line 2: (1) BN = brown, (3) BU =blue, (2) BK = black

Y-Plug connector, series CON-RD

- Plug, M12x1, 4-pin, A-coded, straight, 180°
- 2, Socket, A-coded, straight, 180°
- Socket, M8x1, 3-pin, A-coded, straight, 180°
- with cable
- unshielded



Ambient temperature min./max.	-25 ... 80 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Mounting screw tightening torque	0,8 Nm
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R412021685	4 A	3	4,1 mm	0,6 m	0,064 kg
R412021687	4 A	3	4,1 mm	3 m	0,167 kg

Technical information

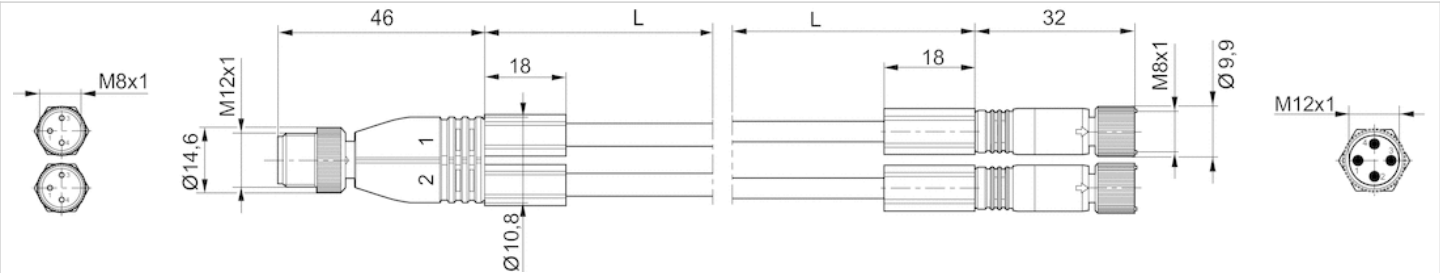
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

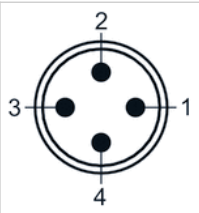
Dimensions

Dimensions



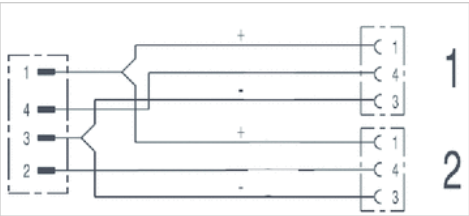
L = length

Plug pin assignment

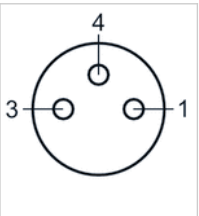


Pin assignments

Assignment scheme



Pin assignment socket



Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- open cable ends, 5-pin
- with cable
- unshielded



Protection class
Weight

IP68
See table below
The delivered product may vary from that in the illustration.

Technical data

Part No.	Number of wires	Cable length	Weight
8946203432	5	2 m	0,102 kg
8946203442	5	5 m	0,238 kg

with self-clinching screw

Technical information

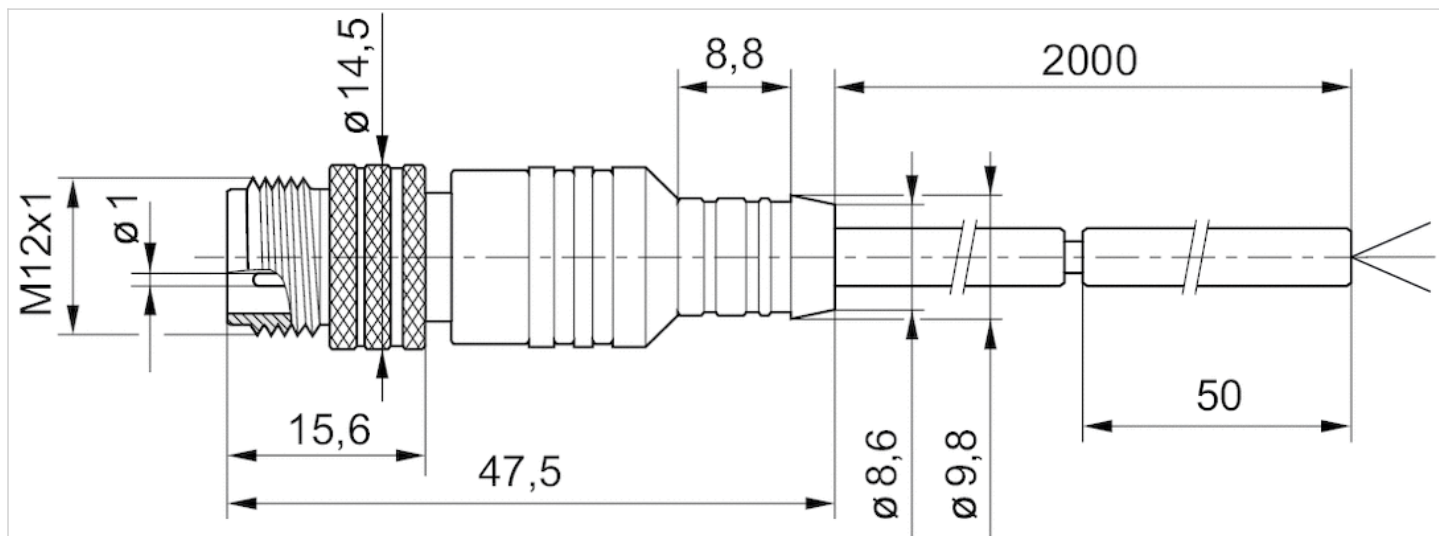
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

Dimensions

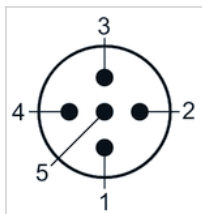
Dimensions



L = length

Pin assignments

Plug pin assignment



(1) BN=brown(2) WH=white(3) BU=blue(4) BK=black(5) GRN-Y=green-yellow

Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, angled, 90°
- open cable ends, 5-pin
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	See table below
Operational voltage	48 V, AC/DC
Protection class	IP68
Wire cross-section	0,34 mm ²
Mounting screw tightening torque	0,8 Nm
Weight	See table below

Technical data

Part No.	Ambient temperature min./max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length
R412021691	-40 ... 85 °C	4 A	5	50 mm	5 mm	2 m
R412021692	-40 ... 85 °C	4 A	5	50 mm	5 mm	5 m
R412021693	-25 ... 85 °C	4 A	5	50 mm	5 mm	10 m

Part No.	Weight
R412021691	0,093 kg
R412021692	0,2 kg
R412021693	0,381 kg

suitable for dynamic laying

Technical information

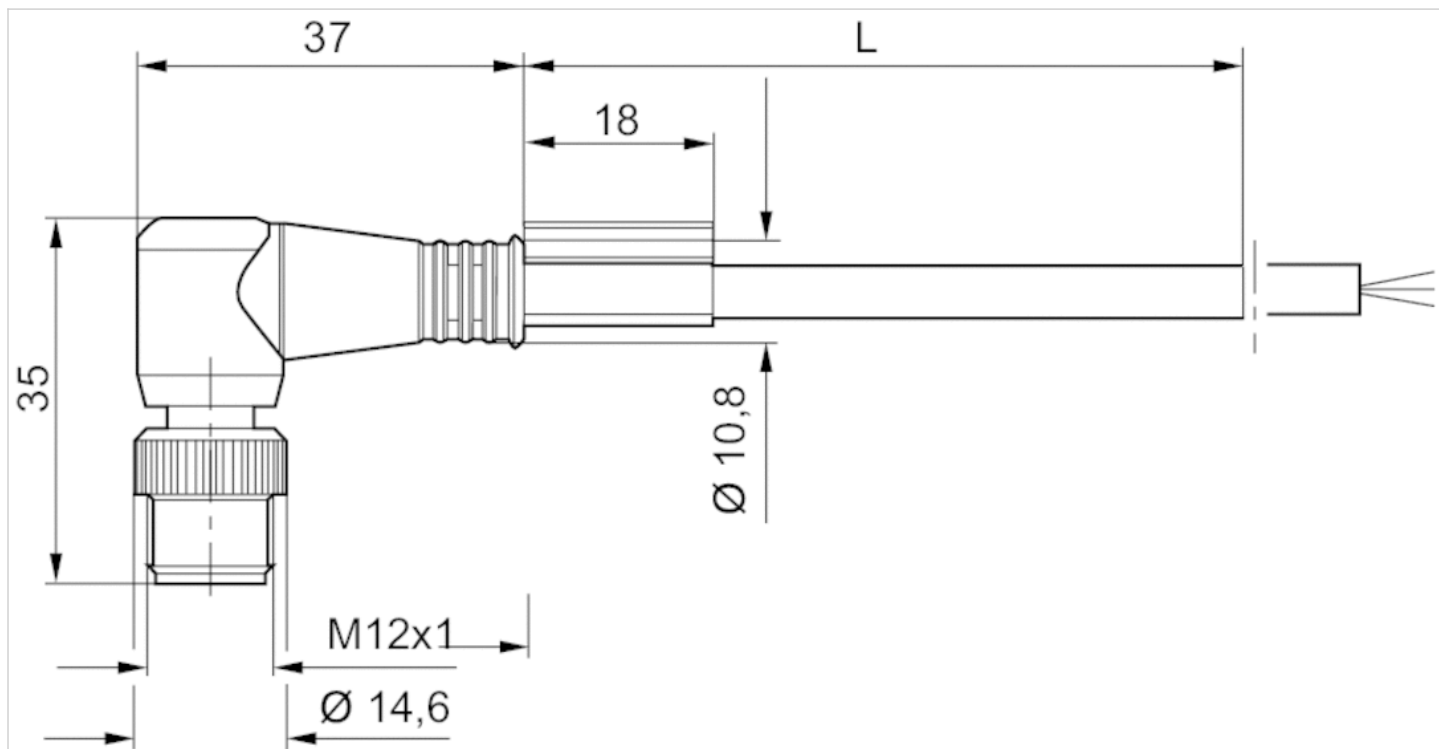
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

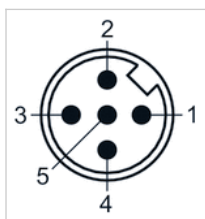
Dimensions



L = length

Pin assignments

Plug pin assignment



(1) BN=brown(2) WH=white(3) BU=blue(4) BK=black(5) GRN-Y=green-yellow

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- Plug, angled, 90°
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	-25 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP68
Wire cross-section	0,34 mm²
Mounting screw tightening torque	0,8 Nm
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length	Weight
R412021694	4 A	5	50 mm	5 mm	2 m	0,114 kg
R412021695	4 A	5	50 mm	5 mm	5 m	0,217 kg

suitable for dynamic laying

Technical information

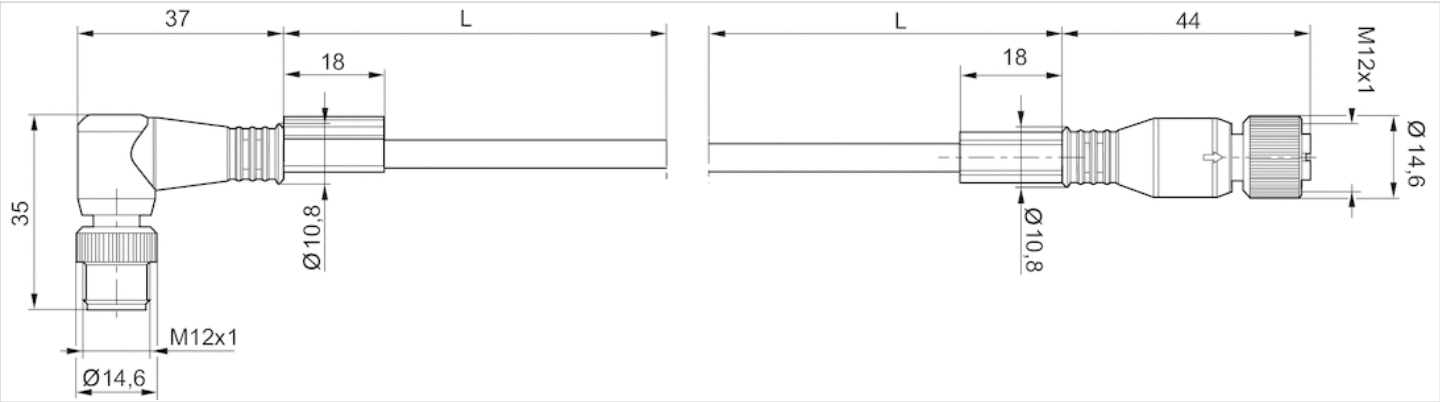
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

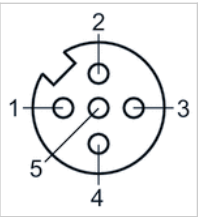
Dimensions

Dimensions



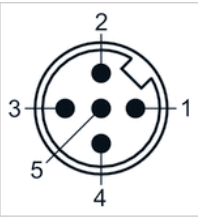
L = length

Pin assignment socket



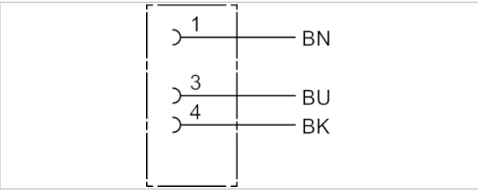
Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, straight, 180°
- Plug, M12x1, A-coded, angled, 90°
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	See table below
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Wire cross-section	0,25 mm²
Mounting screw tightening torque	0,5 Nm
Weight	See table below
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Ambient temperature min./max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length
R412021696	-25 ... 80 °C	4 A	3	41 mm	4,1 mm	2 m
R412021697	-20 ... 80 °C	4 A	3	41 mm	4,1 mm	5 m

Part No.	Weight
R412021696	0,077 kg
R412021697	0,135 kg

suitable for dynamic laying

Technical information

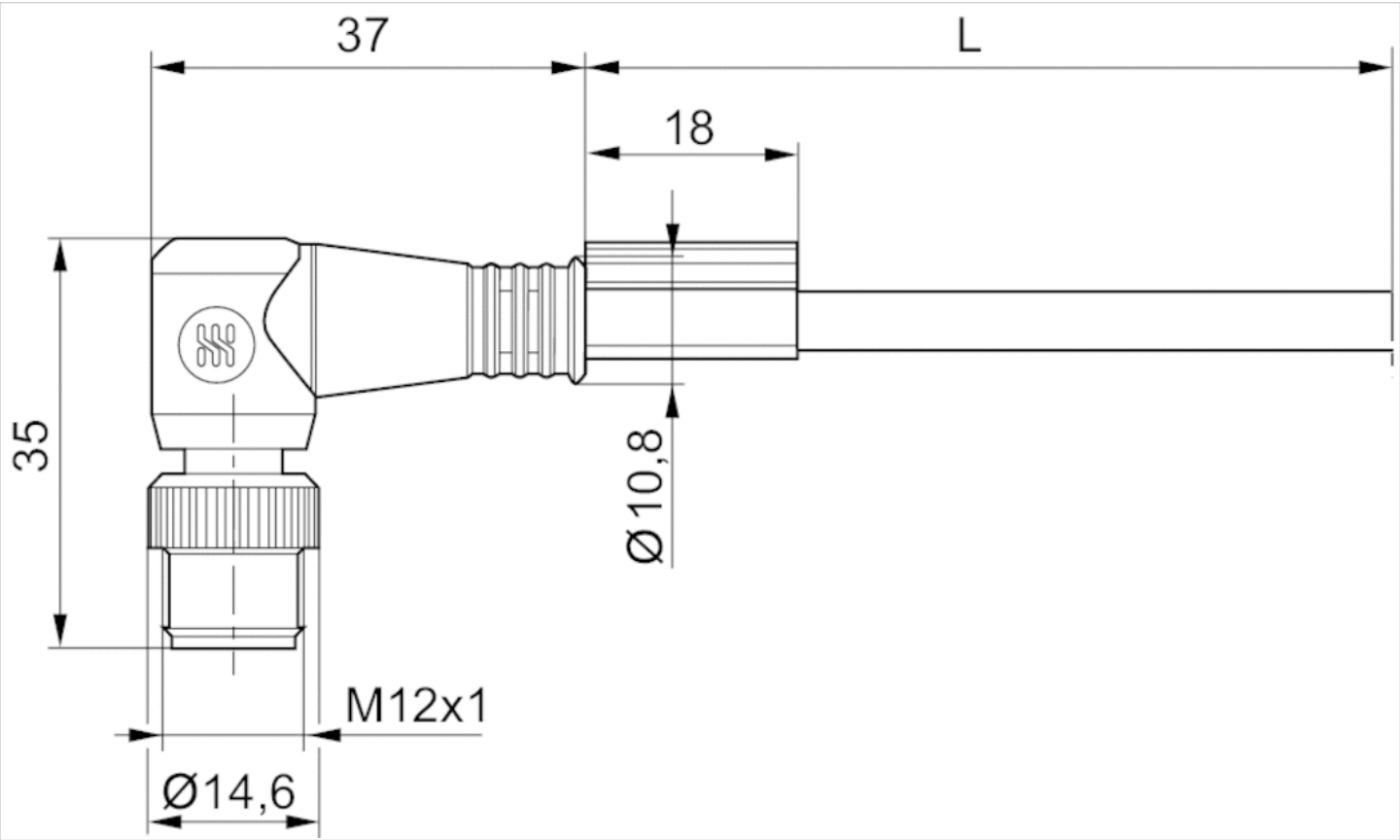
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

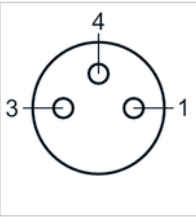
Dimensions

Dimensions



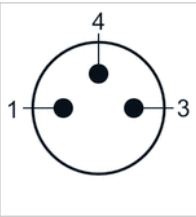
L = length

Pin assignment socket



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- Plug, angled, 90°
- with cable
- suitable for dynamic laying
- shielded



Ambient temperature min./max.	-20 ... 85 °C
Operational voltage	48 V, AC/DC
Protection class	IP68
Wire cross-section	0,34 mm²
Mounting screw tightening torque	0,8 Nm

1	BN
2	WH
3	BU
4	BK
5	

Technical data

Part No.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length
R412022193	4 A	4	54 mm	5,4 mm	2 m

suitable for dynamic laying

Technical information

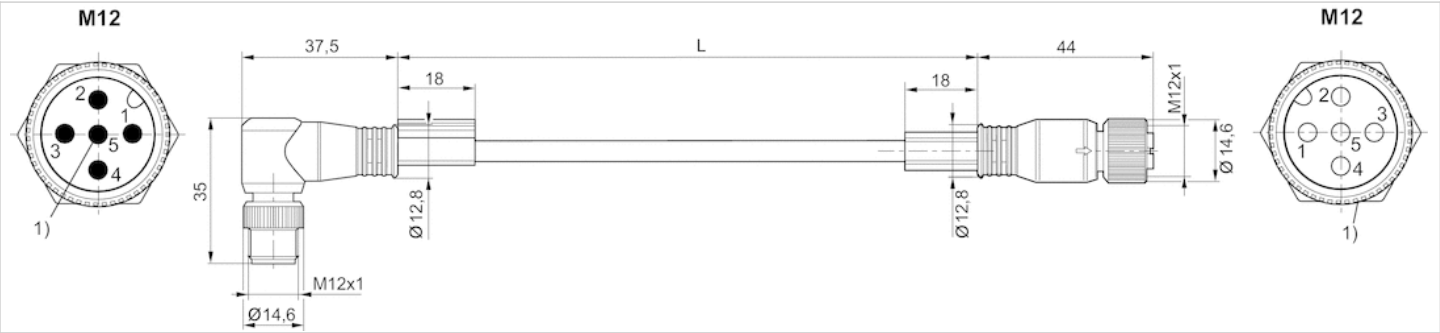
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

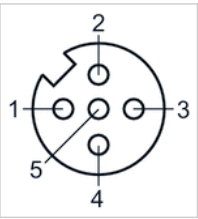
Dimensions

Dimensions



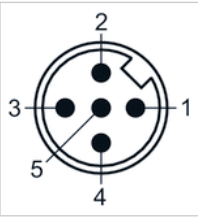
L = length
PIN assignment 1:1
1) Shield is connected to pin 5 of the plug and the knurled screw of the socket.

Pin assignment socket



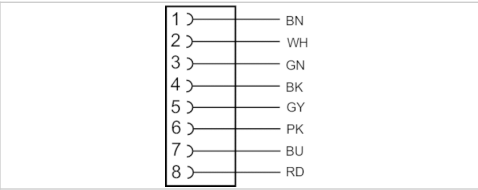
Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M12x1, 8-pin, A-coded, straight, 180°
- Plug, straight, 180°
- with cable
- suitable for dynamic laying
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operationalvoltage	30 / 36 V, AC/DC
Protection class	IP67
Wire cross-section	0,25 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
8946202802	1,5 A	8	6,6 mm	0,5 m	0,067 kg
8946202812	1,5 A	8	6,6 mm	1 m	0,96 kg
8946202822	1,5 A	8	6,6 mm	2 m	0,161 kg
8946202832	1,5 A	8	6,6 mm	5 m	0,339 kg
8946202842	1,5 A	8	6,6 mm	10 m	0,65 kg

suitable for dynamic laying

Technical information

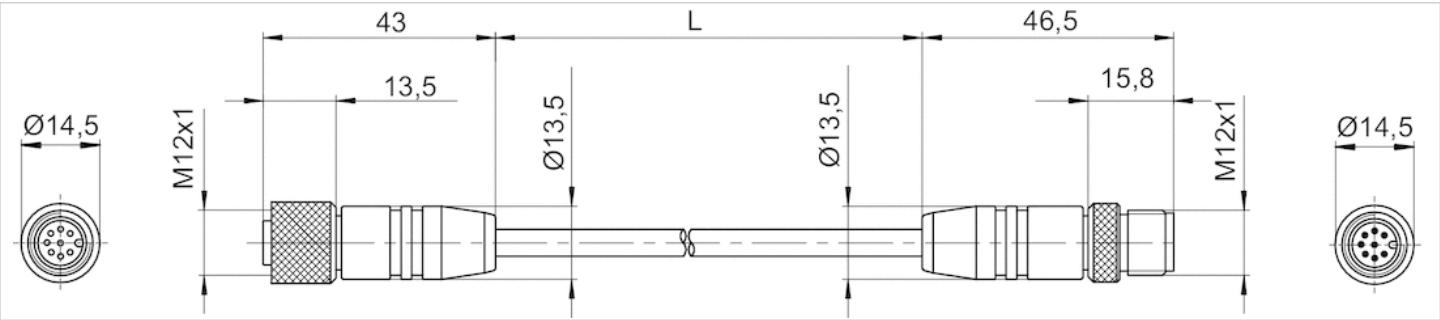
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Seals	Fluorocaoutchouc
Cable sheath	Polyurethane

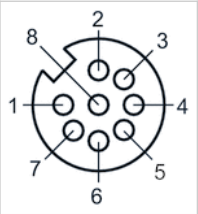
Dimensions

Dimensions

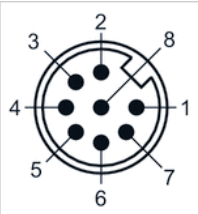


L = length

Pin assignment socket



Pin assignments



Round plug connector, Series CON-RD

- Plug, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,016 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484222	4 A	4 mm

Technical information

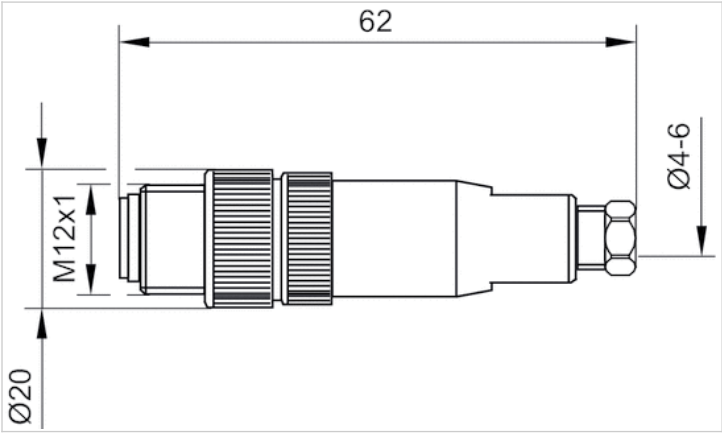
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

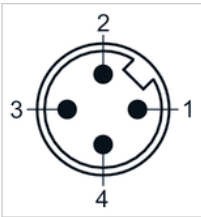
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M12x1, 4-pin, A-coded, angled, 90°, Plug, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V, AC/DC
Protection class	IP67
Weight	See table below
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Electrical connection	Max. current	suitable cable-Ø min./max	Weight
	1			
1834484223	Plug, M12x1, 4-pin, A-coded, angled, 90°	4 A	4 mm	0,02 kg
1834484246	Plug, M12x1, 4-pin, A-coded, straight, 180°	4 A	2,1 / 3 mm	0,024 kg

Part No.	Fig.
1834484223	Fig. 1
1834484246	Fig. 2

For the duo plug, the cable diameter to be used varies between 2.1 ... 3.0 mm and 4.0 ... 5.0 mm depending on the seal used.

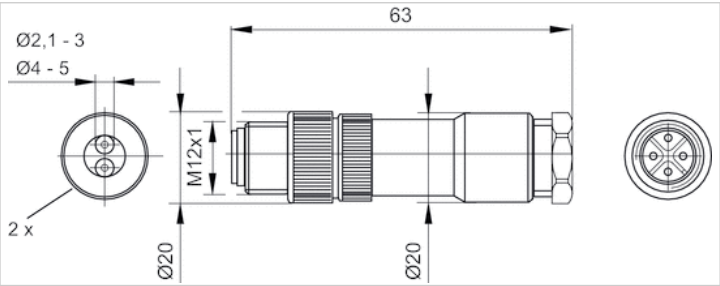
Technical information

The specified protection class is only valid in assembled and tested state.
Included: 2 seals for 2 cables each with Ø 2.1 mm ... 3.0 mm and Ø 4.0 mm ... 5.0 mm .

Technical information

Material	
Housing	Polyamide

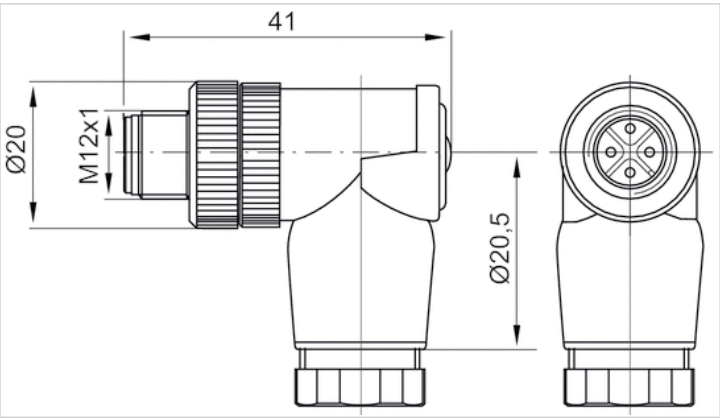
Fig. 2



duo plug

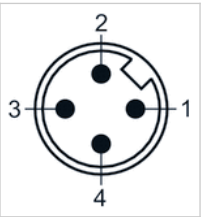
Dimensions

Fig. 1



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M12x1, 4-pin, D-coded, straight, 180°
- for Ethernet, EtherNET/IP, EtherCAT, POWERLINK, sercos III
- shielded



Connection type	Thread cutting
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,41 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
R419801401	4 A	6 mm

Technical information

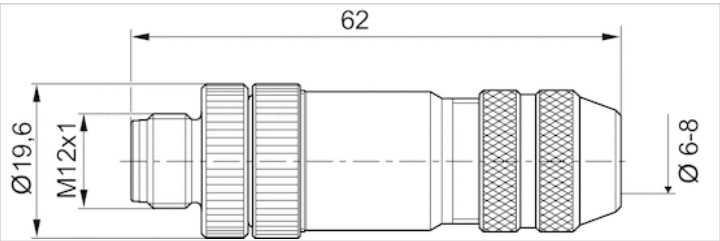
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated

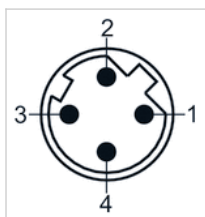
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, B-coded, straight, 180°
- for PROFIBUS DP
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-25 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,06 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054054	4 A	4 mm

Technical information

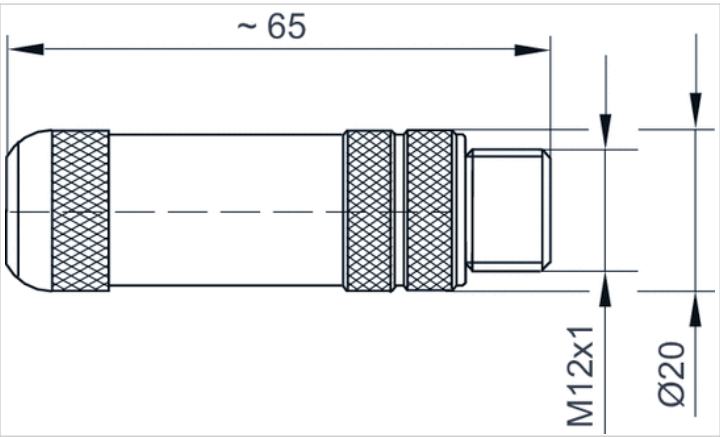
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated
Seals	Fluorocarbon caoutchouc

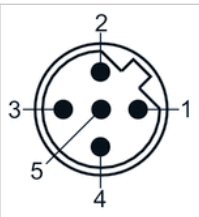
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,48 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8942051612	4 A	6 mm

Technical information

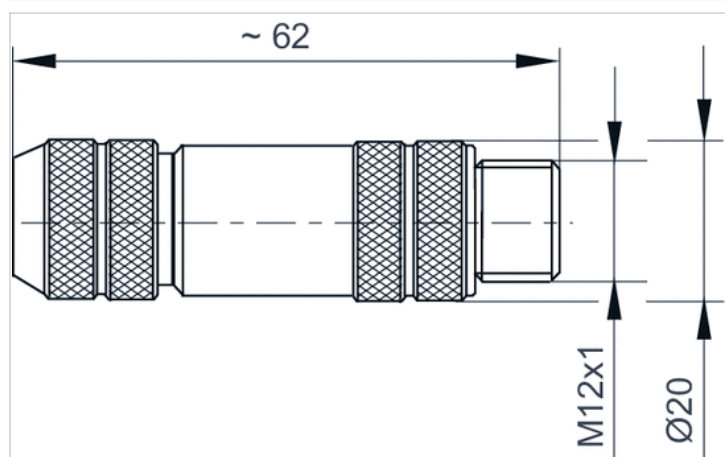
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated

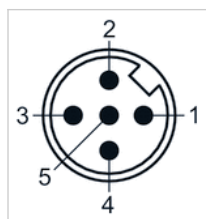
Dimensions

Dimensions



Pin assignments

Plug pin assignment



Y-Plug connector, series CON-AP

- 2, Plug, M12x1, 4-pin, A-coded, straight, 180°
- Socket, M8x1, 3-pin, A-coded, straight, 180°
- Socket, M8x1, 3-pin, A-coded, straight, 180°
- unshielded



Ambient temperature min./max.	-25 ... 90 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,02 kg
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Max. current
8941002382	4 A

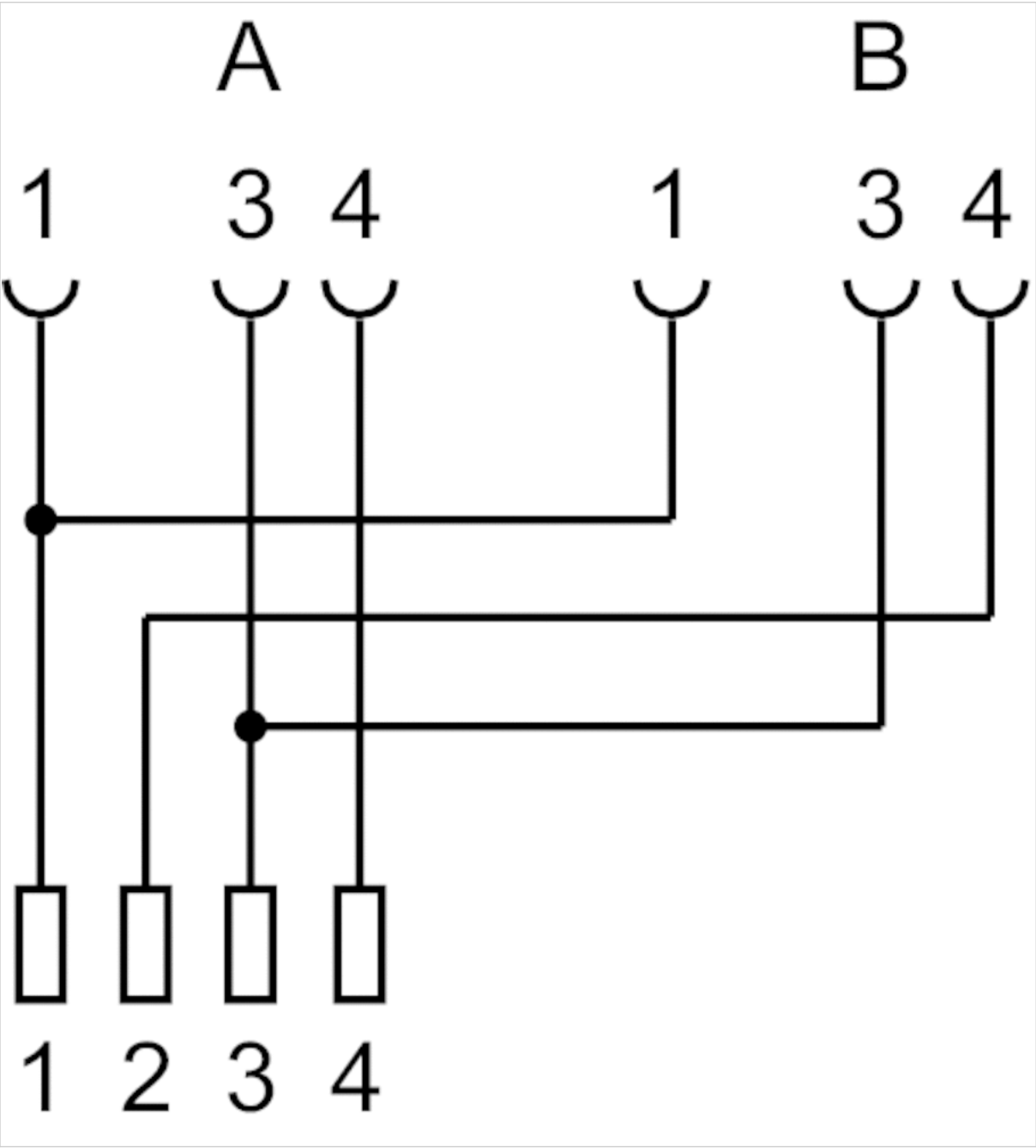
Technical information

The specified protection class is only valid in assembled and tested state.

Technical information

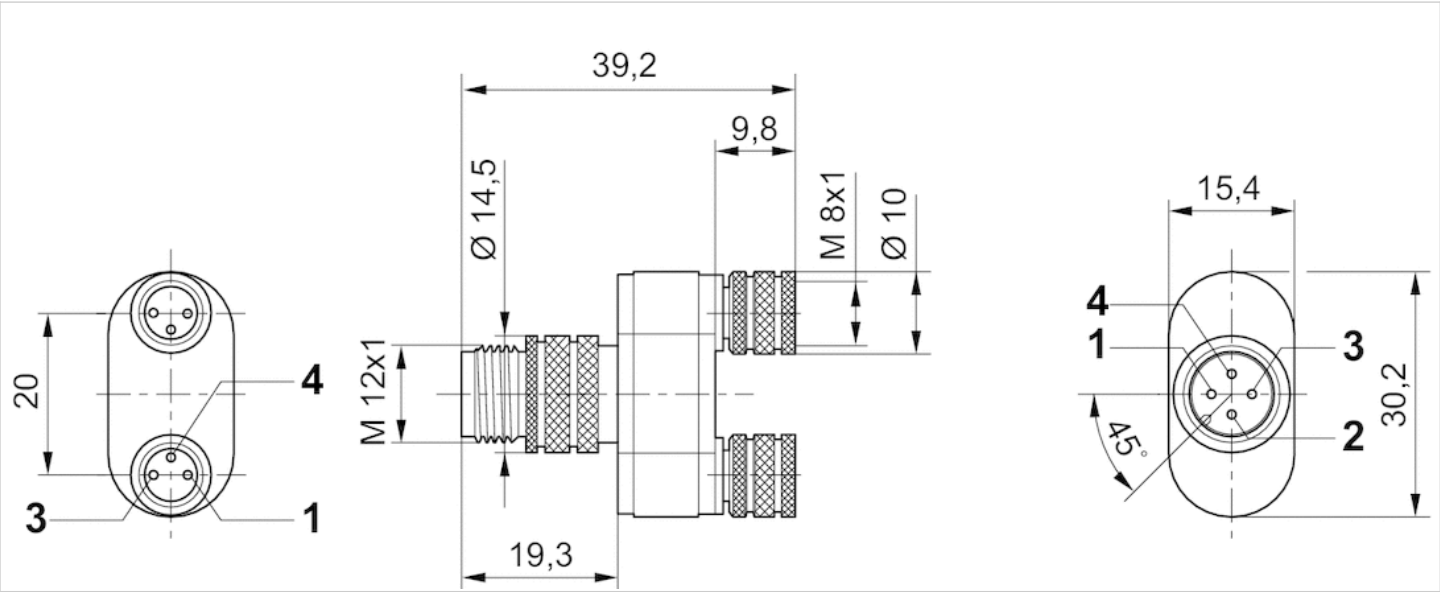
Material	
Housing	Polyurethane
Seals	Fluorocaoutchouc

Assignment scheme

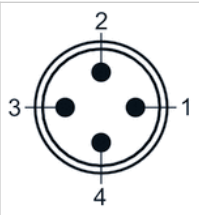


Dimensions

Dimensions

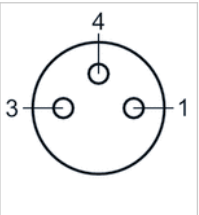


Plug pin assignment



Pin assignments

Pin assignment socket



Y-Plug connector, series CON-AP

- 2, Plug, M12x1, 5-pin, A-coded, straight, 180°
- Socket, A-coded, straight, 180°
- Socket, M12x1, 5-pin, A-coded, straight, 180°
- unshielded



Ambient temperature min./max.	-25 ... 90 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,029 kg
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Max. current
8941002392	4 A

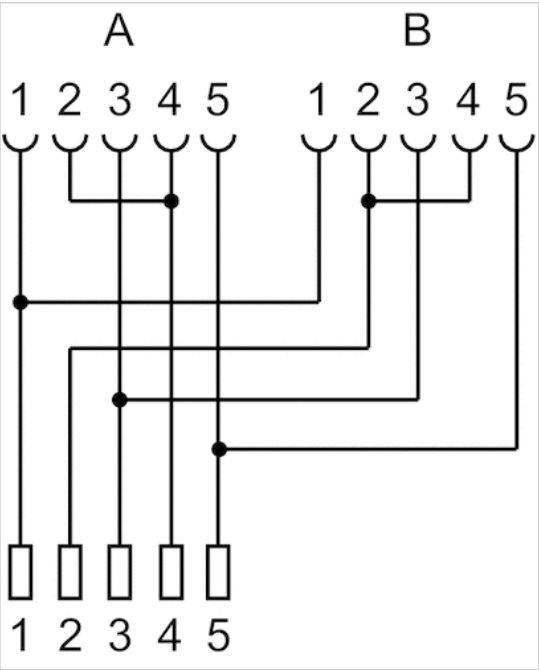
Technical information

The specified protection class is only valid in assembled and tested state.

Technical information

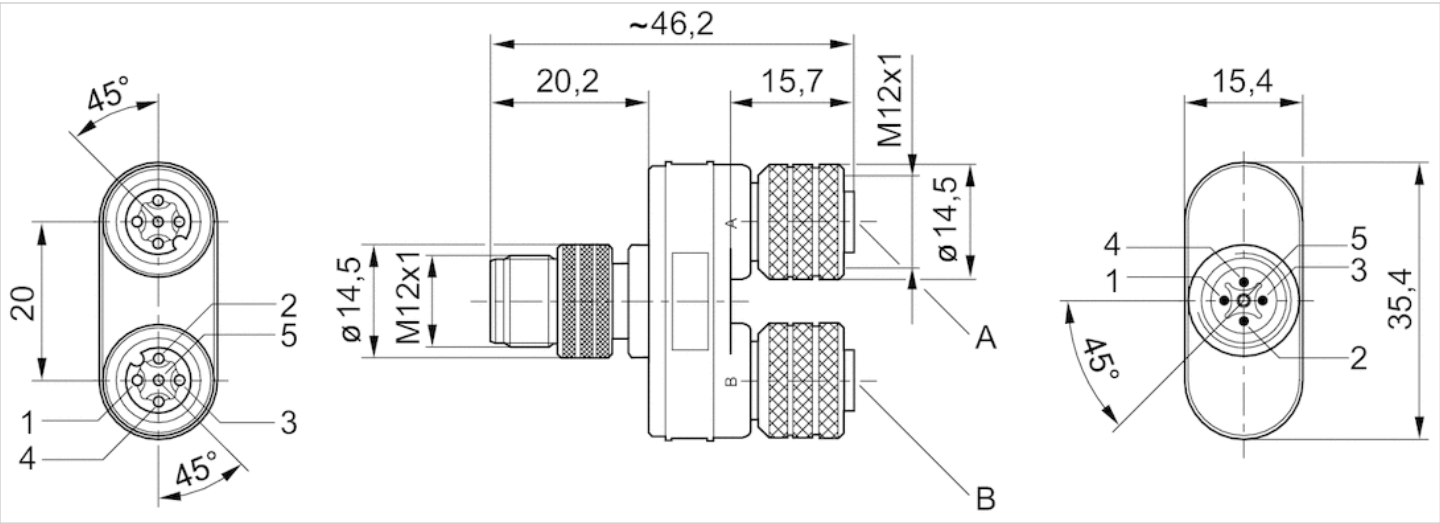
Material	
Housing	Polyurethane
Seals	Fluorocaoutchouc

Assignment scheme



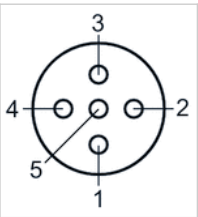
Dimensions

Dimensions



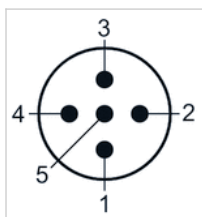
Sockets: Pin 2 and 4 bridged.

Pin assignment socket



Pin assignments

Plug pin assignment



Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-25 ... 90 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,029 kg
The delivered product may vary from that in the illustration.	

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054324	4 A	4 mm

Technical information

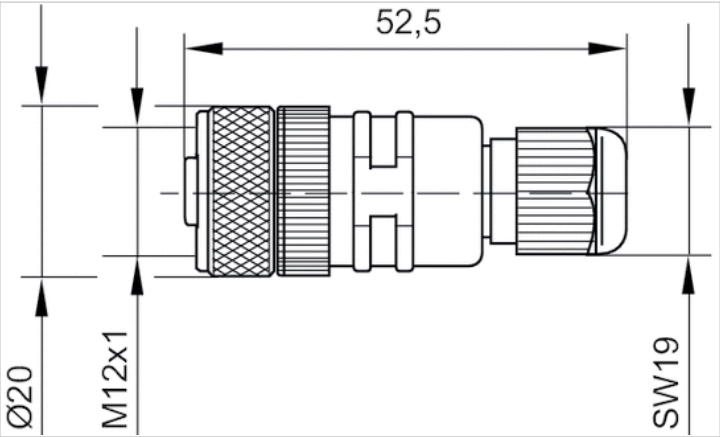
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polybutyleneterephthalate
Seals	Fluorocarbon caoutchouc

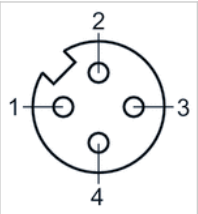
Dimensions

Dimensions



Pin assignments

Pin assignment socket



Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, angled, 90°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-25 ... 90 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,027 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054424	4 A	4 mm

Technical information

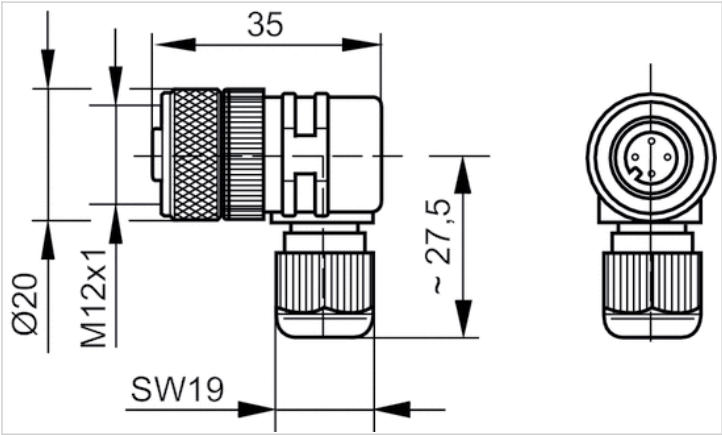
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polybutyleneterephthalate
Seals	Fluorocarbon caoutchouc

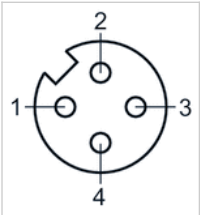
Dimensions

Dimensions



Pin assignments

Pin assignment socket



Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,051 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8942051602	4 A	6 mm

Technical information

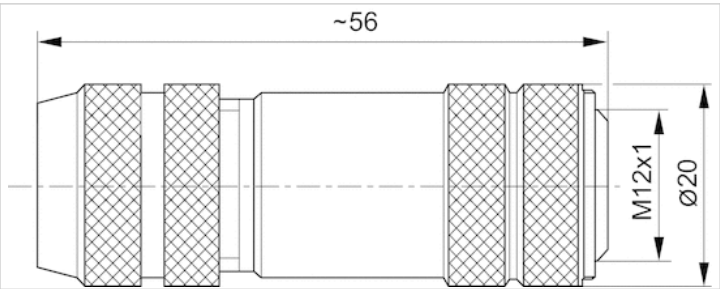
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Brass, nickel-plated

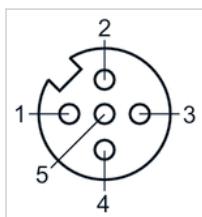
Dimensions

Dimensions



Pin assignments

Pin assignment socket



Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, B-coded, straight, 180°
- for PROFIBUS DP
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operationalvoltage	48 V, AC/DC
Protection class	IP67
Weight	0,06 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
8941054044	4 A	6 / 8 mm

Technical information

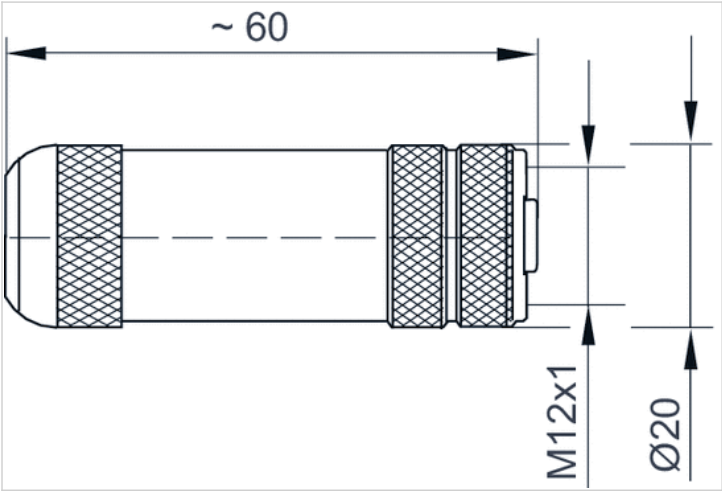
The specified protection class is only valid in assembled and tested state.

Technical information

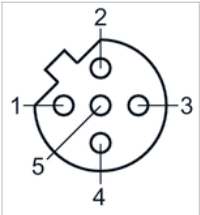
Material	
Housing	Brass, nickel-plated
Seals	Fluorocarbon caoutchouc

Dimensions

Dimensions



Pin assignments



Distributor, Series AES

- 4x passive distributor, M12x1, 8-pin / 4x M8x1, 3-pin
- Plug (male), M12x1, 8-pin



Ambient temperature min./max.	-30 ... 80 °C
Operational voltage electronics	24 V DC
Power consumption electronics	2 A
Protection class	IP67
Weight	0,07 kg

Technical data

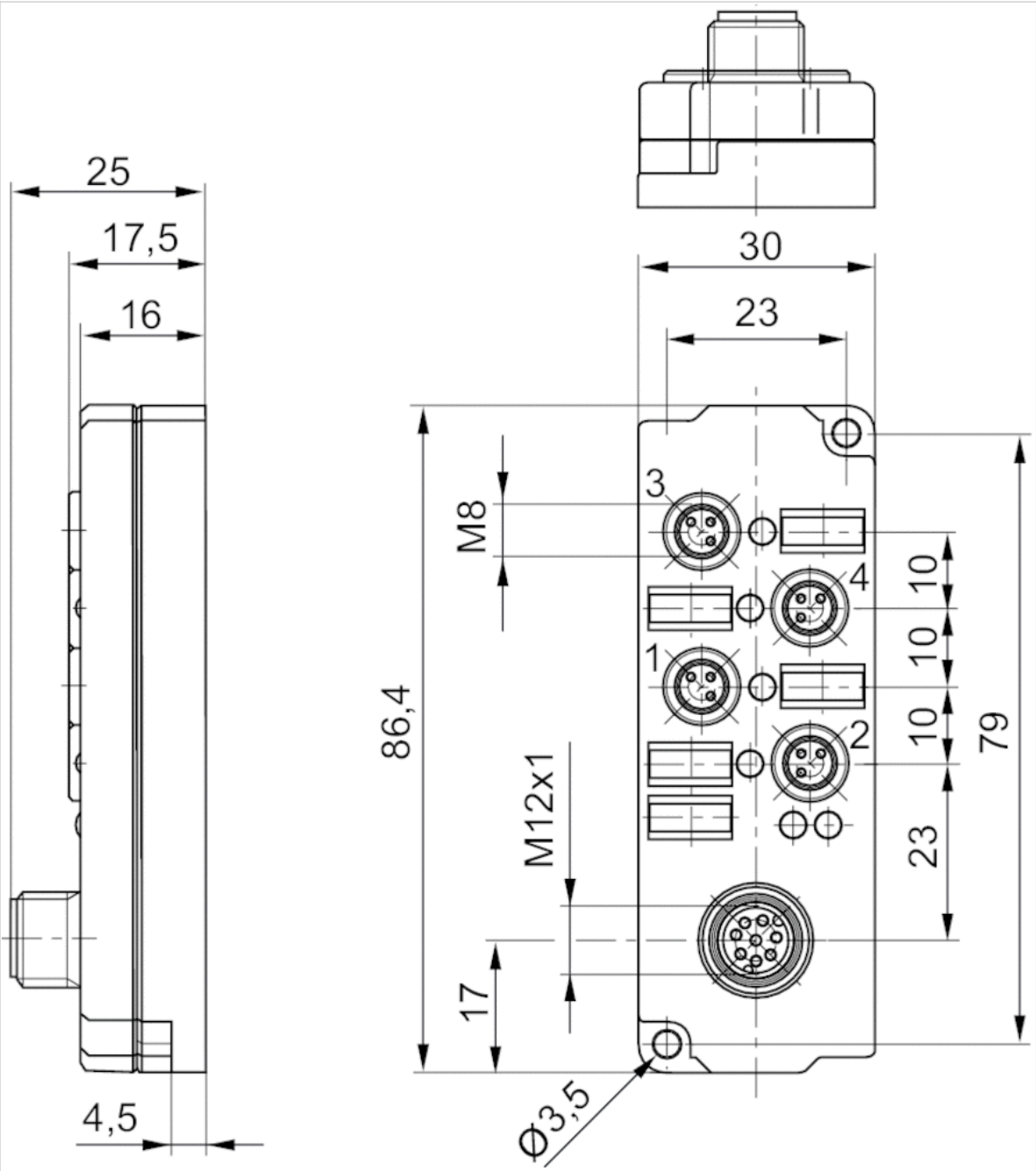
Part No.	Type	Port	
		1	2
R402001810	16DI4M12, 16DI8M8	Plug (male), M12x1, 8-pin	Socket (female), M8x1, 3-pin

Technical information

Material	
Housing	Polyamide

Dimensions

Dimensions



Protective cap, series CON-RD

- M8x1



Ambient temperature min./max.

-40 ... 85 °C

Protection class

IP67

Weight

0,001 kg

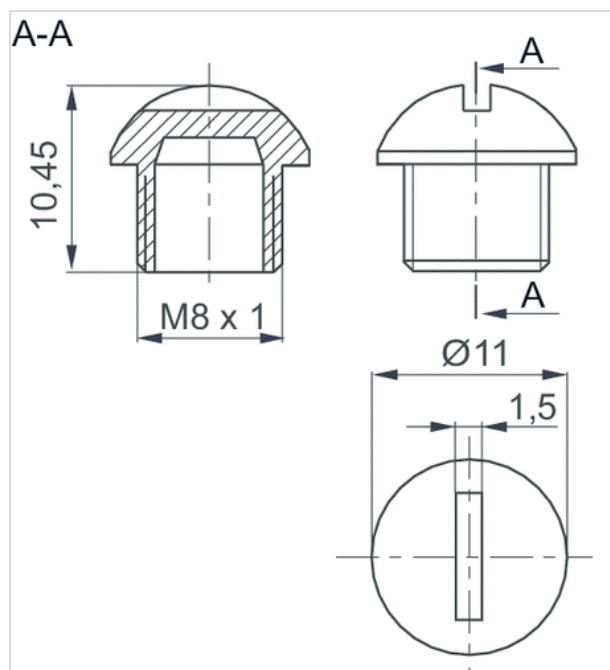
Technical data

Part No.	Type	Scope of delivery
R412003493	M8x1	25

Technical information

Material	
Housing	Polyamide

Dimensions



Protective cap, series CON-RD

- M12x1



Ambient temperature min./max.	-40 ... 85 °C
Protection class	IP67
Weight	0,001 kg

Technical data

Part No.	Type	Delivery unit
1823312001	M12x1	50 piece

Technical information

Material	
Housing	Polyamide

Dimensions

