

## Series AES



**AVENTICS™**

**AVENTICS Series AES Field bus  
modules**

  
**EMERSON™**

## Series AES

The AVENTICS Series AES fieldbus connection can be integrated into all AVENTICS fieldbus-compatible valve systems or can also be configured as a stand-alone solution. AES connects your AVENTICS valve system to all relevant fieldbus protocols and offers the integration of I/O-modules and enables optimized decentralized wiring of sensors. The integration of the Digital Twin enables users to be IIoT ready and use the AES to solve their interoperability challenges.

- Smallest dimensions
- Protection class IP65
- Special I/O-modules for pneumatic applications
- Optimized wiring
- OPC UA integration allows for easy access to data and analytics without changing or touching the PLC
- The integrated Digital Twin improves your productivity and efficiency



## Product overview

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## Product overview

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### Bus coupler, series AES

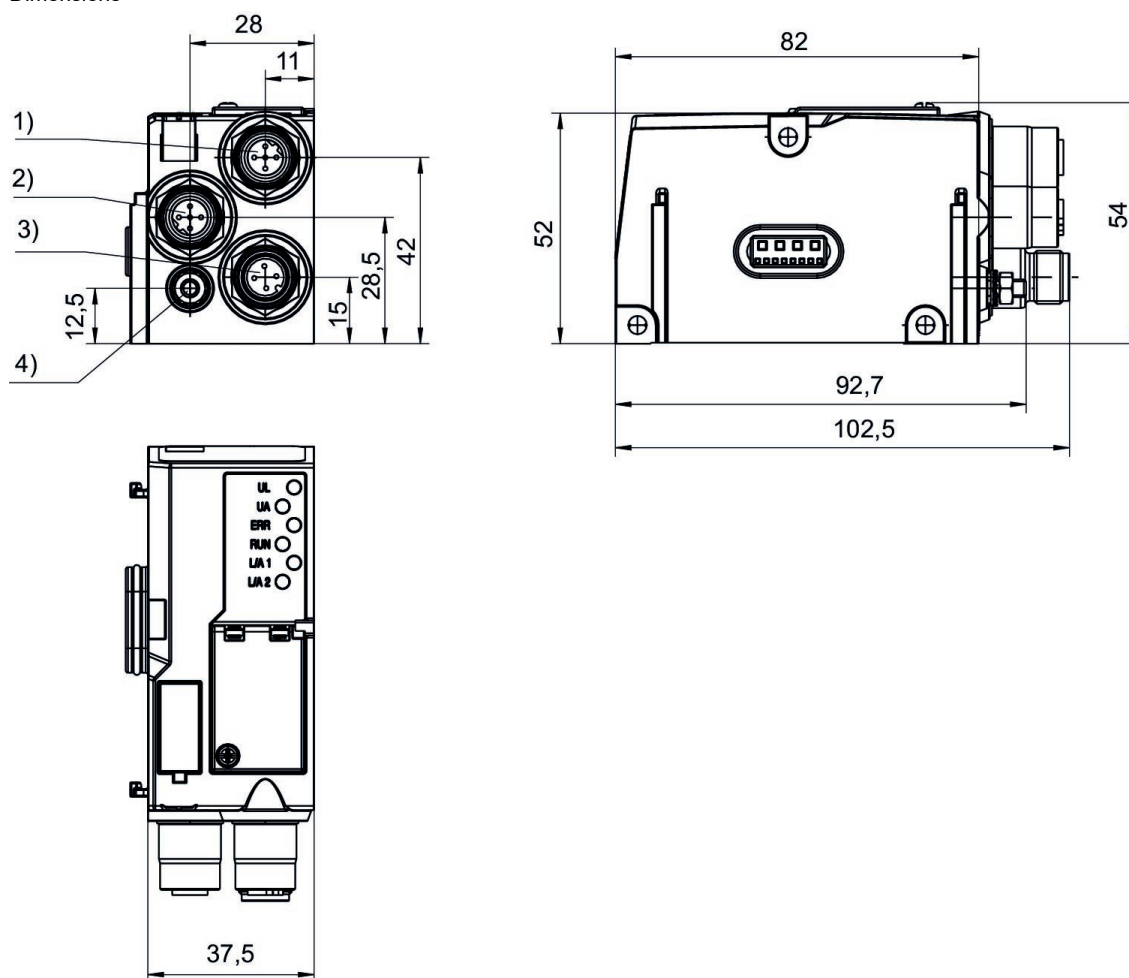
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Fieldbus protocol	Power plug IN, Type	Power plug IN size , Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
	PROFIBUS DP	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018218
	CANopen	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018220
	DeviceNet	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018221
	EtherNet/IP	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018222
	PROFINET IO	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018223
Generation 2, Notice: supports MRP and IRT (RT_CLASS 3)	PROFINET IO	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412088223
	EtherCAT	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018225
Generation 2	EtherCAT	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412088225
	POWERLINK	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412018226

Dimensions



1) Fieldbus connection 2) Fieldbus connection 3) Power supply 4) Functional ground

### Bus coupler, series AES

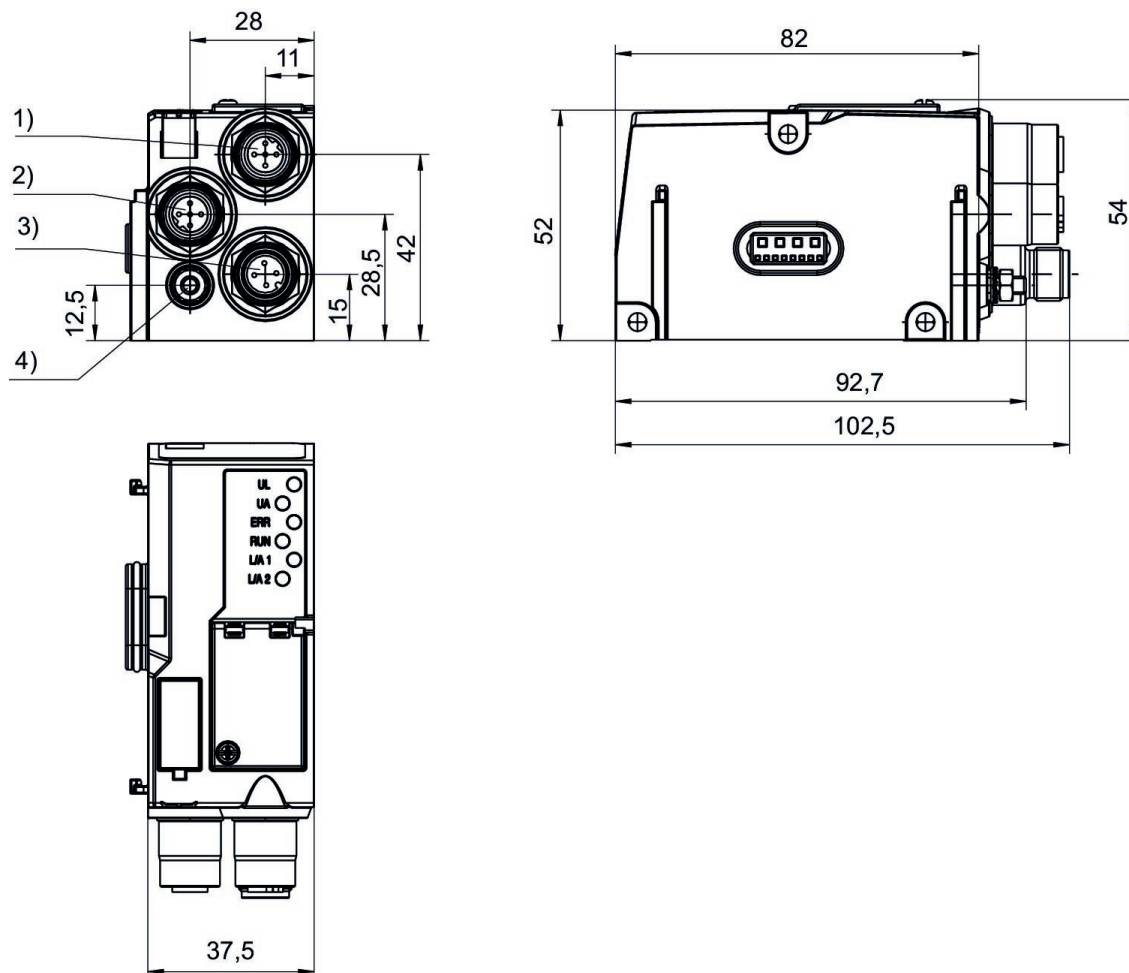
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Fieldbus protocol	Power plug IN, Type	Power plug IN size, Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
Generation 2, Notice: supports DLR	EtherNet/IP	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412088222

Dimensions



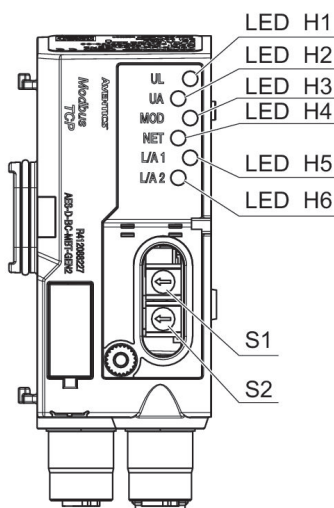
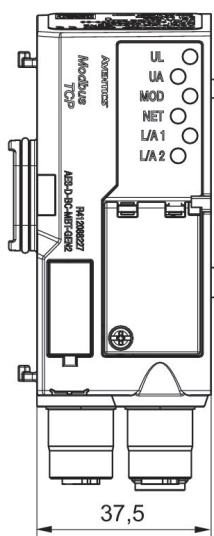
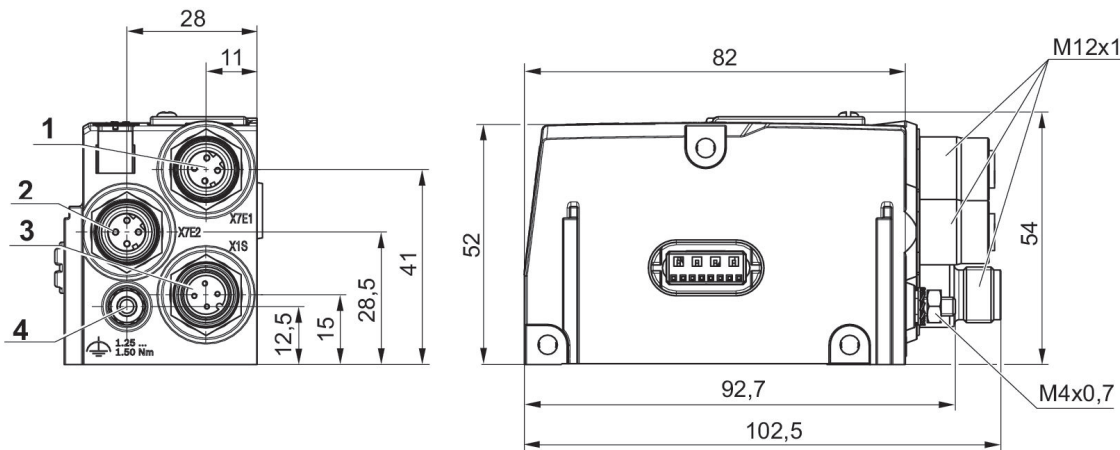
1) Fieldbus connection 2) Fieldbus connection 3) Power supply 4) Functional ground

Bus coupler, series AES



Type	Fieldbus protocol	Power plug IN, Type	Power plug IN size, Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
Generation 2	MODBUS TCP	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412088227

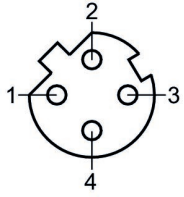
Dimensions



1) Fieldbus connection 2) Fieldbus connection 3) Power supply 4) Functional ground

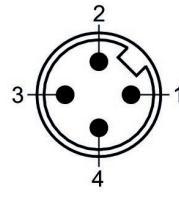
**R412088227**

Pin assignment, socket



**R412088227**

Plug pin assignment



### Bus coupler, series AES

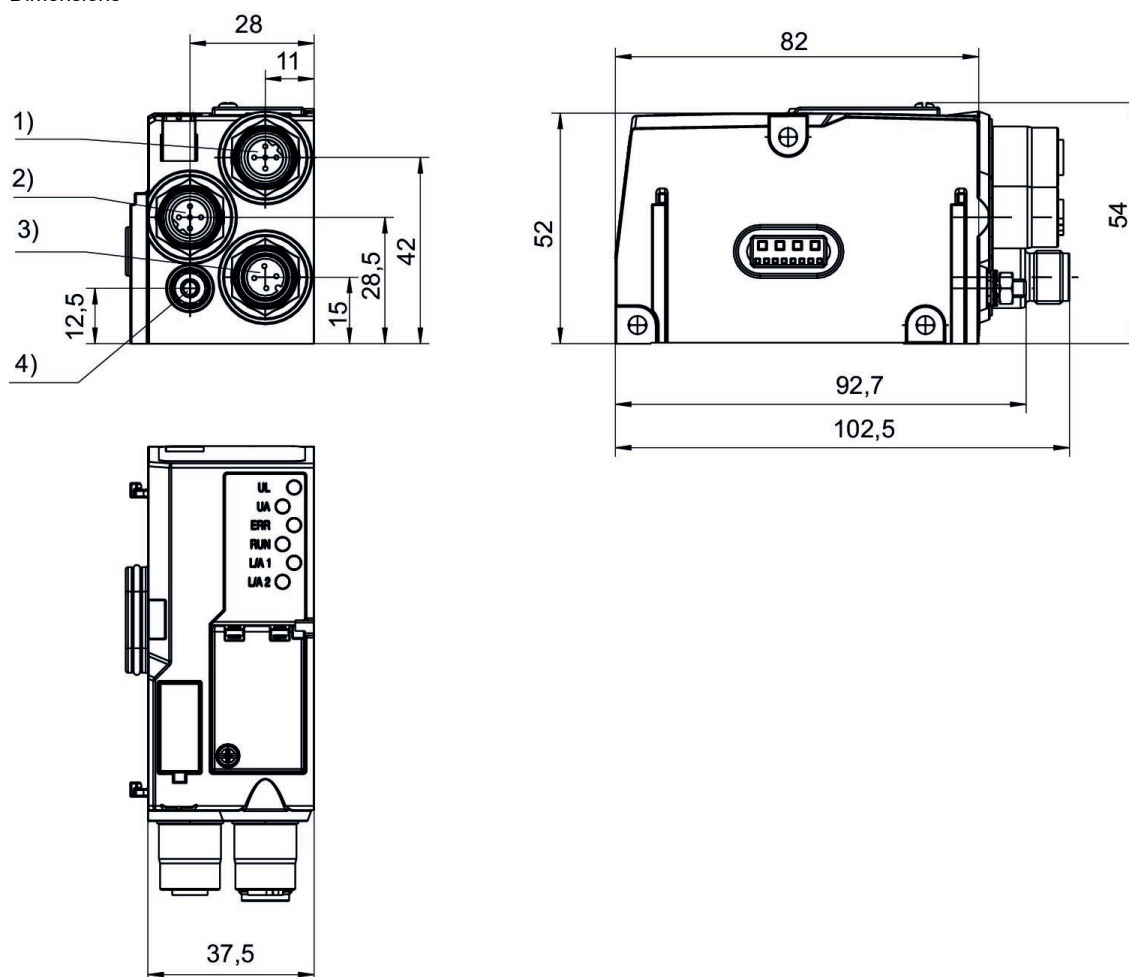
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Fieldbus protocol	Power plug IN, Type	Power plug IN size, Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
Generation 2	POWERLINK	Plug	M12x1	4-pin	connection with I/O	512 inputs / 512 outputs	R412088226

Dimensions



1) Fieldbus connection 2) Fieldbus connection 3) Power supply 4) Functional ground

**I/O modules, series AES**

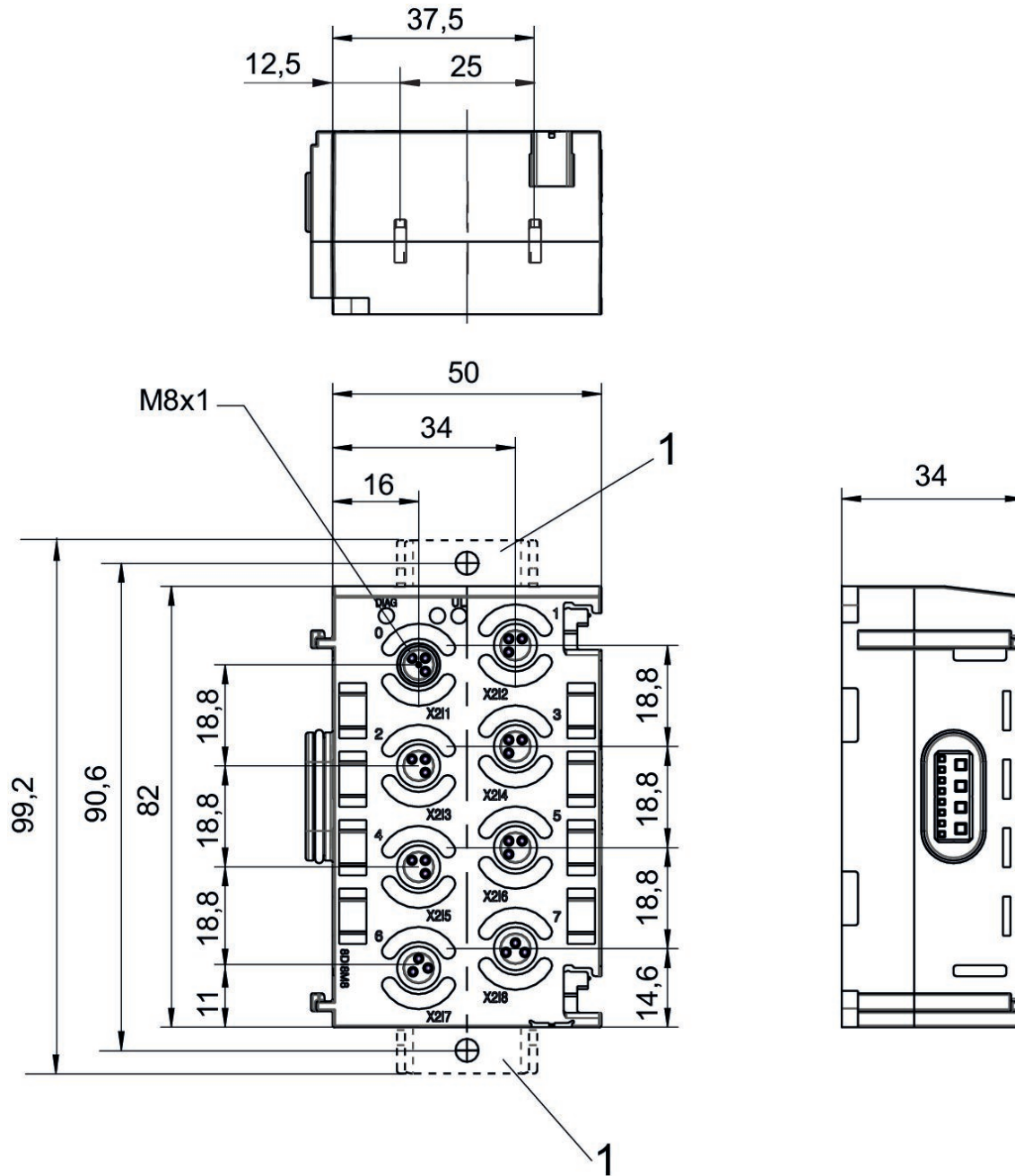
Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
8DIDO8M8	Internal	connection with I/O	8 inputs / 8 outputs	R412018269
8DI8M8	Internal	connection with I/O	8 inputs	R412018233
8DO8M8	Internal	connection with I/O	8 outputs	R412018248
16DI8M8	Internal	connection with I/O	16 inputs	R412018234



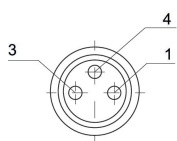
Dimensions



1) Retaining bracket (optional)  
Pin assignment M8x1 (3-pin)

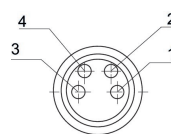
**R412018269, R412018233, R412018248**

Pin assignments



**R412018234**

Pin assignments



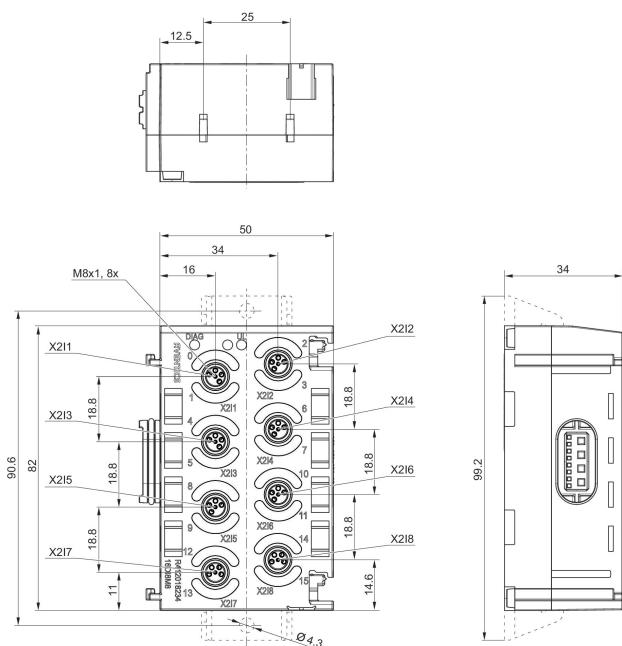
PNP

Pin	Input module	Output module
1	24 V DC	-
3	0 V DC	0 V DC
4	Input signal	Output signal

Pin	Input module
1	24 V DC sensor voltage
2	Input signal (most significant bit)
3	0 V DC sensor voltage
4	Input signal (lower order bit)

### R412018234

#### Dimensions



1) Retaining bracket (optional)  
Pin assignment M8x1 (4-pin)

I/O modules, series AES

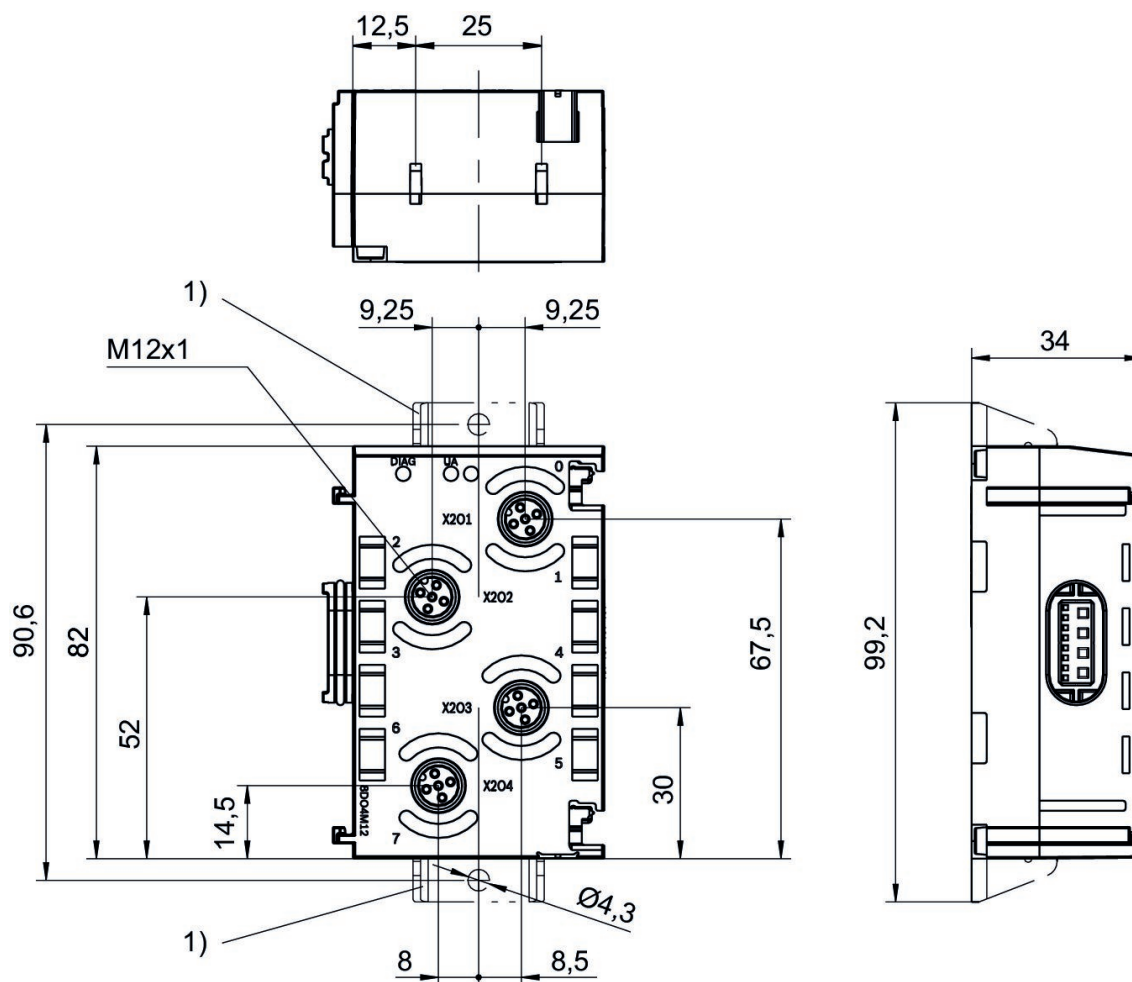
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
8DI4M12	Internal	connection with I/O	8 inputs	R412018235
8DO4M12	Internal	connection with I/O	8 outputs	R412018250
8DIDO4M12	Internal	connection with I/O	8 inputs / 8 outputs	R412018270

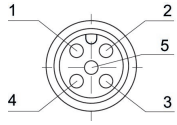
Dimensions



1) Retaining bracket (optional)

**R412018235, R412018250, R412018270**

Pin assignments



Pin	Input module	Output module
1	24 V DC	-
2	Input signal [X+1]	Output signal [X+1]
3	0 V DC	0 V DC
4	Input signal [X]	Output signal [X]
5	-	-

X = bit value

**I/O modules, series AES**

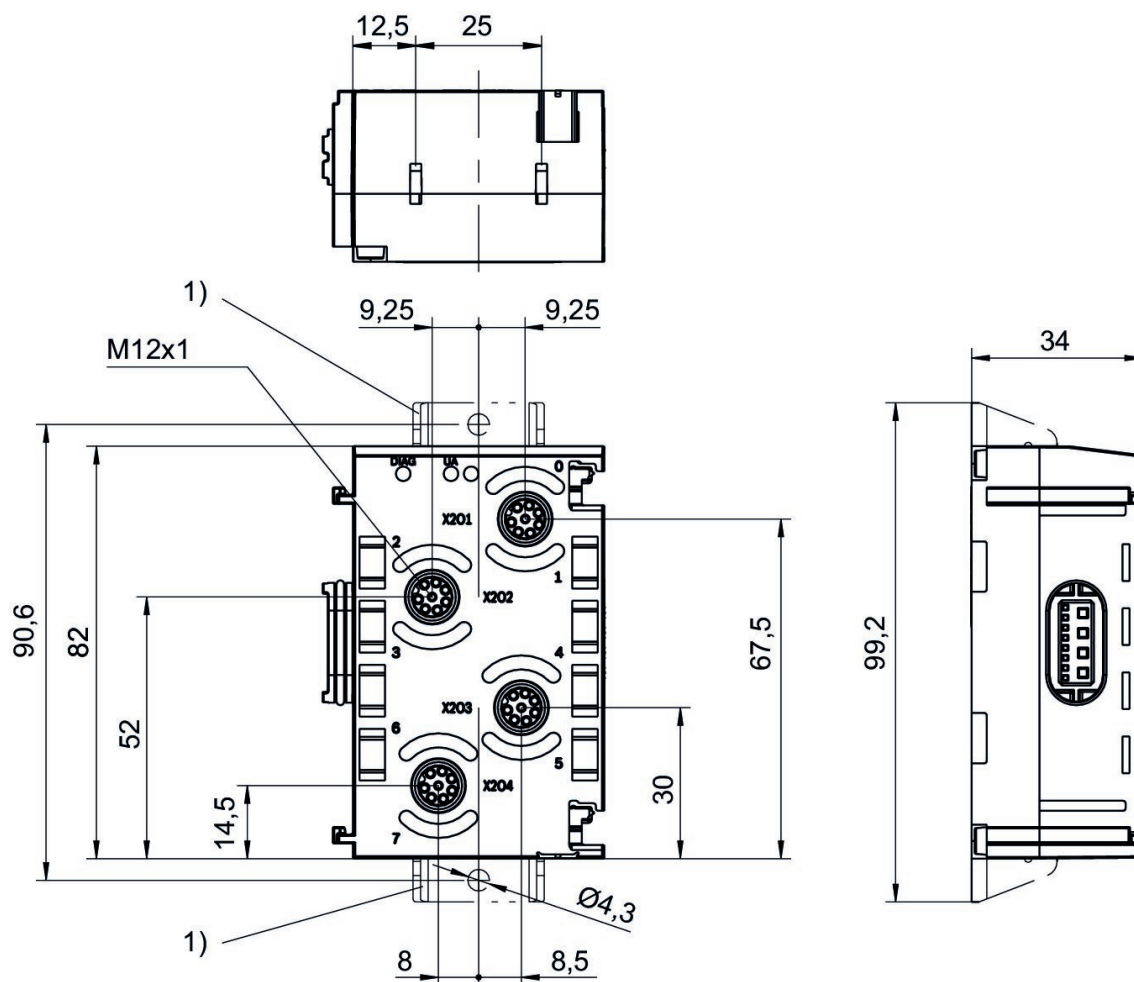
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
16DI4M12	Internal	connection with I/O	16 inputs	R412018243
16DO4M12	Internal	connection with I/O	16 outputs	R412018263

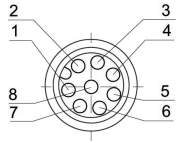
Dimensions



1) Retaining bracket (optional)

**R412018243, R412018263**

Pin assignments

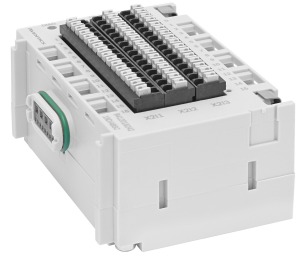


Pin	Input module	Output module
1	Input signal [X]	Output signal 24 V DC [X]
2	Input signal [X+1]	Output signal 24 V DC [X+1]
3	Input signal [X+2]	Output signal 24 V DC [X+2]
4	Input signal [X+3]	Output signal 24 V DC [X+3]
5	24 V DC	-
6	-	-
7	0 V DC	0 V DC
8	-	-
X = bit value		

X = bit value

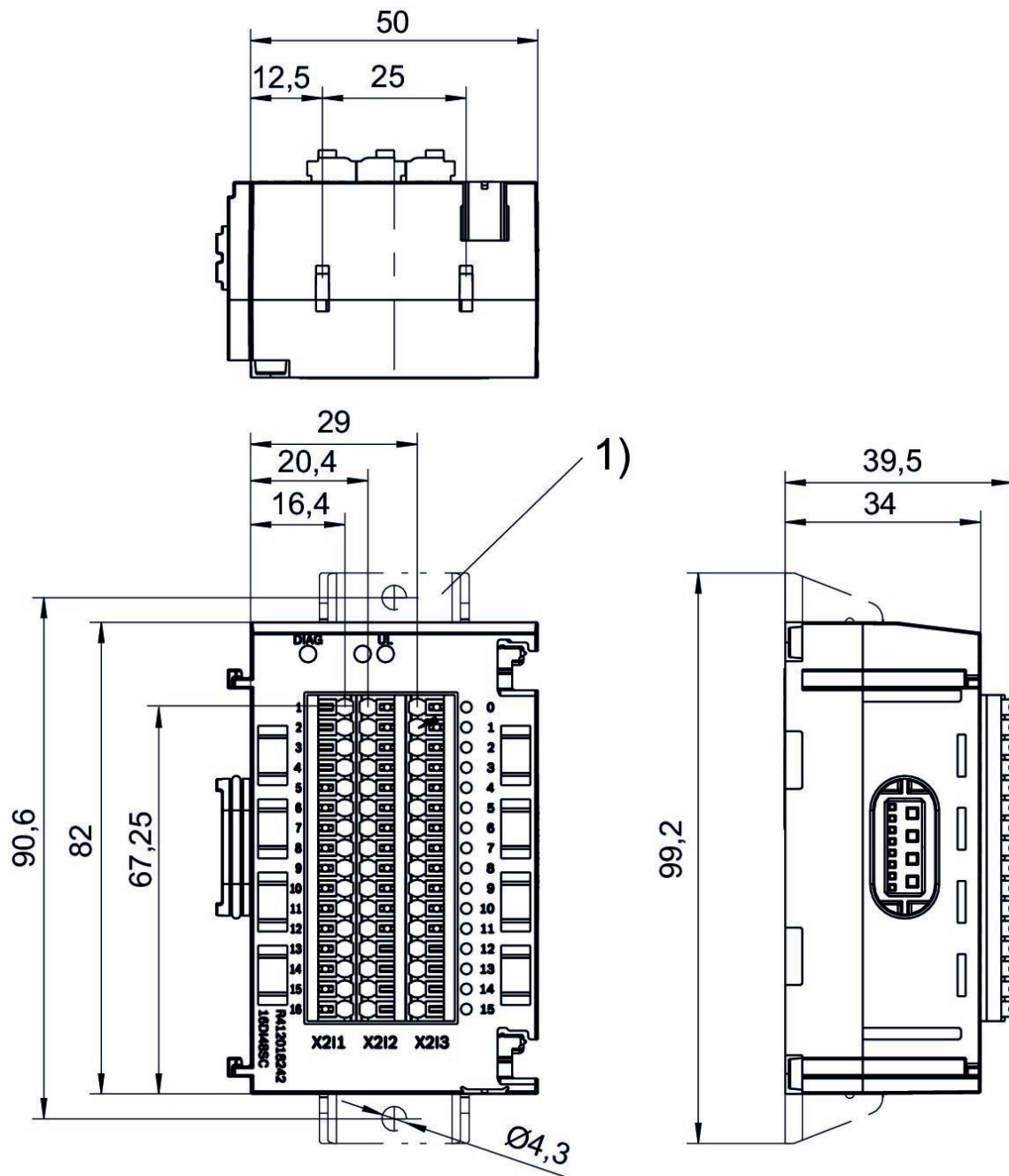
**I/O modules, series AES**

Electrical connection 2, thread size: Internal  
 Min. ambient temperature: -10 °C  
 Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
16DI48SC	Internal	connection with I/O	16 inputs	R412018242

Dimensions

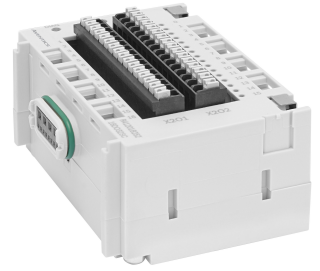


1) Retaining bracket (optional)



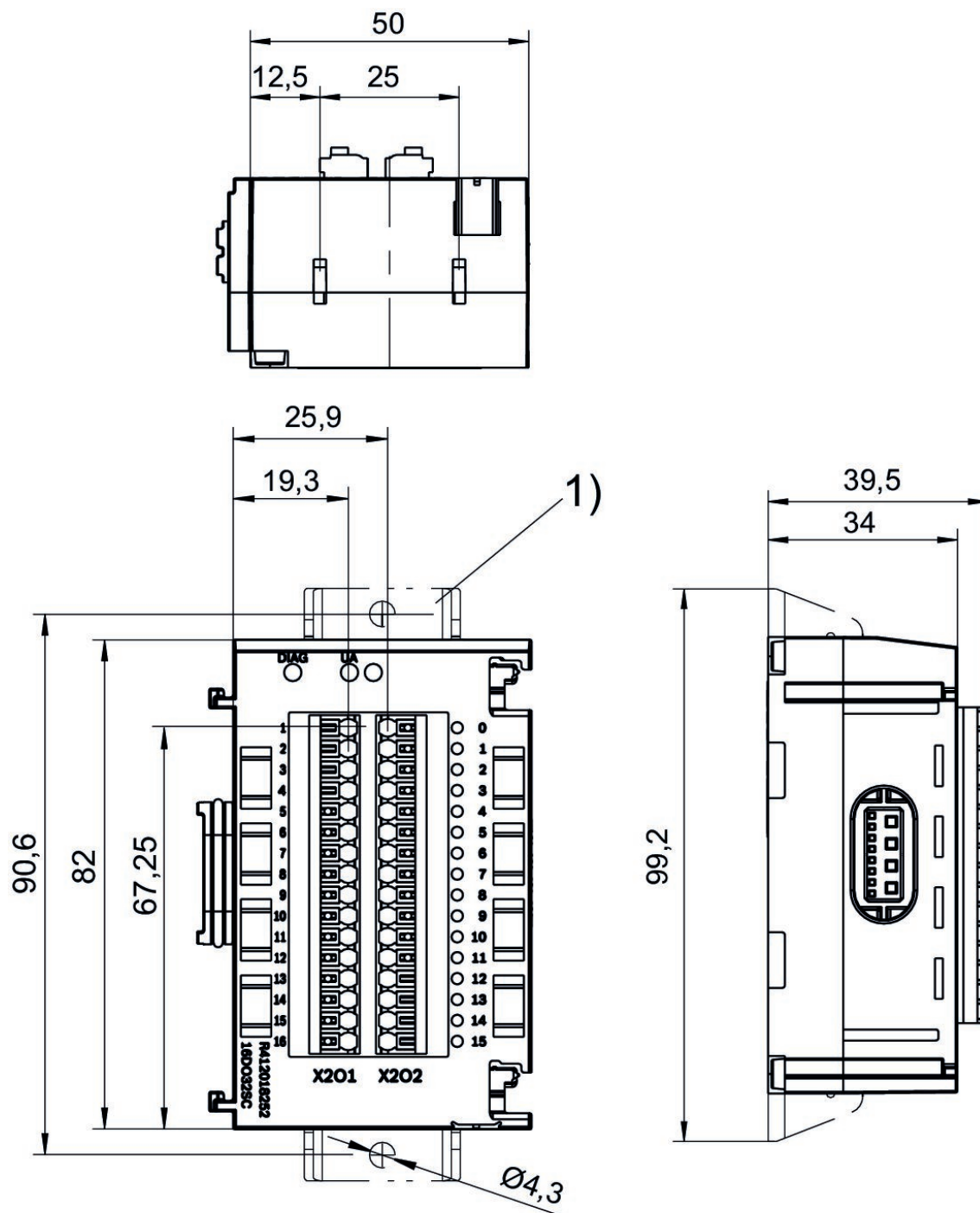
**I/O modules, series AES**

Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
16DO32SC	Internal	connection with I/O	16 outputs	R412018252

Dimensions



1) Retaining bracket (optional)

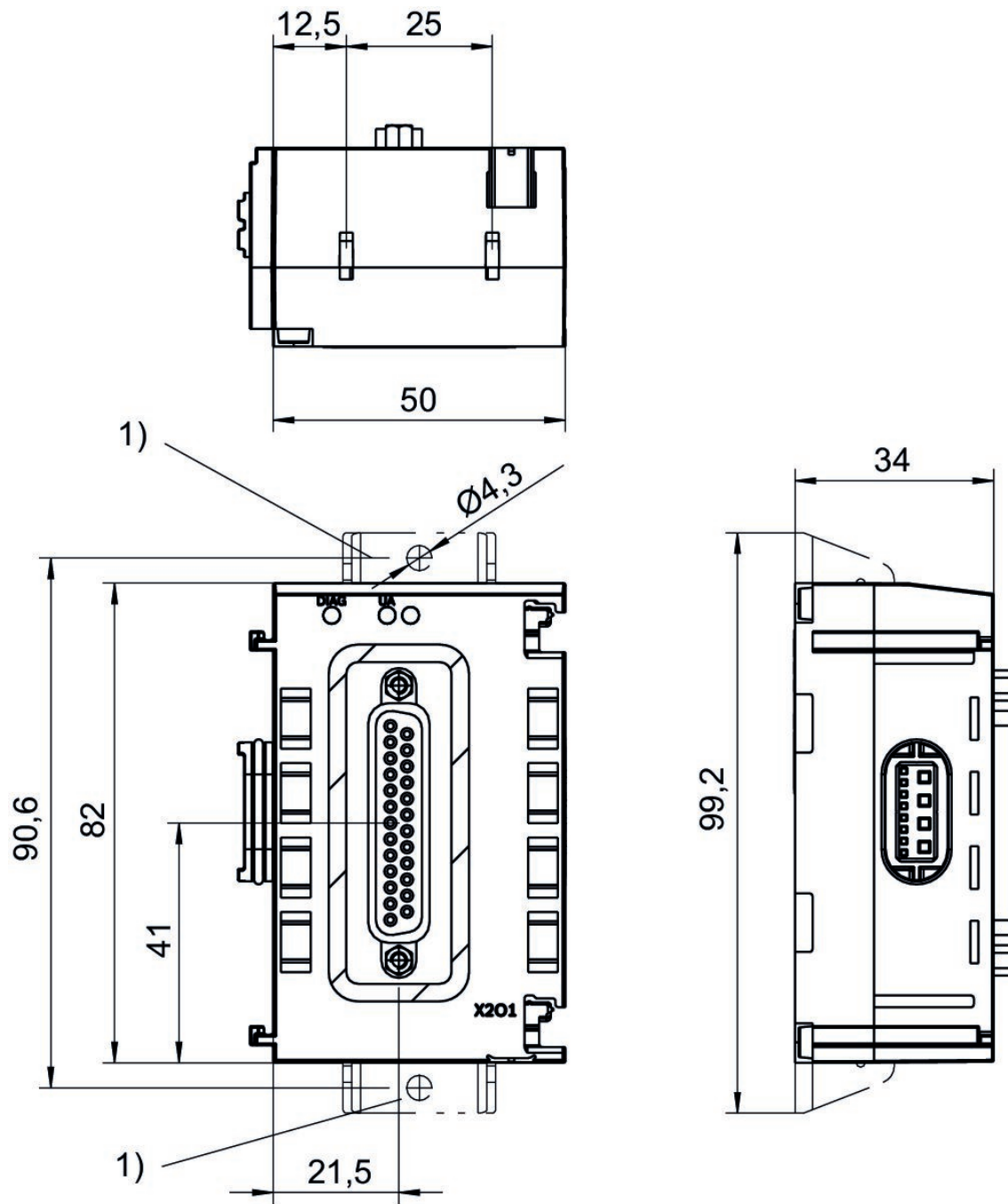
**I/O modules, series AES**

Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
24DO1DSUB25	Internal	connection with I/O	24 outputs	R412018254

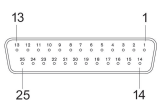
Dimensions



1) Retaining bracket (optional)

**R412018254**

PIN assignment and cable colors



Socket

Pin	Output module
1	[X]
2	[X+0.1]
3	[X+0.2]
4	[X+0.3]
5	[X+0.4]
6	[X+0.5]
7	[X+0.6]
8	[X+0.7]
9	[X+1]
10	[X+1.1]
11	[X+1.2]
12	[X+1.3]
13	[X+1.4]
14	[X+1.5]
15	[X+1.6]
16	[X+1.7]
17	[X+2.0]
18	[X+2.1]
19	[X+2.2]
20	[X+2.3]
21	[X+2.4]
22	[X+2.5]
23	[X+2.6]
24	[X+2.7]
25	0 V DC

X = bit value

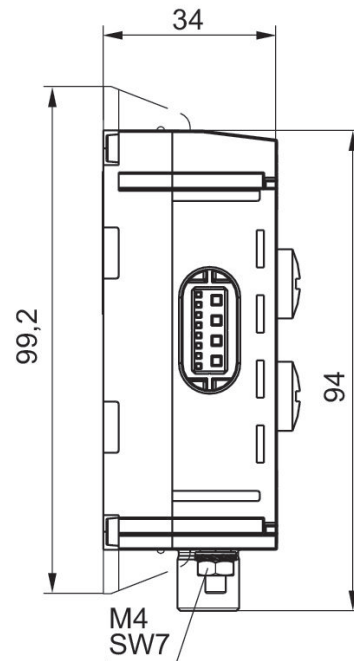
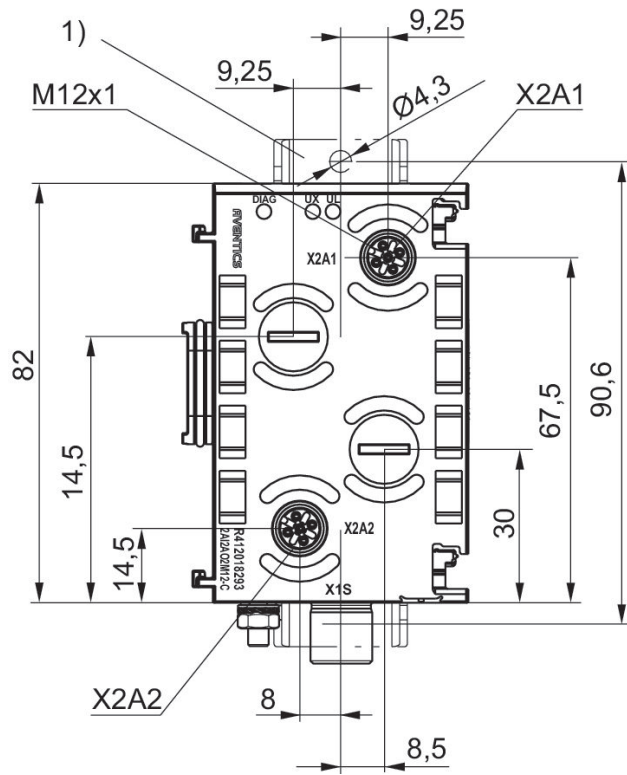
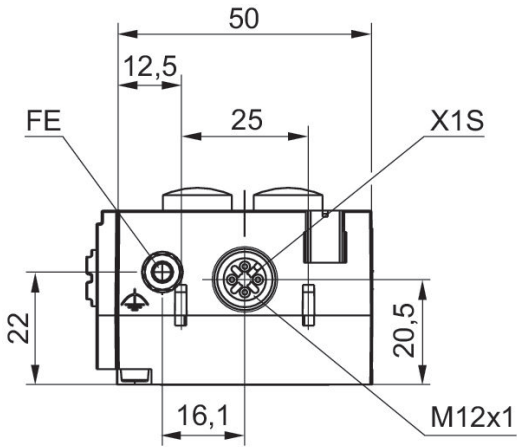
**I/O modules, series AES**

Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Power plug IN, Type	Power plug IN size , Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
2AI2AO2M12-C	Plug	M12x1	4-pin	connection with I/O	2 inputs / 2 outputs	R412018293

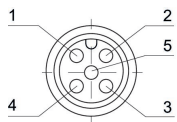
Dimensions



1) Retaining bracket (optional)

**R412018293**

Pin assignments



Pin	Socket (female) X2A1 - X2A2	Plug (male) X1S
1	24 V DC	-
2	Output signal	24 V DC
3	0 V DC	-
4	Input signal	0 V DC
5	Shield, connected internally with ground screw 2)	-



I/O modules, series AES

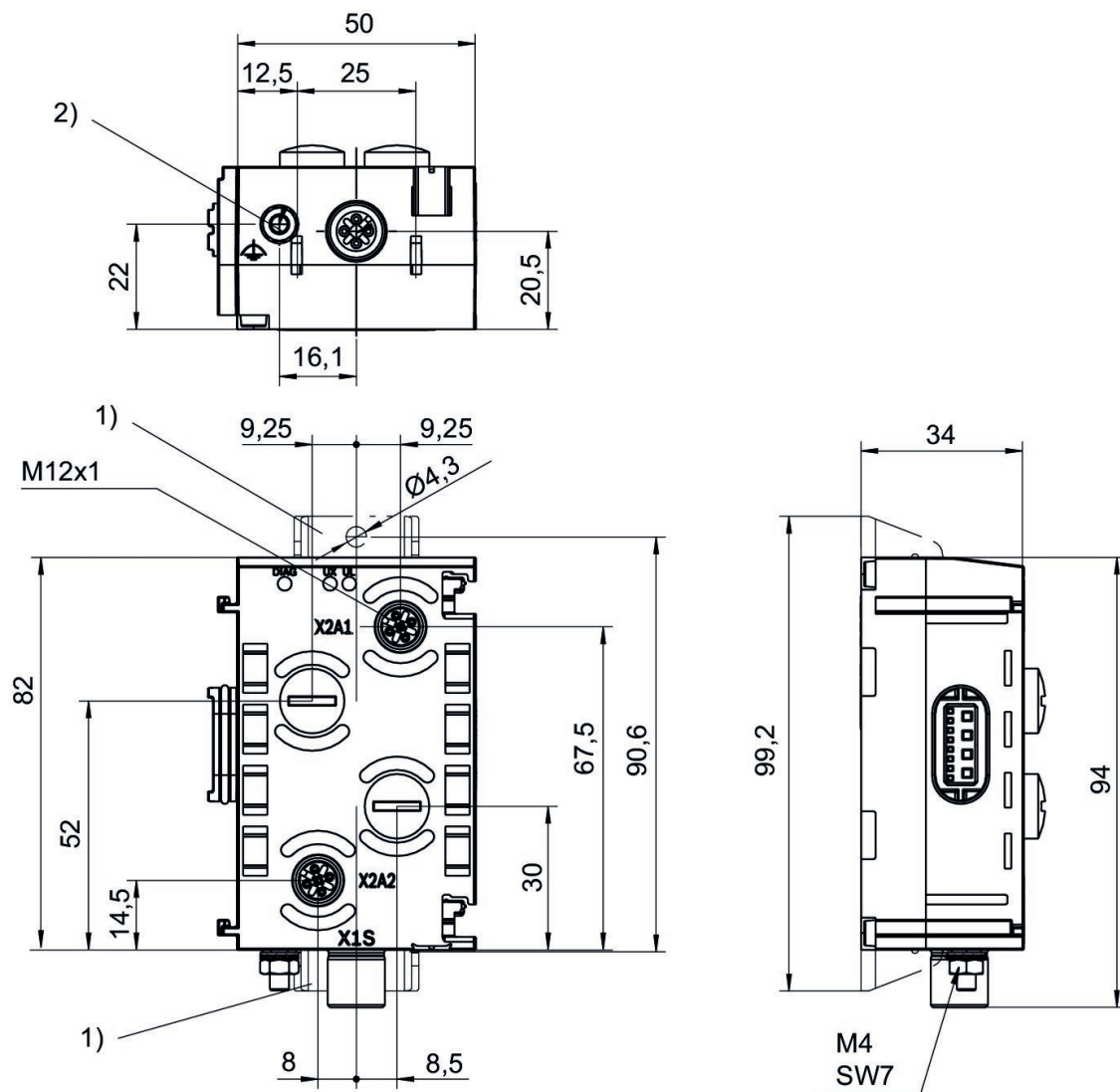
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Power plug IN, Type	Power plug IN size, Thread size	Power plug IN, Number of poles	E/A capable	Number of I/O connections	Part No.
2AI2AO2M12-AE	Plug	M12x1	4-pin	connection with I/O	2 inputs / 2 outputs	R412018287

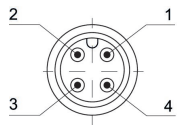
Dimensions



1) Retaining bracket (optional)

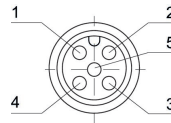
2) Ground

**R412018287**



**R412018287**

Pin assignments



Pin	Socket (female) X2A1 - X2A2	Plug (male) X1S
1	24 V DC	-
2	Output signal	24 V DC
3	0 V DC	-
4	Input signal	0 V DC
5	Shield, connected internally with ground screw 2)	-

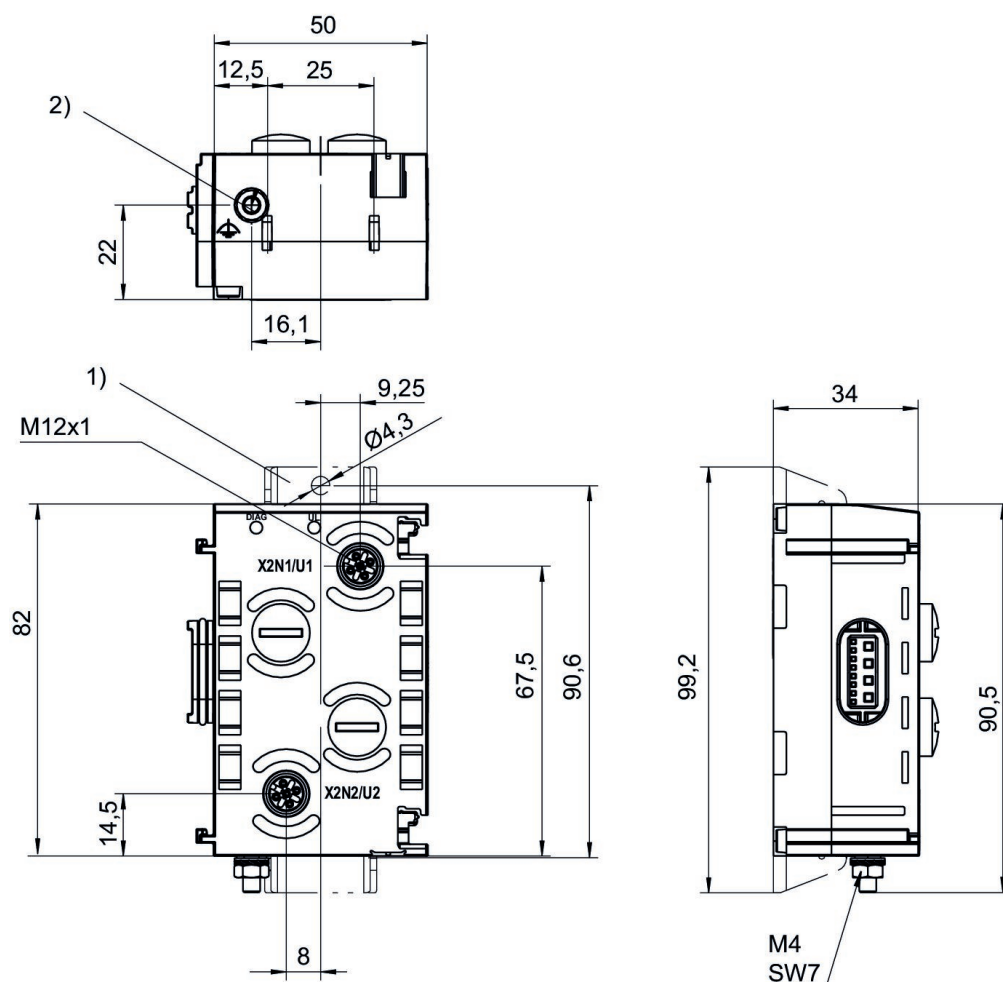
### I/O modules, series AES

Electrical connection 2, thread size: Internal  
Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
2AI2M12-E	Internal	connection with I/O	2 inputs	R412018277
4AI4M12-E	Internal	connection with I/O	4 inputs	R412018278
2AO2M12-E	Internal	connection with I/O	2 outputs	R412018281

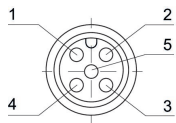
#### Dimensions



- 1) Retaining bracket (optional)
- 2) Ground

**R412018277, R412018278, R412018281**

Pin assignments



Pin	Socket (female) X2N1 - X2N2 2AI2M12-E	Socket (female) X2U1 - X2U4 4AI4M12-E	Socket (female) X2U1 - X2U2 2AO2M12-E
1	24 V DC	24 V DC	not assigned
2	Input signal (differential input, positive signal)	Input signal (differential input, positive signal)	Output signal
3	0 V DC	0 V DC	0 V DC
4	Input signal (differential input, negative signal, or connected externally to 0 V (pin 3))	Input signal (0 V, connected to pin 3 internally)	not assigned
5	Shield, connected internally with ground screw 2)	Shield, connected internally with ground screw 2)	Shield, connected internally with ground screw 2)

**I/O modules, series AES**

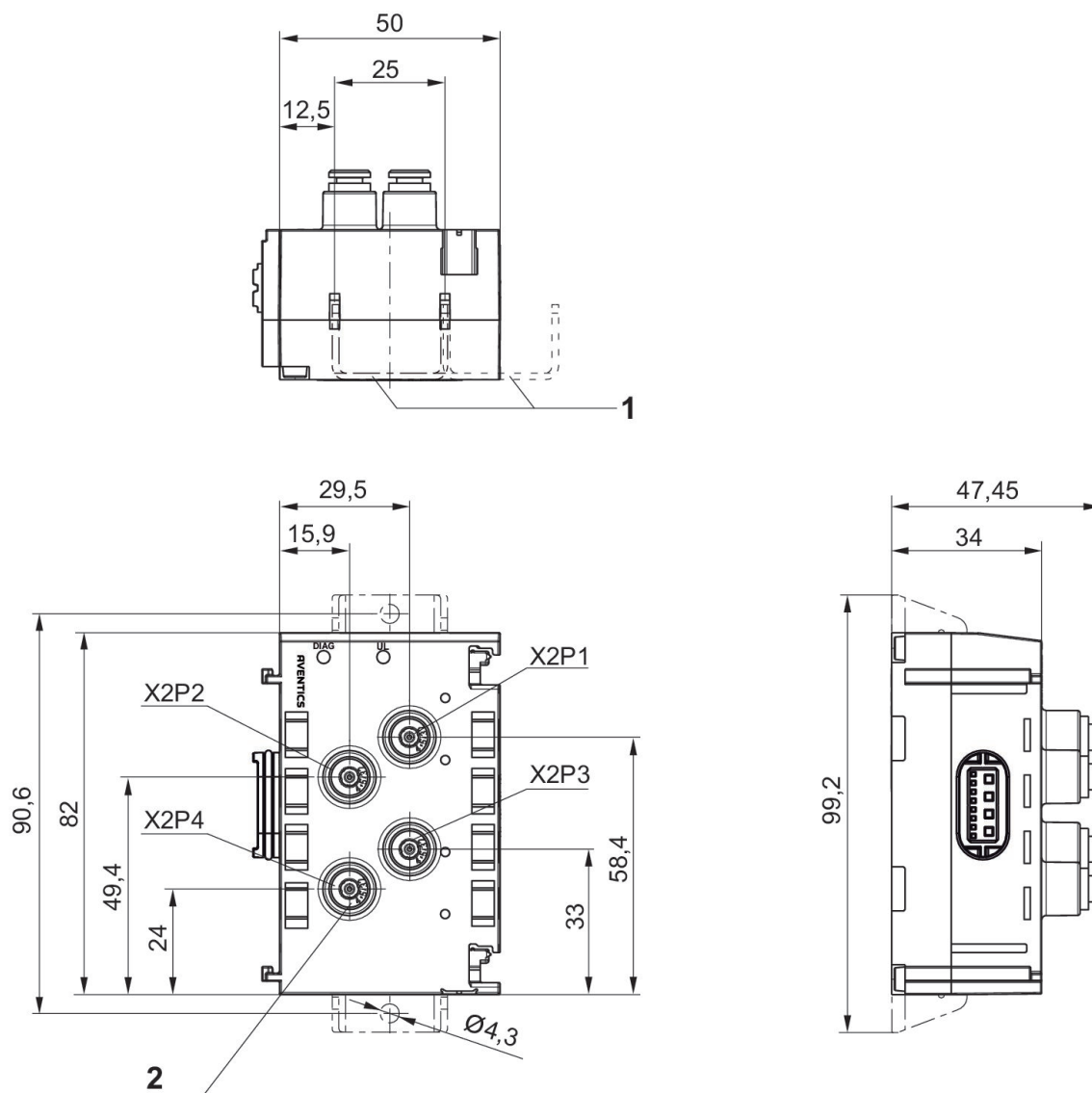
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



Type	Power plug IN, Type	E/A capable	Number of I/O connections	Part No.
4P4D4	Internal	connection with I/O	4 inputs	R412018291
4VP4D4	Internal	connection with I/O	4 inputs	R412018292

Dimensions



- 1) Retaining bracket (optional)
- 2) Blanking plug included in scope of delivery

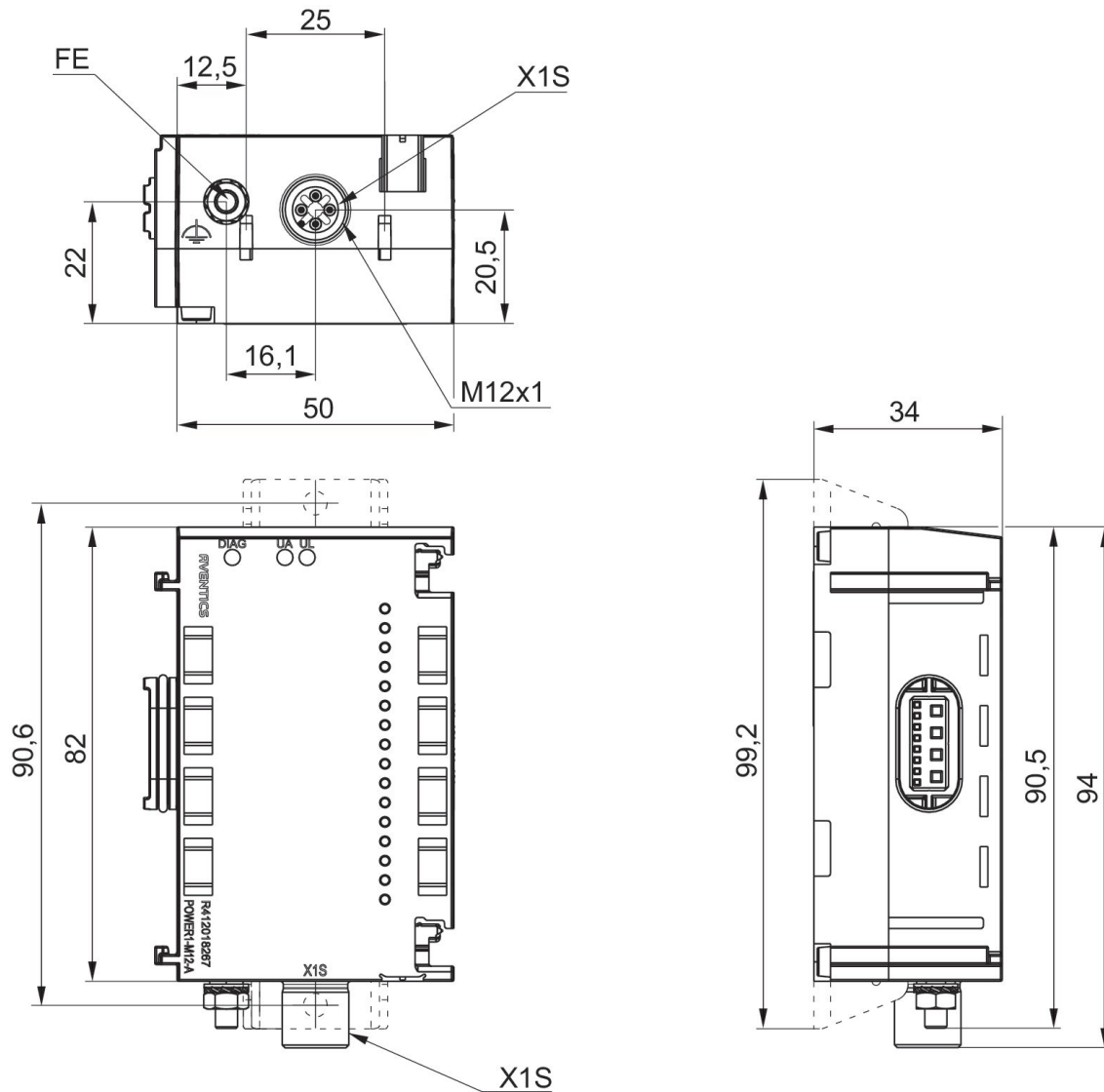
**Power module Series AES**

Electrical connection 2, thread size: Internal  
Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Power plug IN, Type	Power plug IN size, Thread size	Power plug IN, Number of poles	E/A capable	Power supply direction UA	Power supply direction UL	Part No.
Plug	M12x1	4-pin	connection with I/O	left		R412018267
Plug	M12x1	4-pin	connection with I/O		left	R412018268

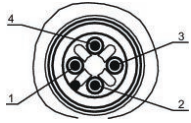
Dimensions



Port 1, X1S

**R412018267, R412018268**

Pin assignments



Pin	R412018267 (UA)	R412018268 (UL)
1	-	24 V DC power supply (UL) input
2	24 V DC power supply (UA) input	-
3	-	0 V DC (UL)
4	0 V DC (UA)	-

**Power module Series AES**

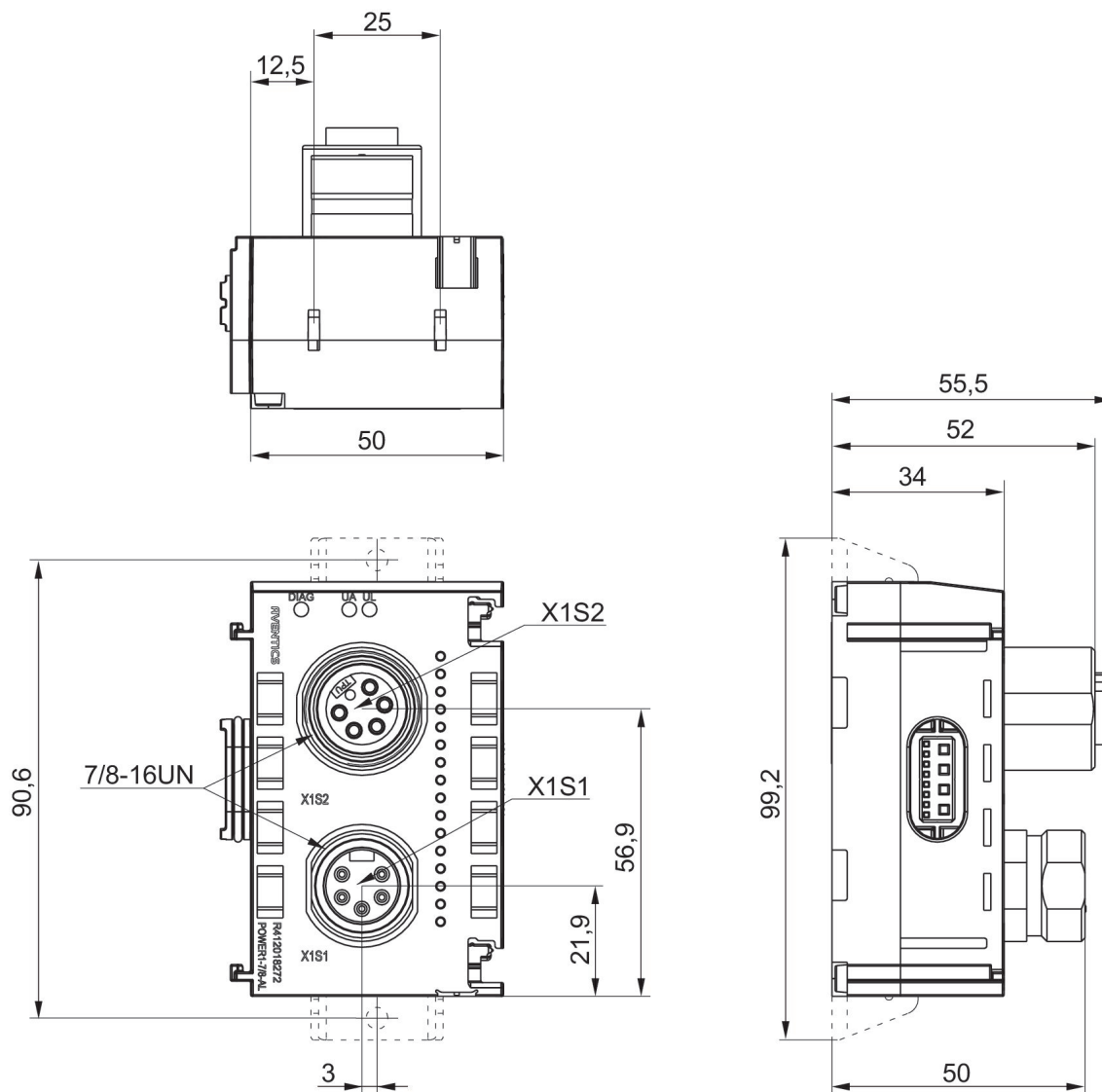
Electrical connection 2, thread size: Internal  
 Min. ambient temperature: -10 °C  
 Max. ambient temperature: 60 °C



Power plug IN, Type	Power plug IN size , Thread size	Power plug IN, Number of poles	Power plug OUT, Type	Power plug OUT size , Thread size	Power plug OUT, Number of poles	E/A capable	Part No.
Plug	7/8"-16UNF	5-pin	Socket	7/8"-16UNF	5-pin	connection with I/O	R412018272



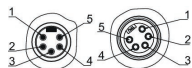
Dimensions



Port 1, X1S1  
Port 2, X1S2

**R412018272**

Pin assignments



Pin	Plug X1S1	Socket X1S2
1	0 V DC (UA)	0 V DC (UA)
2	0 V DC (UL)	0 V DC (UL)
3	FE	FE
4	24 V DC power supply (UL) input	24 V DC power supply (UL) output
5	24 V DC power supply (UA) input	24 V DC power supply (UA) output

### Extension kit, electrical supply plate

For series: AV03 AES

Electrical connection 2, thread size: M12

Electrical connection 2, number of poles: 4-pin

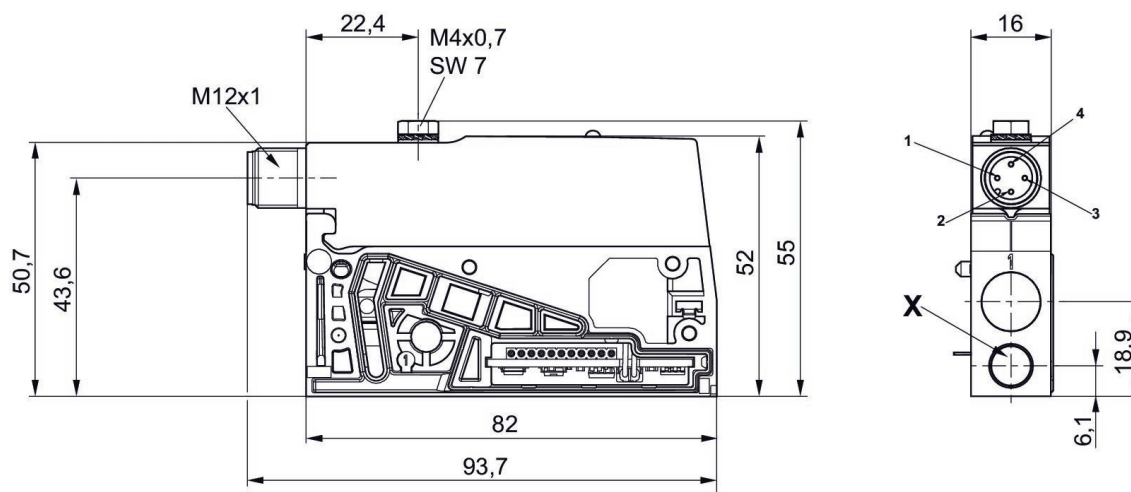
Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C



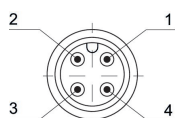
Plate type	Scope of delivery	Part No.
Assembly kit	Supply plate, incl. 1 seal, 1 tie rod, and 1 screw for extension	R412021748
Assembly kit	Supply plate, incl. 1 seal, 1 tie rod, and 1 screw for extension	R412021752

#### Dimensions



Pin assignment: 1 = (-), 2 = (24 V DC), 3 = (-), 4 = (0 V DC)

### R412021748, R412021752



Pin	Plug X1S
1	not assigned
2	24 V DC
3	not assigned
4	0 V DC (UA)

### Extension kit, electrical supply plate

For series: AV05 AES

Electrical connection 2, thread size: M12

Electrical connection 2, number of poles: 4-pin

Min. ambient temperature: -10 °C

Max. ambient temperature: 60 °C

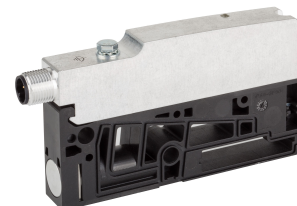
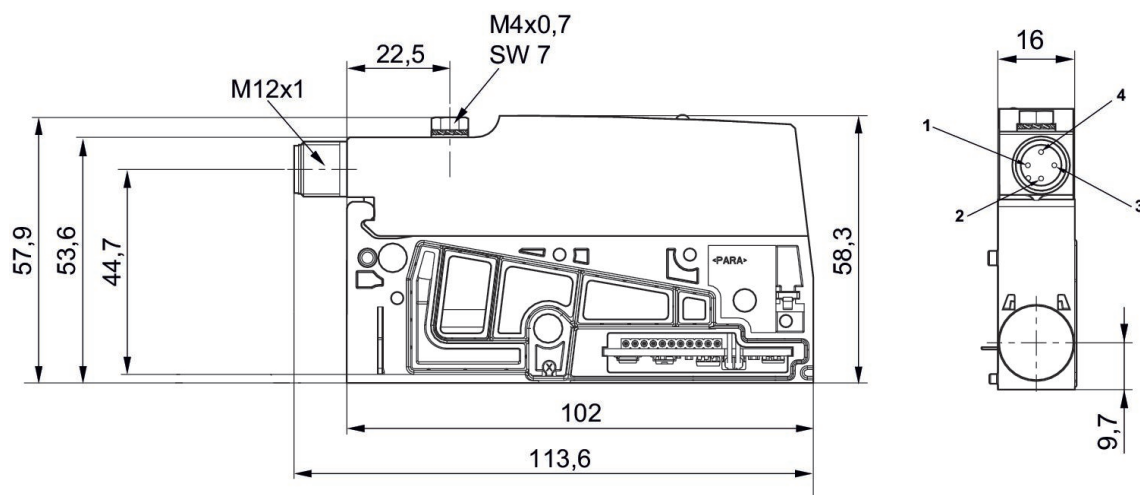


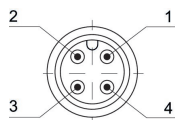
Plate type	Scope of delivery	Part No.
Assembly kit	Supply plate, incl. 1 seal, 2 tie rods, and 2 screws for extension	R412021778

#### Dimensions



Pin assignment: 1 = (-), 2 = (24 V DC), 3 = (-), 4 = (0 V DC)

### R412021778



Pin	Plug X1S
1	not assigned
2	24 V DC
3	not assigned
4	0 V DC (UA)

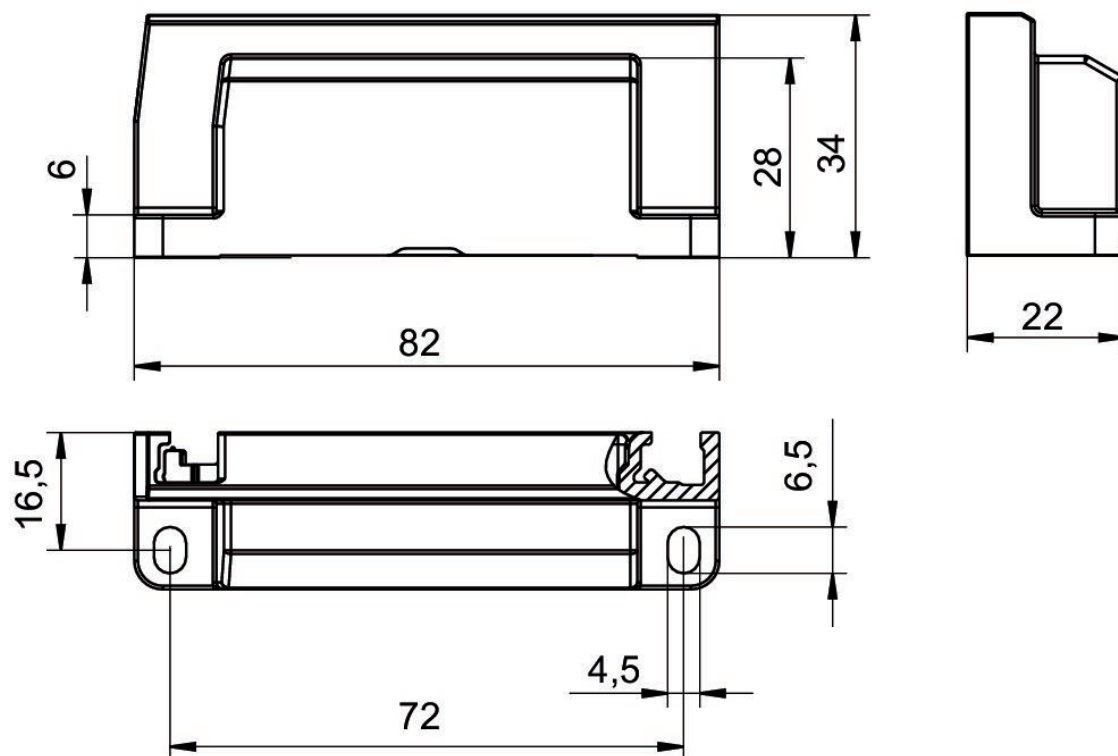
### End plate left

For series: AES  
Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C



Type	Plate type	Part No.
End plate left	End plate	R412015398

#### Dimensions



### End plate right

For series: AES  
Min. ambient temperature: -10 °C  
Max. ambient temperature: 60 °C

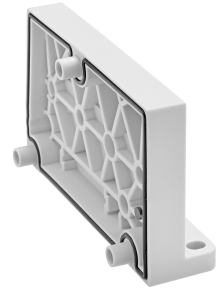
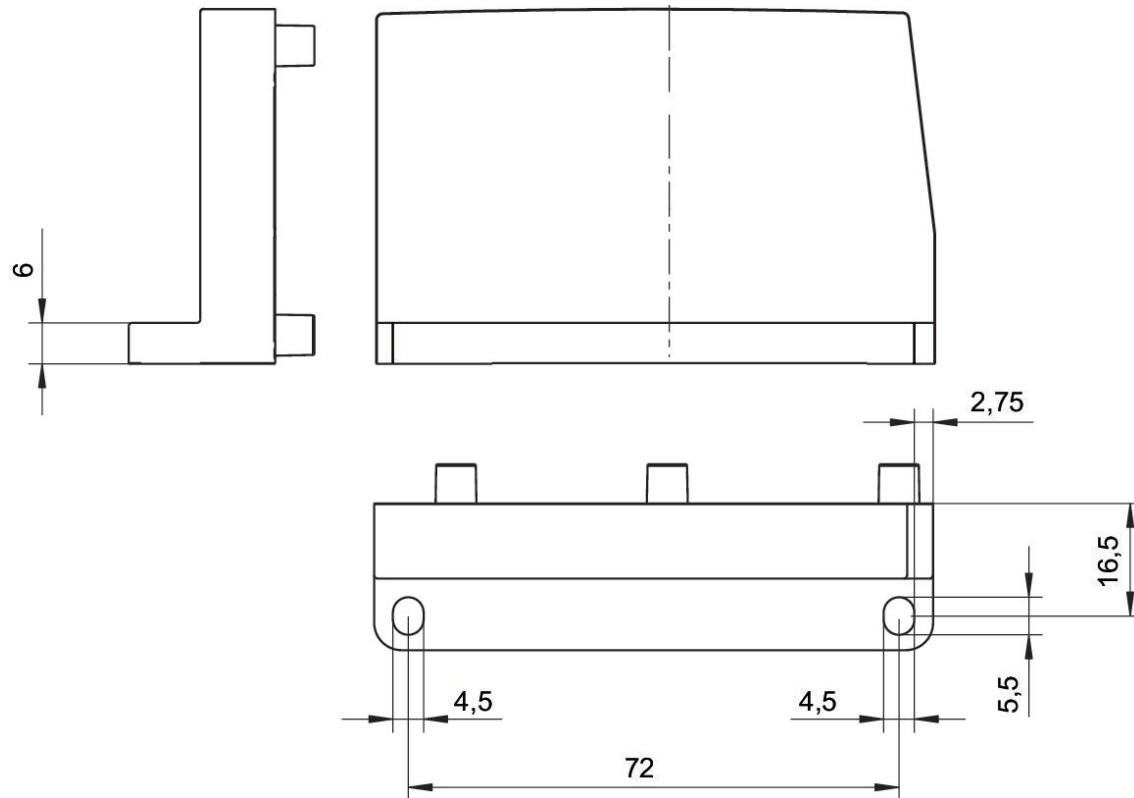


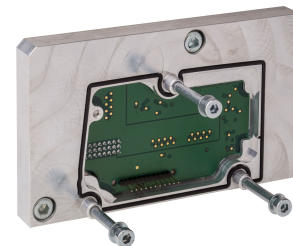
Plate type	Part No.
End plate	R412015741

#### Dimensions



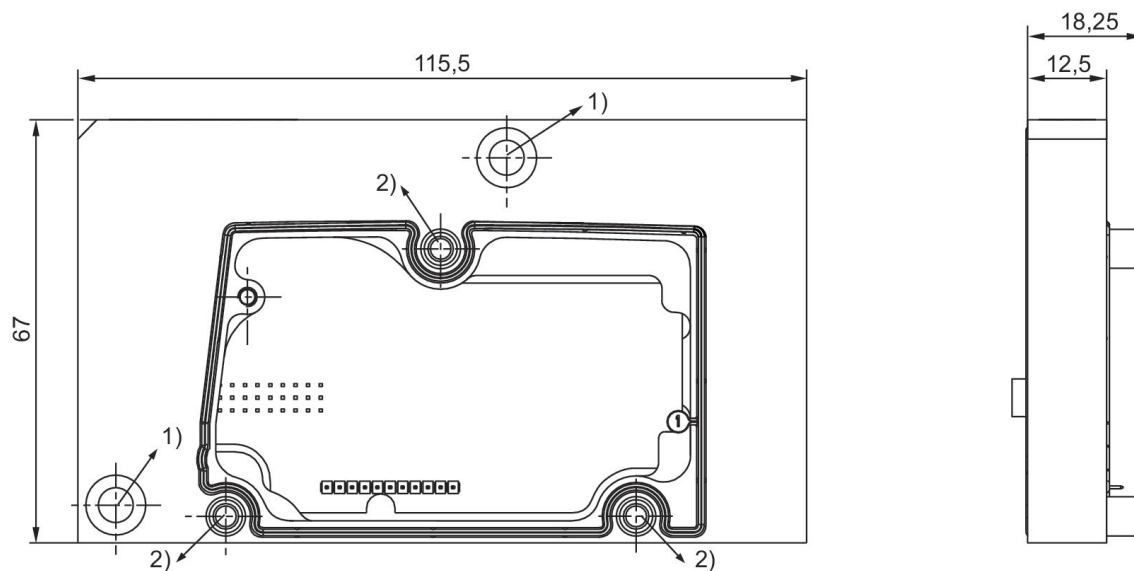
### Adapter module

For series: HF02-LG, HF03-LG, HF04 CD01-PI CD10-PI CD20-PI  
 Min. ambient temperature: -10 °C  
 Max. ambient temperature: 60 °C



Type	Scope of delivery	Part No.
32 outputs	Includes screws and seals.	R412023458

Dimensions



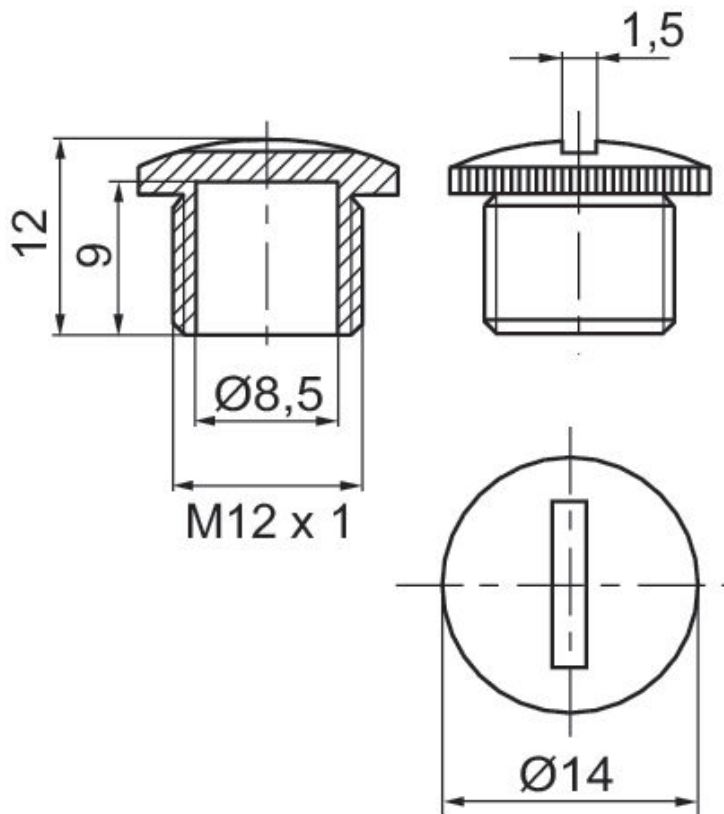
Includes screws and seals.  
 1) Torque: 3 Nm +0.5 Nm  
 2) Torque: 1.6 Nm +0.4 Nm

Protective cap, series CON-RD



Type	Delivery unit [piece]	Weight [kg]	Material	Part No.
M12x1	50	0.001	Polyamide	1823312001

Dimensions

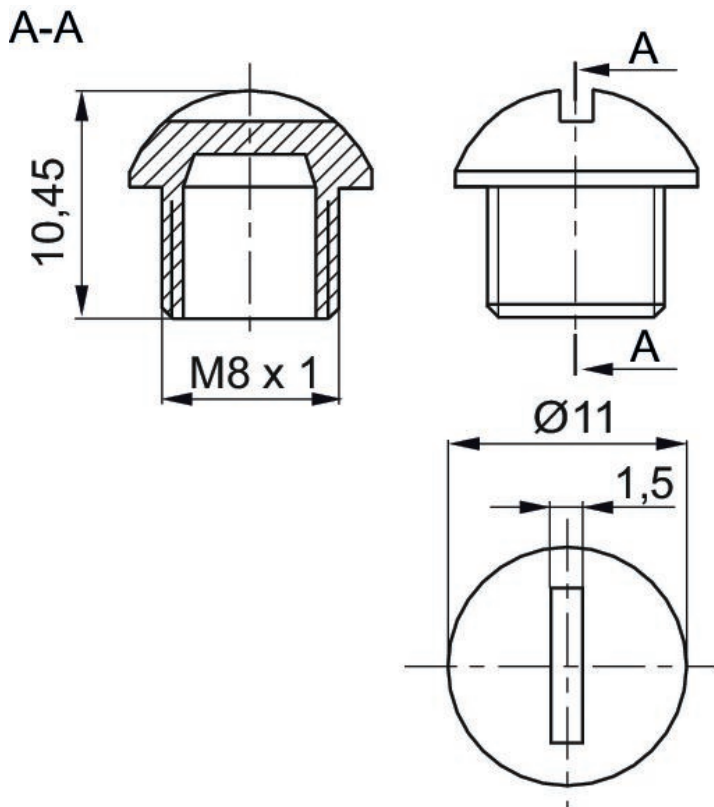


Protective cap, series CON-RD



Type	Weight [kg]	Material	Part No.
M8x1	0.001	Polyamide	R412003493

Dimensions





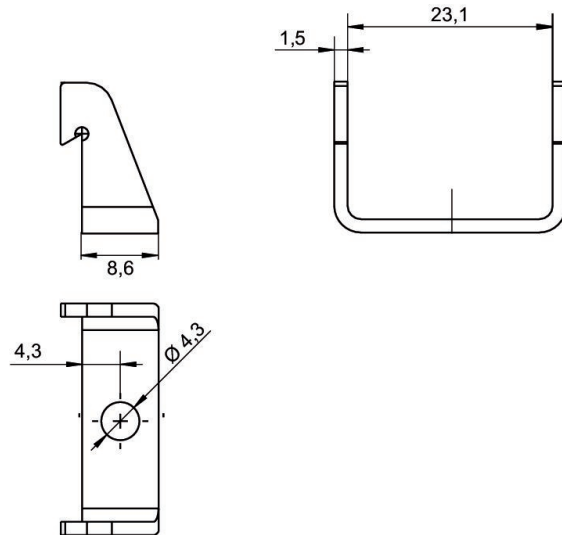
## Retaining bracket for intermediate mounting

For series: AES AV03 AV05



Type	Delivery unit [piece]	Material	Part No.
Retaining brackets	10	Stainless Steel	R412018339

### Dimensions

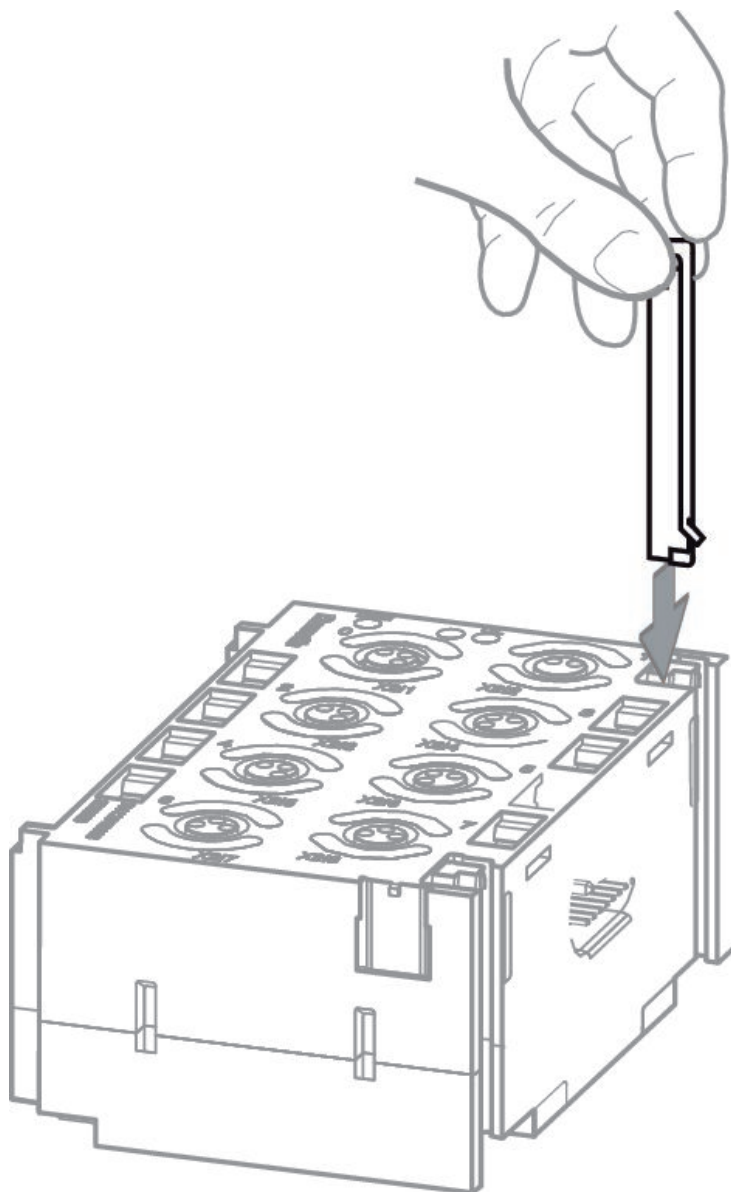


## Spring clamp element

For series: AES



Type	Delivery unit [piece]	Material	Part No.
Spring clamp element	10	Steel, chrome-plated	R412015400



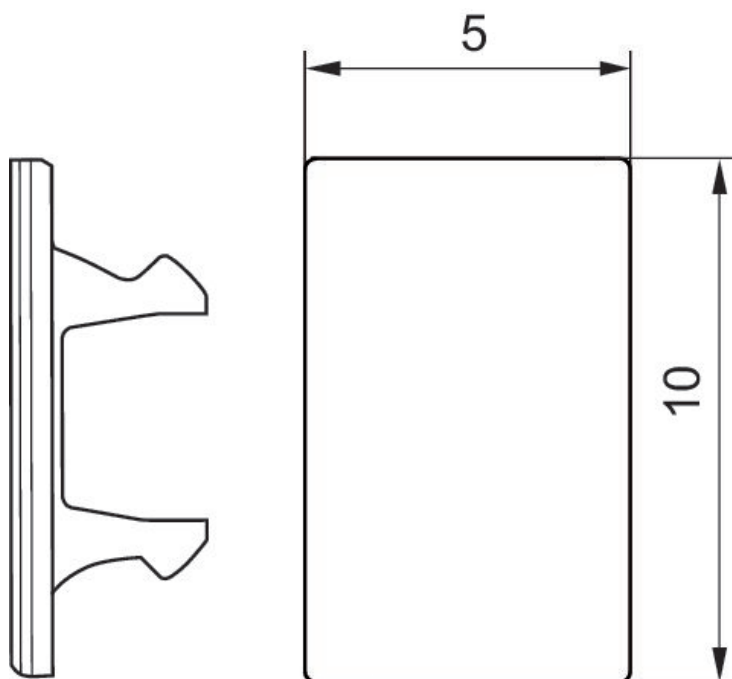
**Name plates, AES I/O module**

For series: AES AV03 AV05



Type	Delivery unit [piece]	Weight [kg]	Material	Part No.
Name plates	60	0.014	Polyamide	R412018192

Dimensions



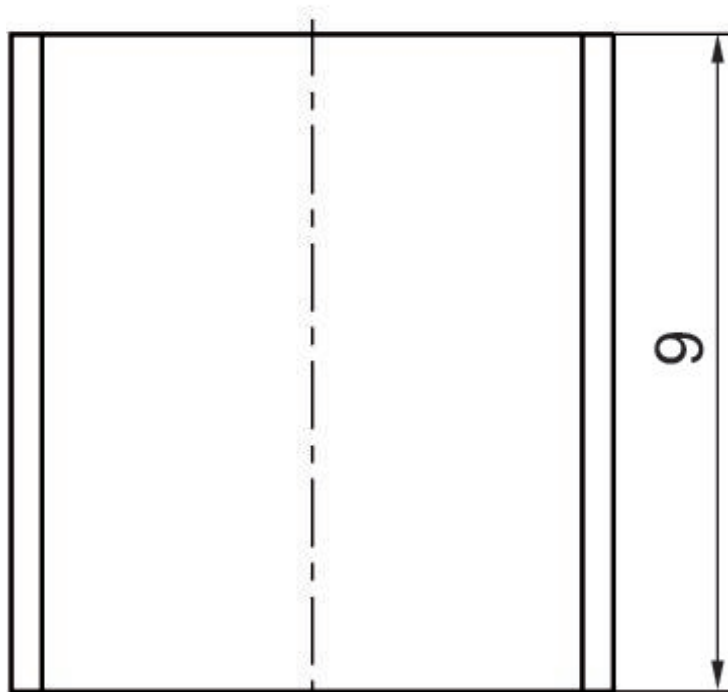
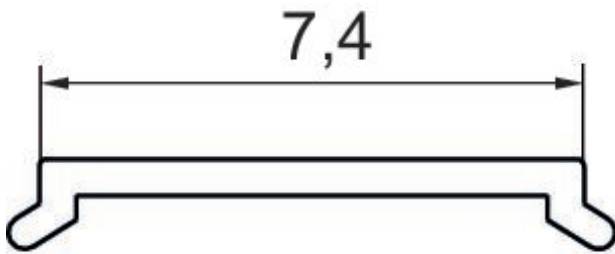
**Name plates, AV valve front**

For series: AV03 AV05



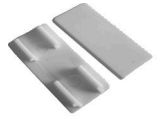
Type	Delivery unit [piece]	Weight [kg]	Material	Part No.
Name plates	150	0.014	Polyamide	R412019552

Dimensions



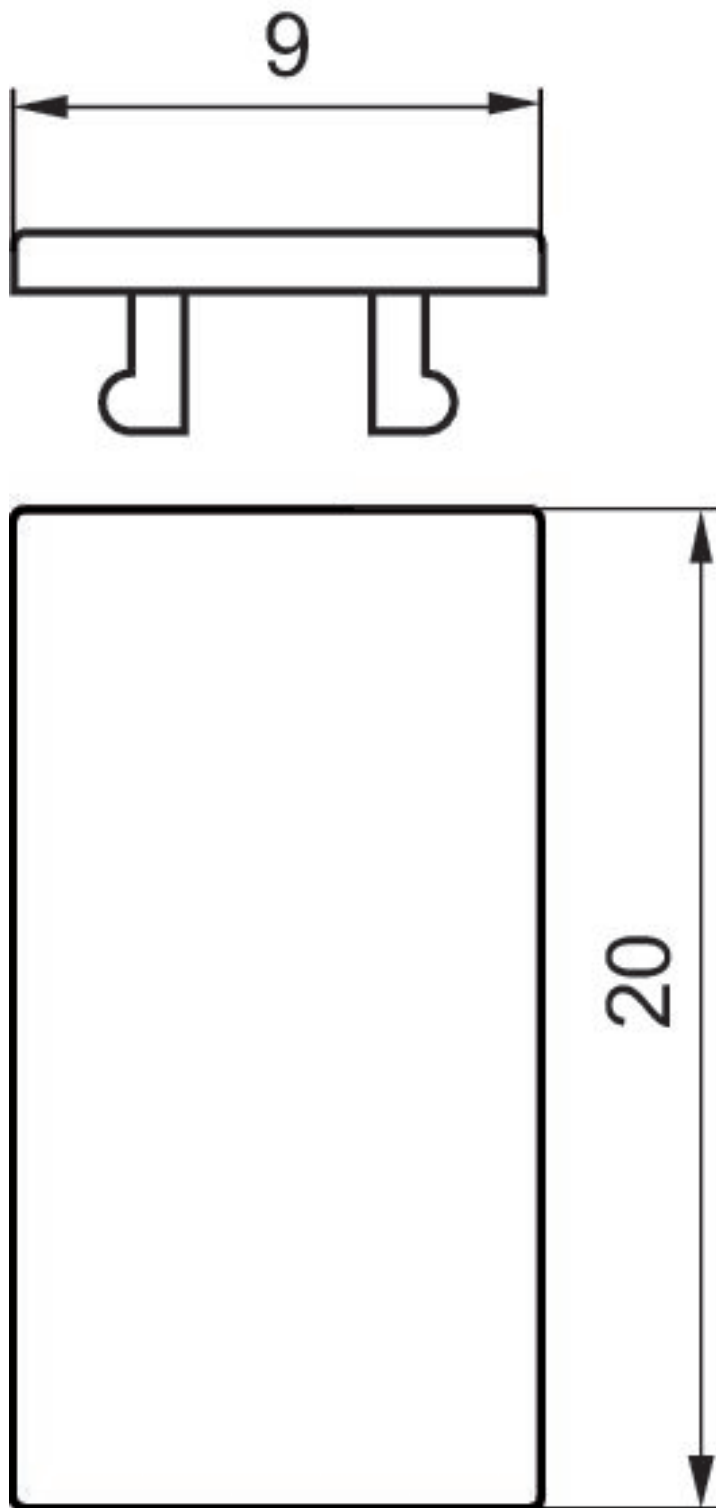
**Name plates, AV valve, AES bus coupler above**

For series: AV03 AV05 AES



Type	Delivery unit [piece]	Weight [kg]	Material	Part No.
Name plates	24	0.014	Polycarbonate	R422100889

Dimensions

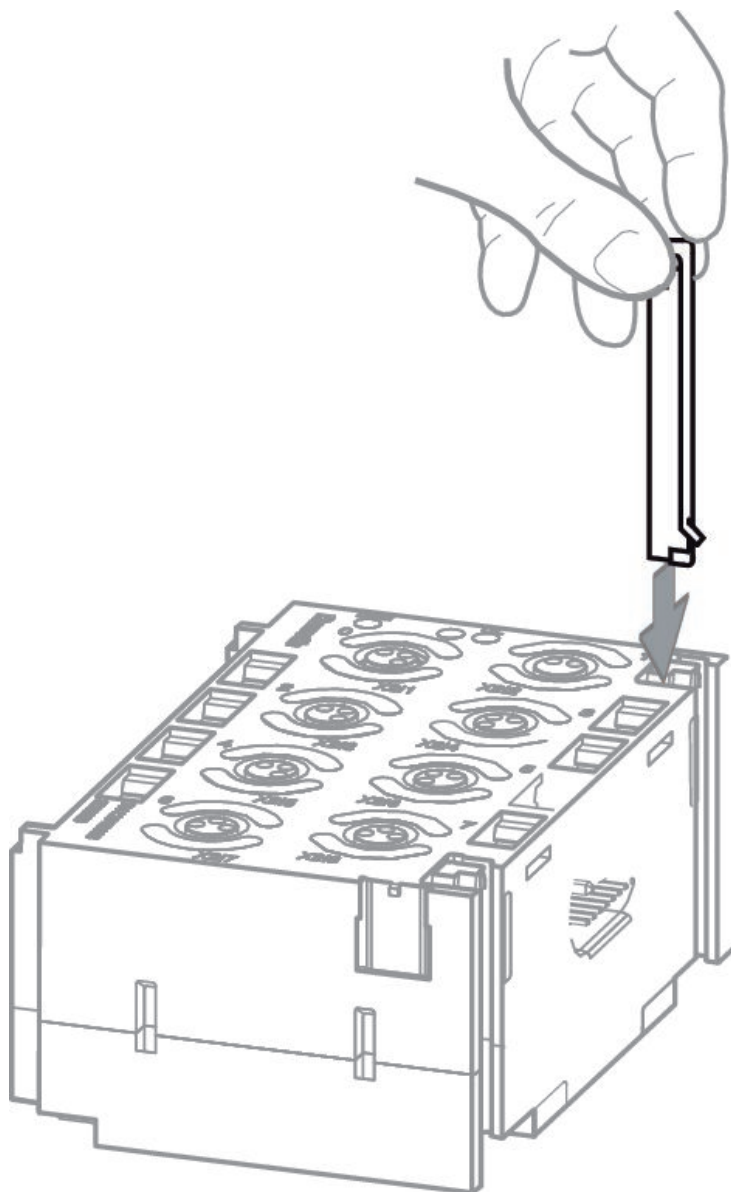


### Spring clamp element

For series: AES



Type	Delivery unit [piece]	Material	Part No.
Spring clamp element	10	Steel, chrome-plated	R412015400



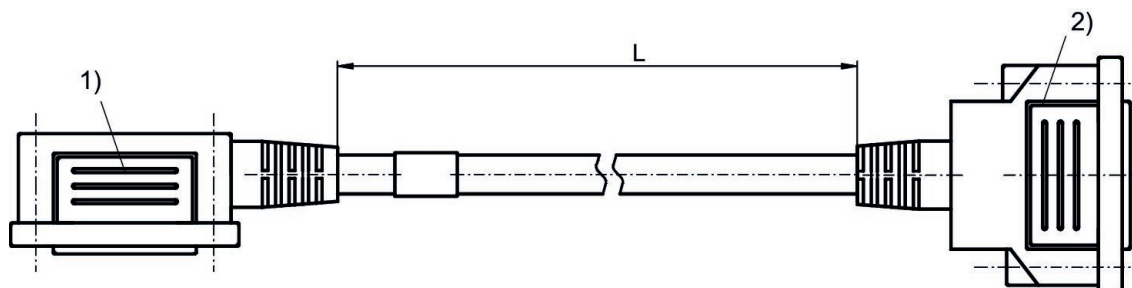
### Multipole plug, series CON-MP

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: D-Sub  
 Electrical connection 1, number of poles: 25-pin  
 Min. ambient temperature: -5 °C  
 Max. ambient temperature: 50 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 2, type	Electrical connection 2, thread size	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Material cable sheath	Part No.
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	0.5	8.5	0.22	Polyvinyl chloride	R412020635
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	1	8.5	0.22	Polyvinyl chloride	R412020636
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	2	8.5	0.22	Polyvinyl chloride	R412020637
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	5	8.5	0.22	Polyvinyl chloride	R412020638
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	10	8.5	0.22	Polyvinyl chloride	R412020639

#### Dimensions



1) Port 1 (Plug)  
 2) Port 2 (Socket)

### D-Sub plug, 25-pin

Pin	1	2	3	4	5	6	7	8	9
Color	white	brown	green	yellow	gray	pink	blue	red	black

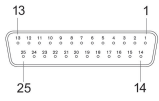
Pin	10	11	12	13	14	15	16	17	18
Color	violet	gray/pink	red/blue	white/green	brown/green	white/yellow	yellow/brown	white/gray	gray/brown

Pin	19	20	21	22	23	24	25
Color	white/pink	pink/brown	white/blue	brown/blue	white/red	brown/red	white/black



**R412020635, R412020636, R412020637,  
R412020638, R412020639**

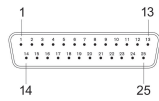
PIN assignment and cable colors



Socket

**R412020635, R412020636, R412020637,  
R412020638, R412020639**

PIN assignment and cable colors



Plug

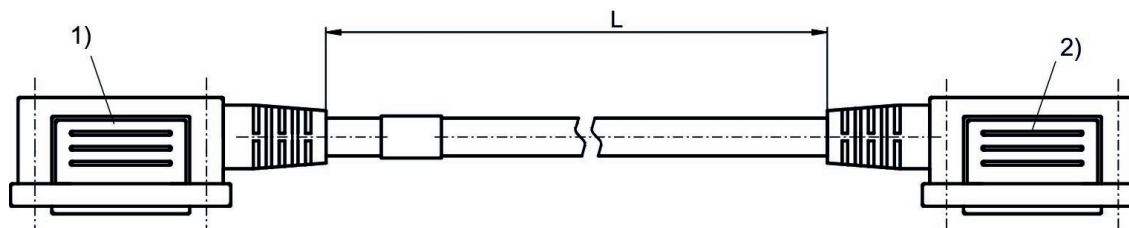
### Multipole plug, series CON-MP

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: D-Sub  
 Electrical connection 1, number of poles: 25-pin  
 Min. ambient temperature: -5 °C  
 Max. ambient temperature: 50 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 2, type	Electrical connection 2, thread size	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Material cable sheath	Part No.
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	0.5	8.5	0.22	Polyvinyl chloride	R412020630
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	1	8.5	0.22	Polyvinyl chloride	R412020631
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	2	8.5	0.22	Polyvinyl chloride	R412020632
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	5	8.5	0.22	Polyvinyl chloride	R412020633
24 V DC	3	unshielded	Plug	D-Sub	Socket	D-Sub	10	8.5	0.22	Polyvinyl chloride	R412020634

#### Dimensions



- 1) Port 1 (Plug)
- 2) Port 2 (Socket)

### D-Sub plug, 25-pin

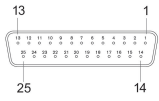
Pin	1	2	3	4	5	6	7	8	9
Color	white	brown	green	yellow	gray	pink	blue	red	black

Pin	10	11	12	13	14	15	16	17	18
Color	violet	gray/pink	red/blue	white/green	brown/green	white/yellow	yellow/brown	white/gray	gray/brown

Pin	19	20	21	22	23	24	25
Color	white/pink	pink/brown	white/blue	brown/blue	white/red	brown/red	white/black

**R412020630, R412020631, R412020632,  
R412020633, R412020634**

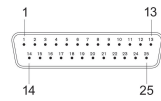
PIN assignment and cable colors



Socket

**R412020630, R412020631, R412020632,  
R412020633, R412020634**

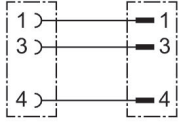
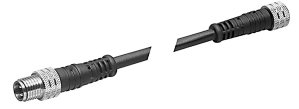
PIN assignment and cable colors



Plug

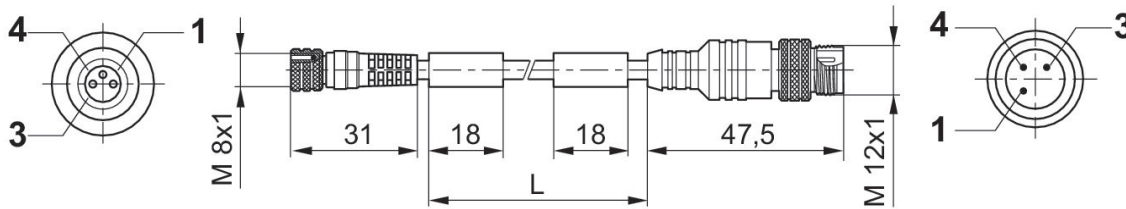
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Electrical connection 2, number of poles: 3-pin



Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Part No.
4	unshielded	Socket	M8x1	A-coded	Plug	M12x1	A-coded	2	8946203462

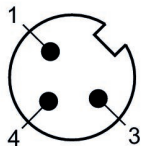
Dimensions



L = length

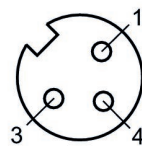
**8946203462**

Plug pin assignment



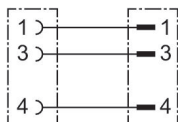
**8946203462**

Pin assignment, socket



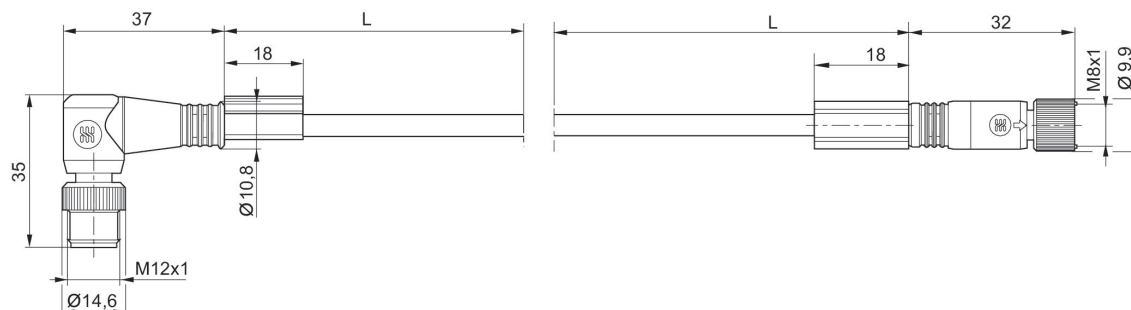
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Electrical connection 2, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	unshielded	Socket	M8x1	A-coded	Plug	M12x1	A-coded	2	4.1	0.25	-25	80	suitable for dynamic laying	R412021696
48 V AC/DC	4	unshielded	Socket	M8x1	A-coded	Plug	M12x1	A-coded	5	4.1	0.25	-20	80	suitable for dynamic laying	R412021697

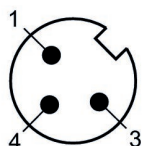
#### Dimensions



L = length

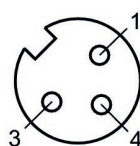
#### R412021696, R412021697

Plug pin assignment



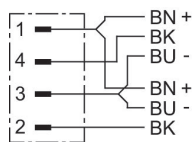
#### R412021696, R412021697

Pin assignment, socket



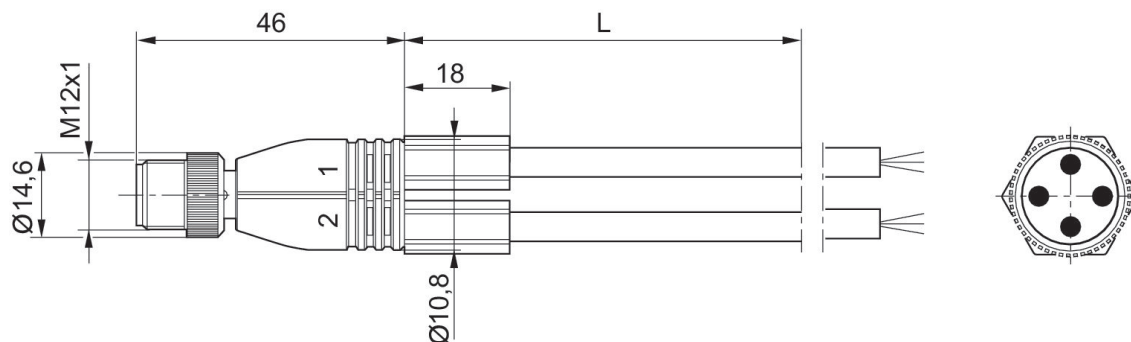
### Y-Plug connector, series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Electrical connection 2, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	2 x open cable ends	2	4.3	0.34	-40	80	R412021688

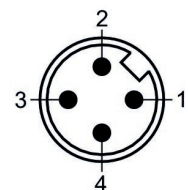
#### Dimensions



L = length

### R412021688

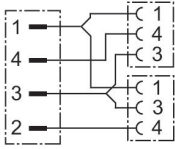
#### Plug pin assignment



Line 1: (1) BN = brown, (3) BU =blue, (4) BK = black  
 Line 2: (1) BN = brown, (3) BU =blue, (2) BK = black

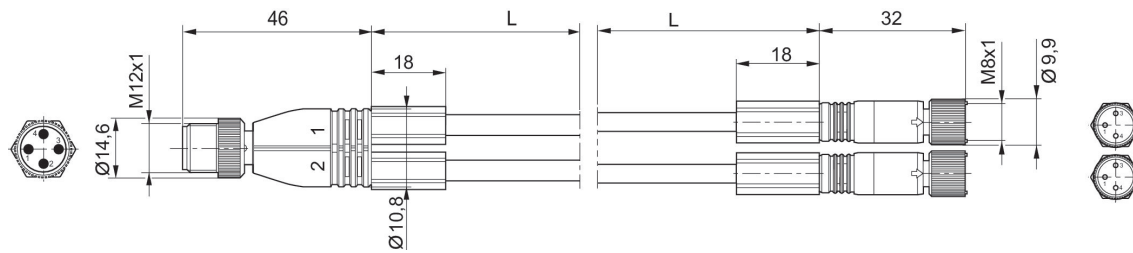
### Y-Plug connector, series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M8x1  
 Electrical connection 1, number of poles: 4-pin  
 Electrical connection 2, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	2x Socket	M8x1	A-coded	0.6	4.1	0.25	-25	80	R412021685
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	2x Socket	M8x1	A-coded	3	4.1	0.25	-25	80	R412021687

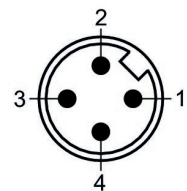
Dimensions



L = length

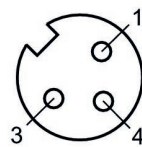
#### R412021685, R412021687

Plug pin assignment



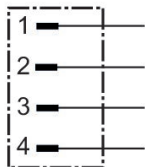
#### R412021685, R412021687

Pin assignment, socket



### Round plug connector, Series CON-RD

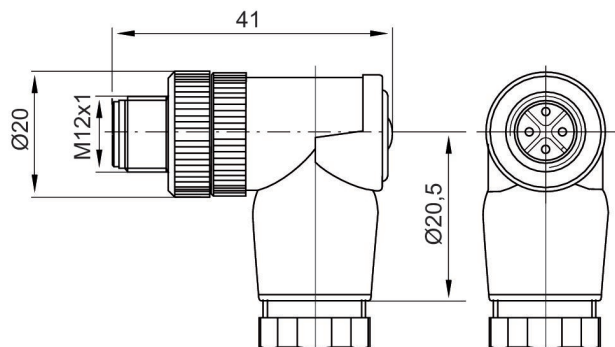
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -40 °C  
 Max. ambient temperature: 85 °C



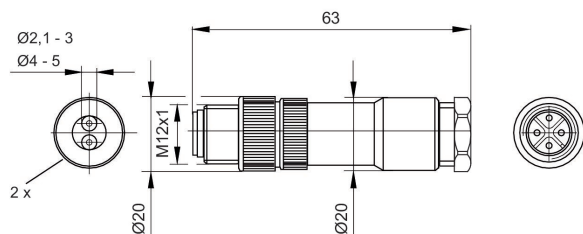
Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	4-pin	A-coded	unshielded	Screws	4	4	6	1834484223
48 V AC/DC	4-pin	A-coded	unshielded	Screws	4	2.1	3	1834484246

Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
-40	85	1834484223
-40	85	1834484246

1834484223



1834484246

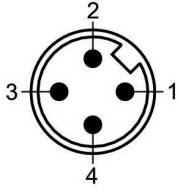


duo plug



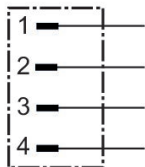
**1834484223, 1834484246**

Plug pin assignment



### Round plug connector, Series CON-RD

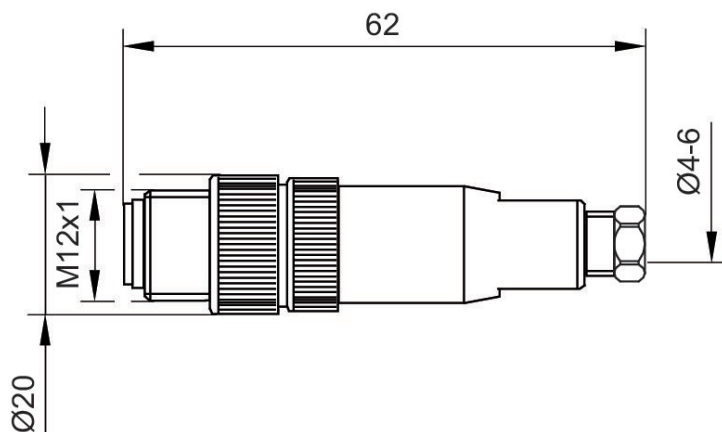
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -40 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	4-pin	A-coded	unshielded	Screws	4	4	6	1834484222

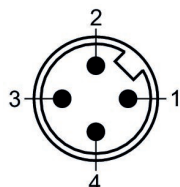
Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
-40	85	1834484222

Dimensions



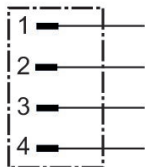
### 1834484222

Plug pin assignment



### Round plug connector, Series CON-RD

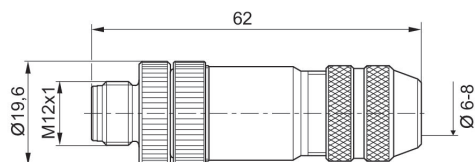
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Contact assignment	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	4-pin	D-coded	shielded	Ethernet, EtherNet/IP, EtherCAT, POWER-LINK, sercos III	Thread cutting	4	6	R419801401

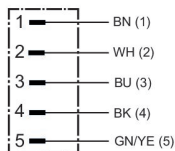
max. suitable cable Ø [mm]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
8	-40	85	R419801401

Dimensions



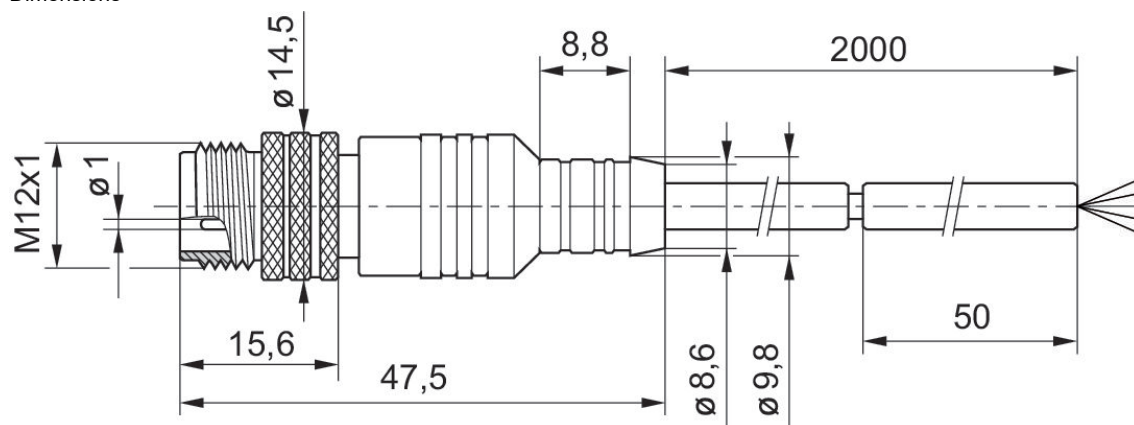
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin



Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Part No.
unshielded	Plug	M12x1	A-coded	open cable ends	2	8946203432
unshielded	Plug	M12x1	A-coded	open cable ends	5	8946203442

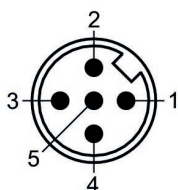
Dimensions



L = length

**8946203432, 8946203442**

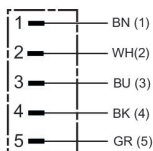
Plug pin assignment



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

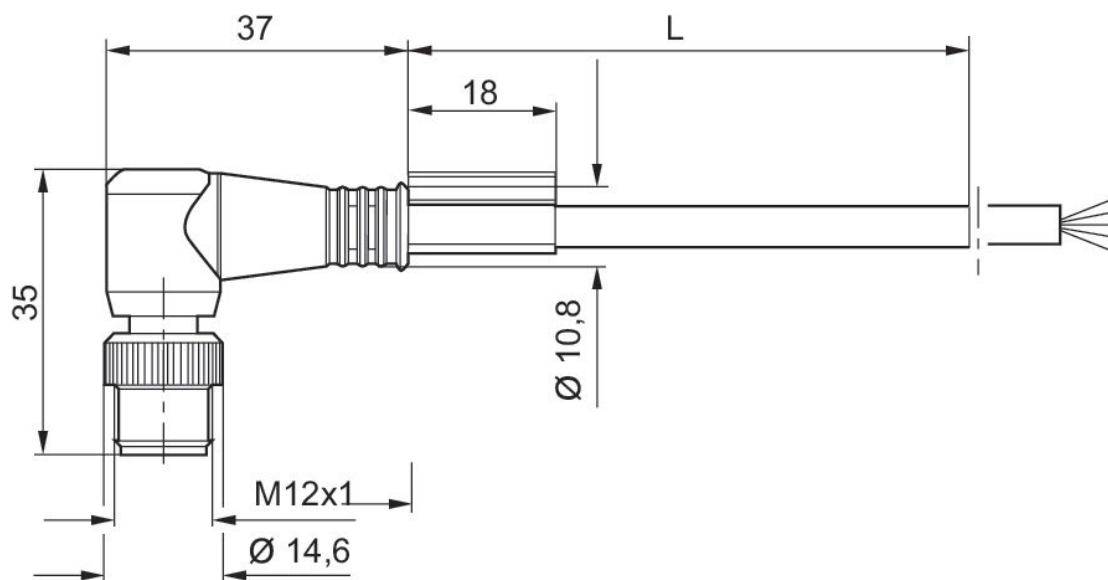
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Electrical connection 2, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	open cable ends	2	5	0.34	-40	85	suitable for dynamic laying	R412021691
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	open cable ends	5	5	0.34	-40	85	suitable for dynamic laying	R412021692
48 V AC/DC	4	unshielded	Plug	M12x1	A-coded	open cable ends	10	5	0.34	-25	85	suitable for dynamic laying	R412021693

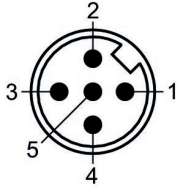
Dimensions



L = length

**R412021691, R412021692, R412021693**

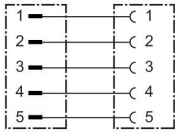
Plug pin assignment



(1) BN=brown (2) WH=white (3) BU=blue (4) BK=black (5) GY=grey

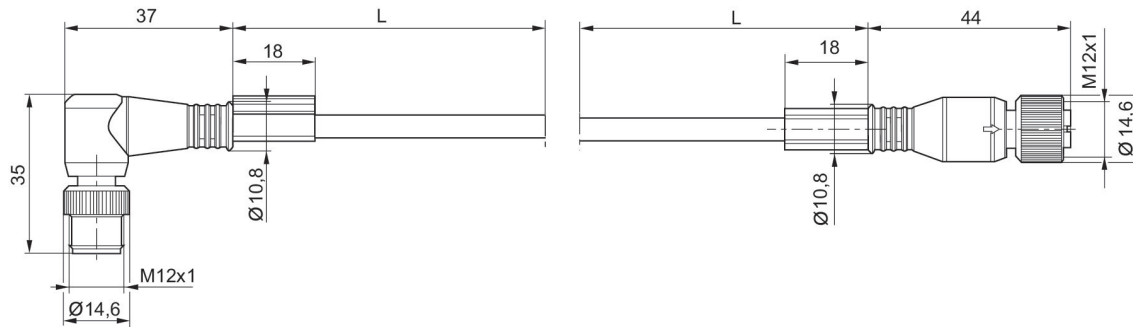
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Electrical connection 2, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	unshielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	2	5	0.34	-25	85	suitable for dynamic laying	R412021694
48 V AC/DC	4	unshielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	5	5	0.34	-25	85	suitable for dynamic laying	R412021695

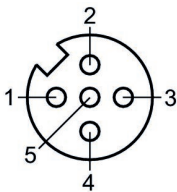
Dimensions



L = length

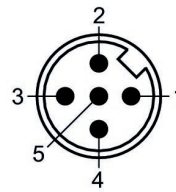
#### R412021694, R412021695

Pin assignment, socket



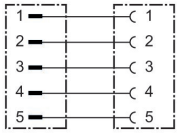
#### R412021694, R412021695

Plug pin assignment



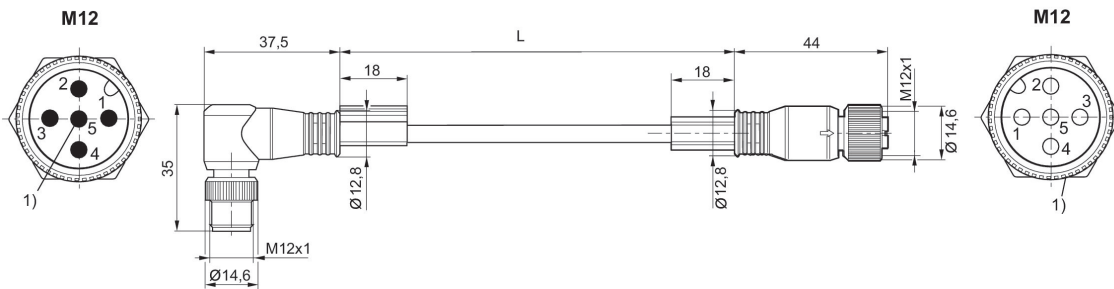
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Electrical connection 2, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	2	5.4	0.34	-20	85	suitable for dynamic laying	R412022193

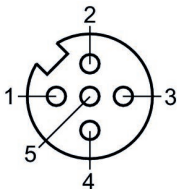
Dimensions



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

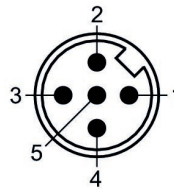
**R412022193**

Pin assignment, socket



**R412022193**

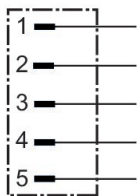
Plug pin assignment





### Round plug connector, Series CON-RD

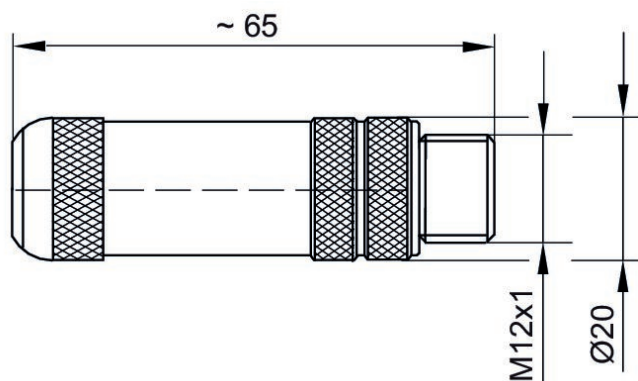
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 90 °C



Operational voltage	Contact assignment	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	5-pin	B-coded	shielded	PROFIBUS DP	Screws	4	4	8941054054

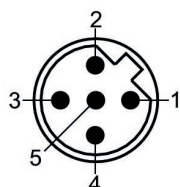
max. suitable cable Ø [mm]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
9	-25	85	8941054054

Dimensions



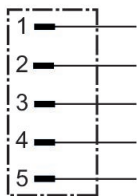
### 8941054054

Plug pin assignment



### Round plug connector, Series CON-RD

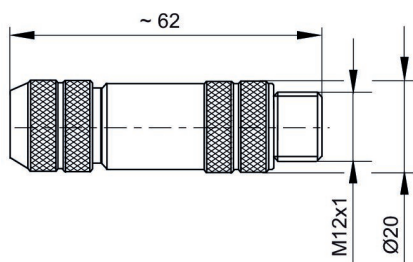
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Min. ambient temperature: -40 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Contact assignment	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	5-pin	A-coded	shielded	CANopen, DeviceNet	Screws	4	6	8942051612

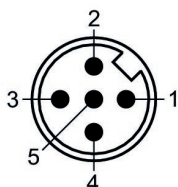
max. suitable cable Ø [mm]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
8	-40	85	8942051612

Dimensions



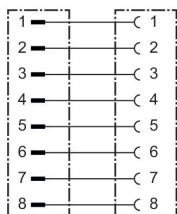
### 8942051612

Plug pin assignment



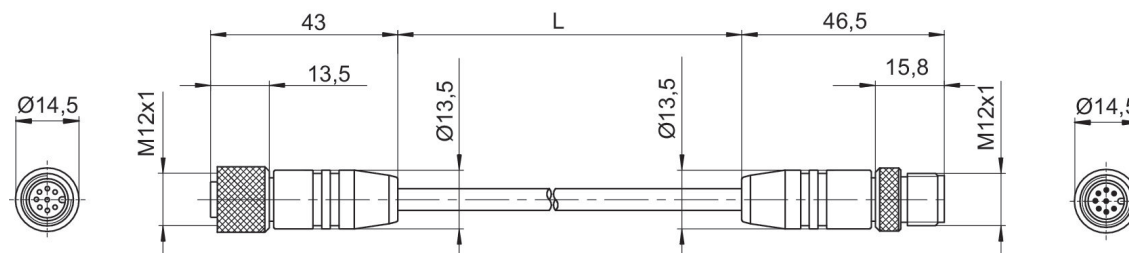
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M12x1  
 Electrical connection 1, number of poles: 8-pin  
 Electrical connection 2, number of poles: 8-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
36 V DC / 30 V AC	1.5	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	0.5	6.6	0.25	-25	80	suitable for dynamic laying	8946202802
36 V DC / 30 V AC	1.5	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	1	6.6	0.25	-25	80	suitable for dynamic laying	8946202812
36 V DC / 30 V AC	1.5	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	2	6.6	0.25	-25	80	suitable for dynamic laying	8946202822
36 V DC / 30 V AC	1.5	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	5	6.6	0.25	-25	80	suitable for dynamic laying	8946202832
36 V DC / 30 V AC	1.5	shielded	Socket	M12x1	A-coded	Plug	M12x1	A-coded	10	6.6	0.25	-25	80	suitable for dynamic laying	8946202842

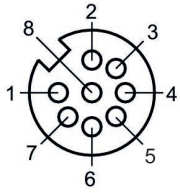
Dimensions



L = length

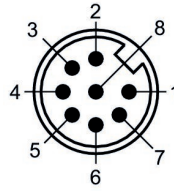
**8946202802, 8946202812, 8946202822,  
8946202832, 8946202842**

Pin assignment, socket



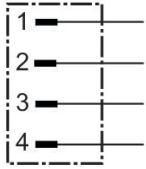
**8946202802, 8946202812, 8946202822,  
8946202832, 8946202842**

Plug pin assignment



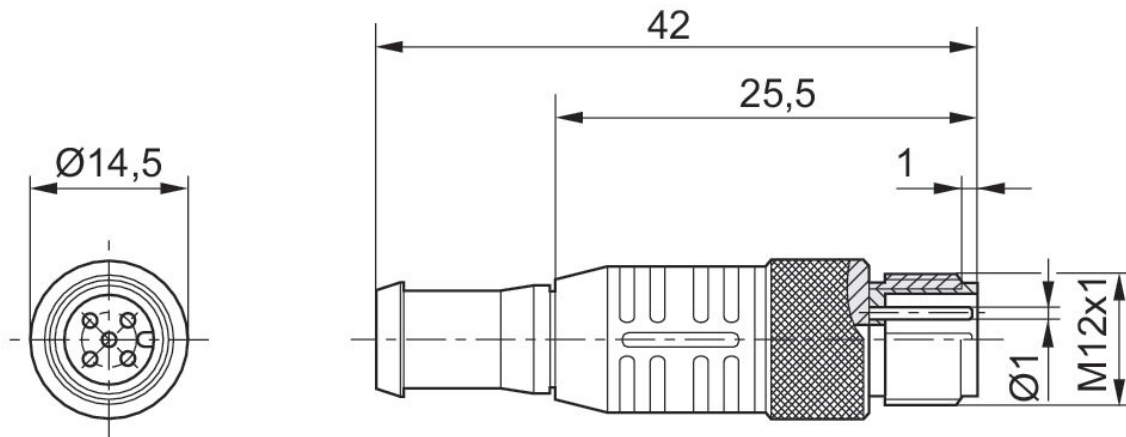
**Data final plug, Series CON-RD**

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



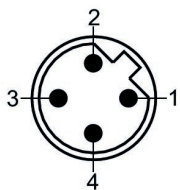
Contact assignment	Coding	Protocol	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
4-pin	B-coded	PROFIBUS DP	-25	80	8941054064

Dimensions



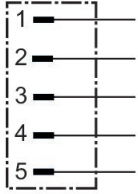
**8941054064**

Plug pin assignment



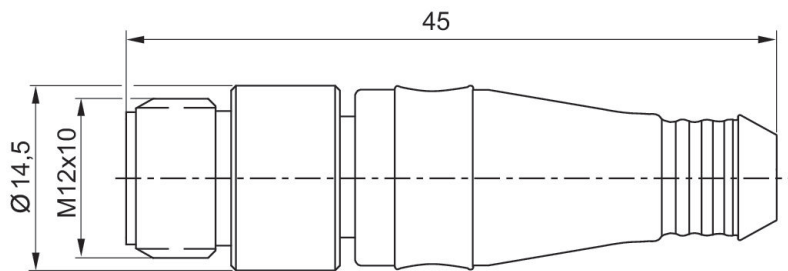
### Data final plug, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Min. ambient temperature: 0 °C  
 Max. ambient temperature: 60 °C



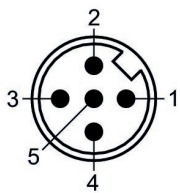
Contact assignment	Coding	Protocol	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
5-pin	A-coded	CANopen, DeviceNet	0	60	8941054264

Dimensions



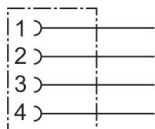
### 8941054264

Plug pin assignment



### Round plug connector, Series CON-RD

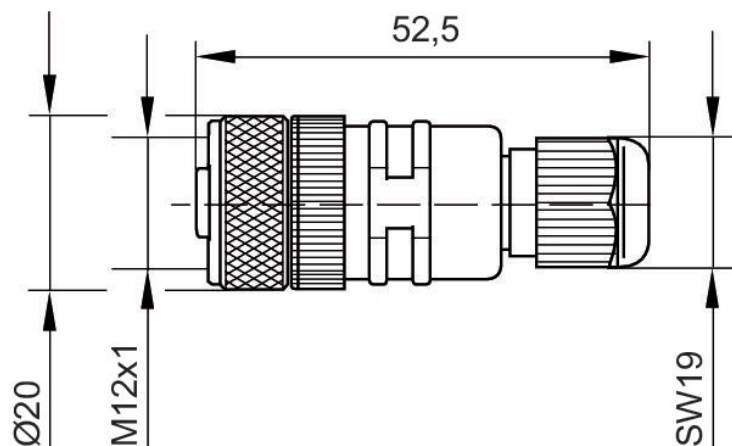
Electrical connection 1, type: Socket  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 90 °C



Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Min. ambient temperature [°C]	Part No.
48 V AC/DC	4-pin	A-coded	unshielded	Screws	4	4	-25	8941054324

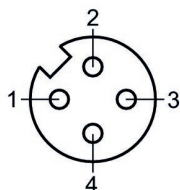
Max. ambient temperature [°C]	Part No.
90	8941054324

Dimensions



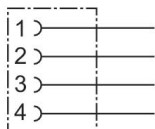
#### 8941054324

Pin assignment, socket



### Round plug connector, Series CON-RD

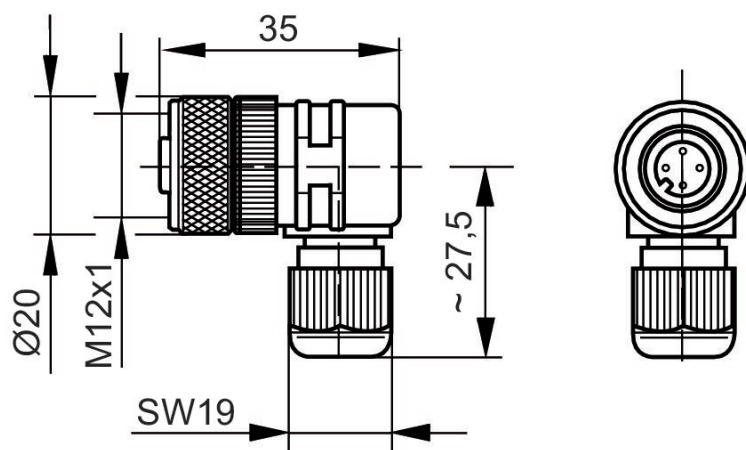
Electrical connection 1, type: Socket  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 4-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 90 °C



Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Min. ambient temperature [°C]	Part No.
48 V AC/DC	4-pin	A-coded	unshielded	Screws	4	4	-25	8941054424

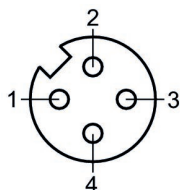
Max. ambient temperature [°C]	Part No.
90	8941054424

#### Dimensions



### 8941054424

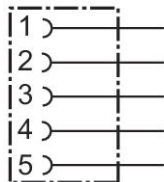
Pin assignment, socket





### Round plug connector, Series CON-RD

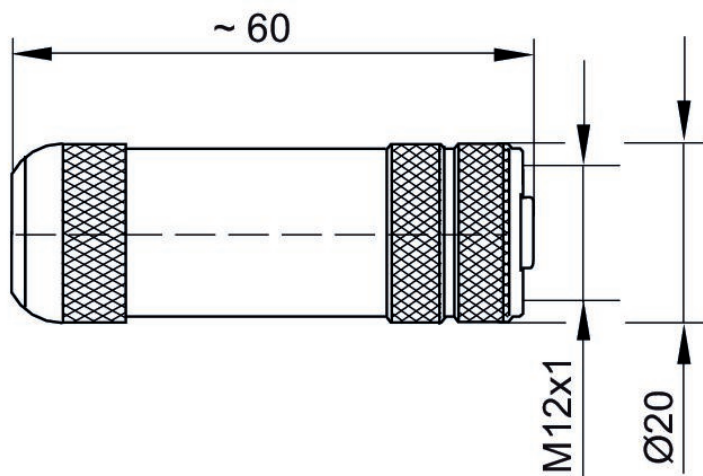
Electrical connection 1, type: Socket  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 90 °C



Operational voltage	Contact assignment	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	5-pin	B-coded	shielded	PROFIBUS DP	Screws	4	6	8941054044

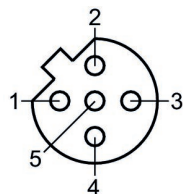
max. suitable cable Ø [mm]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
8	-40	85	8941054044

Dimensions



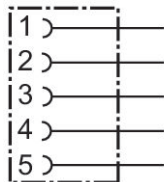
#### 8941054044

Pin assignment, socket



### Round plug connector, Series CON-RD

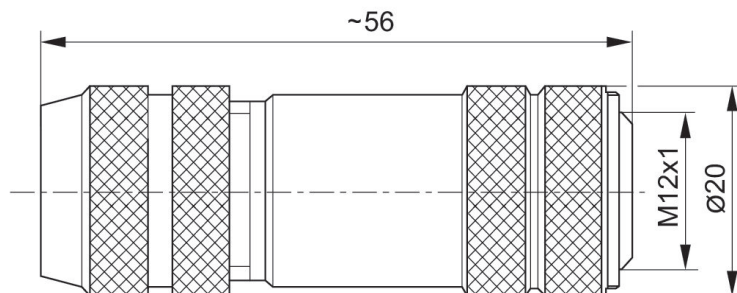
Electrical connection 1, type: Socket  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Min. ambient temperature: -40 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Contact assignment	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	5-pin	A-coded	shielded	CANopen, DeviceNet	Screws	4	6	8942051602

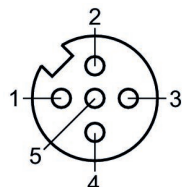
Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
-40	85	8942051602

Dimensions



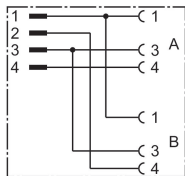
### 8942051602

Pin assignment, socket



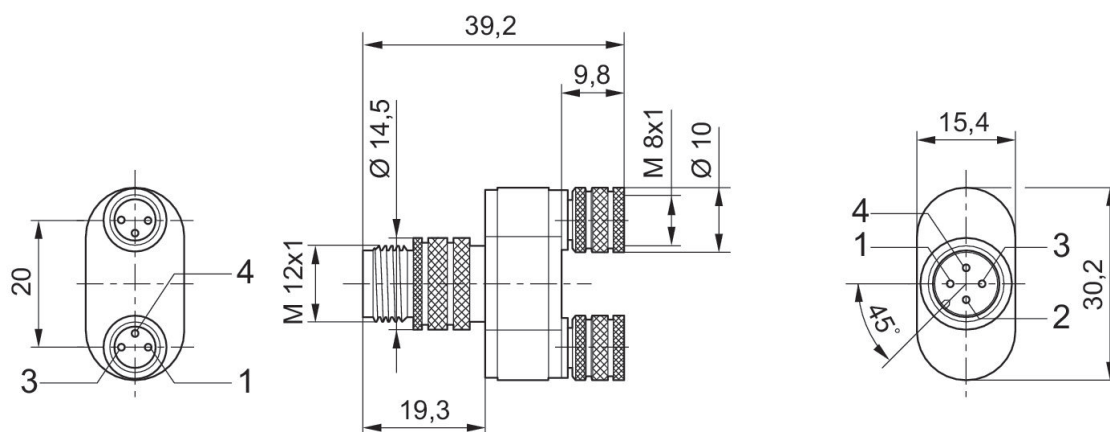
### Y-Plug connector, series CON-AP

Electrical connection 1, type: Socket  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 50 °C



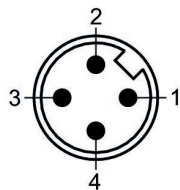
Max. current [A]	Part No.
4	8941002382

#### Dimensions



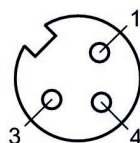
#### 8941002382

Plug pin assignment



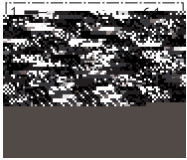
#### 8941002382

Pin assignment, socket



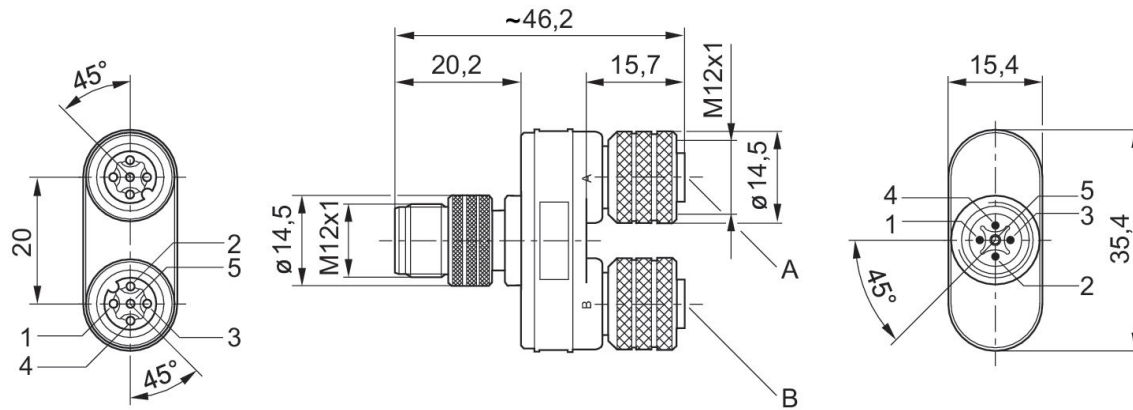
### Y-Plug connector, series CON-AP

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M12x1  
 Electrical connection 2, thread size: M12x1  
 Electrical connection 1, number of poles: 5-pin  
 Electrical connection 2, number of poles: 5-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 50 °C



Max. current [A]	Part No.
4	8941002392

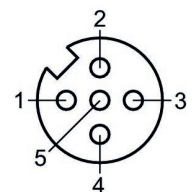
Dimensions



Sockets: Pin 2 and 4 bridged.

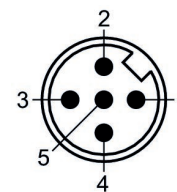
#### 8941002392

Pin assignment, socket



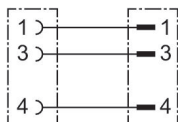
#### 8941002392

Plug pin assignment



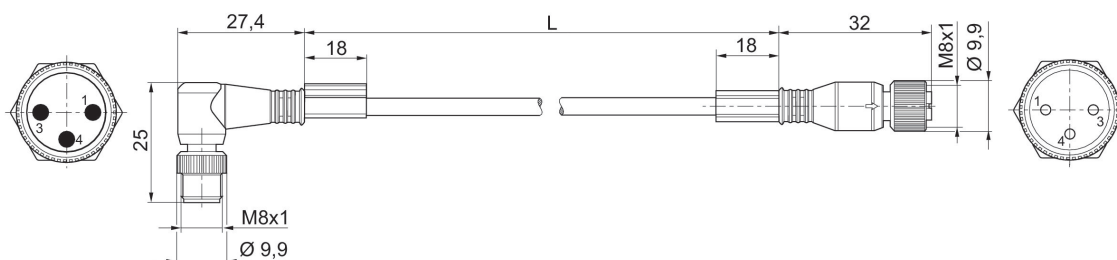
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 2, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Electrical connection 2, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	1	4.1	0.25	-25	80	suitable for dynamic laying	R412021681
48 V AC/DC	4	unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	2	4.1	0.25	-25	80	suitable for dynamic laying	R412021682
48 V AC/DC	4	unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	5	4.1	0.25	-25	80	suitable for dynamic laying	R412021683

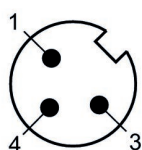
#### Dimensions



L = length

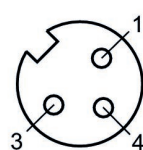
#### R412021681, R412021682, R412021683

Plug pin assignment



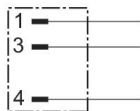
#### R412021681, R412021682, R412021683

Pin assignment, socket



### Round plug connector, Series CON-RD

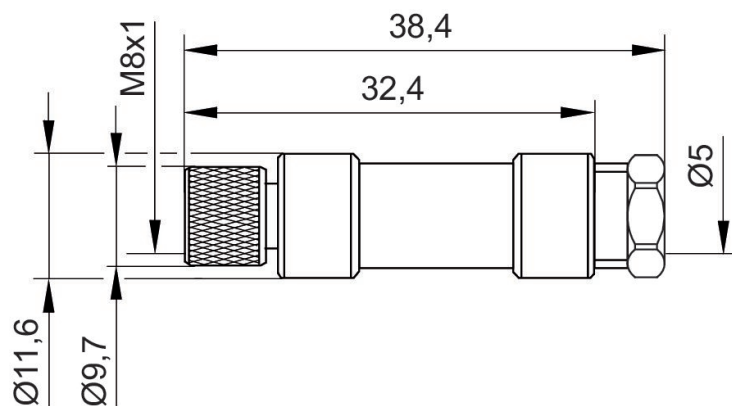
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Min. ambient temperature: -40 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	3-pin	A-coded	unshielded	Screws	4	3.5	5	R412021676

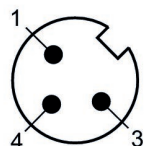
Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
-40	85	R412021676

Dimensions



#### R412021676

Plug pin assignment



### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug

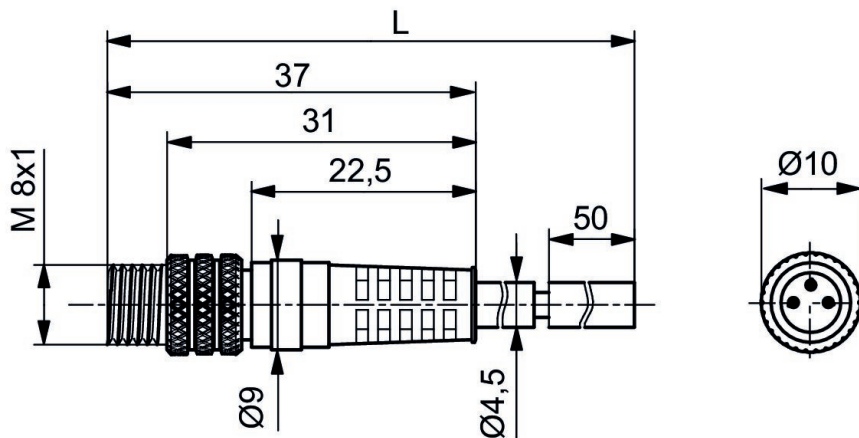
Electrical connection 1, thread size: M8x1

Electrical connection 1, number of poles: 3-pin



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm <sup>2</sup> ]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
30 V AC/DC	3	unshielded	Plug	M8x1	A-coded	open cable ends	3	4.5	0.25	-25	80	8946203602
30 V AC/DC	3	unshielded	Plug	M8x1	A-coded	open cable ends	5	4.5	0.25	-25	80	8946203612
30 V AC/DC	3	unshielded	Plug	M8x1	A-coded	open cable ends	10	4.5	0.25	-25	80	8946203622

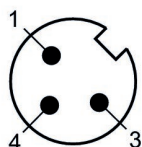
#### Dimensions



L = length

### 8946203602, 8946203612, 8946203622

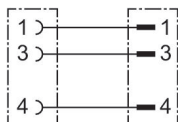
Plug pin assignment



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

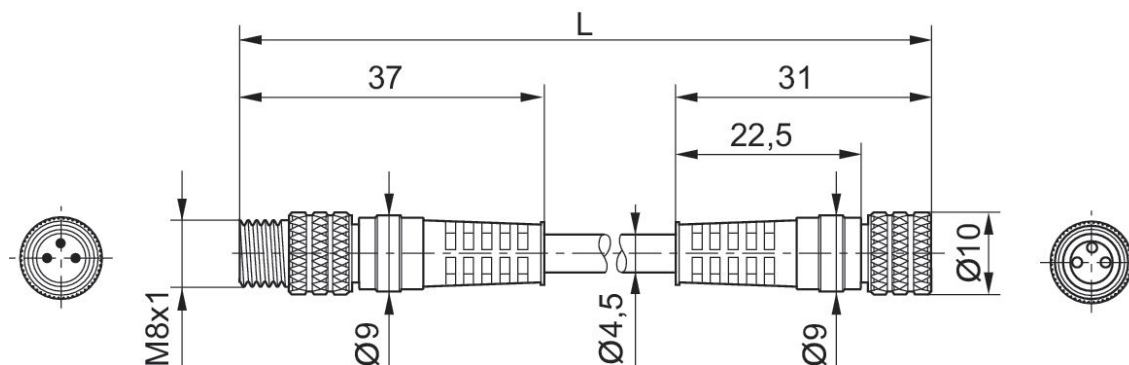
### Round plug connector, Series CON-RD, Plug M8x1

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin



Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, coding	Cable length [m]	Cable-Ø [mm]	Part No.
unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	1	4.5	8946203702
unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	2	4.5	8946203712
unshielded	Socket	M8x1	A-coded	Plug	M8x1	A-coded	5	4.5	8946203722

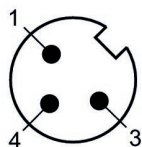
Dimensions



L = length

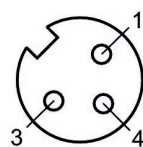
**8946203702, 8946203712, 8946203722**

Plug pin assignment



**8946203702, 8946203712, 8946203722**

Pin assignment, socket





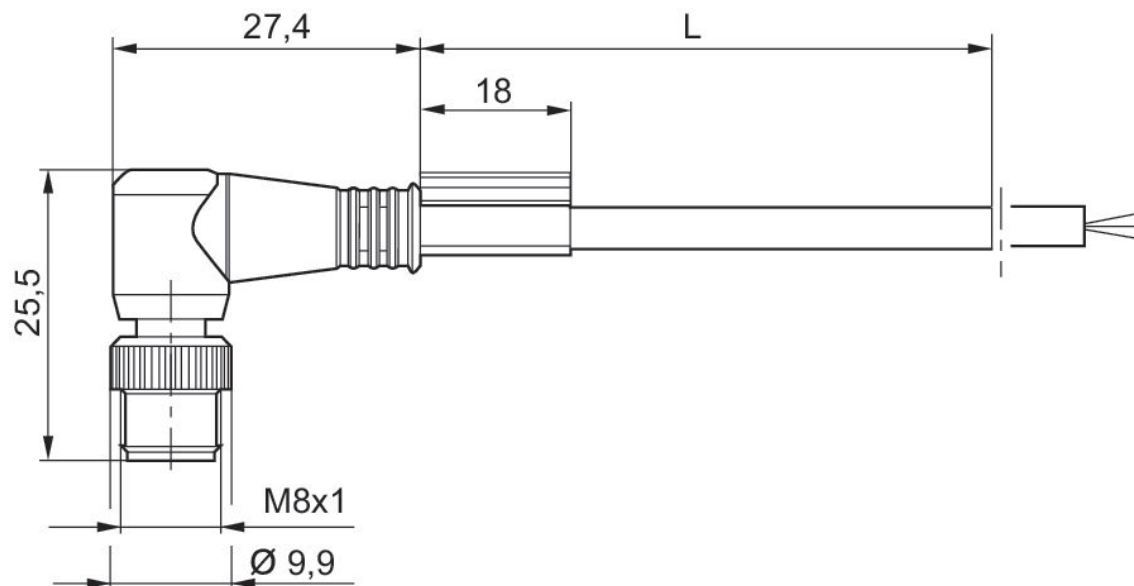
### Round plug connector, Series CON-RD

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 85 °C



Operational voltage	Current [A]	Shielding	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, coding	Electrical connection 2, type	Cable length [m]	Cable-Ø [mm]	Wire cross-section [mm²]	Min. ambient temperature [°C]	Max. ambient temperature [°C]	Suitable for dynamic laying	Part No.
48 V AC/DC	4	unshielded	Plug	M8x1	A-coded	open cable ends	2	4.1	0.25	-25	80	suitable for dynamic laying	R412021678
48 V AC/DC	4	unshielded	Plug	M8x1	A-coded	open cable ends	5	4.1	0.25	-25	80	suitable for dynamic laying	R412021679
48 V AC/DC	4	unshielded	Plug	M8x1	A-coded	open cable ends	10	4.1	0.25	-25	80	suitable for dynamic laying	R412021680

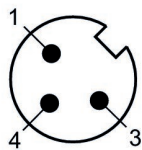
Dimensions



L = length

**R412021678, R412021679, R412021680**

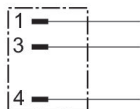
Plug pin assignment



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

### Round plug connector, Series CON-RD

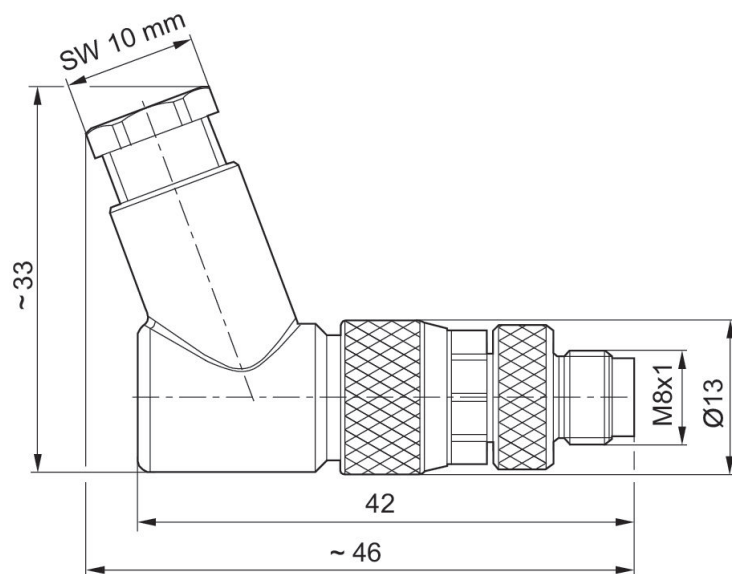
Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 1, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 80 °C



Operational voltage	Contact assignment	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	3-pin	A-coded	unshielded	Screws	4	3.5	6	R412021677

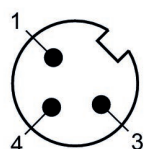
Min. ambient temperature [°C]	Max. ambient temperature [°C]	Part No.
-25	85	R412021677

Dimensions



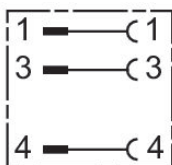
### R412021677

Plug pin assignment



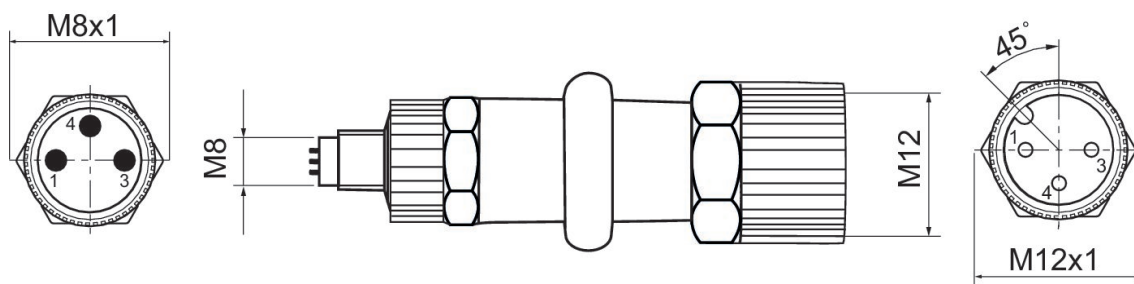
### Adapter, Series CON-AP

Electrical connection 1, type: Plug  
 Electrical connection 1, thread size: M8x1  
 Electrical connection 2, thread size: M12x1  
 Electrical connection 1, number of poles: 3-pin  
 Electrical connection 2, number of poles: 3-pin  
 Min. ambient temperature: -25 °C  
 Max. ambient temperature: 50 °C



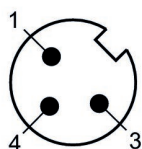
Max. current [A]	Part No.
4	R412021684

Dimensions



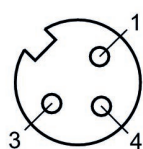
#### R412021684

Plug pin assignment



#### R412021684

Pin assignment, socket



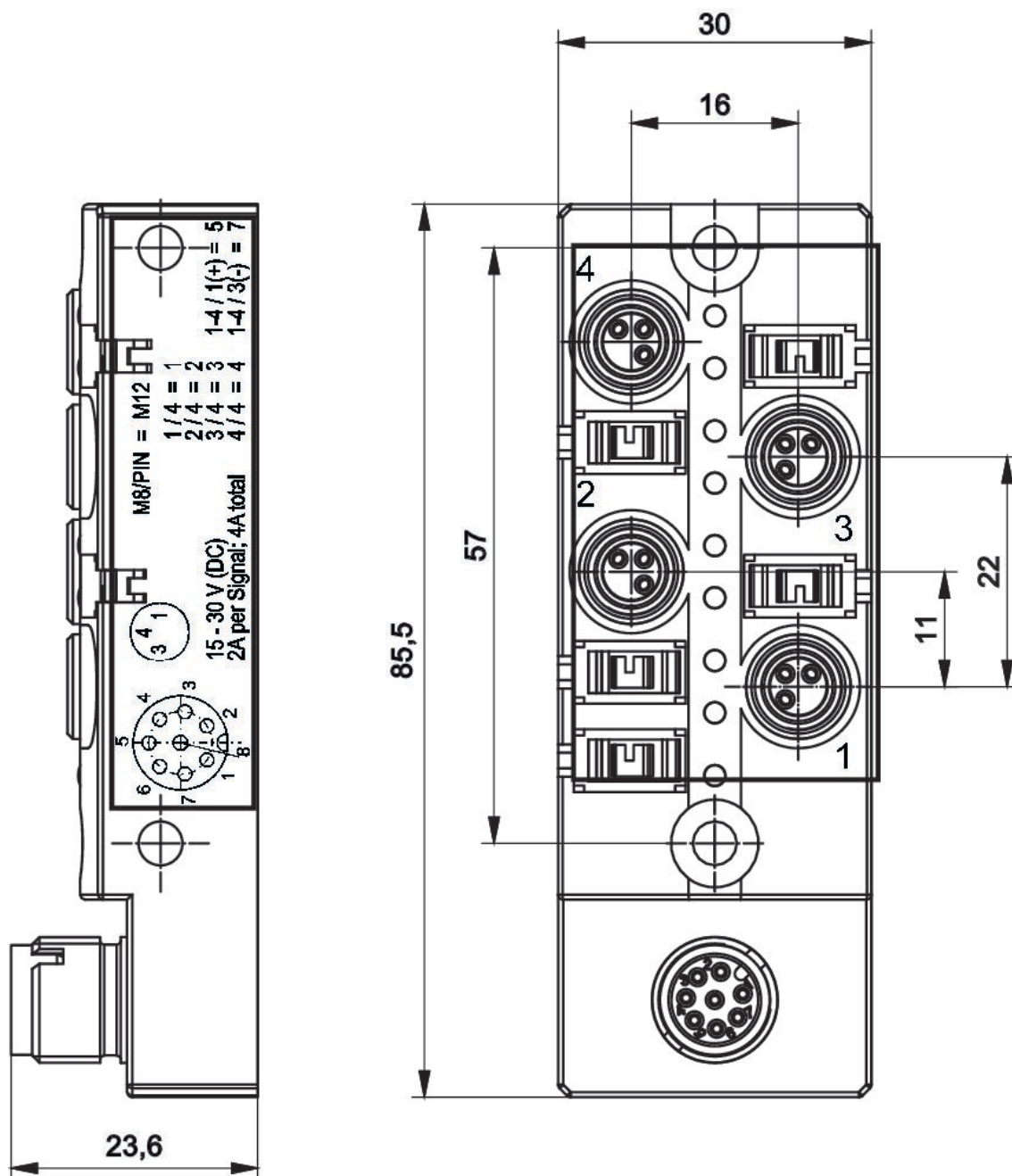
**Passive distributor, Series AES**

Min. ambient temperature: -25 °C  
Max. ambient temperature: 80 °C



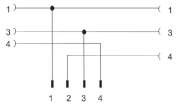
E/A capable	Number of I/O connections	Part No.
connection with I/O	4 inputs / 4 outputs	R412028732

Dimensions



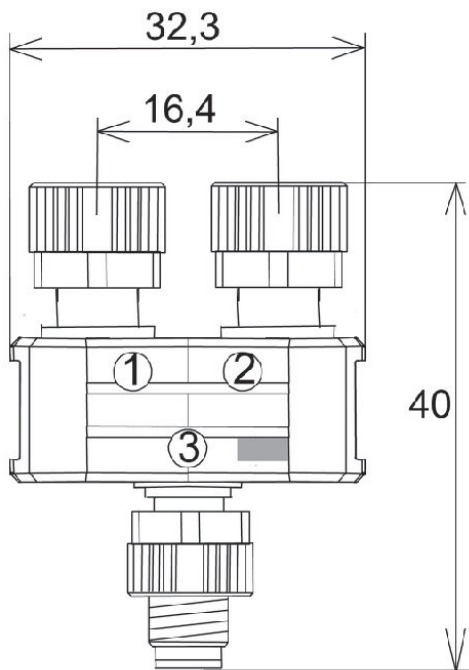
### Y-Plug connector, series CON-RD

Min. ambient temperature: -25 °C  
Max. ambient temperature: 85 °C



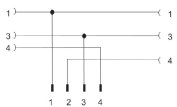
Max. current [A]	Part No.
4	R412028723

#### Dimensions



### R412028723

#### Pin assignments



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air supply management, proportional pressure  
control valves



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