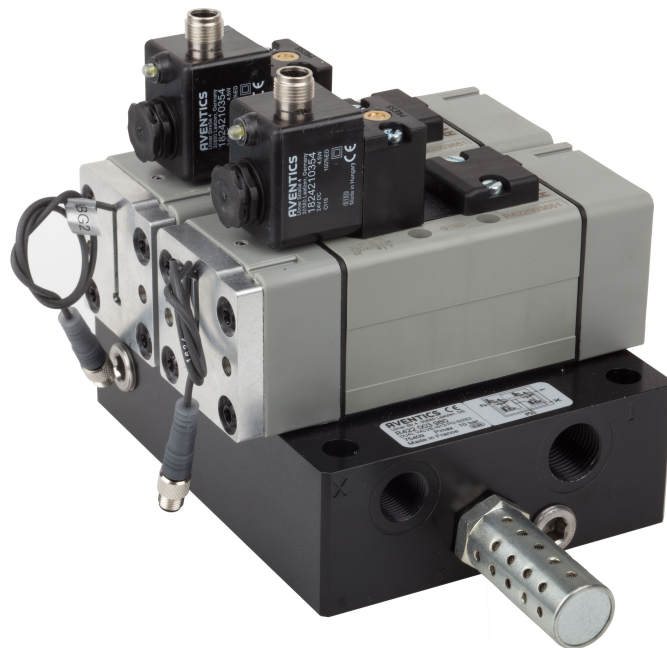


Series IS12-PD



AVENTICS™

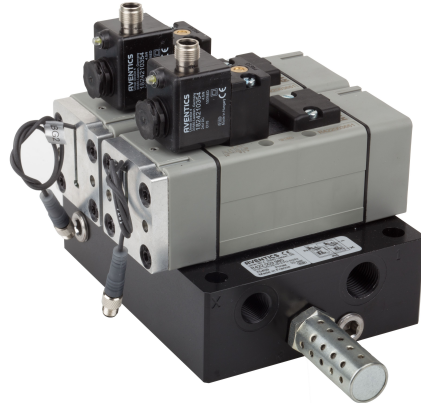
Series IS12-PD


EMERSON™

AVENTICS Series IS12 Directional valves

The AVENTICS Series IS12 complies with the valve standard ISO 5599-1. The Series offers electrically controlled ISO valves of size 1 and 2 with Form A or central M12 connectors.

- Qn max. 2500 l/min
- Electrical control
- Pneumatic control
- Width: 42 mm, 56 mm



Product overview

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3/2-directional valve, Dual valve, IS12-PD series

Compressed air connection: Base plate connection

Pilot valve width: 30 mm

Activation: Electrically

Duty cycle: 100 %

Type: Spool valve

Ambient temperature min./max.: 0 °C ... 50 °C

Medium temperature min./max.: 0 °C ... 50 °C

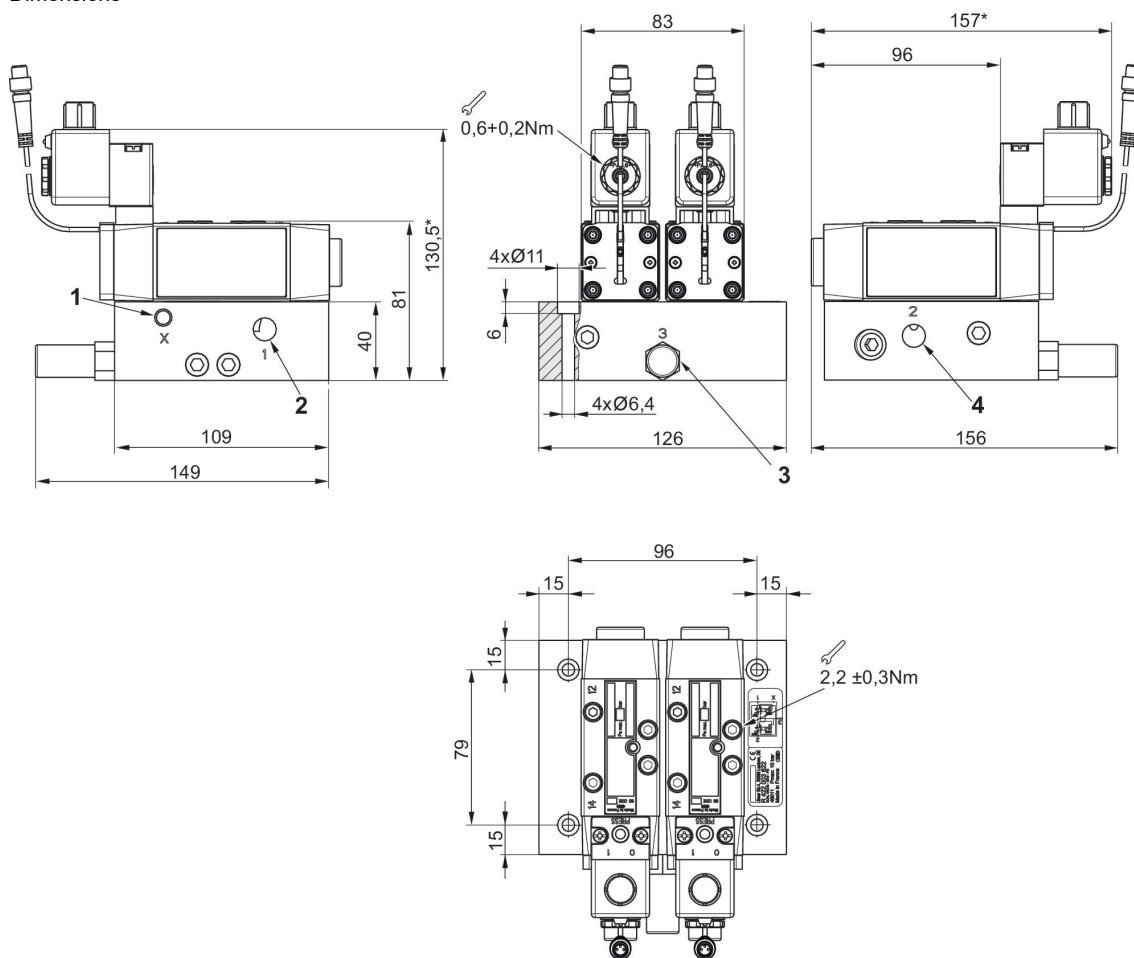
Control pressure min./max.: 3.5 bar ... 10 bar



	Operational voltage	Voltage tolerance DC	Power consumption DC [W]	Switch-on time [ms]	Switch-off time [ms]	Pilot	Manual override	Part No.
	24 V DC	-10 % / +10 %	4.5	20	40	External	without detent	R422003622
	24 V DC	-10 % / +10 %	4.5	20	40	Internal	without detent	R422003623
	24 V DC	-10 % / +10 %	4.4	20	40	External	without detent	R422003624
	24 V DC	-10 % / +10 %	4.4	20	40	Internal	without detent	R422003625

Compatibil-ity index	Part No.
15	R422003622
15	R422003623
15	R422003624
15	R422003625

Dimensions



- *) max.
 1) External pilot pressure G1/8
 2) Input pressure G1/4
 3) Exhaust G 1/4
 4) Output pressure G1/4

3/2-directional valve, Dual valve, IS12-PD series

Compressed air connection: Base plate connection

Pilot valve width: 30 mm

Activation: Electrically

Duty cycle: 100 %

Type: Spool valve

Ambient temperature min./max.: 0 °C ... 50 °C

Medium temperature min./max.: 0 °C ... 50 °C

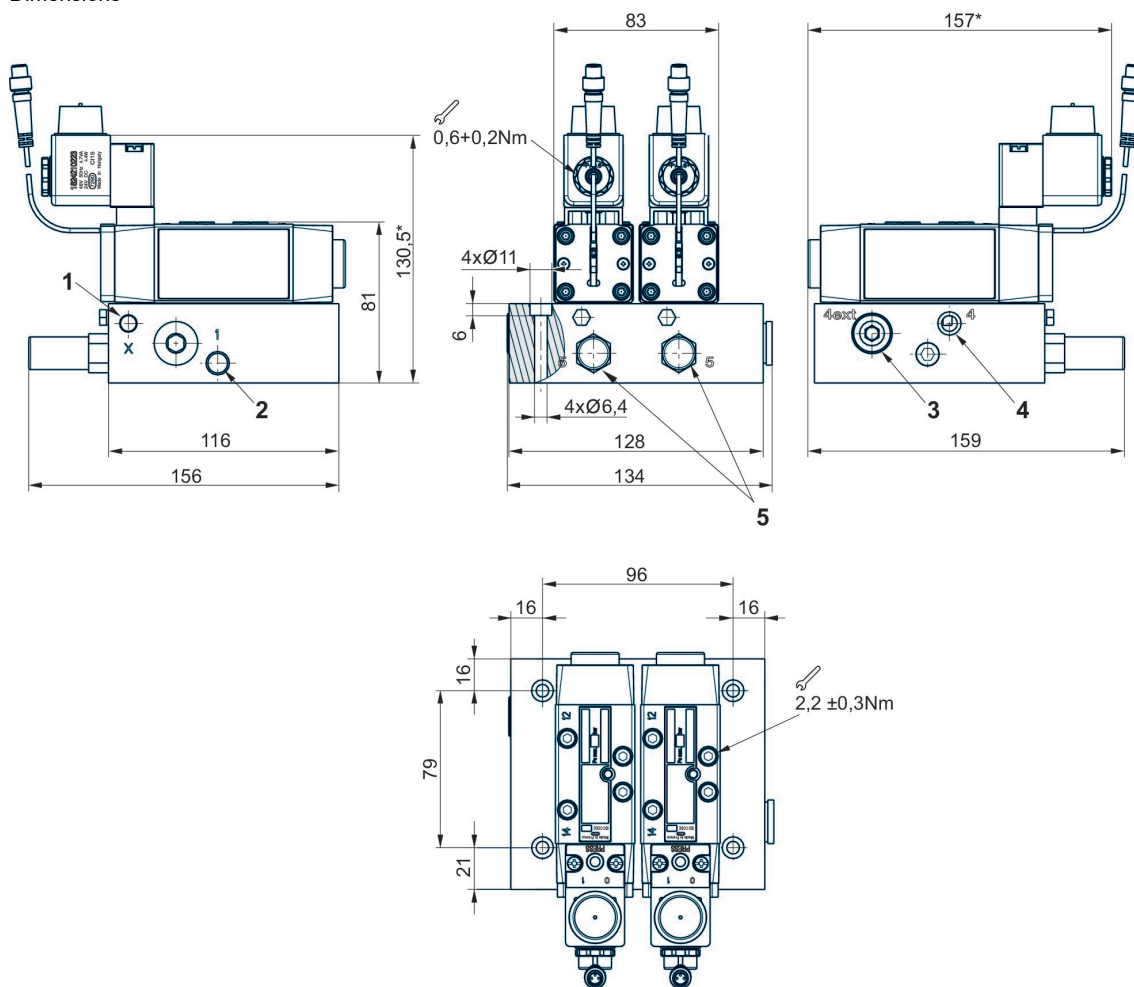
Control pressure min./max.: 3.5 bar ... 10 bar



	Operational voltage	Voltage tolerance DC	Power consumption DC [W]	Switch-on time [ms]	Switch-off time [ms]	Pilot	Manual override	Part No.
	24 V DC	-10 % / +10 %	4.5	20	40	External	without detent	R422003189
	24 V DC	-10 % / +10 %	4.5	30	40	Internal	without detent	R422003190
	24 V DC	-10 % / +10 %	4.4	20	40	External	without detent	R422003191
	24 V DC	-10 % / +10 %	4.4	30	40	Internal	without detent	R422003192

Compatibil-ity index	Part No.
15	R422003189
15	R422003190
15	R422003191
15	R422003192

Dimensions



- *) max.
 1) External pilot pressure G1/8
 2) Input pressure G1/4
 3) Exhaust in with non-return valve G1/4
 4) Output pressure G1/4
 5) Exhaust G 1/4

5/2-directional valve, Series IS12

Flow: 1060 l/min

Compressed air connection: Base plate connection

Pilot valve width: 30 mm

Activation: Electrically

Duty cycle: 100 %

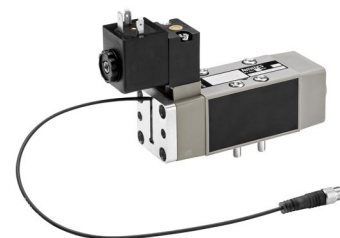
Type: Spool valve, positive overlapping

Ambient temperature min./max.: 0 °C ... 50 °C

Medium temperature min./max.: 0 °C ... 50 °C

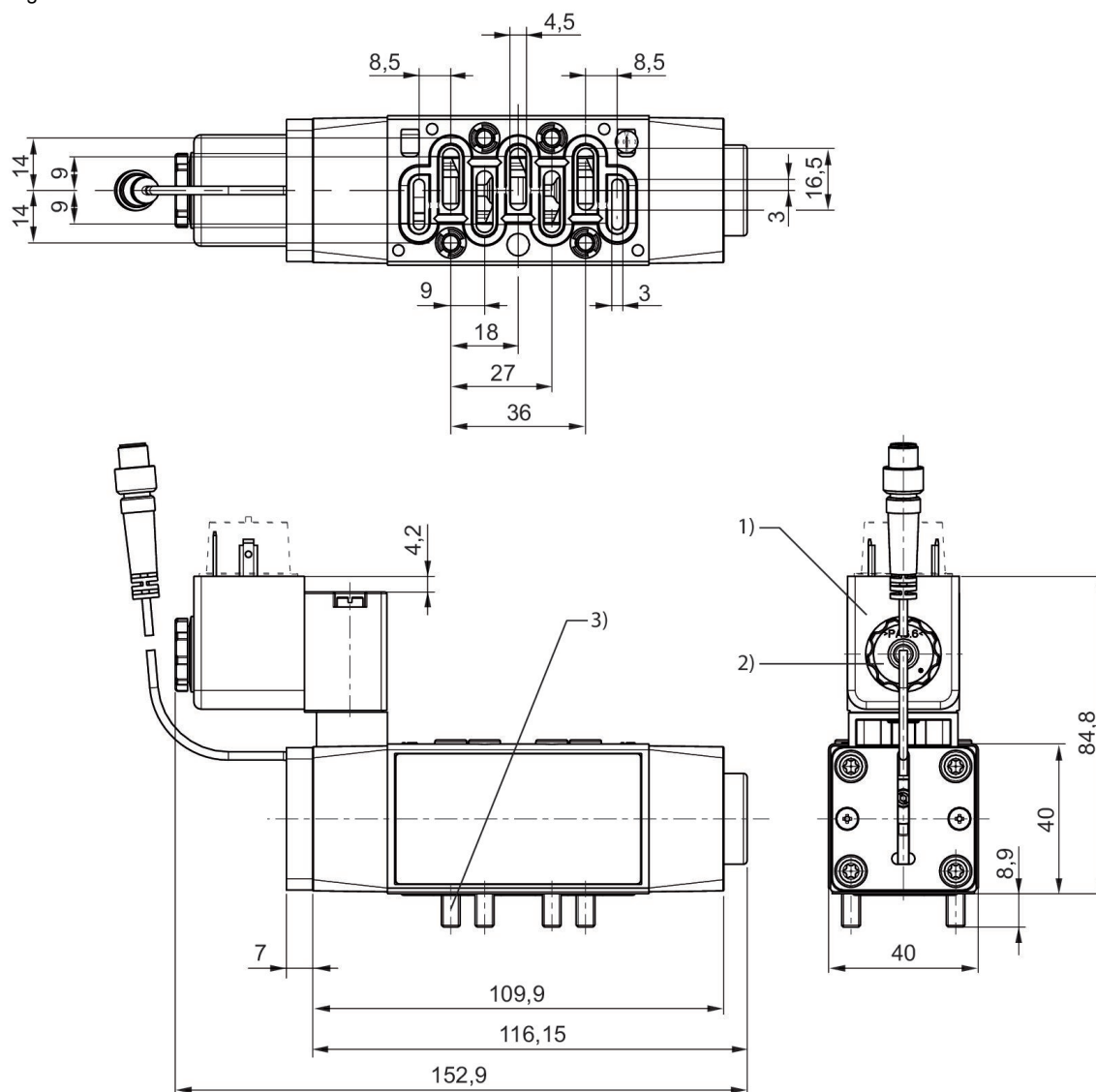
Control pressure min./max.: 3 bar ... 10 bar

Working pressure min./max.: 10 bar



	Operational voltage	Voltage tolerance DC	Power consumption DC [W]	Pilot	Manual override	Compatibility index	Part No.
				Internal	without detent	15	R422002522
	24 V DC	-10 % / +10 %	4.4	Internal	without detent	15	R422002521
	24 V DC	-10 % / +10 %	4.5	Internal	without detent	15	R422102676
	24 V DC	-10 % / +10 %	4.4	Internal	without detent	15	R422102678
				Internal	without	15	R422002645
				External	without detent	15	R422002578
	24 V DC	-10 % / +10 %	4.4	External	without detent	15	R422002577
	24 V DC	-10 % / +10 %	4.5	External	without detent	15	R422102677
	24 V DC	-10 % / +10 %	4.4	External	without detent	15	R422102679
				External	without	15	R422002646

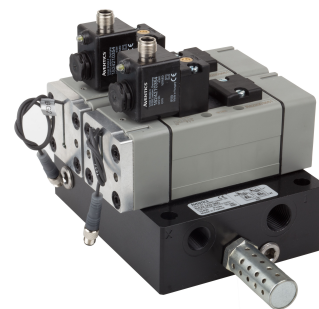
Dimensions
Fig. 1



- 1) Adjustable coil 5x45°
- 2) Tightening torque for lock nut: 0.6 + 0.2 Nm
- 3) Tightening torque for mounting screws: 2.2 ± 0.2 Nm

3/2-directional valve, Dual valve, IS12-PD series, size 2

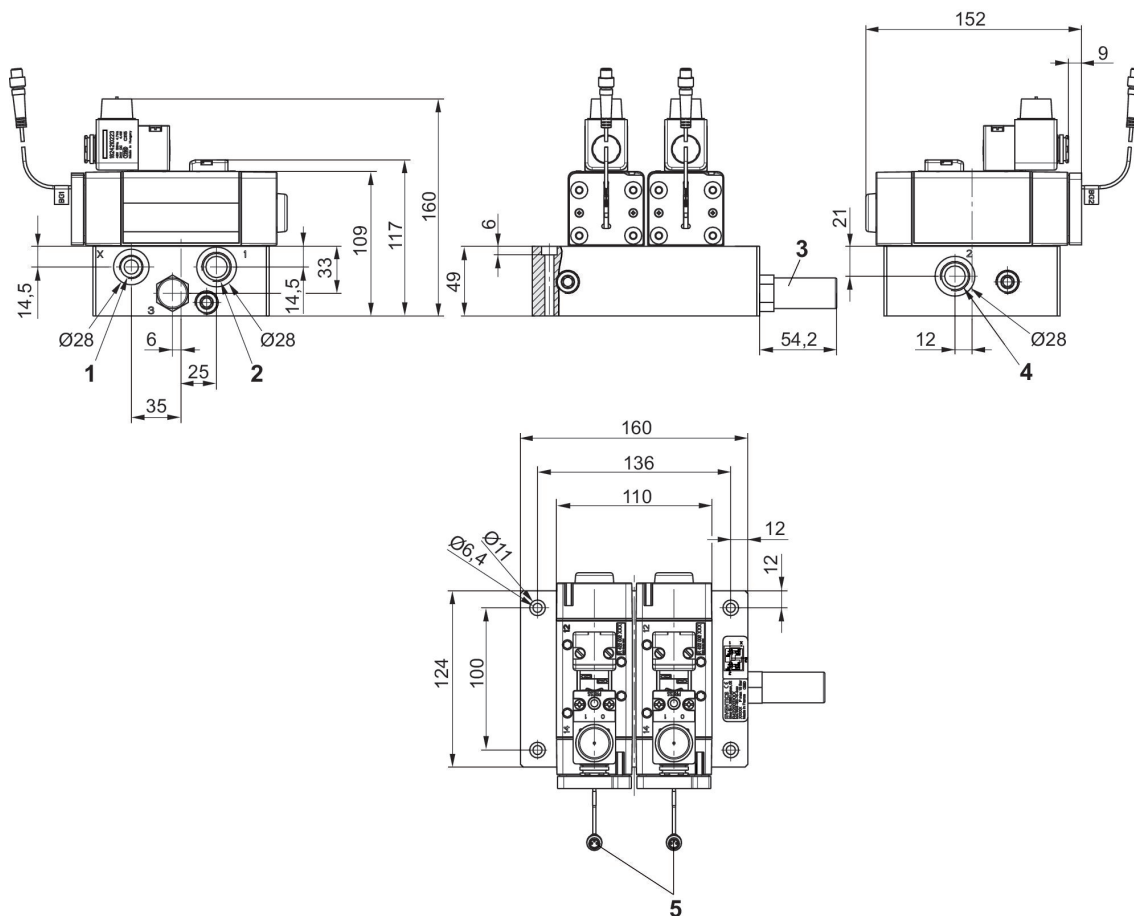
Compressed air connection: Base plate connection
 Pilot valve width: 30 mm
 Activation: Electrically
 Duty cycle: 100 %
 Type: Spool valve
 Ambient temperature min./max.: -10 °C ... 50 °C
 Medium temperature min./max.: -10 °C ... 50 °C
 Control pressure min./max.: 3 bar ... 10 bar



	Operational voltage	Voltage tolerance DC	Power consumption DC [W]	Switch-on time [ms]	Switch-off time [ms]	Pilot	Manual override	Part No.
	24 V DC	-10 % / +10 %	4.5	20	50	External	with detent	R422003729
	24 V DC	-10 % / +10 %	4.5	20	50	Internal	with detent	R422003730
	24 V DC	-10 % / +10 %	4.4	20	50	External	without detent	R422003980
	24 V DC	-10 % / +10 %	4.4	20	50	Internal	without detent	R422003982

Compatibil-ity index	Part No.
15	R422003729
15	R422003730
15	R422003980
15	R422003982

Dimensions



- 1) External pilot pressure G3/8
- 2) Input pressure G1/2
- 3) Exhaust G 1/2
- 4) Output pressure G1/2
- 5) M8, 3-pin

5/2-directional valve, Series IS12

Flow: 2500 l/min

Compressed air connection: Base plate connection

Pilot valve width: 30 mm

Activation: Electrically

Duty cycle: 100 %

Type: Spool valve, positive overlapping

Ambient temperature min./max.: 0 °C ... 50 °C

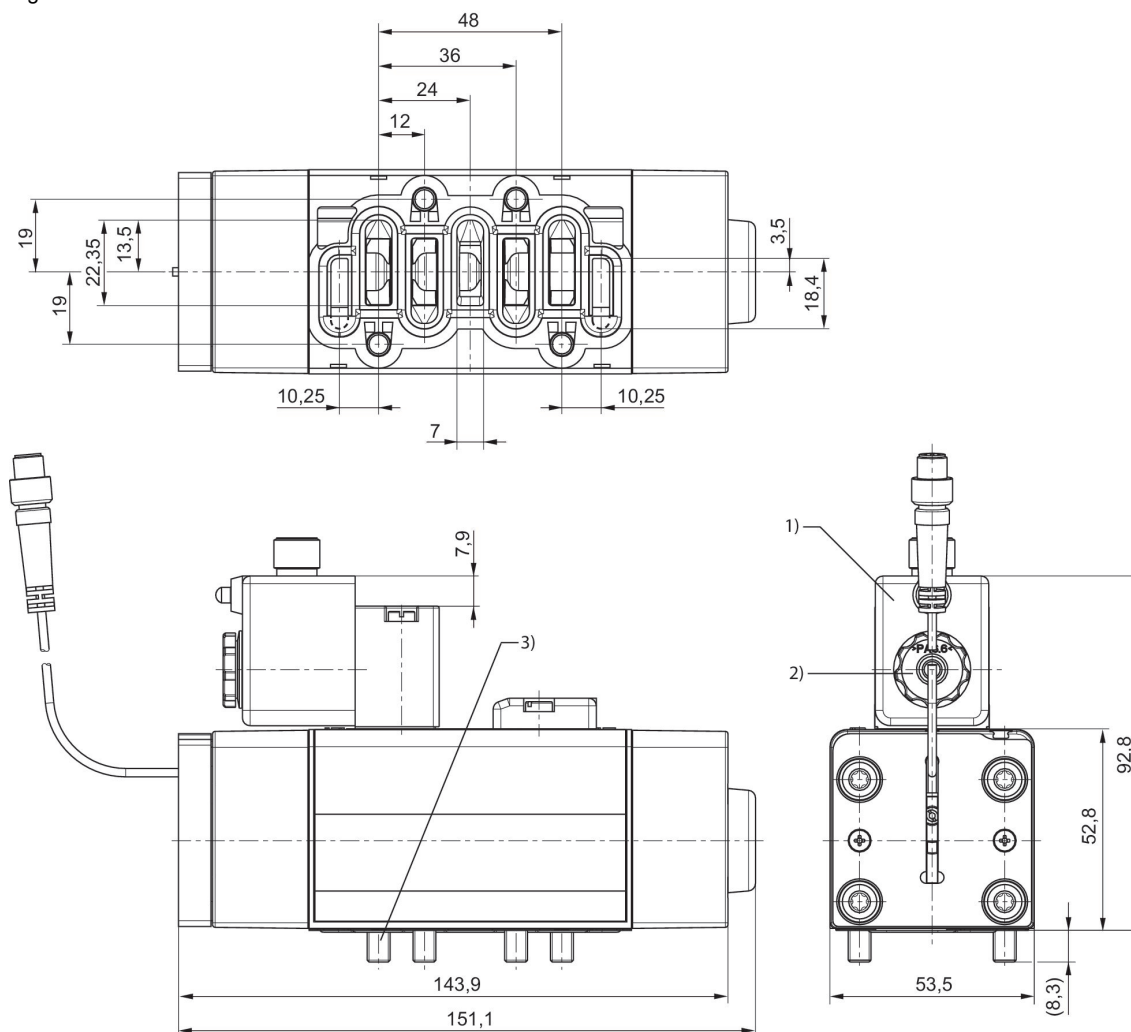
Medium temperature min./max.: 0 °C ... 60 °C

Control pressure min./max.: 3 bar ... 10 bar



	Operational voltage	Voltage tolerance DC	Power consumption DC [W]	Pilot	Manual override	Compatibility index	Part No.
				Internal	without detent	15	R422003650
	24 V DC	-10 % / +10 %	4.4	Internal	without detent	15	R422003649
	24 V DC	-10 % / +10 %	4.5	Internal	without detent	15	R422003655
	24 V DC	-10 % / +10 %	4.4	Internal	without detent	15	R422003657
				Internal	without	15	R422003653
				External	without detent	15	R422003652
	24 V DC	-10 % / +10 %	4.4	External	without detent	15	R422003651
	24 V DC	-10 % / +10 %	4.5	External	without detent	15	R422003656
	24 V DC	-10 % / +10 %	4.4	External	without detent	15	R422003658
				External	without	15	R422003654

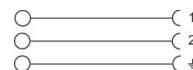
Dimensions
Fig. 2



- 1) Adjustable coil 3x90°
- 2) Tightening torque for lock nut: 0.6 + 0.2 Nm
- 3) Tightening torque for mounting screws: 4.0 ± 0.5 Nm

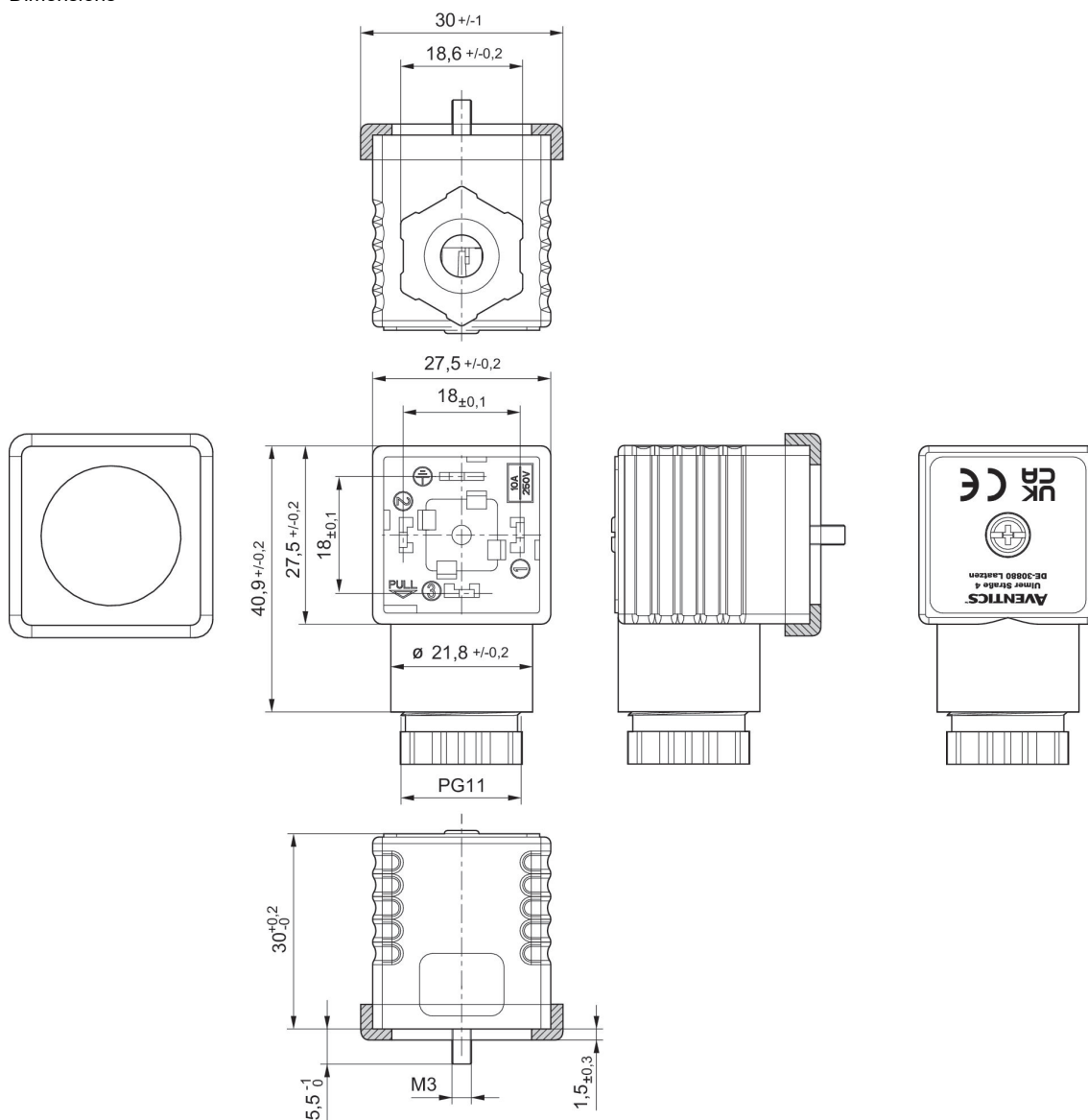
Valve plug connector, series CON-VP, Form A, 300 V DC / 250 V AC, 2-pin

Electrical connection 1: EN 175301-803, form A
Ambient temperature min./max.: -40 °C ... 90 °C



Operational voltage	Max. current [A]	Contact assignment	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
300 V DC / 250 V AC	10	2+E	4	9.5	1834484048

Dimensions



Profile seal

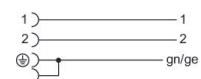
Valve plug connector with cable series CON-VP, Form A

Electrical connection 1: Socket ... form A ... 2+E ... angled

Electrical connection 2: open cable ends ... 3-pin

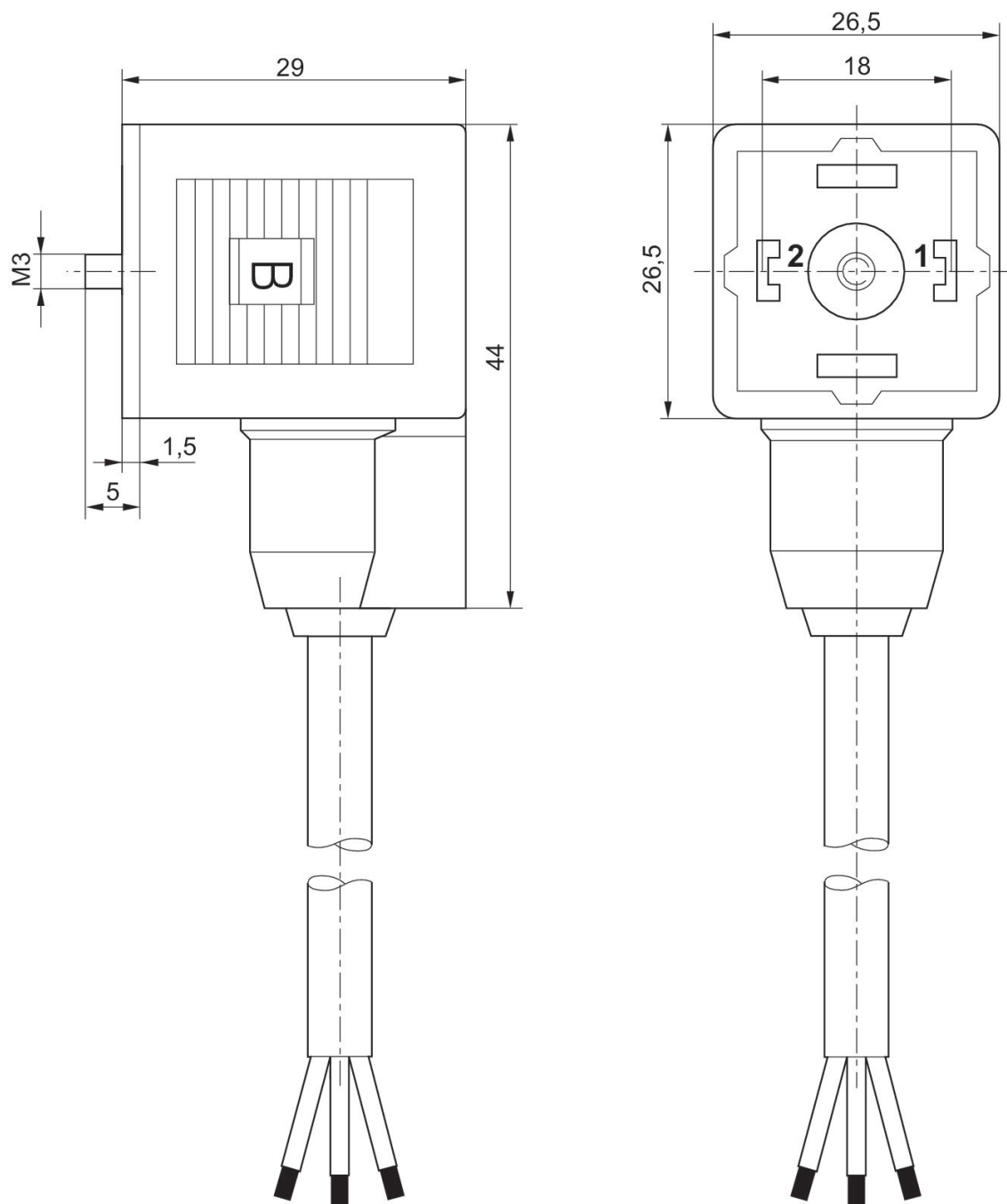
Shielding: unshielded

Ambient temperature min./max.: -20 °C ... 80 °C



Operational voltage	Contact assignment	Cable-Ø [mm]	Cable length [m]	Part No.
230 V AC/DC	2+E	5.9	3	1834484160

Dimensions

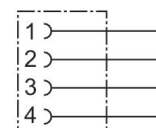


Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M12x1 ... 4-pin ... A-coded ... straight

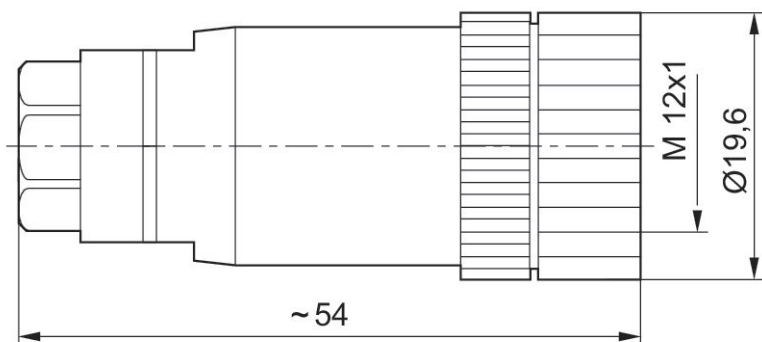
Connection type: Screws

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



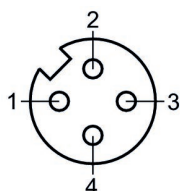
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Screws	4	4	6	1834484177

Dimensions



1834484177

Pin assignment, socket

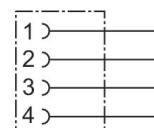


Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M12x1 ... 4-pin ... A-coded ... straight

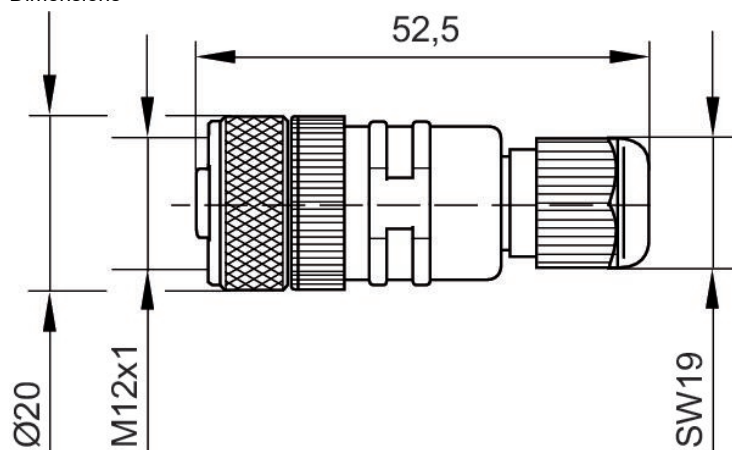
Connection type: Screws

Ambient temperature min./max.: -25 °C ... 90 °C



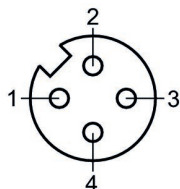
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Screws	4	4	8941054324

Dimensions



8941054324

Pin assignment, socket

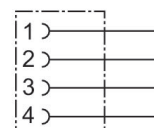


Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M12x1 ... 4-pin ... A-coded ... angled

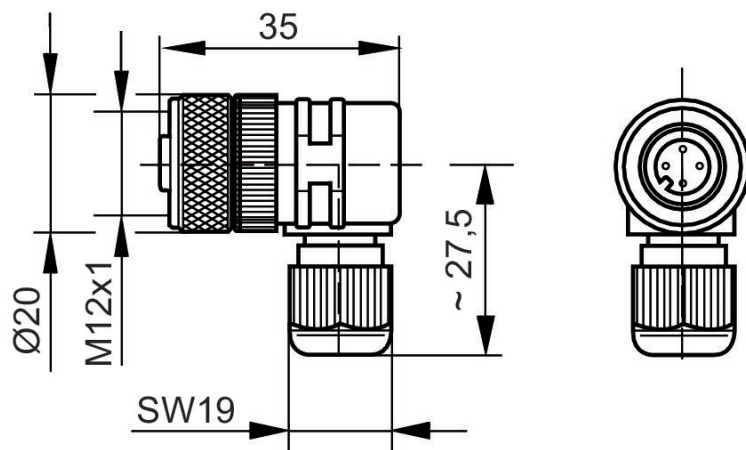
Connection type: Screws

Ambient temperature min./max.: -25 °C ... 90 °C



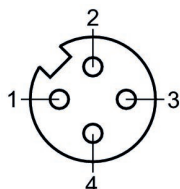
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Screws	4	4	8941054424

Dimensions



8941054424

Pin assignment, socket

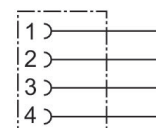


Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M12x1 ... 4-pin ... A-coded ... angled

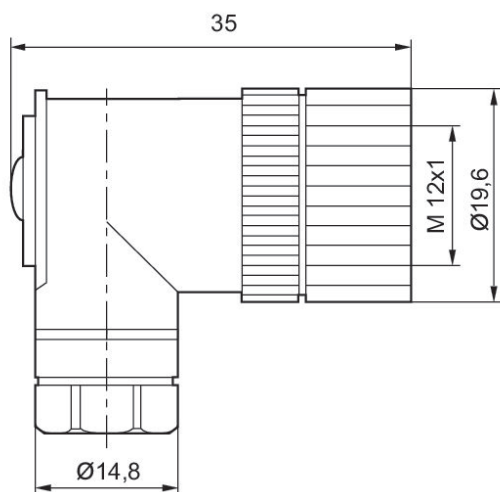
Connection type: Screws

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



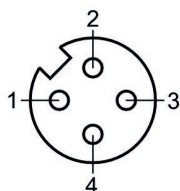
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Screws	4	4	1834484178

Dimensions



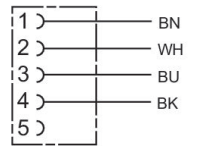
1834484178

Pin assignment, socket



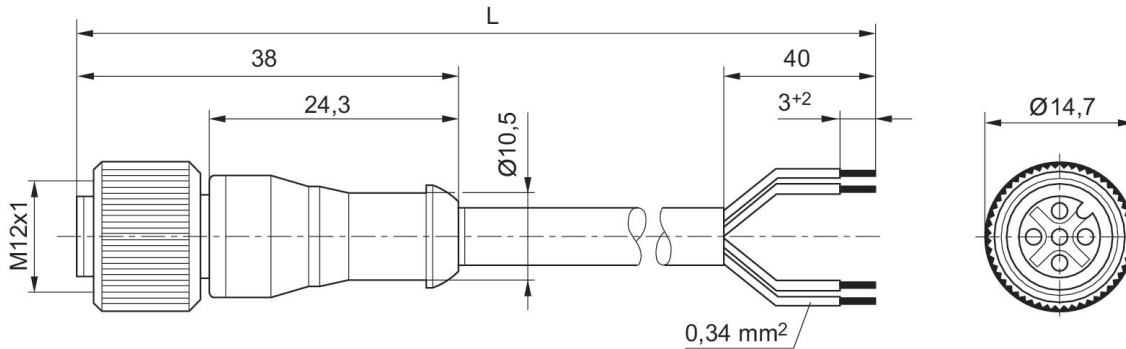
Round plug connector, Series CON-RD, open cable ends, straight

Electrical connection 1: Socket ... M12x1 ... 5-pin ... straight
 Electrical connection 2: without wire end ferrule, tin-plated ... 4-pin
 Ambient temperature min./max.: -25 °C ... 70 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, number of poles	Cable length [m]	Part No.
48 V AC/DC	Socket	M12x1	5-pin	A-coded	open cable ends	4-pin	3	1834484256

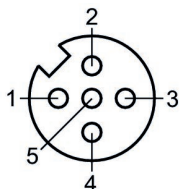
Dimensions



L = length

1834484256

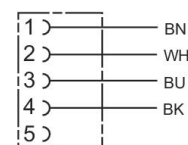
Pin assignment, socket



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

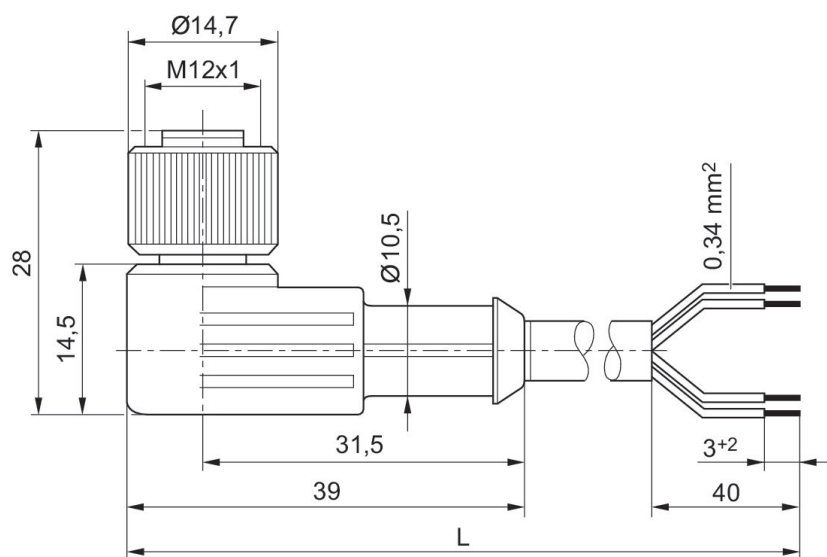
Round plug connector, Series CON-RD, 5-pin, angled, unshielded

Electrical connection 1: Socket ... M12x1 ... 5-pin ... angled
 Electrical connection 2: without wire end ferrule, tin-plated ... 4-pin
 Ambient temperature min./max.: -40 °C ... 85 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, number of poles	Cable length [m]	Part No.
48 V AC/DC	Socket	M12x1	5-pin	A-coded	open cable ends	4-pin	3	1834484259

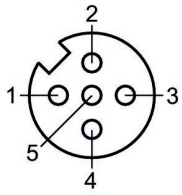
Dimensions



L = length

1834484259

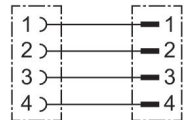
Pin assignment, socket



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

Round plug connector, Series CON-RD

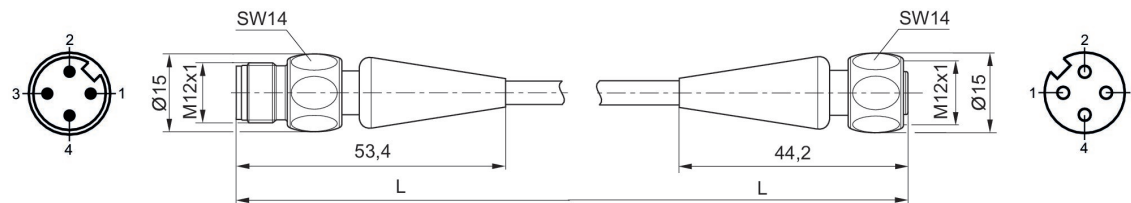
Electrical connection 1: Plug ... M12x1 ... 4-pin ... A-coded ... straight ... 180°
 Electrical connection 2: Socket ... M12x1 ... 4-pin ... A-coded ... straight
 Ambient temperature min./max.: -25 °C ... 70 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, number of poles	Part No.
240 V AC	Socket	M12x1	4-pin	A-coded	Plug	M12x1	4-pin	R402003760

Electrical connection 2, coding	Cable length [m]	Part No.
A-coded	5	R402003760

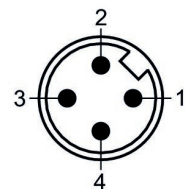
Dimensions



L = cable length

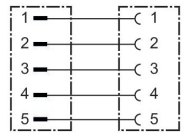
R402003760

Plug pin assignment



Round plug connector, Series CON-RD

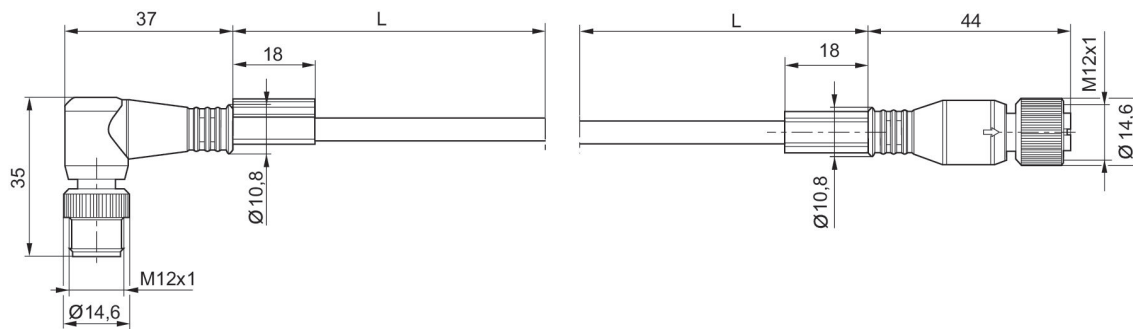
Electrical connection 1: Plug ... M12x1 ... 5-pin ... A-coded ... angled ... 90°
 Electrical connection 2: Socket ... M12x1 ... 5-pin ... A-coded ... straight
 Ambient temperature min./max.: -25 °C ... 80 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, thread size	Electrical connection 2, number of poles	Part No.
48 V AC/DC	Socket	M12x1	5-pin	A-coded	Plug	M12x1	5-pin	R412021694

Electrical connection 2, coding	Cable length [m]	Part No.
A-coded	2	R412021694

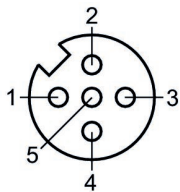
Dimensions



L = length

R412021694





Pin assignment, socket



Efficient pneumatic solutions, our program:
cylinders and drives, valves and valve systems,
air supply management, proportional pressure
control valves



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