

Field bus connections ▶ Link structure AES

## Link structure AES

Brochure



Field bus connections ▶ Link structure AES

## Link structure AES

### Bus coupler



Fieldbus connection, Series AES

▶ Bus coupler ▶ Field bus connection with I/O functionality ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK

8

### Stand-alone bus coupler



Fieldbus connection, Series AES

▶ Stand-Alone variant ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK

10

### I/O modules



Fieldbus connection, Series AES

▶ M8x1 digital inputs/outputs, 3-pin, 4-pin

12



Fieldbus connection, Series AES

▶ digital inputs/outputs, M12x1, 5-pin

15



Fieldbus connection, Series AES

▶ M12x1 digital inputs/outputs, 8-pin

17



Fieldbus connection, Series AES

▶ digital outputs D-Sub, 25-pin

19



Fieldbus connection, Series AES

▶ digital inputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital inputs

21



Fieldbus connection, Series AES

▶ digital outputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital outputs

23



Fieldbus connection, Series AES

▶ analog inputs/outputs M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ Field bus protocol: Analog inputs, Analog outputs

25

Field bus connections ▶ Link structure AES

## Link structure AES

	Fieldbus connection, Series AES ▶ analog inputs/outputs, M12x1, 5-pin ▶ I/O module version	27
	Link structure AES, Series AES ▶ control module M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ position control ▶ superordinate control ▶ I/O module version ▶ Field bus protocol: Analog inputs, Analog outputs	29
	Fieldbus connection, Series AES ▶ Pressure measurement module with 4 compressed air connection ▶ Compressed air connection: push-in fitting, Ø 4	31
	Fieldbus connection, Series AES ▶ power supply 7/8", 5-pin ▶ Power module	33
	Fieldbus connection, Series AES ▶ power supply, M12 plug, 4-pin ▶ Power module	35

## Accessories

### Accessories for bus couplers

	Data final plug (male), Series CN2 ▶ Plug, M12x1, 4-pin, B-coded ▶ for PROFIBUS DP	37
	Plug, M12x1, Series CN2 ▶ Plug, M12x1, 4-pin, D-coded, straight ▶ for PROFINET IO, EtherNET/IP, EtherCAT, POWERLINK, sercos III	38
	Socket, M12x1, Series CN2 ▶ Socket, M12x1, 4-pin, A-coded, straight	39
	Socket, M12x1, Series CN2 ▶ Socket, M12x1, 4-pin, A-coded, angled	40
	Data final plug, Series CN2 ▶ Plug, M12x1, 5-pin, A-coded ▶ for CANopen, DeviceNet	41

Field bus connections ▶ Link structure AES

## Link structure AES

	<p>Socket, M12x1, Series CN2</p> <p>▶ Socket, M12x1, 5-pin, A-coded, straight ▶ screened ▶ for CANopen, DeviceNet</p>	42
	<p>Plug, M12x1, Series CN2</p> <p>▶ Plug, M12x1, 5-pin, B-coded, straight ▶ screened ▶ for PROFIBUS DP</p>	43
	<p>Socket, M12x1, Series CN2</p> <p>▶ Socket, M12x1, 5-pin, B-coded, straight ▶ screened ▶ for PROFIBUS DP</p>	44
	<p>Plug, M12x1, Series CN2</p> <p>▶ Plug, M12x1, 5-pin, A-coded, straight ▶ screened ▶ for CANopen, DeviceNet</p>	45
<b>Mechanical accessories</b>		
	<p>Name plates</p> <p>▶ for AV03, AV05, LS04 / LS04-SW, Bus coupler, series AES</p>	46
	<p>Name plates, front</p> <p>▶ for AV03, AV05, I/O modules, series AES, Bus coupler, series AES</p>	46
	<p>Name plates</p> <p>▶ for I/O modules, series AES</p>	47
	<p>Protective cap</p> <p>▶ M8x1</p>	47
	<p>Protective cap</p> <p>▶ M12x1</p>	48
	<p>End plate left</p> <p>▶ for AES</p>	48

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Pneumatics catalog, online PDF, as of 2017-03-01, ©AVENTICS S.à r.l., subject to change

Field bus connections ▶ Link structure AES

## Link structure AES

	<p>End plate right ▶ for AES</p>	49
	<p>Retaining bracket for intermediate mounting ▶ for AES, AV03, AV05</p>	50
	<p>Spring clamp element ▶ for AES</p>	51
<b>Electrical accessories</b>		
	<p>Adapter module ▶ for series AES on B-design ▶ for Series HF02-LG, HF03-LG, HF04, CD10, CD20, CD01-PI</p>	52
<b>Accessories with M8 plug</b>		
	<p>Connecting cable, Series CN2 ▶ Plug, M8x1, 3-pin, angled ▶ open cable ends, 3-pin</p>	53
	<p>Connecting cable, Series CN2 ▶ Plug, M8x1, 3-pin, angled ▶ Socket, M8x1, 3-pin, straight</p>	54
	<p>Plug M8x1, Series CN2 ▶ Plug, M8x1, 3-pin, angled</p>	55
	<p>Plug M8x1, Series CN2 ▶ Plug, M8x1, 3-pin, straight</p>	57
	<p>Connecting cable, Series CN2 ▶ Plug, M8x1, 3-pin, straight ▶ open cable ends, 3-pin ▶ with self-clinching screw</p>	58
	<p>Connecting cable, Series CN2 ▶ Plug, M8x1, 3-pin, straight ▶ Socket, M8x1, 3-pin, straight</p>	59

Field bus connections ▶ Link structure AES

## Link structure AES

	<p>Adapter, Series CN2 ▶ Plug, M8x1, 3-pin ▶ Socket, M12x1, 3-pin</p>	<p>60</p>
<h3>Accessories with M12 plug</h3>		
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 4-pin, straight ▶ 2x open cable ends, 4-pin</p>	<p>62</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 4-pin, straight ▶ 2x Socket, M8x1, 3-pin, straight</p>	<p>63</p>
	<p>Plug, M12x1, Series CN2 ▶ Plug, M12x1, 4-pin, A-coded</p>	<p>64</p>
	<p>Plug, M12x1, Series CN2 ▶ Plug, M12x1, 4-pin, A-coded, straight</p>	<p>66</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 5-pin, straight ▶ open cable ends, 5-pin</p>	<p>67</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 5-pin, angled ▶ open cable ends, 5-pin</p>	<p>68</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 5-pin, A-coded, angled ▶ Socket, M12x1, 5-pin, A-coded, straight</p>	<p>69</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 3-pin, angled ▶ Socket, M8x1, 3-pin, straight</p>	<p>70</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 5-pin, A-coded, angled ▶ Socket, M12x1, 5-pin, A-coded, straight ▶ suitable for dynamic laying ▶ screened</p>	<p>72</p>

Field bus connections ▶ Link structure AES

**Link structure AES**

	<p>Distributor, Series AES ▶ 4x passive distributor, M12x1, 8-pin / 4x M8x1, 3-pin</p>	<p>73</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 8-pin, A-coded, straight ▶ Socket, M12x1, 8-pin, A-coded, straight ▶ suitable for dynamic laying ▶ screened</p>	<p>75</p>
	<p>Connecting cable, Series CN2 ▶ Plug, M12x1, 3-pin, straight ▶ Socket, M8x1, 3-pin, straight</p>	<p>76</p>
	<p>Y-connector, Series CN2 ▶ 2x Socket, M12x1, 5-pin ▶ Plug, M12x1, 5-pin</p>	<p>77</p>
	<p>Y-connector, Series CN2 ▶ 2x Socket, M8x1, 3-pin ▶ Plug, M12x1, 4-pin</p>	<p>79</p>
<p><b>Accessories with D-Sub</b></p>		
	<p>Connecting cable with plug and socket ▶ Plug, D-Sub, 25-pin, angled 90°</p>	<p>81</p>

### Fieldbus connection, Series AES

▶ Bus coupler ▶ Field bus connection with I/O functionality ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK



16456

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0.1 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Cycle time at 256 bits	< 1 ms
Number of solenoid coils max.	128
Number of valve positions	64
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
I/O module extension max.	10
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- Voltage and short-circuit monitoring per LED.
- During cyclical data transfer, the bus coupler can send 512 bits of input data to the controller and receive 512 bits of output data from the controller.

Field bus protocol	Port 1 Bus IN	Port 2 Bus OUT	power supply	Weight	Part No.
				[kg]	
PROFIBUS DP	Plug (male), M12, 5-pin, B-coded	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded	0.16	<b>R412018218</b>
CANopen	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0.16	<b>R412018220</b>
DeviceNet	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0.16	<b>R412018221</b>
PROFINET IO	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0.175	<b>R412018223</b>
EtherCAT	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0.175	<b>R412018225</b>
EtherNET/IP	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0.175	<b>R412018222</b>
POWERLINK	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0.175	<b>R412018226</b>

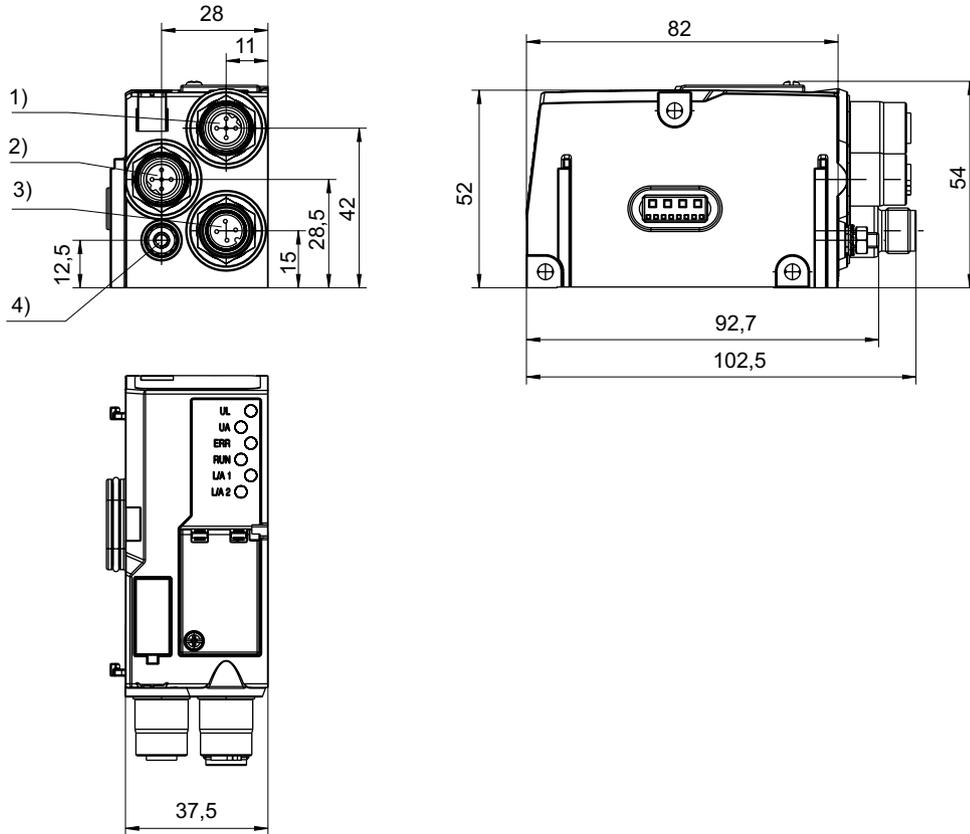
Scope of delivery: Incl. mounting screws 3x

Field bus connections ▶ Link structure AES

**Fieldbus connection, Series AES**

▶ Bus coupler ▶ Field bus connection with I/O functionality ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK

Dimensions



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

16457

### Fieldbus connection, Series AES

▶ Stand-Alone variant ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK



21399

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0.1 A
Operating voltage, actuators	24 V DC
Power supply connection	M12, A-coded, 4-pin
Total current for actuators	4 A
Cycle time at 256 bits	< 1 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

#### Materials:

Housing Polyamide, fiber-glass reinforced

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

#### Technical Remarks

- The maximum number of I/O modules is 10.

#### Configurable product



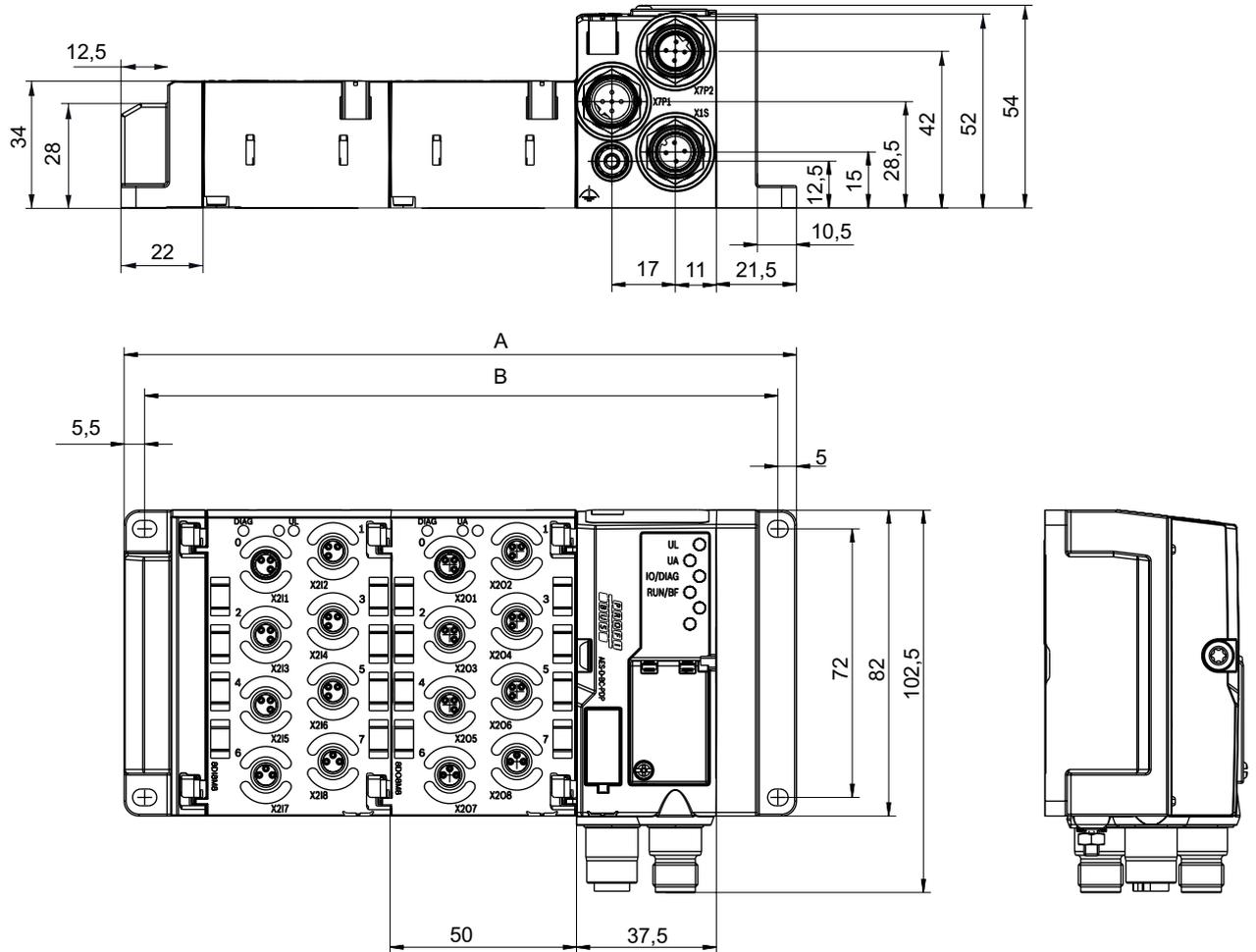
This product is configurable. Please use our Internet configurator at <http://www.aventics.com> or contact the nearest AVENTICS sales office.

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

▶ Stand-Alone variant ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK

#### Dimensions



A = number of I/O modules x 50 mm + 81 mm  
 B = number of I/O modules x 50 mm + 70.5 mm

21272

## Fieldbus connection, Series AES

▶ M8x1 digital inputs/outputs, 3-pin, 4-pin



21397

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0.5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

## Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.

for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	I/O module version	[kg]	Fig.	Note	Part No.
8DIDO8M8	Socket (female), M8x1, 3-pin	internal	8	8	Digital inputs Digital outputs Combination module	0.11	Fig. 1	1)	R412018269
8DI8M8	Socket (female), M8x1, 3-pin	internal	8	-	Digital inputs	0.11	Fig. 1	-	<b>R412018233</b>
8DO8M8	Socket (female), M8x1, 3-pin	internal	-	8	Digital outputs	0.11	Fig. 1	-	<b>R412018248</b>
16DI8M8	Socket (female), M8x1, 4-pin	internal	16	-	Digital inputs	0.11	Fig. 2	-	<b>R412018234</b>

1) Function specification for fieldbus configuration.

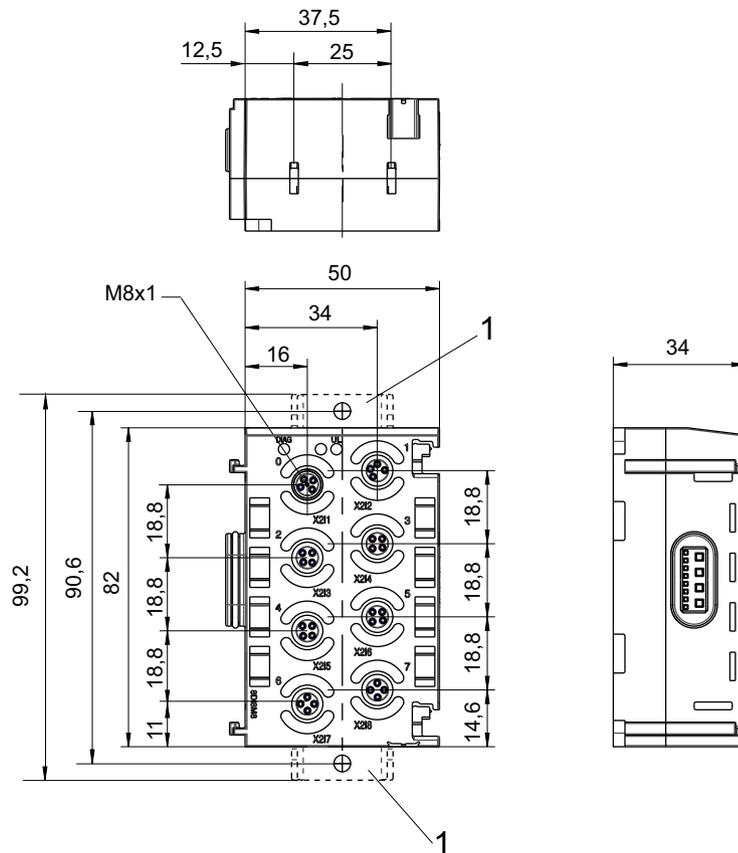
Delivery contents: incl. 2 spring clamp elements and seal



## Fieldbus connection, Series AES

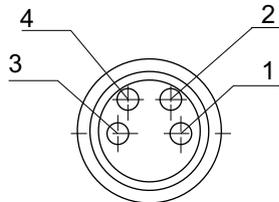
▶ M8x1 digital inputs/outputs, 3-pin, 4-pin

Dimensions, Fig. 2



24597

Pin assignments, PNP, 4-pin



24598

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)

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

#### ▶ digital inputs/outputs, M12x1, 5-pin



21351

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power supply for actuators	8x0,5 A
Max. current per channel	0.5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

#### Materials:

Housing Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.

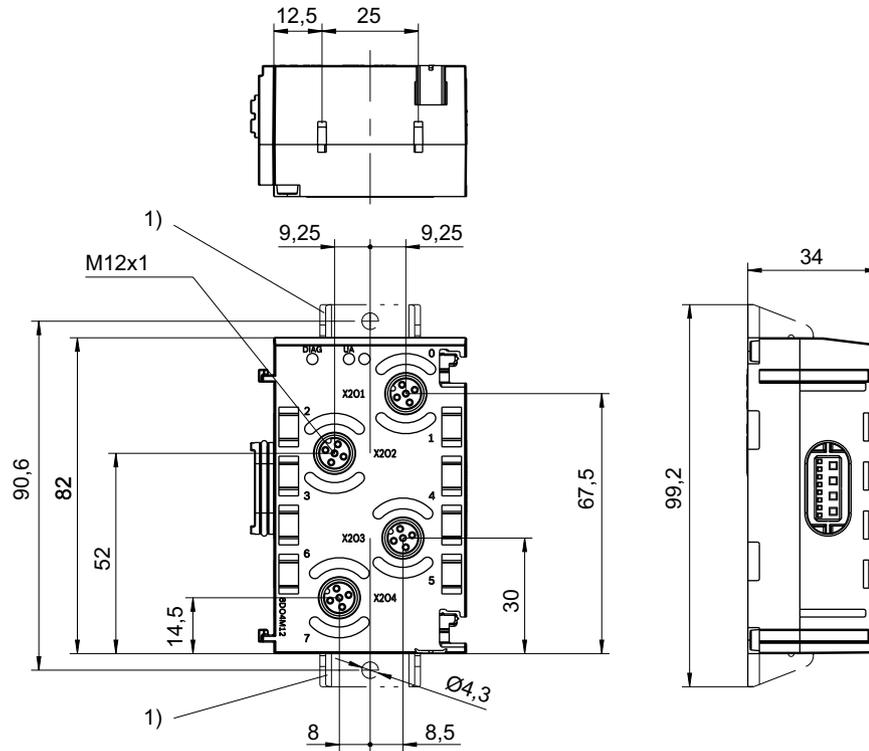
for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	I/O module version	Weight [kg]	Note	Part No.
8DI4M12	Socket (female), M12x1, 5-pin	internal	8	-	Digital inputs	0.11	-	<b>R412018235</b>
8DO4M12	Socket (female), M12x1, 5-pin	internal	-	8	Digital outputs	0.11	-	R412018250
8DIDO4M12	Socket (female), M12x1, 5-pin	internal	8	8	Digital inputs Digital outputs Combination module	0.11	1)	R412018270

1) Function specification for fieldbus configuration.  
Delivery contents: incl. 2 spring clamp elements and seal

### Fieldbus connection, Series AES

▶ digital inputs/outputs, M12x1, 5-pin

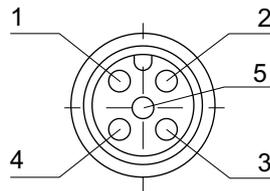
#### Dimensions



21348

1) Retaining bracket (optional)

#### Pin assignments, PNP



22772

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

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

#### ▶ M12x1 digital inputs/outputs, 8-pin



22817

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Max. current per channel	0.5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.

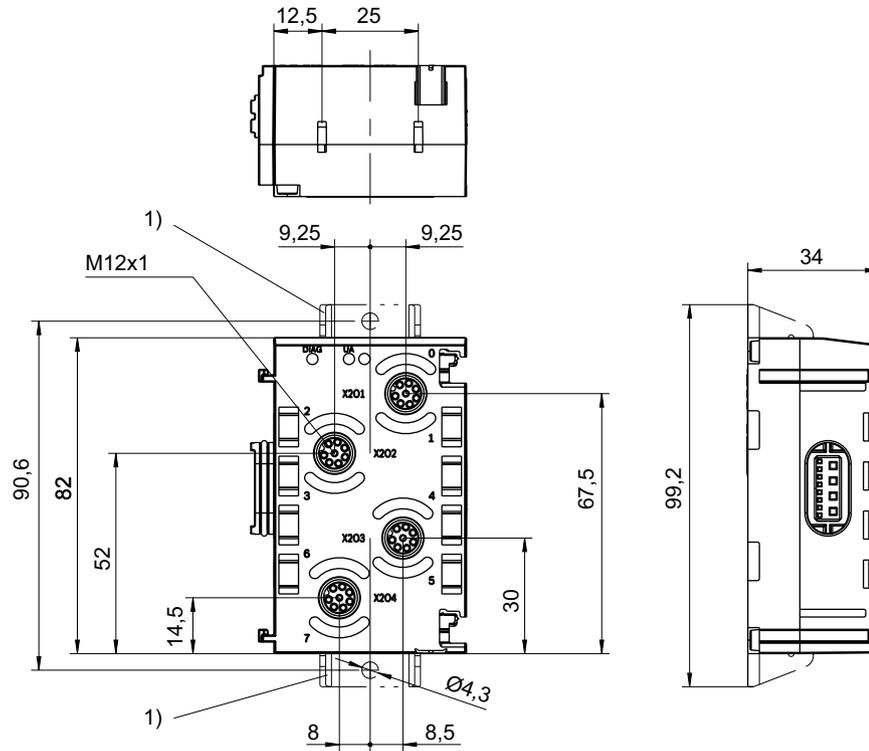
for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	I/O module version	Weight	Part No.
						[kg]	
16DI4M12	Socket (female), M12, 8-pin	internal	16	-	Digital inputs	0.11	R412018243
16DO4M12	Socket (female), M12, 8-pin	internal	-	16	Digital outputs	0.11	R412018263

Delivery contents: incl. 2 spring clamp elements and seal

## Fieldbus connection, Series AES

▶ M12x1 digital inputs/outputs, 8-pin

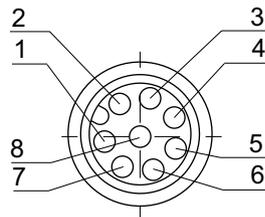
### Dimensions



22823

1) Retaining bracket (optional)

### Pin assignments, PNP



22824

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

Field bus connections ▶ Link structure AES

## Fieldbus connection, Series AES

### ▶ digital outputs D-Sub, 25-pin



23123

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Max. current per channel	0.5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Number of outputs	24
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- Voltage and short-circuit monitoring per LED.

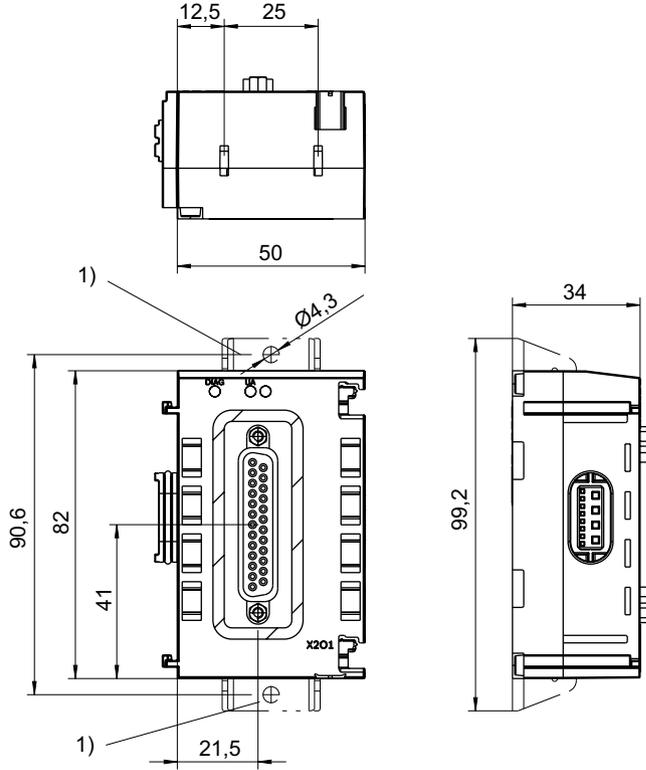
for Type	Port 1 Bus IN	power supply	Weight [kg]	Part No.
24DO1DSUB25	Socket, D-Sub, 25-pin	internal	0.115	<b>R412018254</b>

Delivery contents: incl. 2 spring clamp elements and seal

**Fieldbus connection, Series AES**

▶ digital outputs D-Sub, 25-pin

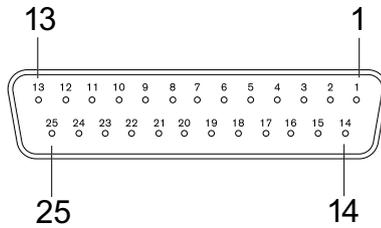
**Dimensions**



23124

1) Retaining bracket (optional)

**Pin assignments**



00136701

Socket (female)

	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6	Pin7	Pin8	Pin9	Pin10	Pin11	Pin12	Pin13
Output module	[X]	[X+0.1]	[X+0.2]	[X+0.3]	[X+0.4]	[X+0.5]	[X+0.6]	[X+0.7]	[X+1]	[X+1.1]	[X+1.2]	[X+1.3]	[X+1.4]

	Pin14	Pin15	Pin16	Pin17	Pin18	Pin19	Pin20	Pin21	Pin22	Pin23	Pin24	Pin25
Output module	[X+1.5]	[X+1.6]	[X+1.7]	[X+2.0]	[X+2.1]	[X+2.2]	[X+2.3]	[X+2.4]	[X+2.5]	[X+2.6]	[X+2.7]	0 V DC

X = bit value

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

#### ▶ digital inputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital inputs



23388

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP20
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0.5 A
Total current of sensors max.	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

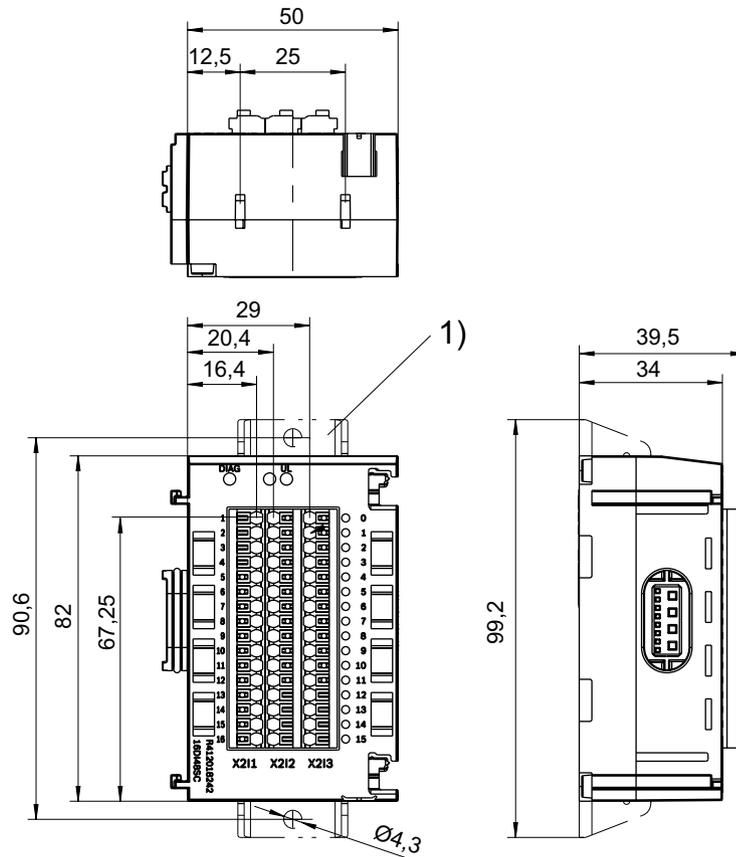
- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- Voltage and short-circuit monitoring per LED.
- The clamp area for stranded wires is between 0.2 and 1.5 mm<sup>2</sup>.

for Type	Port 1 Bus IN	power supply	Number of inputs	Weight	Part No.
				[kg]	
16DI48SC	Spring clamp connections, 48x	internal	16	0.115	<b>R412018242</b>
Delivery contents: incl. 2 spring clamp elements and seal					

## Fieldbus connection, Series AES

▶ digital inputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital inputs

### Dimensions



23260

1) Retaining bracket (optional)

Port	Contact	Function
X211	1	Input signal 24 V DC bit 0.0
	2	Input signal 24 V DC bit 0.1
	3	Input signal 24 V DC bit 0.2
	4	Input signal 24 V DC bit 0.3
	5	Input signal 24 V DC bit 0.4
	6	Input signal 24 V DC bit 0.5
	7	Input signal 24 V DC bit 0.6
	8	Input signal 24 V DC bit 0.7
	9	Input signal 24 V DC bit 1.0
	10	Input signal 24 V DC bit 1.1
	11	Input signal 24 V DC bit 1.2
	12	Input signal 24 V DC bit 1.3
	13	Input signal 24 V DC bit 1.4
	14	Input signal 24 V DC bit 1.5
	15	Input signal 24 V DC bit 1.6
	16	Input signal 24 V DC bit 1.7
X212	1-16	24 V DC
X213	1-16	0 V DC

Field bus connections ▶ Link structure AES

**Fieldbus connection, Series AES**

▶ digital outputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital outputs



23387

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP20
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel	0.5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
<b>Materials:</b>	
Housing	Polyamide, fiber-glass reinforced

**Technical Remarks**

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.
- The clamp area for stranded wires is between 0.2 and 1.5 mm<sup>2</sup>.

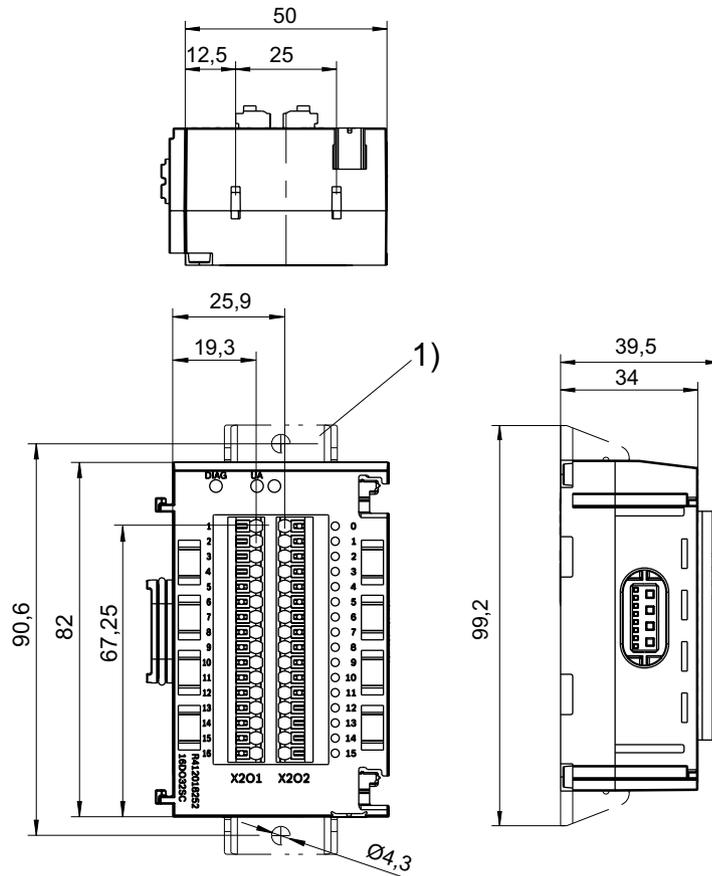
Type	Port 1	power supply	Number of outputs	Weight	Part No.
				[kg]	
16DO32SC	Spring clamp connections, 32x	internal	16	0.115	R412018252

Delivery contents: incl. 2 spring clamp elements and seal

## Fieldbus connection, Series AES

▶ digital outputs ▶ Spring clamp connections (IP20) ▶ Field bus protocol: Digital outputs

### Dimensions



23261

1) Retaining bracket (optional)

Port	Contact	Function
X201	1	Output signal 24 V DC bit 0.0
	2	Output signal 24 V DC bit 0.1
	3	Output signal 24 V DC bit 0.2
	4	Output signal 24 V DC bit 0.3
	5	Output signal 24 V DC bit 0.4
	6	Output signal 24 V DC bit 0.5
	7	Output signal 24 V DC bit 0.6
	8	Output signal 24 V DC bit 0.7
	9	Output signal 24 V DC bit 1.0
	10	Output signal 24 V DC bit 1.1
	11	Output signal 24 V DC bit 1.2
	12	Output signal 24 V DC bit 1.3
	13	Output signal 24 V DC bit 1.4
	14	Output signal 24 V DC bit 1.5
	15	Output signal 24 V DC bit 1.6
	16	Output signal 24 V DC bit 1.7
X202	1-16	0 V DC

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

▶ analog inputs/outputs M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ Field bus protocol: Analog inputs, Analog outputs



23136

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Suitable for direct connection of an electropneumatic pressure regulator from the ED series.

for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	Analog inputs	Analog outputs	Part No.
2AI2AO2M12-AE	M12x1, 5-pin, Socket (female)	Plug (male), M12, 4-pin, A-coded	2	2	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	<b>R412018287</b>

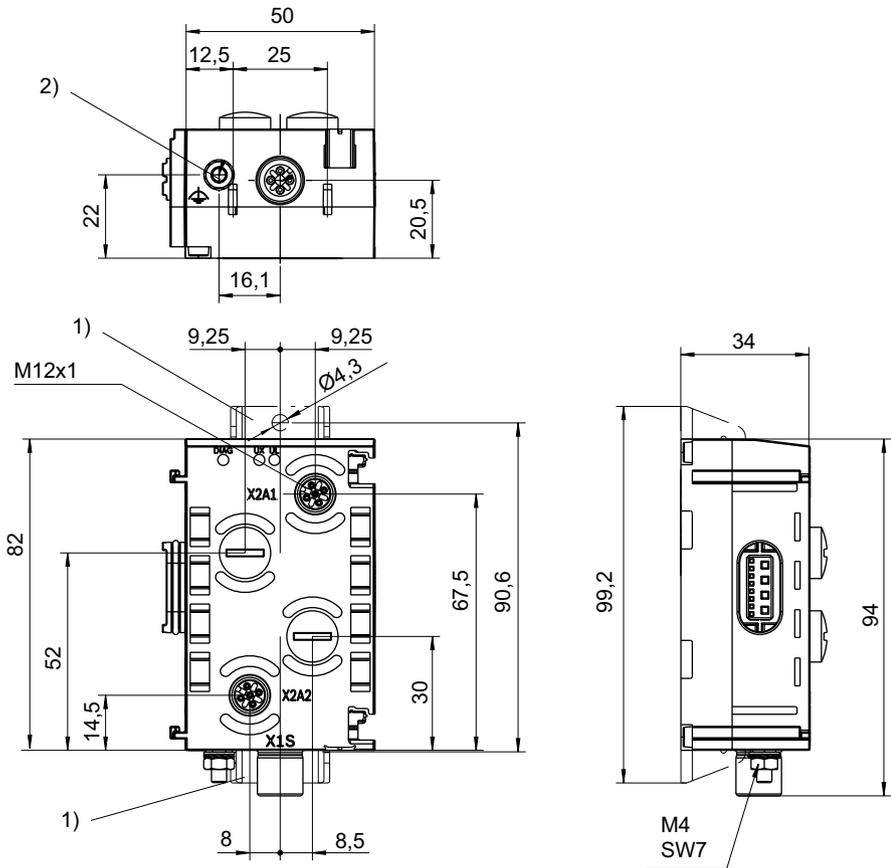
Part No.	Weight [kg]	Note
<b>R412018287</b>	0.11	1)

1) freely selectable signals, configurable  
Delivery contents: incl. 2 spring clamp elements and seal

## Fieldbus connection, Series AES

▶ analog inputs/outputs M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ Field bus protocol: Analog inputs, Analog outputs

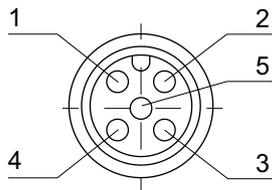
### Dimensions



23121

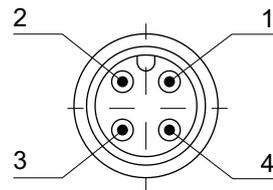
- 1) Retaining bracket (optional)  
2) Ground

### Pin assignments, Socket (female)



23122

### Plug (male)



23125

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	Ground	-

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES

▶ analog inputs/outputs, M12x1, 5-pin ▶ I/O module version



23380

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Max. current per channel	0.5 A
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.
- The input channels have an input resistance of 120 ohms in the current range and 100 kilohms in the voltage range.
- The output channels can drive a maximum ohmic load of 450 ohms in the current range. The minimum resistance in the voltage range is 1 kilohm.

for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	Analog inputs	Analog outputs	[kg]	Part No.
2AI2M12-E	Socket (female), M12, 5-pin	internal	2	-	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	-	0.11	R412018277
4AI4M12-E	Socket (female), M12, 5-pin	internal	4	-	0 - 10 V 2 - 10 V 0 - 20 mA 4 - 20 mA	-	0.11	<b>R412018278</b>
2AO2M12-E	Socket (female), M12, 5-pin	internal	-	2	-	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	0.11	R412018281

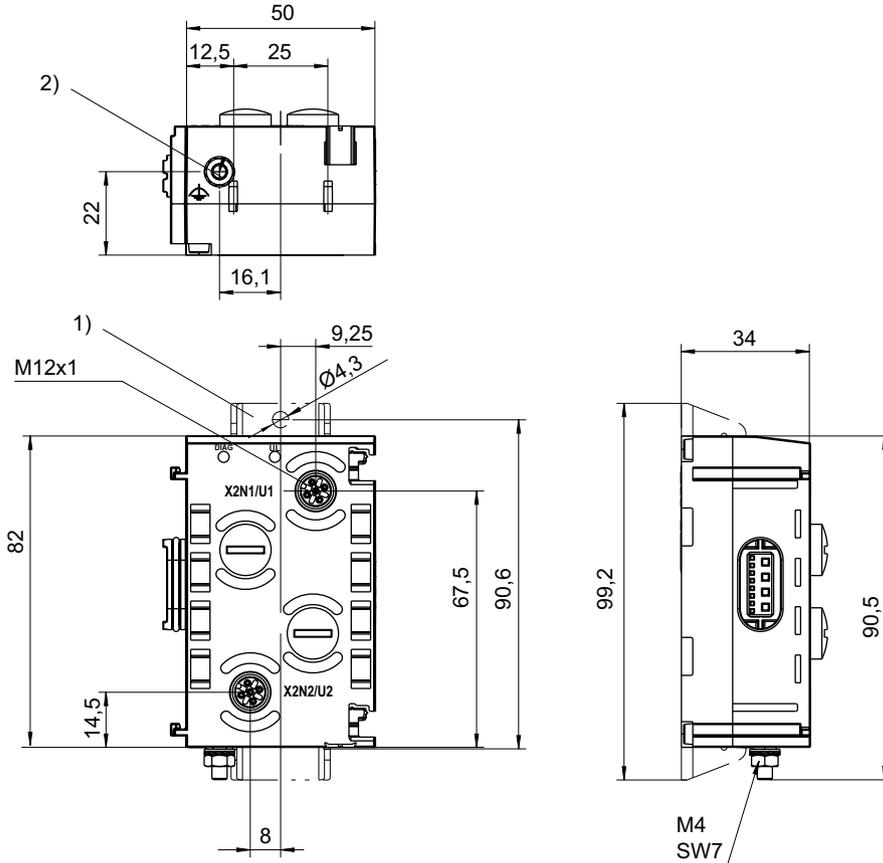
Part No.	Note
R412018277	1)
<b>R412018278</b>	-
R412018281	1)

1) freely selectable signals, configurable  
Delivery contents: incl. 2 spring clamp elements and seal

## Fieldbus connection, Series AES

▶ analog inputs/outputs, M12x1, 5-pin ▶ I/O module version

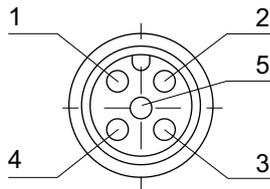
### Dimensions



23262

- 1) Retaining bracket (optional)  
2) Ground

### Pin assignments, Socket (female)



23122

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	Ground	Ground	Shield, connected internally with ground screw (12)

## Field bus connections ▶ Link structure AES

### Link structure AES, Series AES

▶ control module M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ position control ▶ superordinate control ▶ I/O module version ▶ Field bus protocol: Analog inputs, Analog outputs



23136

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- Information on the assignment scheme and control parameters can be found in the operating instructions. Or, contact your nearest AVENTICS sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- After direct connection to an electropneumatic pressure regulator suitable for controlling positions or superior control circuits.
- Suitable for direct connection of an electropneumatic pressure regulator from the ED series.

for Type	Port 1 Bus IN	power supply	Number of inputs	Number of outputs	Analog inputs	Analog outputs	Part No.
2AI2AO2M12-C	M12x1, 5-pin, Socket (female)	Plug (male), M12, 4-pin, A-coded	2	2	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	<b>R412018293</b>

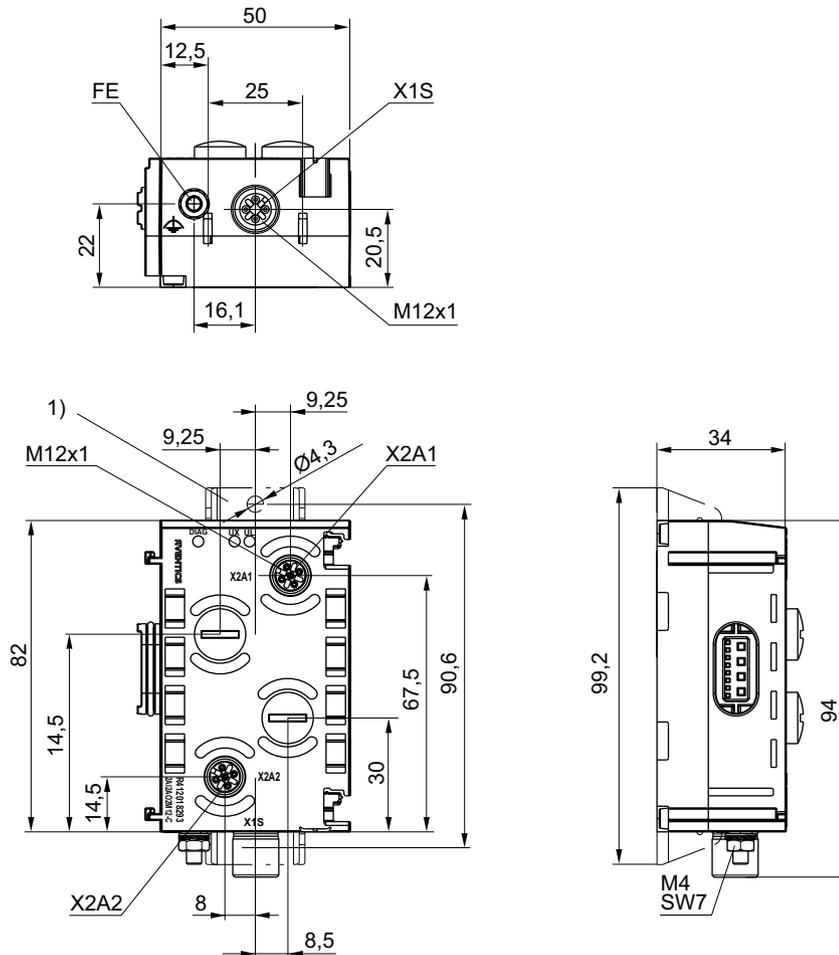
Part No.	Weight	Note
	[kg]	
<b>R412018293</b>	0.11	1)

1) freely selectable signals, configurable  
Delivery contents: incl. 2 spring clamp elements and seal

### Link structure AES, Series AES

▶ control module M12x1, 5-pin ▶ with external power supply ▶ control of E/P pressure regulators ▶ position control ▶ superordinate control ▶ I/O module version ▶ Field bus protocol: Analog inputs, Analog outputs

#### Dimensions



IM0041568

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	Ground	-

Field bus connections ▶ Link structure AES

## Fieldbus connection, Series AES

▶ Pressure measurement module with 4 compressed air connection ▶ Compressed air connection: push-in fitting, Ø 4



24546

Measurement	Relative pressure
Measurement range min./max.	0 bar / 10 bar
Working pressure min./max.	0 bar / 15 bar
Ambient temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. oil content of compressed air	0 mg/m <sup>3</sup> - 1 mg/m <sup>3</sup>
Max. particle size	40 µm
Repeatability (% of full scale value)	± 2 %
DC operating voltage min./max.	24 V DC
Protection class	IP65
Weight	0.115 kg
Resolution	8 bit
Materials:	
Housing	Polyamide, fiber-glass reinforced

### Technical Remarks

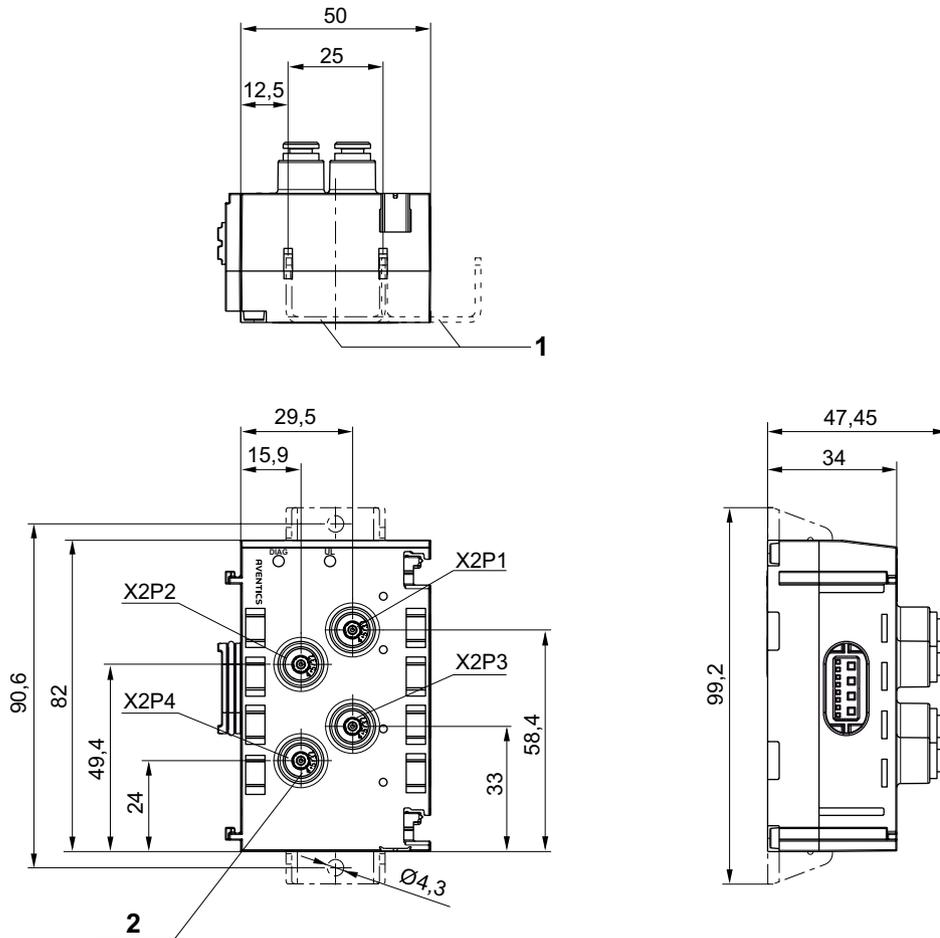
- When using polyurethane tubing, we recommend using additional stiffener sleeves.
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.

	for	Number	Part No.
	Type	Compressed air connection	
	4P4D4	4	<b>R412018291</b>

## Fieldbus connection, Series AES

▶ Pressure measurement module with 4 compressed air connection ▶ Compressed air connection: push-in fitting,  $\varnothing 4$

### Dimensions



24596

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

## Field bus connections ▶ Link structure AES

### Fieldbus connection, Series AES ▶ power supply 7/8" , 5-pin ▶ Power module



IM0043955

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-20% / +20%
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	4 A
Total current of sensors max.	4 A
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:	
Housing	Polyamide, fiber-glass reinforced

#### Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.
- The supply voltage from X1S1 is available at X1S2 (without modification)
- The total internal current (UA or UL) and consumption at X1S2 must not exceed 8A at X1S1.

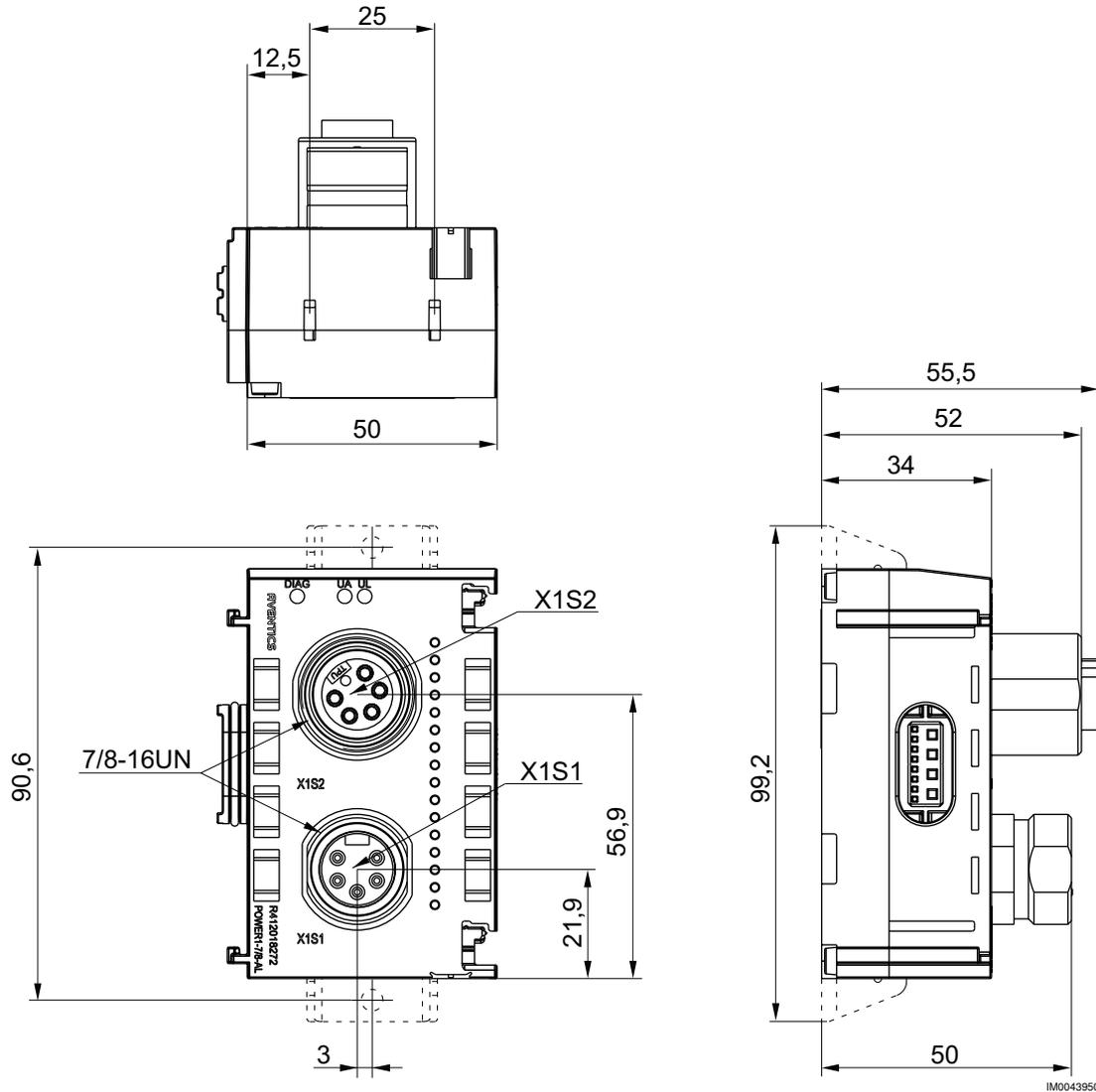
Port 1	Port 2	Power supply direction		Weight	Note	Part No.
		UL	UA			
				[kg]		
Plug, 7/8", 5-pin	Socket, 7/8", 5-pin	left, right	left, right	0.15	1); 3)	<b>R412018272</b>
Plug, 7/8", 5-pin	Socket, 7/8", 5-pin	-	left	0.15	2); 3)	<b>R412018273</b>
Plug, 7/8", 5-pin	Socket, 7/8", 5-pin	left	-	0.15	2); 3)	<b>R412018274</b>

- UL: Logic voltage (power supply for electronic components and sensors)  
 UA: Actuator voltage (power supply for valves and outputs)  
 1) Power plug X1S on the bus coupler must be closed with sealing cap R412024837.  
 2) The supply voltage is galvanically isolated from the right-hand module.  
 3) If connection 2 is not used for forwarding, it must be closed with sealing cap R412024838.

## Fieldbus connection, Series AES

▶ power supply 7/8" , 5-pin ▶ Power module

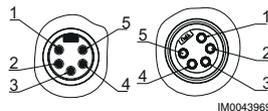
### Dimensions



IM0043950

Port 1, X1S1  
Port 2, X1S2

### Pin assignments, PNP



IM0043969

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

**Field bus connections ▶ Link structure AES**

**Fieldbus connection, Series AES**  
 ▶ power supply, M12 plug, 4-pin ▶ Power module



IM0045847

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-20% / +20%
Operating voltage, actuators	24 V DC
Actuator voltage tolerance	-10% / +10%
Total current for actuators	4 A
Total current of sensors max.	4 A
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:	
Housing	Polyamide, fiber-glass reinforced

**Technical Remarks**

- You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

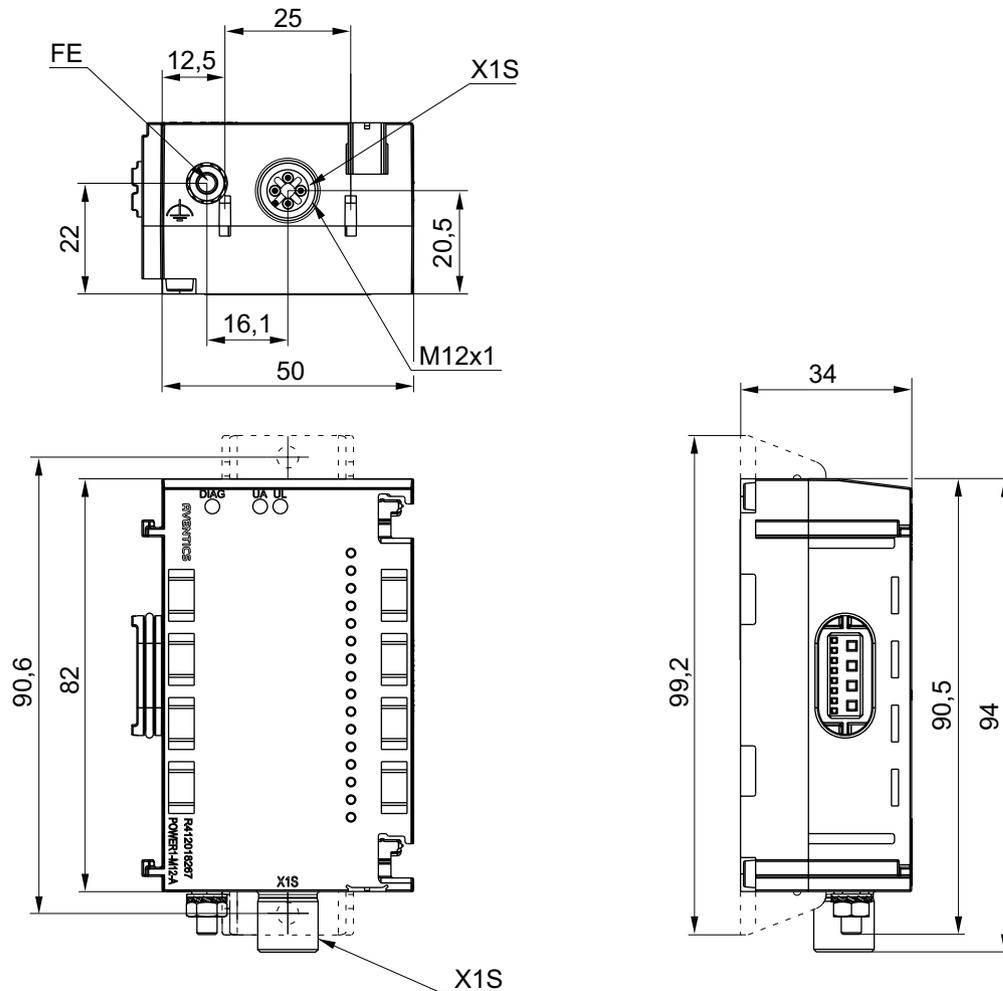
Port 1	Power supply direction		Weight [kg]	Part No.
	UL	UA		
Plug, M12x1, 4-pin	-	left	0.15	R412018267
Plug, M12x1, 4-pin	left	-	0.15	R412018268

UL: Logic voltage (power supply for electronic components and sensors)  
 UA: Actuator voltage (power supply for valves and outputs)  
 The supply voltage is galvanically isolated from the right-hand module.

## Fieldbus connection, Series AES

▶ power supply, M12 plug, 4-pin ▶ Power module

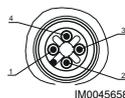
### Dimensions



IM0045655

Port 1, X1S

### Pin assignments, PNP



IM0045658

Pin	R412018267 (UA)	R412018267 (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)	-

Field bus connections ▶ Link structure AES

**Link structure AES**  
Accessories

**Data final plug (male), Series CN2**  
▶ Plug, M12x1, 4-pin, B-coded ▶ for PROFIBUS DP



00120228

Ambient temperature min./max.  
Protection class

-25°C / +80°C  
IP67

Materials:  
Housing

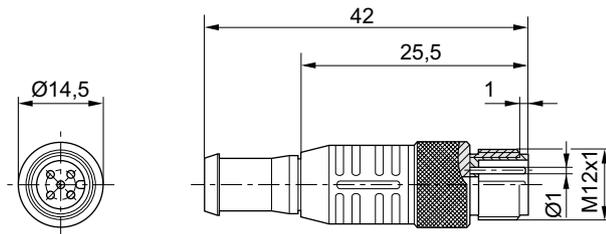
Thermoplastic elastomer

**Technical Remarks**

- The specified protection class is only valid in assembled and tested state.
- PROFIBUS DP bus termination plug

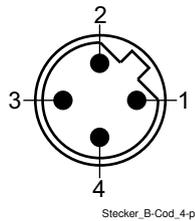
Cable exit	Housing color	Weight [kg]	Part No.
straight 180°	Black	0.013	<b>8941054064</b>

**Dimensions**



00129511

**Pin assignment**



## Link structure AES

### Accessories

## Plug, M12x1, Series CN2

▶ Plug, M12x1, 4-pin, D-coded, straight ▶ for PROFINET IO, EtherNET/IP, EtherCAT, POWERLINK, sercos III



23447

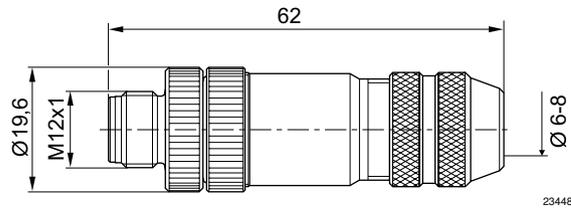
Ambient temperature min./max.	-25°C / +85°C
Protection class	IP67
Materials:	
Housing	Brass

### Technical Remarks

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

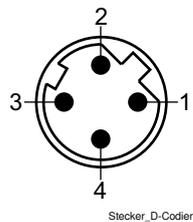
Number of wires	Max. current [A]	suitable cable-Ø min./max [mm]	Weight [kg]	Part No.
4	4	6 / 8	0.41	<b>R419801401</b>

### Dimensions



23448

### Pin assignment



Field bus connections ▶ Link structure AES

## Link structure AES Accessories

### Socket, M12x1, Series CN2

▶ Socket, M12x1, 4-pin, A-coded, straight



Ambient temperature min./max.

-25°C / +90°C

Protection class

IP67

Materials:

Housing

Polybutyleneterephthalate

Seals

Fluorocarbon caoutchouc

The delivered product may vary from that in the illustration.

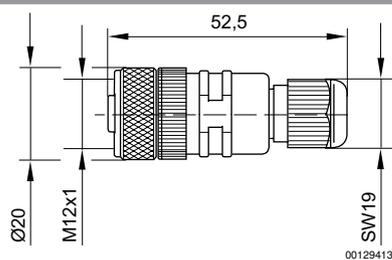
00129412

#### Technical Remarks

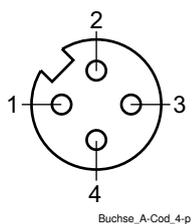
- The specified protection class is only valid in assembled and tested state.

Operational voltage	Max. current	suitable cable-Ø min./ max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	4 / 8	Black	0.028	<b>8941054324</b>

#### Dimensions



#### Pin assignment



## Link structure AES

### Accessories

## Socket, M12x1, Series CN2

### ▶ Socket, M12x1, 4-pin, A-coded, angled



22869

Ambient temperature min./max.  
Protection class

-25°C / +90°C  
IP67

Materials:  
Housing  
Seals

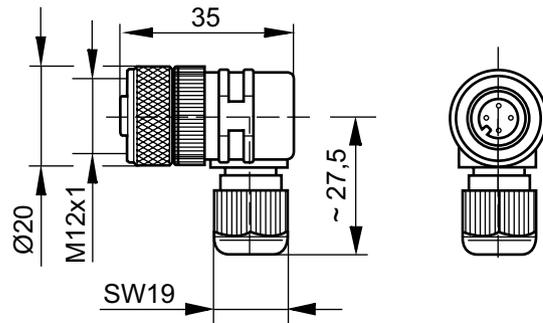
Polybutyleneterephthalate  
Fluorocarbon caoutchouc

#### Technical Remarks

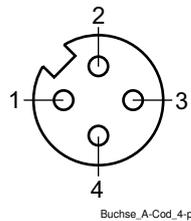
- The specified protection class is only valid in assembled and tested state.

Operational voltage	Max. current	suitable cable-Ø min./max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	4 / 8	Black	0.027	<b>8941054424</b>

#### Dimensions



#### Pin assignment



Field bus connections ▶ Link structure AES

Link structure AES  
Accessories

Data final plug, Series CN2

▶ Plug, M12x1, 5-pin, A-coded ▶ for CANopen, DeviceNet



00129791

Ambient temperature min./max.  
Protection class

+0 °C / +60 °C  
IP67

Materials:  
Housing

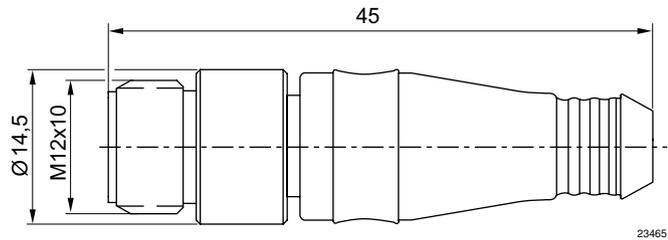
Thermoplastic elastomer

Technical Remarks

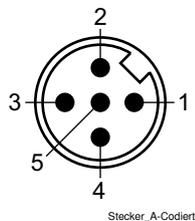
- The specified protection class is only valid in assembled and tested state.

Cable exit	Housing color	Weight [kg]	Part No.
straight 180°	Black	0.011	<b>8941054264</b>

Dimensions



Pin assignment



## Link structure AES

### Accessories

## Socket, M12x1, Series CN2

▶ Socket, M12x1, 5-pin, A-coded, straight ▶ screened ▶ for CANopen, DeviceNet



00129776

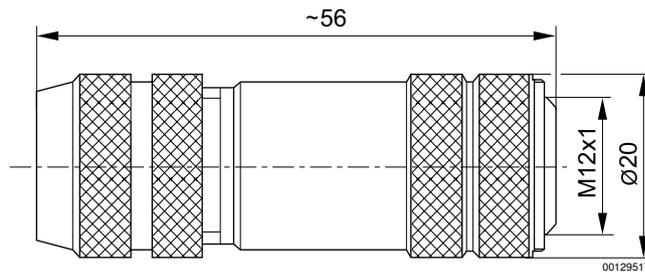
Ambient temperature min./max.	-40°C / +85°C
Protection class	IP67
Cable fitting	PG 9
Materials:	
Housing	Brass, nickel-plated

### Technical Remarks

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

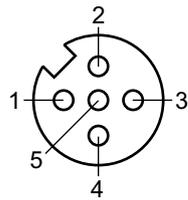
Operational voltage	Max. current	suitable cable-Ø min./max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	6 / 8	silver	0.051	<b>8942051602</b>

### Dimensions



00129517

### Pin assignment



Buchse\_A-Codiert

Field bus connections ▶ Link structure AES

Link structure AES  
Accessories

Plug, M12x1, Series CN2

▶ Plug, M12x1, 5-pin, B-coded, straight ▶ screened ▶ for PROFIBUS DP



00120241

Ambient temperature min./max.  
Protection class

-25°C / +90°C  
IP67

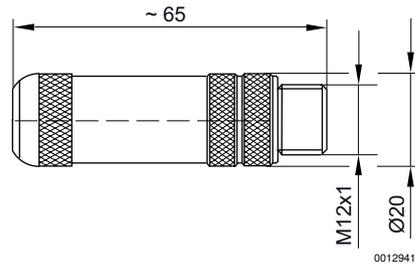
Materials:  
Housing  
Seals

Brass, nickel-plated  
Fluorocarbon caoutchouc

**Technical Remarks**  
■ The specified protection class is only valid in assembled and tested state.

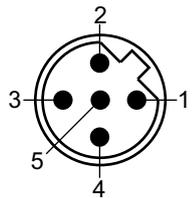
Operational voltage	Max. current	suitable cable-Ø min./max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	4 / 9	silver	0.06	<b>8941054054</b>

**Dimensions**



00129415

**Pin assignment, B-coded**



Stecker\_B-Codiert

## Link structure AES

### Accessories

## Socket, M12x1, Series CN2

▶ Socket, M12x1, 5-pin, B-coded, straight ▶ screened ▶ for PROFIBUS DP



00120227

Ambient temperature min./max.  
Protection class

-25°C / +90°C  
IP67

Materials:  
Housing  
Seals

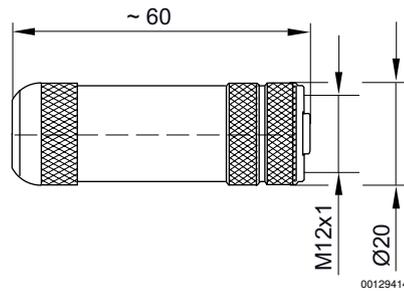
Brass, nickel-plated  
Fluorocarbon cautchouc

### Technical Remarks

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

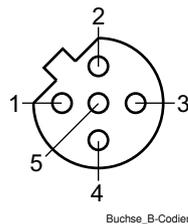
Operational voltage	Max. current	suitable cable-Ø min./max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	4 / 9	silver	0.06	<b>8941054044</b>

### Dimensions



00129414

### Pin assignment



Field bus connections ▶ Link structure AES

Link structure AES  
Accessories

Plug, M12x1, Series CN2

▶ Plug, M12x1, 5-pin, A-coded, straight ▶ screened ▶ for CANopen, DeviceNet



00120241

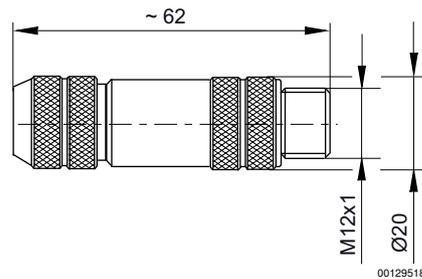
Ambient temperature min./max. -40°C / +85°C  
 Protection class IP67  
 Cable fitting PG 9

Materials:  
 Housing Brass, nickel-plated

**Technical Remarks**  
 ■ The specified protection class is only valid in assembled and tested state.

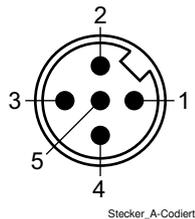
Operational voltage	Max. current	suitable cable-Ø min./max	Housing color	Weight	Part No.
AC					
[V]	[A]	[mm]		[kg]	
48	4	6 / 8	silver	0.048	<b>8942051612</b>

Dimensions



00129518

Pin assignment

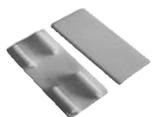


## Link structure AES

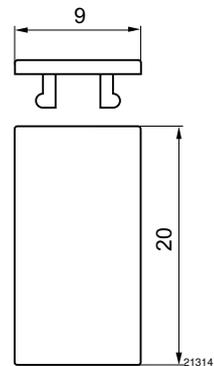
### Accessories

### Name plates

▶ for AV03, AV05, LS04 / LS04-SW, Bus coupler, series AES



21315



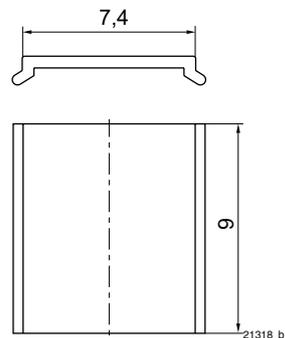
Part No.	Type	Material	Weight [kg]	Order quantity [Piece]			
<b>R422100889</b>	Name plates	Polyamide	0.014	20			

### Name plates, front

▶ for AV03, AV05, I/O modules, series AES, Bus coupler, series AES



21315\_a



Part No.	Type	Material	Weight [kg]	Order quantity [Piece]			
<b>R412019552</b>	Name plates	Polyamide	0.014	150			

Field bus connections ▶ Link structure AES

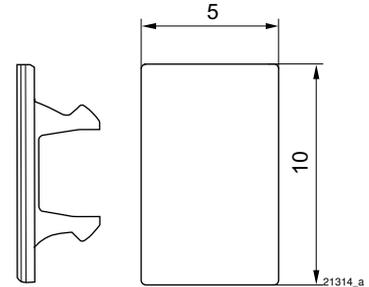
**Link structure AES**  
Accessories

**Name plates**

▶ for I/O modules, series AES



21315\_a



21314\_a

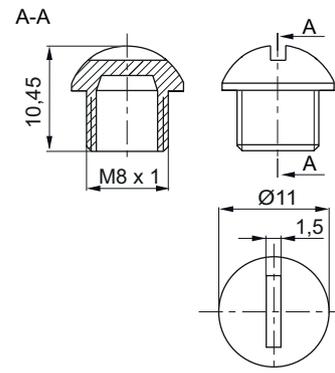
Part No.	Type	Material	Weight [kg]	Order quantity [Piece]			
<b>R412018192</b>	Name plates	Polyamide	0.014	60			

**Protective cap**

▶ M8x1



00120243



00131442

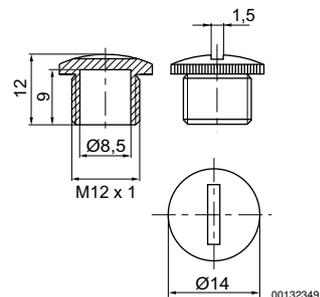
Part No.	Type	Material	Weight [kg]	Order quantity [Piece]			
<b>R412003493</b>	M8x1	Polyamide	0.014	25			

**Link structure AES**
**Accessories**
**Protective cap**

▶ M12x1



00120243



00132349

Part No.	Type	Material	Weight [kg]	Order quantity [Piece]			
<b>1823312001</b>	M12x1	Polyamide	0.001	50			

**End plate left**

▶ for AES



21465

Ambient temperature min./max.

-10 °C / +60 °C

Materials:

Base plate

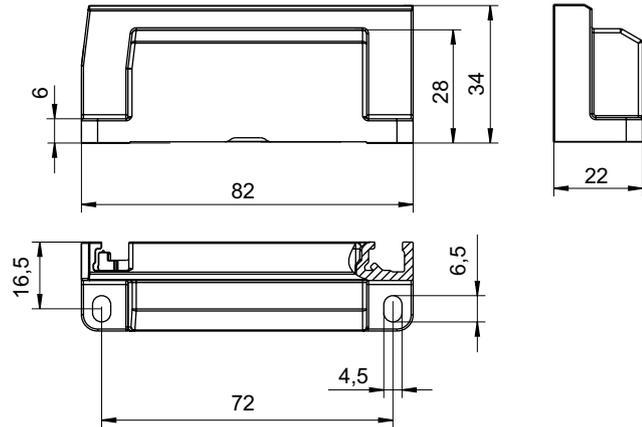
Polyamide, fiber-glass reinforced

Type	Weight [kg]	Part No.
End plate left	0.033	<b>R412015398</b>

Delivery contents: incl. 2 spring clamp elements

**Link structure AES**  
Accessories

**Dimensions**



17212

**End plate right**  
▶ for AES



21398

Ambient temperature min./max.

-10°C / +60°C

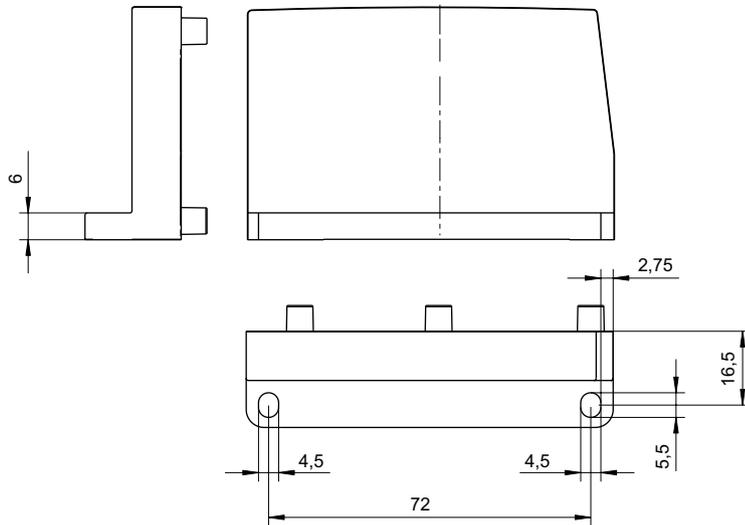
Materials:  
Base plate

Polyamide, fiber-glass reinforced

Suitable for Series	Weight	Part No.
	[kg]	
Stand-Alone variant AES	0.039	R412015741
Scope of delivery incl. seal and mounting screws		

**Link structure AES**

## Accessories

**Dimensions**


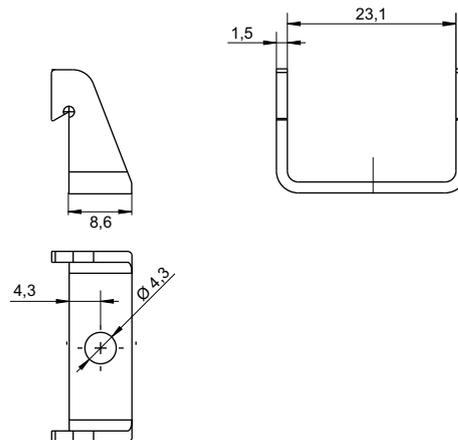
17213

**Retaining bracket for intermediate mounting**

▶ for AES, AV03, AV05



19093



17196

Part No.	Type	Material	Order quantity [Piece]				
<b>R412018339</b>	Retaining brackets	Stainless steel	10				

After three I/O modules or 8 valves, mount a retaining bracket (R412018339) to fasten the entire unit to the mounting surface.  
Screws not included in scope of delivery

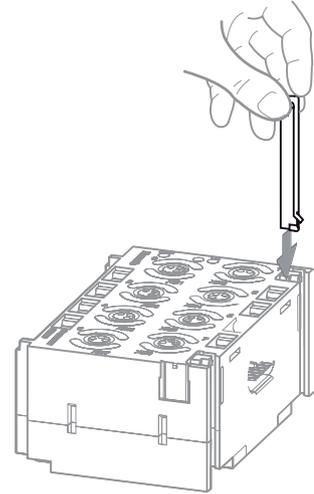
The max. permissible space between the retaining brackets is 150 mm.

**Link structure AES**  
Accessories

**Spring clamp element**  
▶ for AES



19094



20432

Part No.	Type	Material	Order quantity [Piece]				
R412015400	Spring clamp element	Steel	10				

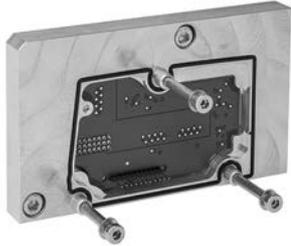
## Link structure AES Accessories

### Adapter module

▶ for series AES on B-design ▶ for Series HF02-LG, HF03-LG, HF04, CD10, CD20, CD01-PI

Ambient temperature min./max.

-10°C / +60°C



IM0041634

Materials:

Housing

Aluminum

Seals

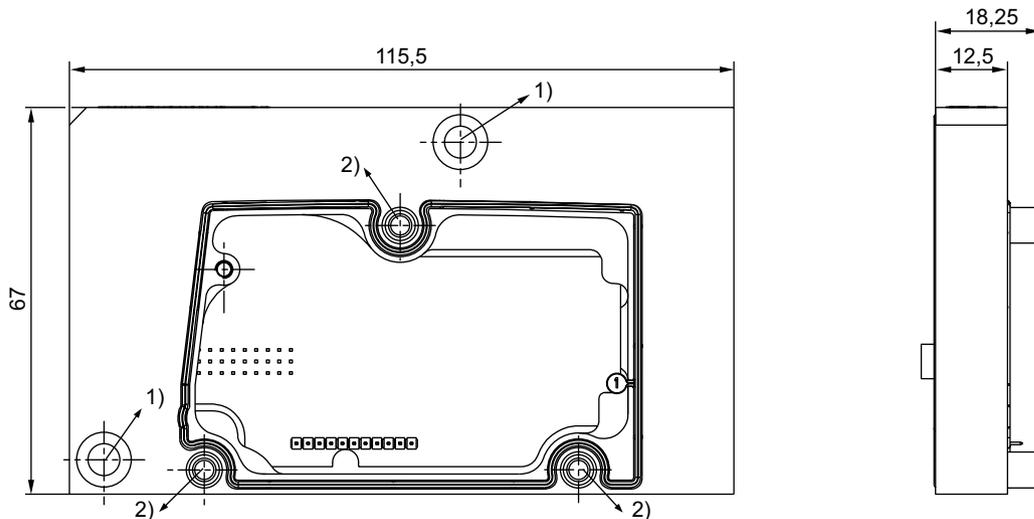
Nitrile rubber

#### Technical Remarks

- The adapter module is mounted on valve systems with a B-design interface for use with AES fieldbus couplers and AES I/O modules. See the operating instructions for further information (R412018150).

Version	Weight [kg]	Order quantity [piece]	Part No.
32 outputs	0.16	1	<b>R412023458</b>

#### Dimensions



IM0043723

Includes screws and seals.

1) Torque: 3 Nm +0.5 Nm

2) Torque: 1.6 Nm +0.4 Nm

## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

#### Connecting cable, Series CN2

▶ Plug, M8x1, 3-pin, angled ▶ open cable ends, 3-pin



23461

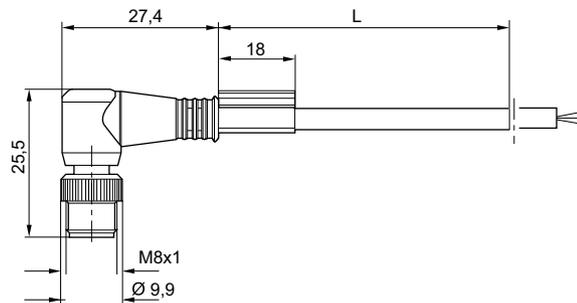
Ambient temperature min./max.	-25°C / +85°C
Protection class	IP67
Wire cross-section	0.25 mm <sup>2</sup>
Materials:	
Cable color	Black

#### Technical Remarks

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

	Operational voltage max.	Max. current	Number of wires	Cable length L	Part No.
	[V AC]	[A]		[m]	
	48	4	3	2	<b>R412021678</b>
				5	<b>R412021679</b>
				10	R412021680

#### Dimensions



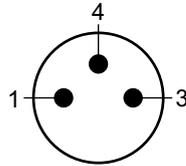
23462

L = length

## Link structure AES

### Accessories

#### Pin assignment



Stecker\_3-polig

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

## Connecting cable, Series CN2

▶ Plug, M8x1, 3-pin, angled ▶ Socket, M8x1, 3-pin, straight



23463

Ambient temperature min./max.

-25 °C / +85 °C

Protection class

IP67

Wire cross-section

0.25 mm<sup>2</sup>

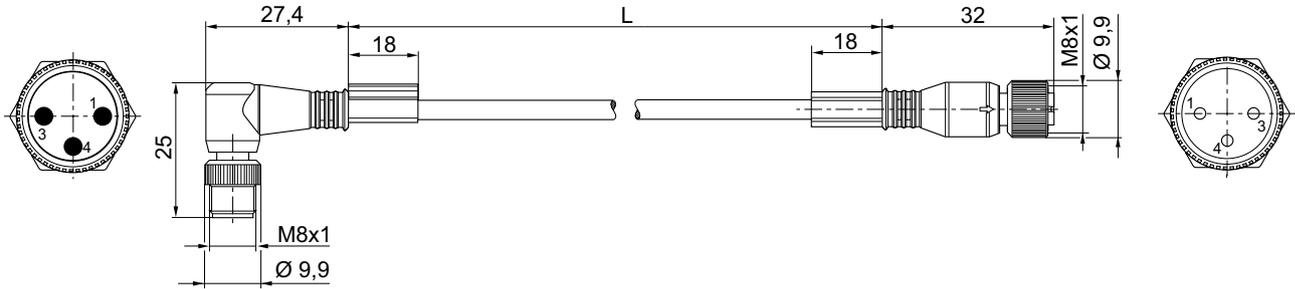
#### Technical Remarks

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

	Max. current	Number of wires	Cable length L	Part No.
	[A]		[m]	
	4	3	1	R412021681
			2	R412021682
			5	R412021683

## Link structure AES Accessories

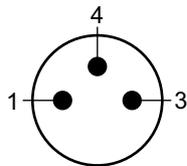
### Dimensions



L = length

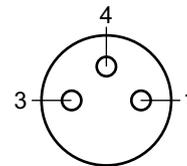
23464

### Plug pin assignment



Stecker\_3-polig

### Pin assignment, socket



Buchse\_3-polig

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

## Plug M8x1, Series CN2 ▶ Plug, M8x1, 3-pin, angled



23968

Ambient temperature min./max.  
Protection class

-25°C / +80°C  
IP67

Materials:  
Housing

Polyamide

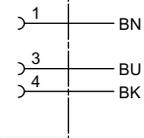
The delivered product may vary from that in the illustration.

### Technical Remarks

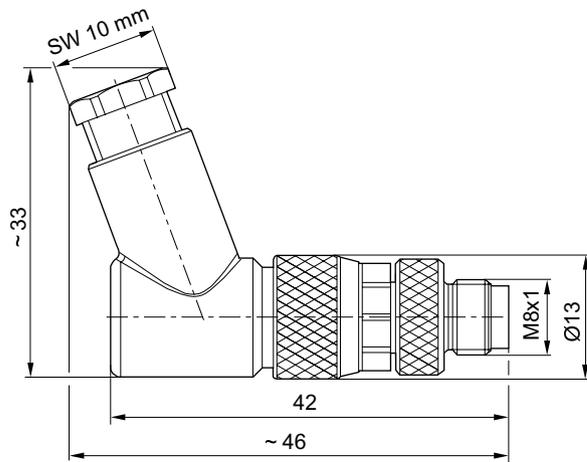
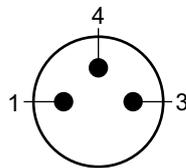
- The specified protection class is only valid in assembled and tested state.

**Link structure AES**

## Accessories

	Operational voltage	Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	number of plug options <sup>1</sup>	Part No.
	AC						
	[V]	[A]			[mm]		
	48	4	3	angled 90°	3.5 / 5	1 position	R412021677

Part No.	Housing color	Weight
		[kg]
R412021677	Black	0.008

**Dimensions**

**Pin assignment**


Stecker\_3-polig

## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

#### Plug M8x1, Series CN2 ▶ Plug, M8x1, 3-pin, straight



Ambient temperature min./max.  
Protection class

-25°C / +85°C  
IP65

Materials:  
Housing

Polyamide

23467

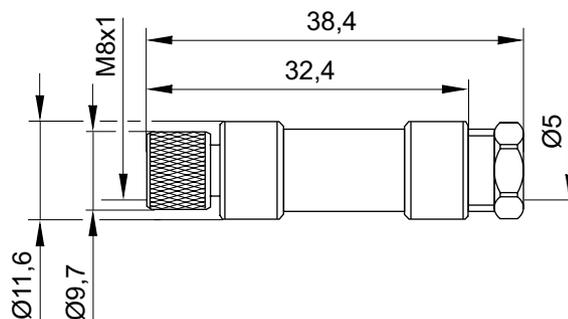
#### Technical Remarks

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

	Operational voltage	Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	number of plug options <sup>1</sup>	Part No.
	AC						
	[V]	[A]			[mm]		
	48	4	3	straight 180°	3.5 / 5	1 position	<b>R412021676</b>

Part No.	Housing color	Weight
		[kg]
<b>R412021676</b>	Black	0.008

#### Dimensions

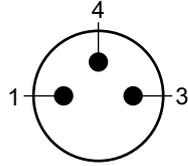


16405

## Link structure AES

### Accessories

#### Pin assignment



Stecker\_3-polig

## Connecting cable, Series CN2

▶ Plug, M8x1, 3-pin, straight ▶ open cable ends, 3-pin ▶ with self-clinching screw



00118468

Protection class

IP68

Materials:

Housing color

Black

Cable sheath

Polyvinyl chloride

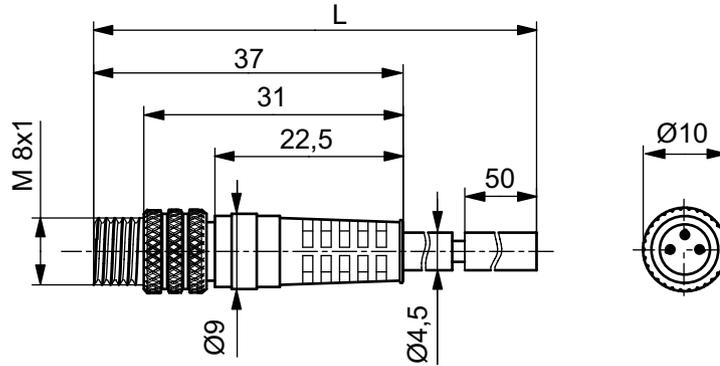
#### Technical Remarks

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

Number of wires	Cable-Ø [mm]	Cable length L [m]	Weight [kg]	Part No.
3	4.5	2	0.055	8946203602
		5	0.128	<b>8946203612</b>
		10	0.25	8946203622

**Link structure AES**  
Accessories

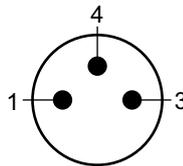
**Dimensions**



00128427

L = length

**Pin assignment**



Stecker\_3-polig

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

**Connecting cable, Series CN2**

▶ Plug, M8x1, 3-pin, straight ▶ Socket, M8x1, 3-pin, straight



00118679

Protection class

IP68

Materials:

Housing color

Black

Cable sheath

Polyvinyl chloride

Cable color

Black

**Technical Remarks**

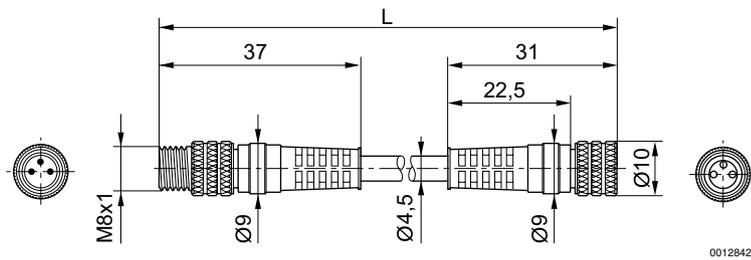
- The specified protection class is only valid in assembled and tested state.

## Link structure AES

### Accessories

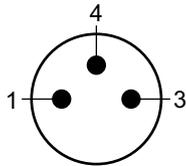
Number of wires	Cable-Ø [mm]	Cable length L [m]	Weight [kg]	Part No.
3	4.5	1	0.035	8946203702
		2	0.06	<b>8946203712</b>
		5	0.136	<b>8946203722</b>

### Dimensions



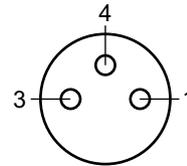
L = length

### Plug pin assignment



Stecker\_3-polig

### Pin assignment, socket



Buchse\_3-polig

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

## Adapter, Series CN2

▶ Plug, M8x1, 3-pin ▶ Socket, M12x1, 3-pin



23277

Ambient temperature min./max.

-25 °C / +85 °C

Protection class

IP67

Materials:

Housing

Polyurethane

### Technical Remarks

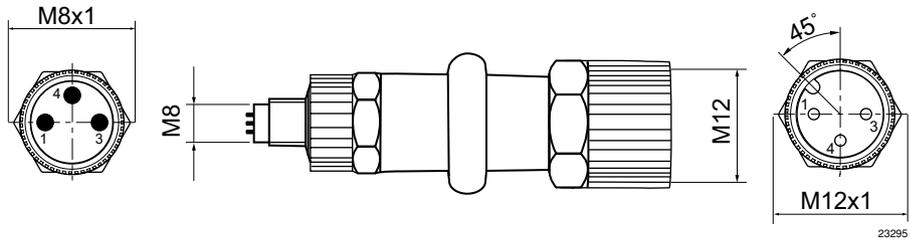
- The specified protection class is only valid in assembled and tested state.

Field bus connections ▶ Link structure AES

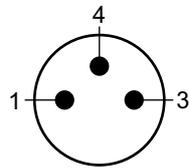
**Link structure AES**  
Accessories

Number of wires	Operational voltage	Max. current	Contact assignment	Housing color	Part No.
	AC				
	[V]	[A]			
3	48	4	3	Black	<b>R412021684</b>

Dimensions

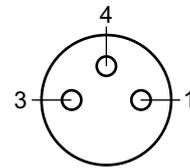


Plug pin assignment



Stecker\_3-polig

Pin assignment, socket



Buchse\_3-polig

## Link structure AES

### Accessories

### Connecting cable, Series CN2

▶ Plug, M12x1, 4-pin, straight ▶ 2x open cable ends, 4-pin



Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Tightening torque for mounting screws	0.8 Nm

Materials:	
Housing	Polyvinyl chloride
Cable sheath	Polyurethane
Cable color	Black

23289

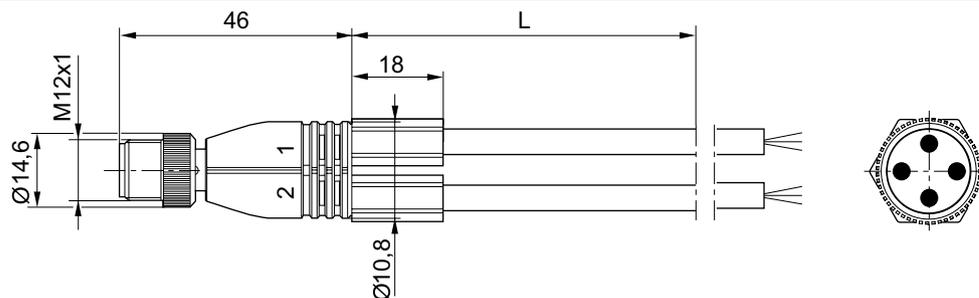
#### Technical Remarks

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

	Operational voltage max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length L	Note	Part No.
	[V AC]	[A]		[mm]	[mm]	[m]		
1) — BN	48	4	4	21.5	4.3	2	1)	<b>R412021688</b>
2) — WH						5		<b>R412021689</b>
3) — BU						10		<b>R412021690</b>
4) — BK								

1) with self-clinching screw

#### Dimensions



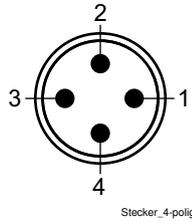
23272

L = length

## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

#### Pin assignment



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

### Connecting cable, Series CN2

▶ Plug, M12x1, 4-pin, straight ▶ 2x Socket, M8x1, 3-pin, straight



23288

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Wire cross-section	0.25 mm <sup>2</sup>
Tightening torque for mounting screws	0.8 Nm
<b>Materials:</b>	
Housing	Polyurethane
Cable sheath	Polyurethane
Cable color	Black

#### Technical Remarks

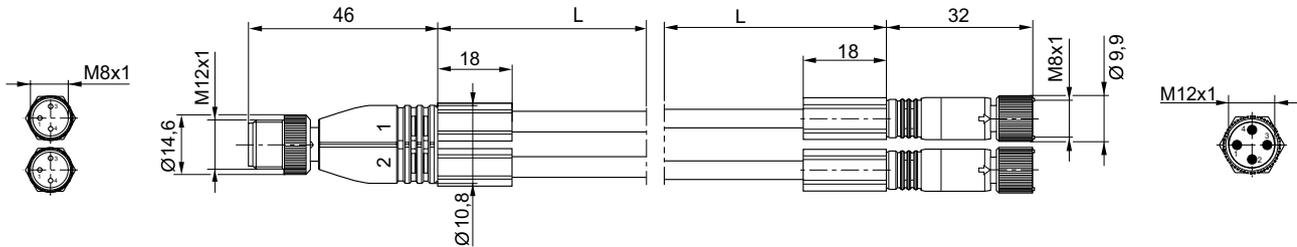
- The specified protection class is only valid in assembled and tested state.

	Operational voltage max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length L	Part No.												
	[V AC]	[A]		[mm]	[mm]	[m]													
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1 )</td><td>—</td><td>BN</td></tr> <tr><td>2 )</td><td>—</td><td>BK</td></tr> <tr><td>3 )</td><td>—</td><td>BU</td></tr> <tr><td>4 )</td><td>—</td><td>BK</td></tr> </table>	1 )	—	BN	2 )	—	BK	3 )	—	BU	4 )	—	BK	48	4	3	1.25	4.1	0.6	R412021685
	1 )	—	BN																
	2 )	—	BK																
3 )	—	BU																	
4 )	—	BK																	
10.5	R412021686																		
3	R412021687																		

## Link structure AES

### Accessories

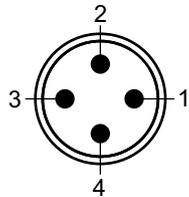
#### Dimensions



23271

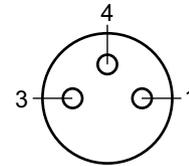
L = length

#### Plug pin assignment



Stecker\_4-polig

#### Pin assignment, socket



Buchse\_3-polig

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

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

M12	M8 (1)	M8 (2)
1	1	1
2	-	4
3	3	3
4	4	-

## Plug, M12x1, Series CN2

### ▶ Plug, M12x1, 4-pin, A-coded



00120230

Ambient temperature min./max. -40°C / +85°C

Protection class IP67

Materials:

Housing Polyamide

The delivered product may vary from that in the illustration.

#### Technical Remarks

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

Field bus connections ▶ Link structure AES

**Link structure AES**  
Accessories

Operational voltage	Max. current	Cable exit	suitable cable-Ø min./max	Weight	Fig.	Part No.
AC						
[V]	[A]		[mm]	[kg]		
48	4	angled 90° straight 180°	4 / 6 2.1 / 5	0.02 0.023	Fig. 1 Fig. 2	<b>1834484223</b> <b>1834484246</b>

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.

Fig. 1

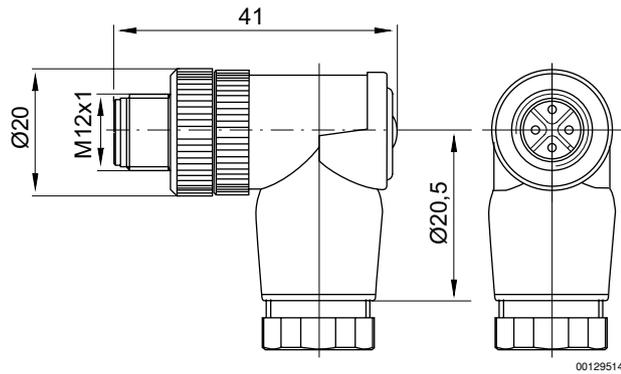
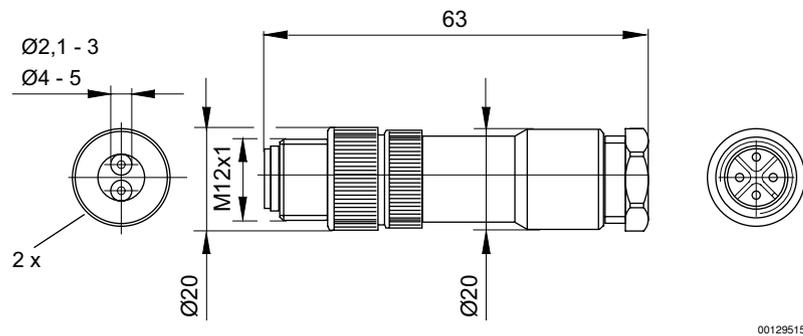
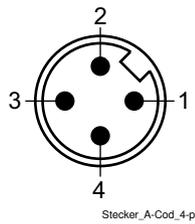


Fig. 2



duo plug

Pin assignment, A-coded



## Link structure AES

### Accessories

#### Plug, M12x1, Series CN2

▶ Plug, M12x1, 4-pin, A-coded, straight

Ambient temperature min./max.  
Protection class

-40°C / +85°C  
IP67



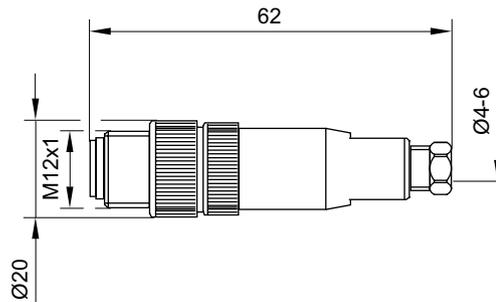
00120234

#### Technical Remarks

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

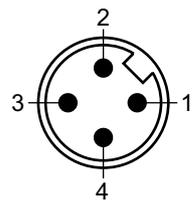
Operational voltage	Max. current	suitable cable-Ø min./max	Weight	Part No.
AC				
[V]	[A]	[mm]	[kg]	
48	4	4 / 6	0.016	<b>1834484222</b>

#### Dimensions



00129512

#### Pin assignment



Stecker\_A-Cod\_4-p

Field bus connections ▶ Link structure AES

Link structure AES  
Accessories

Connecting cable, Series CN2

▶ Plug, M12x1, 5-pin, straight ▶ open cable ends, 5-pin



Protection class	IP68
Materials:	
Housing color	Black
Cable sheath	Polyvinyl chloride

The delivered product may vary from that in the illustration.

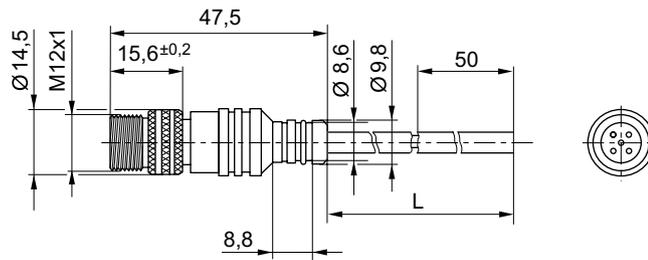
00118468

**Technical Remarks**  
 ■ The specified protection class is only valid in assembled and tested state.

Number of wires	Cable length L [m]	Weight [kg]	Note	Part No.
5	2	0.097	1)	<b>8946203432</b>
	5	0.228		<b>8946203442</b>
	10	0.449		8946203452

1) with self-clinching screw

Dimensions



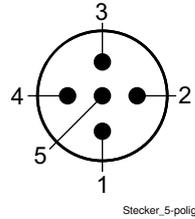
00128423

L = length

## Link structure AES

### Accessories

#### Pin assignment



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

## Connecting cable, Series CN2

▶ Plug, M12x1, 5-pin, angled ▶ open cable ends, 5-pin



Ambient temperature min./max.	-25 °C / +80 °C
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Tightening torque for mounting screws	0.8 Nm

Materials:	
Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

23278

#### Technical Remarks

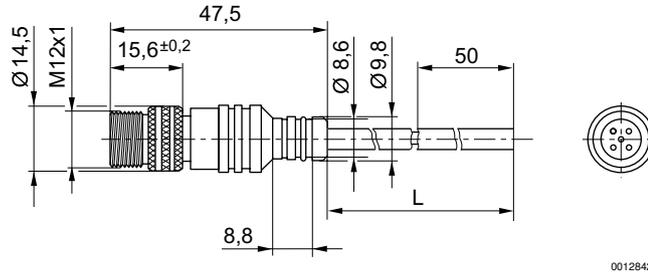
- The specified protection class is only valid in assembled and tested state.

Operational voltage max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length L	Part No.
[V AC]	[A]		[mm]	[mm]	[m]	
48	4	5	25	5	2	R412021691
					5	R412021692
					10	R412021693

Field bus connections ▶ Link structure AES

## Link structure AES Accessories

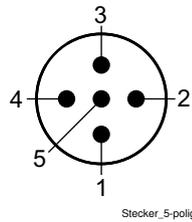
### Dimensions



00128423

L = length

### Pin assignment



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

## Connecting cable, Series CN2

▶ Plug, M12x1, 5-pin, A-coded, angled ▶ Socket, M12x1, 5-pin, A-coded, straight



23279

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Operational voltage AC, max.	48 V AC
Wire cross-section	0.34 mm²
Tightening torque for mounting screws	0.8 Nm

Materials:	
Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

### Technical Remarks

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

Max. current [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	5	25	5	2	<b>R412021694</b>
				5	<b>R412021695</b>

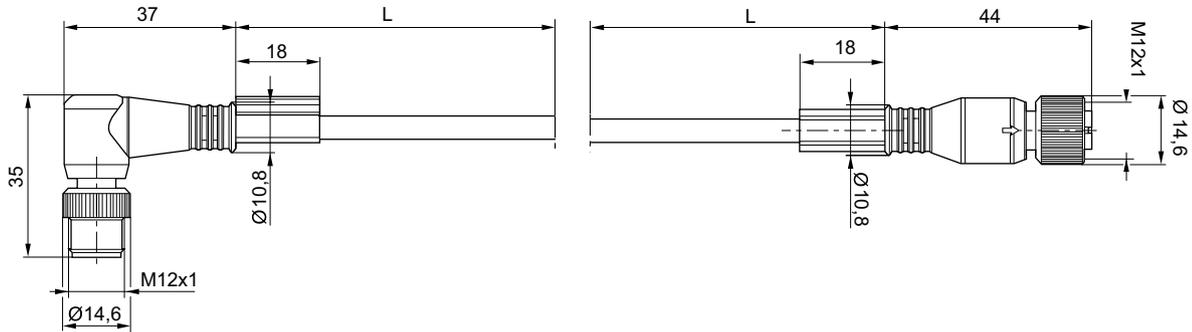
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Pneumatics catalog, online PDF, as of 2017-03-01, ©AVENTICS S.à r.l., subject to change

## Link structure AES

### Accessories

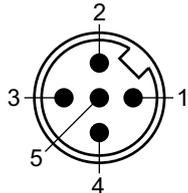
#### Dimensions



23274

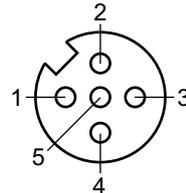
L = length

#### Plug pin assignment



Stecker\_A-Codiert

#### Pin assignment, socket



Buchse\_A-Codiert

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

## Connecting cable, Series CN2

▶ Plug, M12x1, 3-pin, angled ▶ Socket, M8x1, 3-pin, straight



23466

Ambient temperature min./max.	-25 °C / +80 °C
Protection class	IP67
Wire cross-section	0.25 mm <sup>2</sup>
Tightening torque for mounting screws	0.5 Nm

#### Materials:

Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

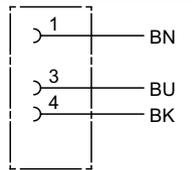
The delivered product may vary from that in the illustration.

#### Technical Remarks

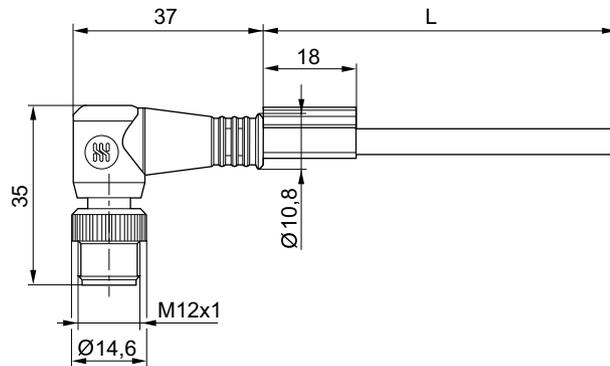
- The specified protection class is only valid in assembled and tested state.

## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

	Operational voltage max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length L	Part No.
	[V AC]	[A]		[mm]	[mm]	[m]	
	48	4	3	20.5	4.1	2	<b>R412021696</b>
						5	<b>R412021697</b>

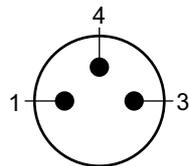
### Dimensions



23275\_a

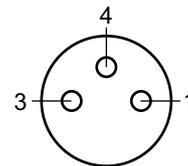
L = length

### Plug pin assignment



Stecker\_3-polig

### Pin assignment, socket



Buchse\_3-polig

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

## Link structure AES

### Accessories

### Connecting cable, Series CN2

- ▶ Plug, M12x1, 5-pin, A-coded, angled ▶ Socket, M12x1, 5-pin, A-coded, straight ▶ suitable for dynamic laying  
▶ screened



Ambient temperature min./max.	-25°C / +80°C
Protection class	IP65
Wire cross-section	0.34 mm <sup>2</sup>
Tightening torque for mounting screws	0.8 Nm

Materials:	
Housing	Polyurethane
Cable sheath	Polyurethane
Cable color	Black

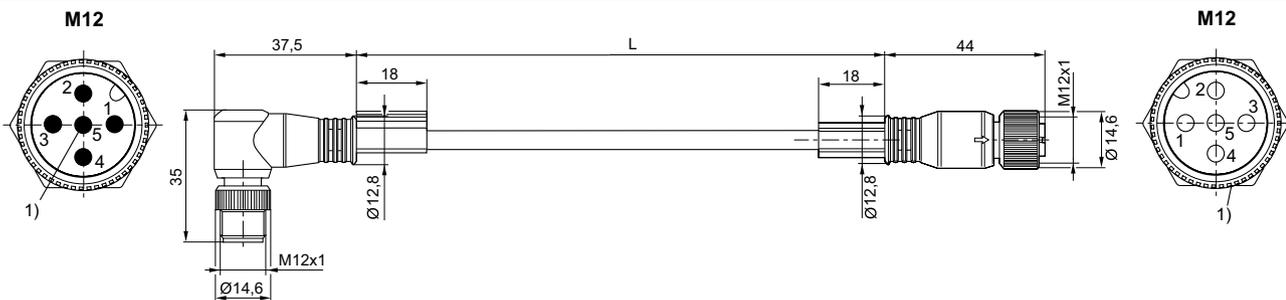
23279

#### Technical Remarks

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

	Operational voltage max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length L	Part No.
	[V AC]	[A]		[mm]	[mm]	[m]	
	48	4	4	54	5.4	2	<b>R412022193</b>
5						<b>R412022194</b>	
10						<b>R412022195</b>	

#### Dimensions



23286

L = length

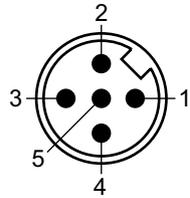
PIN assignment 1:1

1) Shield is connected to pin 5 of the plug and the knurled screw of the socket.

## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

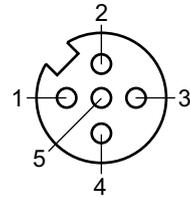
#### Plug pin assignment



Stecker\_A-Codiert

- (1) BN=brown
  - (2) WH=white
  - (3) BU=blue
  - (4) BK=black
- Shield is connected to pin 5.

#### Pin assignment, socket



Buchse\_A-Codiert

- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

### Distributor, Series AES

#### ▶ 4x passive distributor, M12x1, 8-pin / 4x M8x1, 3-pin



22702

Ambient temperature min./max.  
Protection class  
Operational voltage electronics  
Power consumption electronics

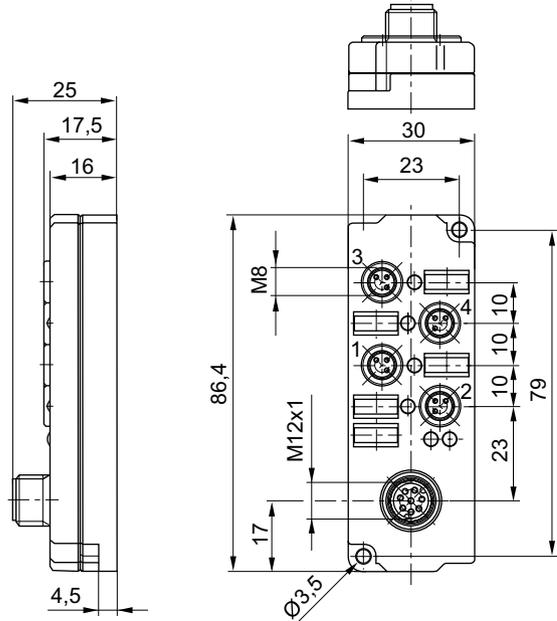
-30°C / +80°C  
IP67  
24 V DC  
2 A

Materials:  
Housing

Polyamide

for Type	Port 1 Bus IN	Port 2 Bus OUT	Weight [kg]	Part No.
16DI4M12 16DI8M8	Plug (male), M12x1, 8-pin	Socket (female), M8x1, 3-pin, 4x	0.07	<b>R402001810</b>

**Link structure AES**  
 Accessories

**Dimensions**


23126

**Pin assignments**

PinM12	1. M8	2. M8	3. M8	4. M8
1	4	-	-	-
2	-	4	-	-
3	-	-	4	-
4	-	-	-	4
5	1	1	1	1
6	-	-	-	-
7	3	3	3	3
8	-	-	-	-

Field bus connections ▶ Link structure AES

**Link structure AES**  
Accessories

**Connecting cable, Series CN2**

- ▶ Plug, M12x1, 8-pin, A-coded, straight ▶ Socket, M12x1, 8-pin, A-coded, straight ▶ suitable for dynamic laying
- ▶ screened



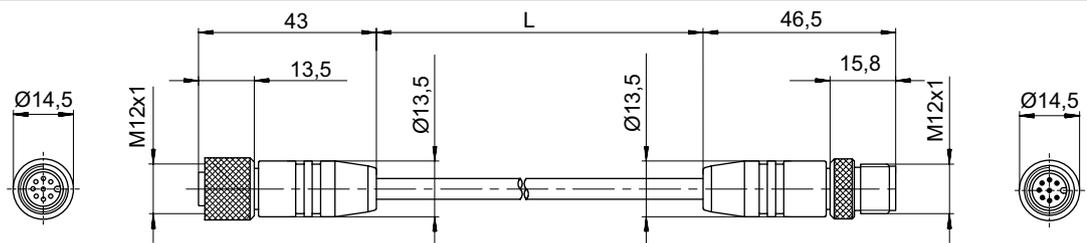
00120164

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Materials:	
Housing	Polyurethane
Housing color	Orange
Seals	Fluorocautchouc

**Technical Remarks**  
 ■ The specified protection class is only valid in assembled and tested state.

	Operational voltage max.	Max. current	Cable length L	Part No.
	[V AC]	[A]	[m]	
	30	1.5	0.5	<b>8946202802</b>
			1	<b>8946202812</b>
			2	<b>8946202822</b>
			5	<b>8946202832</b>
			10	<b>8946202842</b>
			0.3	<b>8946202852</b>

**Dimensions**

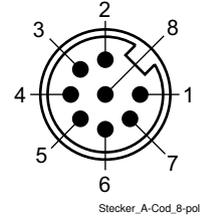
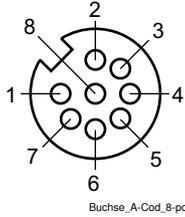


00132297

L = length

**Link structure AES**  
Accessories

**Pin assignment, socket** | **Plug pin assignment**



- (1) white
- (2) brown
- (3) green
- (4) yellow
- (5) gray
- (6) pink
- (7) blue
- (8) red

**Connecting cable, Series CN2**

▶ Plug, M12x1, 3-pin, straight ▶ Socket, M8x1, 3-pin, straight



00118679

Protection class

IP68

Materials:

Housing color

Black

Cable sheath

Polyvinyl chloride

Cable color

Black

The delivered product may vary from that in the illustration.

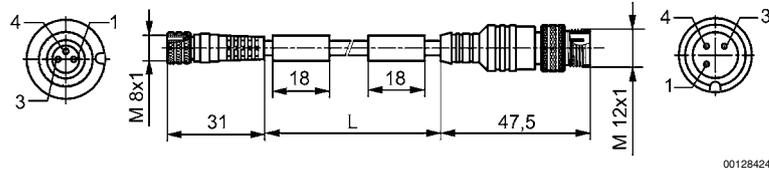
**Technical Remarks**  
■ The specified protection class is only valid in assembled and tested state.

	Number of wires	Cable length L [m]	Weight [kg]	Part No.
	3	2	0.065	<b>8946203462</b>

Field bus connections ▶ Link structure AES

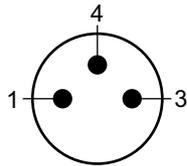
Link structure AES  
Accessories

Dimensions



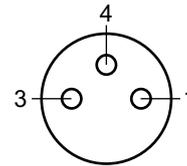
L = length

Plug pin assignment



Stecker\_3-polig

Pin assignment, socket



Buchse\_3-polig

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

Y-connector, Series CN2

▶ 2x Socket, M12x1, 5-pin ▶ Plug, M12x1, 5-pin



00118470

Ambient temperature min./max.

-25°C / +90°C

Protection class

IP68

Materials:

Housing  
Seals

Polyurethane  
Fluorocautchouc

The delivered product may vary from that in the illustration.

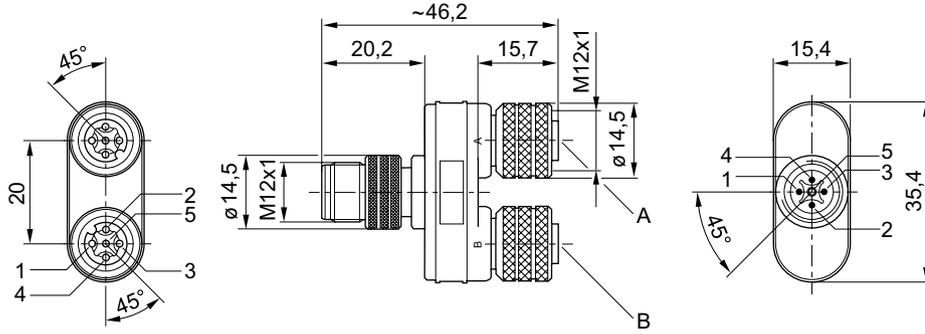
Technical Remarks

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

Operational voltage	Max. current	Cable exit	Housing color	Weight	Part No.
AC					
[V]	[A]			[kg]	
30	4	straight 180°	Black	0.029	<b>8941002392</b>

**Link structure AES**  
Accessories

**Dimensions**

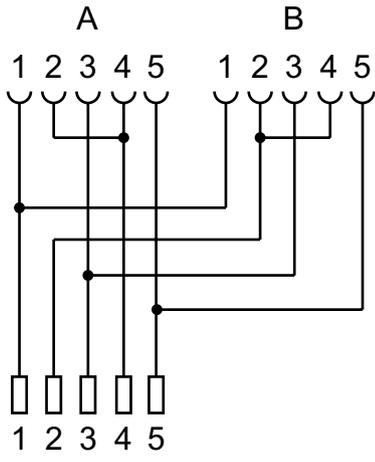


23425

Sockets: Pin 2 and 4 bridged.

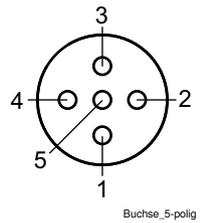
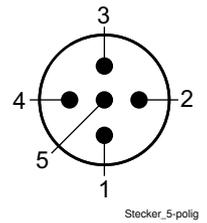
Plug (male)M 12Pin	Socket (female)AM12Pin	Socket (female)BM12Pin
1	1	1
2	-	2 / 4
3	3	3
4	2 / 4	-
5	5	5

**Assignment scheme**



23498

**Plug pin assignment** | **Pin assignment, socket**



## Field bus connections ▶ Link structure AES

### Link structure AES Accessories

#### Y-connector, Series CN2

▶ 2x Socket, M8x1, 3-pin ▶ Plug, M12x1, 4-pin



00118470

Ambient temperature min./max.

-25°C / +90°C

Protection class

IP68

Materials:

Housing

Polyurethane

Seals

Fluorocaoutchouc

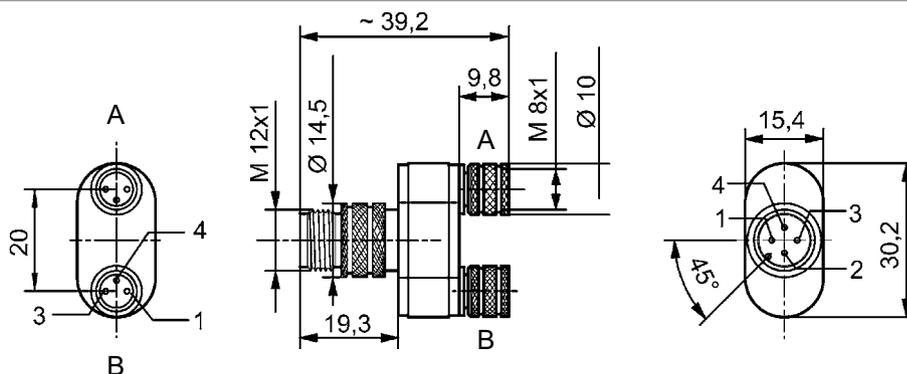
The delivered product may vary from that in the illustration.

#### Technical Remarks

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

Operational voltage	Max. current	Cable exit	Housing color	Weight	Part No.
AC					
[V]	[A]			[kg]	
48	4	straight 180°	Black	0.02	<b>8941002382</b>

#### Dimensions



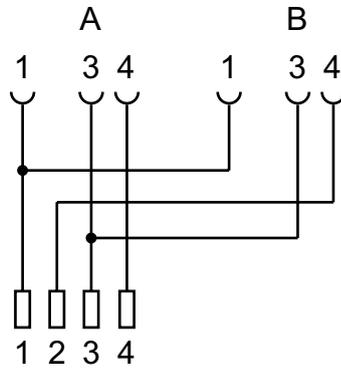
00128421

#### Pin assignments

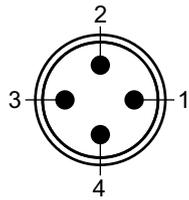
Plug (male)M 12Pin	Socket (female)M8APin	Socket (female)M8BPin
1	1	1
2	-	4
3	3	3
4	4	-

**Link structure AES**

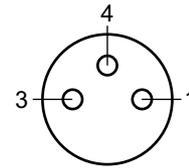
## Accessories

**Assignment scheme**


23499

**Plug pin assignment**


Stecker\_4-polig

**Pin assignment, socket**


Buchse\_3-polig

Field bus connections ▶ Link structure AES

## Link structure AES Accessories

### Connecting cable with plug and socket

▶ Plug, D-Sub, 25-pin, angled 90°



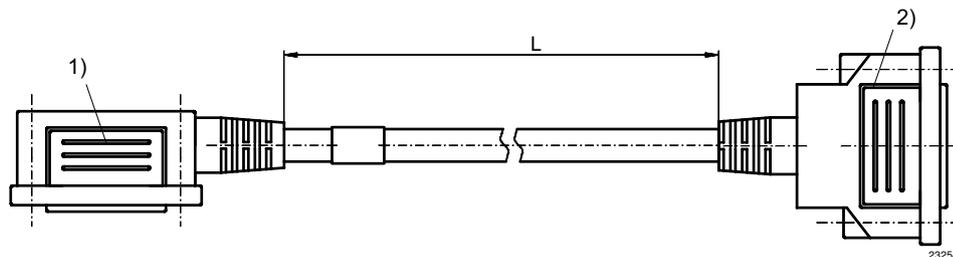
IM0042647

Ambient temperature min./max.	-5 °C / +50 °C
Protection class	IP65
Operating voltage DC, max.	24 V DC
Wire cross-section	0.21 mm²
<b>Materials:</b>	
Housing	Thermoplastic elastomer
Cable sheath	Polyvinyl chloride

**Technical Remarks**  
 ■ The specified protection class is only valid in assembled and tested state.

Electrical interface	Cable length L	Part No.
[Port 2]	[m]	
Socket, D-Sub, 25-pin, angled 90°	0.5	R412020630
Socket, D-Sub, 25-pin, angled 90°	1	R412020631
Socket, D-Sub, 25-pin, angled 90°	2	R412020632
Socket, D-Sub, 25-pin, angled 90°	5	R412020633
Socket, D-Sub, 25-pin, angled 90°	10	<b>R412020634</b>
Socket, D-Sub, 25-pin, straight 180°	0.5	R412020635
Socket, D-Sub, 25-pin, straight 180°	1	R412020636
Socket, D-Sub, 25-pin, straight 180°	2	R412020637
Socket, D-Sub, 25-pin, straight 180°	5	R412020638
Socket, D-Sub, 25-pin, straight 180°	10	R412020639

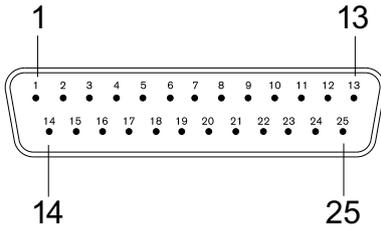
### Dimensions



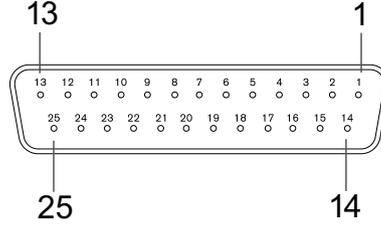
- 1) Port 1 (Plug)
- 2) Port 2 (Socket)

**Link structure AES**  
Accessories

PIN assignment and cable colors, cable identification as per DIN 47100



00137724



00136701

Plug

Socket

1) The wire cross-section of pin 25 is 0.82 mm<sup>2</sup>.

Pin	1	2	3	4	5	6	7	8	9	10	11	12	13
Color	white	brown	green	yellow	gray	pink	blue	red	black	violet	gray/pink	red/blue	white/green

Pin	14	15	16	17	18	19	20	21	22	23	24	25
Color	brown/green	white/yellow	yellow/brown	white/gray	gray/brown	white/pink	pink/brown	white/blue	brown/blue	white/red	brown/red	white/black

AVENTICS GmbH  
Ulmer Straße 4  
30880 Laatzen, GERMANY  
Phone +49 511 2136-0  
Fax +49 511 2136-269  
www.aventics.com  
info@aventics.com



Find more contact information at  
[www.aventics.com/contact](http://www.aventics.com/contact)

Only use the AVENTICS products shown in industrial applications. Read the product documentation completely and carefully before using the product.

Observe the applicable regulations and laws of the respective country. When integrating the product into applications, note the system manufacturer's specifications for safe use of the product.

The data specified only serve to describe the product.

No statements concerning a certain condition or suitability for a certain application can be derived from our information.

The information given does not release the user from the obligation of own judgment and verification. It must be remembered that the products are subject to a natural process of wear and aging.

01-03-2017

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. © AVENTICS S.à r.l.  
This document, as well as the data, specifications and other information set forth in it, are the exclusive property of AVENTICS S.à r.l.. It may not be reproduced or given to third parties without its consent. PDF online