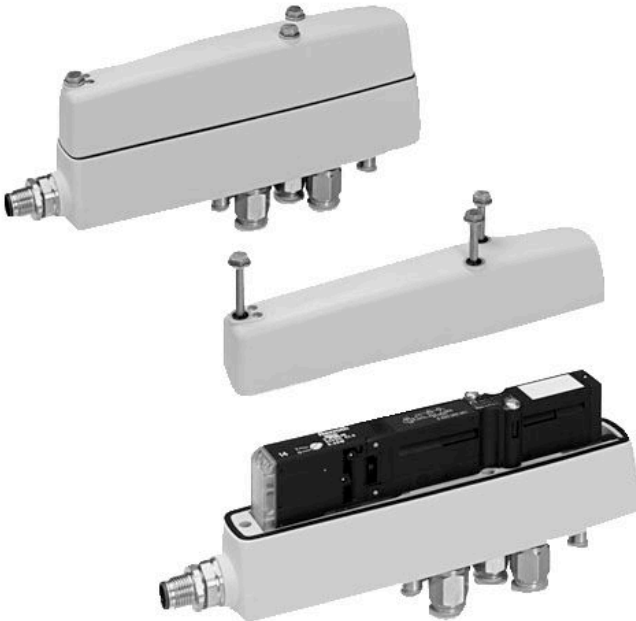


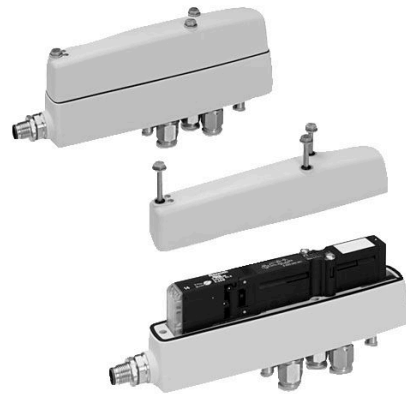
Series CL03



AVENTICS Series CL03-EV Directional valves

The AVENTICS Series CL03-EV spool valves are hygienically designed. They easily resist wet cleaning with aggressive cleaning detergents. The Series complies with protection class IP69K, is suitable for class NSF-H1 lubricants and designed for intensive application in the food and beverage industry.

- Protection class IP69K
- UL-certified pilot
- Stainless steel push-in fittings
- Resistant to wet cleaning
- Clean design



Product overview

	Page
2x3/2	
2x3/2-directional valve, Series CL03-EV..... 16 mm - NO/NC	4
2x3/2-directional valve, Series CL03-EV..... 16 mm - NO/NO	6
2x3/2-directional valve, Series CL03-EV..... 16 mm - NC/NC	8
5/2	
5/2-directional valve, Series CL03-EV..... 16 mm - Single Solenoid	10
Directional valves, Series CL03-EV..... 16 mm	12
5/2-directional valve, Series CL03-EV..... 16 mm - Double Solenoid	14
5/3	
5/3-directional valve, Series CL03-EV..... 16 mm	16
Accessories CL03-EV	
Round plug connector, Series CON-RD..... Plug - M12x1 - 4-pin - straight - Socket - M12x1 - 4-pin - straight	18
Round plug connector, Series CON-RD..... Data plug input - Socket - M12x1 - 5-pin - straight - Screws - CANopen DeviceNet	19

2x3/2-directional valve, Series CL03-EV

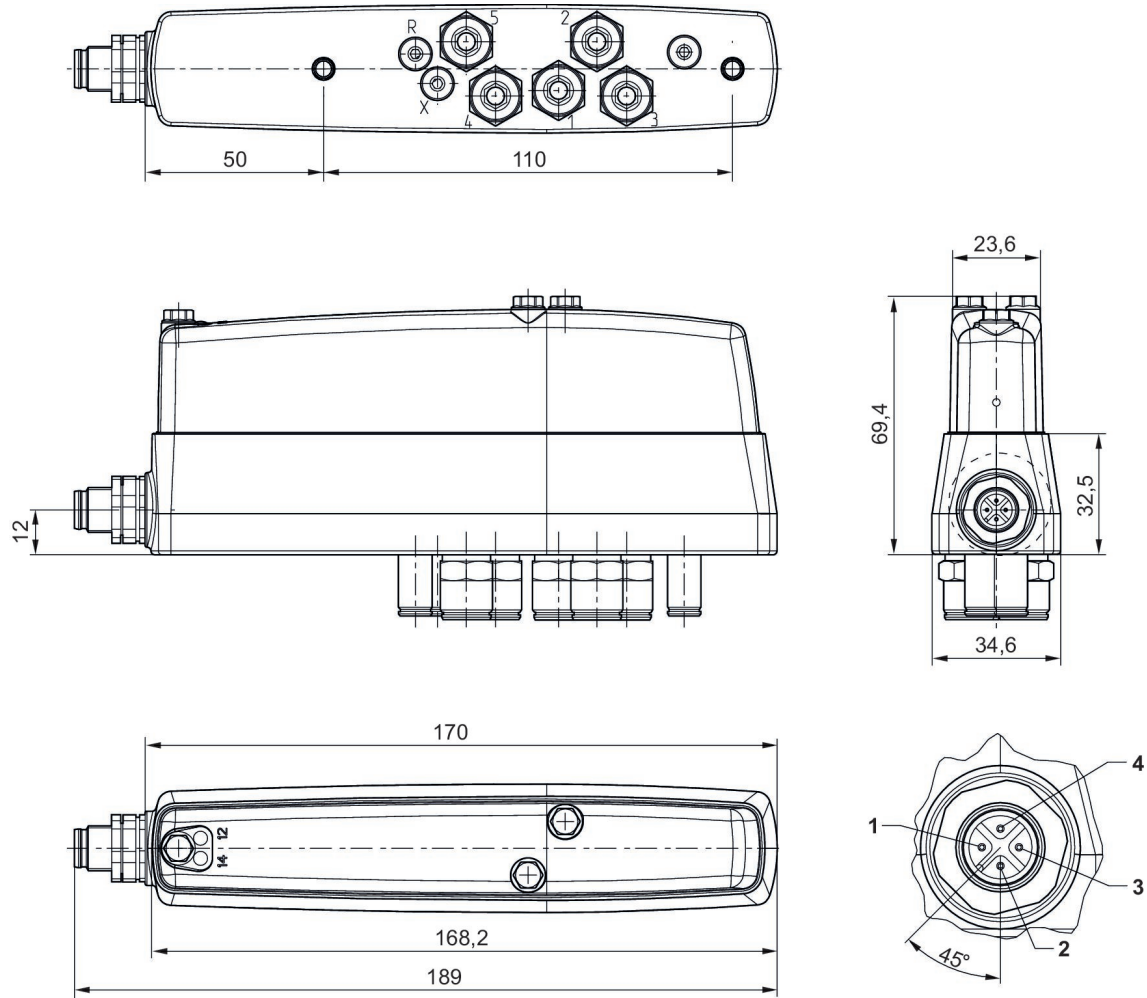
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 3 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Valve function	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Part No.
	NO/NC	2x 3/2 NO/NC, with spring return	Ø 8	Ø 8	Ø 8	Brass	24 V DC	R412017959
	NO/NC	2x 3/2 NO/NC, with spring return	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	R412017960
	NO/NC	2x 3/2 NO/NC, with spring return	G 1/8	G 1/8	G 1/8		24 V DC	R412017961

Pilot	Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
External	0.35	-15 % / +20 %	with detent	700	R412017959
External	0.35	-15 % / +20 %	with detent	700	R412017960
External	0.35	-15 % / +20 %	with detent	700	R412017961

Dimensions



Electrical connection:
1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

2x3/2-directional valve, Series CL03-EV

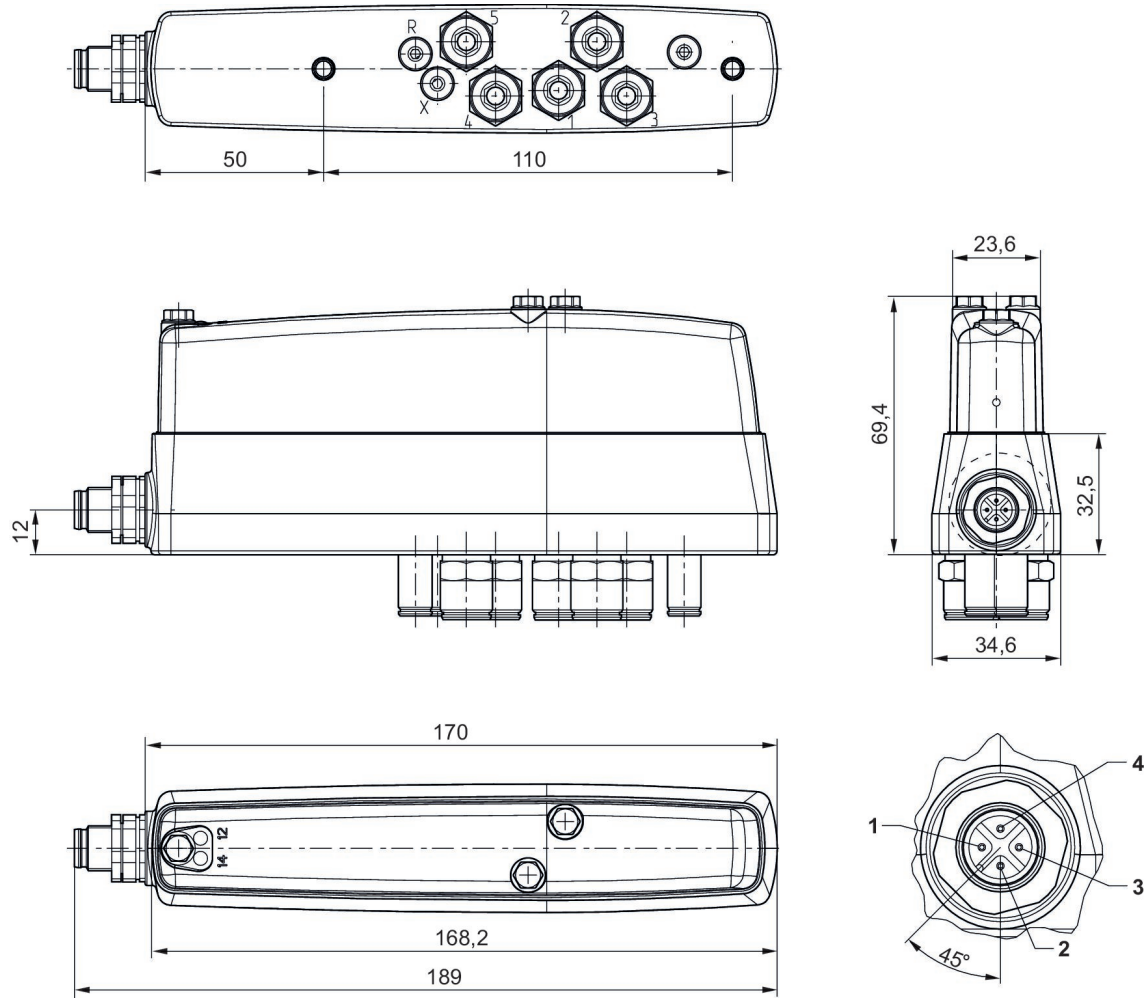
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 2.5 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Valve function	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Part No.
	NO/NO	2x 3/2 NO/NO, with spring return	Ø 8	Ø 8	Ø 8	Brass	24 V DC	R412017956
	NO/NO	2x 3/2 NO/NO, with spring return	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	R412017957
	NO/NO	2x 3/2 NO/NO, with spring return	G 1/8	G 1/8	G 1/8		24 V DC	R412017958

Pilot	Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
External	0.35	-15 % / +20 %	with detent	700	R412017956
External	0.35	-15 % / +20 %	with detent	700	R412017957
External	0.35	-15 % / +20 %	with detent	700	R412017958

Dimensions



Electrical connection:

1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

2x3/2-directional valve, Series CL03-EV

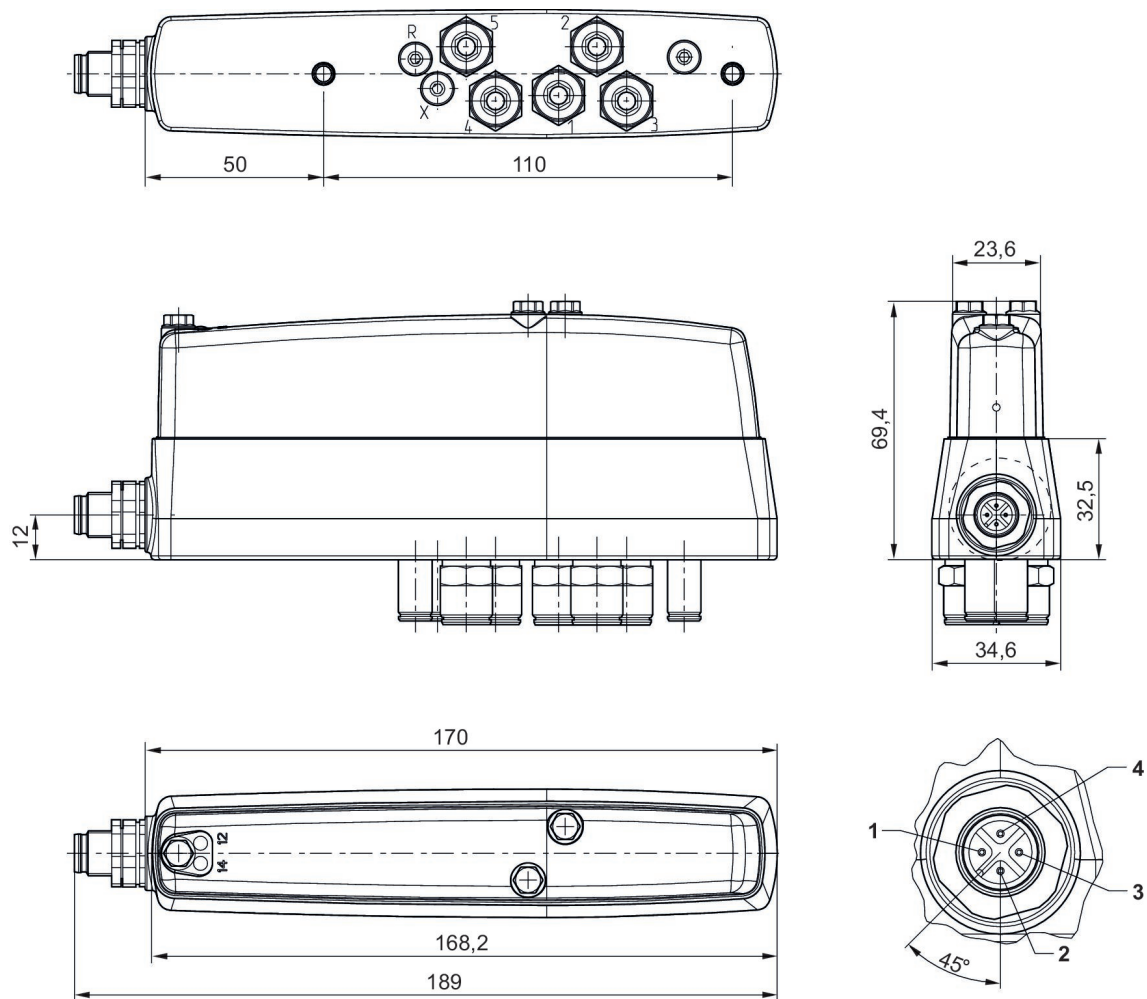
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 2.5 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Valve function	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Part No.
	NC/NC	2x 3/2 NC/NC, with spring return	Ø 8	Ø 8	Ø 8	Brass	24 V DC	R412021814
	NC/NC	2x 3/2 NC/NC, with spring return	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	R412021815
	NC/NC	2x 3/2 NC/NC, with spring return	G 1/8	G 1/8	G 1/8		24 V DC	R412021816

Pilot	Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
External	0.35	-15 % / +20 %	with detent	700	R412021814
External	0.35	-15 % / +20 %	with detent	700	R412021815
External	0.35	-15 % / +20 %	with detent	700	R412021816

Dimensions



Electrical connection:

1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

5/2-directional valve, Series CL03-EV

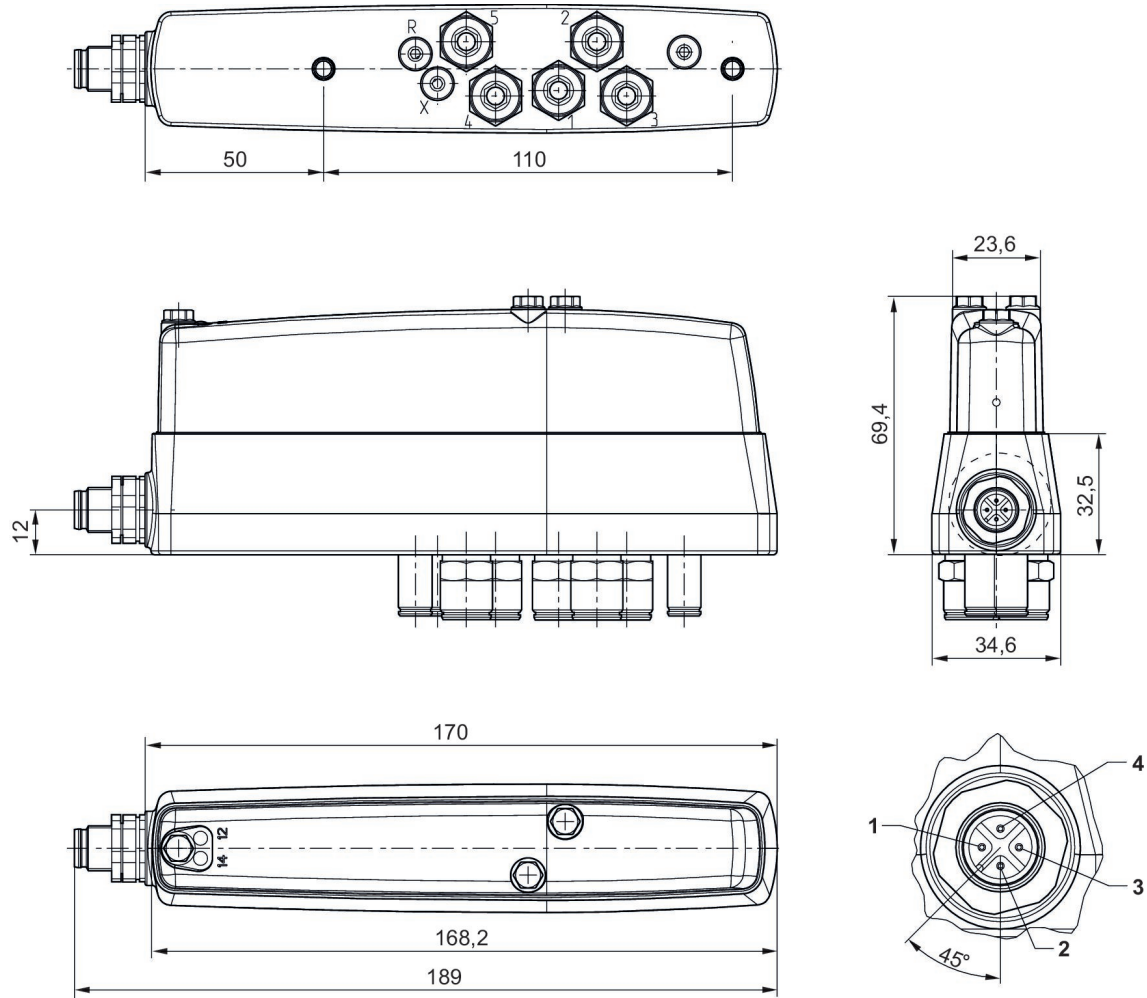
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 3 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Pilot	Part No.
	2/2, with spring/air spring return	Ø 8	Ø 8	Ø 8	Brass	24 V DC	External	R412017962
	2/2, with spring/air spring return	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	External	R412017963
	2/2, with spring/air spring return	G 1/8	G 1/8	G 1/8		24 V DC	External	R412017964

Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
0.35	-15 % / +20 %	with detent	700	R412017962
0.35	-15 % / +20 %	with detent	700	R412017963
0.35	-15 % / +20 %	with detent	700	R412017964

Dimensions



Electrical connection:

1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

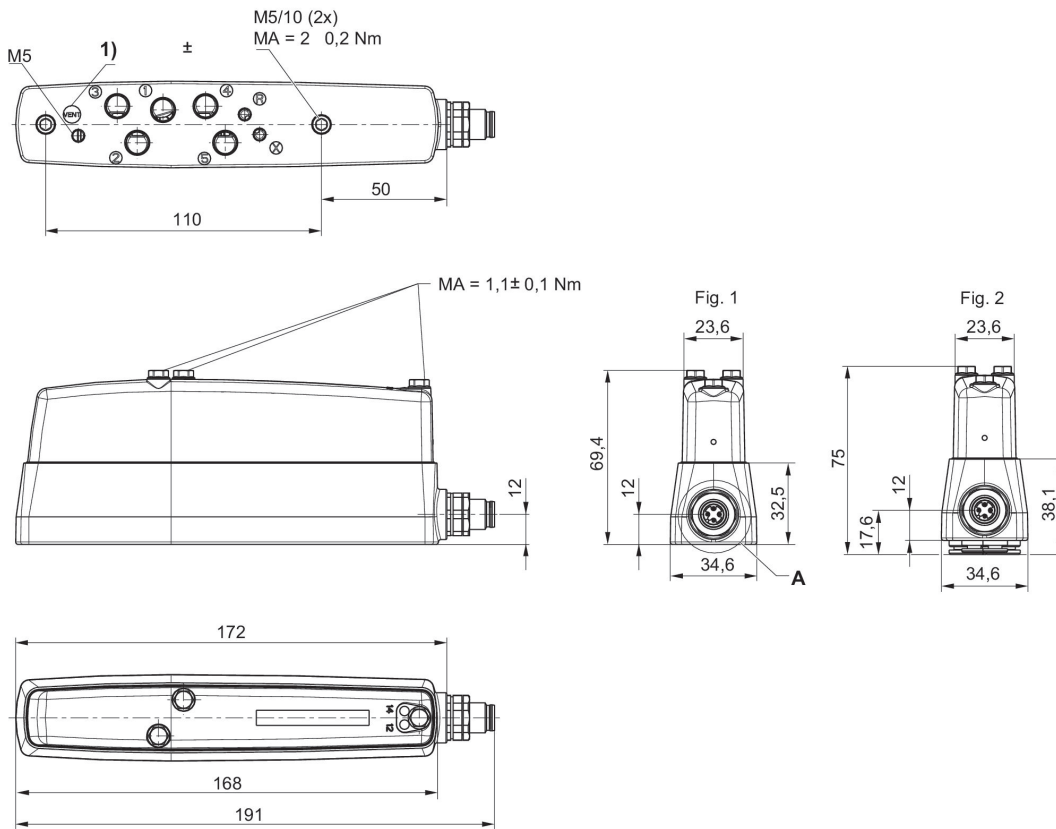
Directional valves, Series CL03-EV

Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Working pressure min./max.: -0.9 bar ... 10 bar



port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
Ø 8	Ø 8	Ø 8	with detent	700	R412026369
G 1/8	G 1/8	G 1/8	with detent	700	R412026370

Dimensions

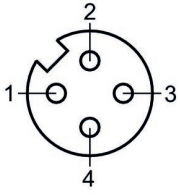


X Ventilation connection (VENT)

R412026369, R412026370

Electrical connection:

round plug






- 1) not assigned
- 2) Coil 12
- 3) Ground
- 4) Coil 14

5/2-directional valve, Series CL03-EV

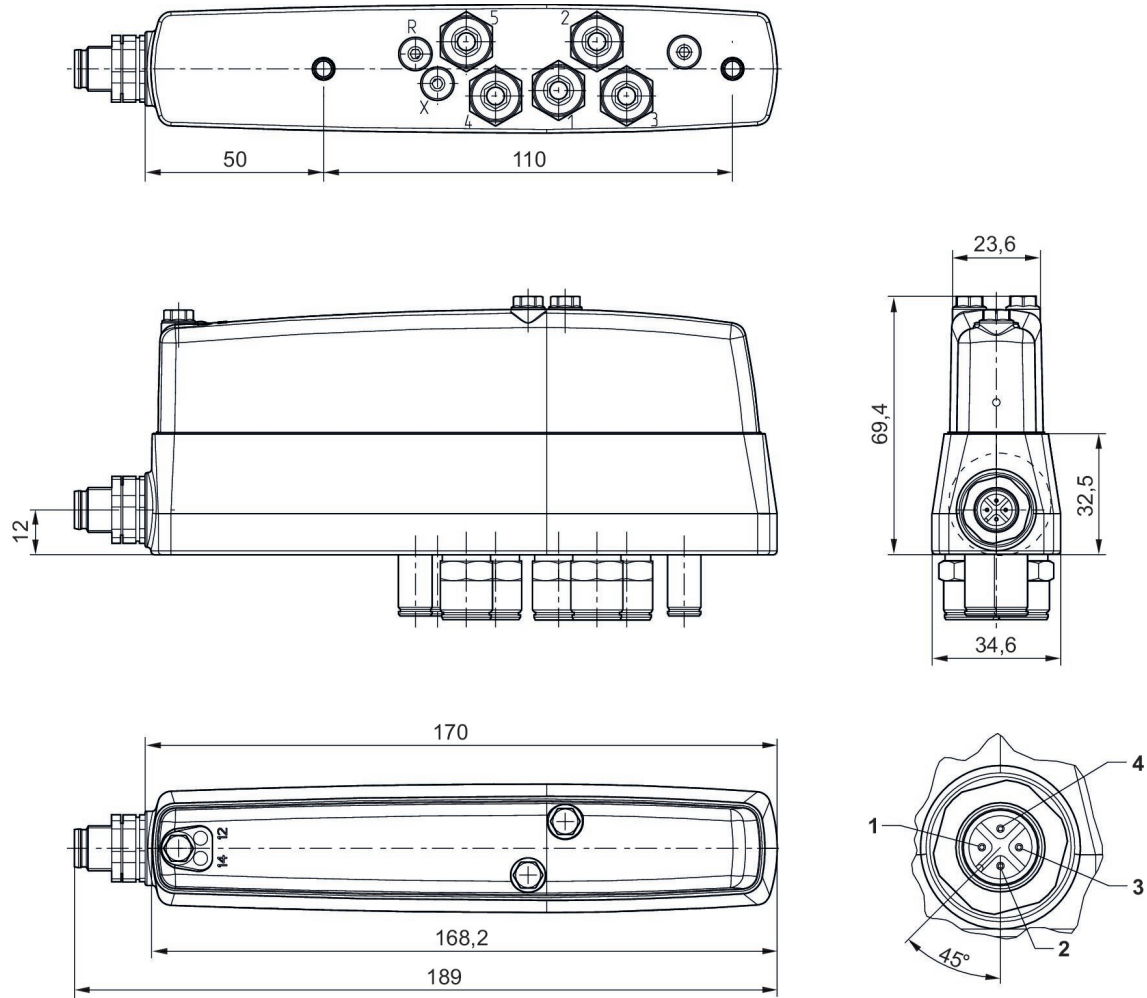
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 3 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Pilot	Part No.
	5/2, double solenoid	Ø 8	Ø 8	Ø 8	Brass	24 V DC	External	R412017950
	5/2, double solenoid	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	External	R412017951
	5/2, double solenoid	G 1/8	G 1/8	G 1/8		24 V DC	External	R412017952

Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
0.35	-15 % / +20 %	with detent	700	R412017950
0.35	-15 % / +20 %	with detent	700	R412017951
0.35	-15 % / +20 %	with detent	700	R412017952

Dimensions



Electrical connection:

1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

5/3-directional valve, Series CL03-EV

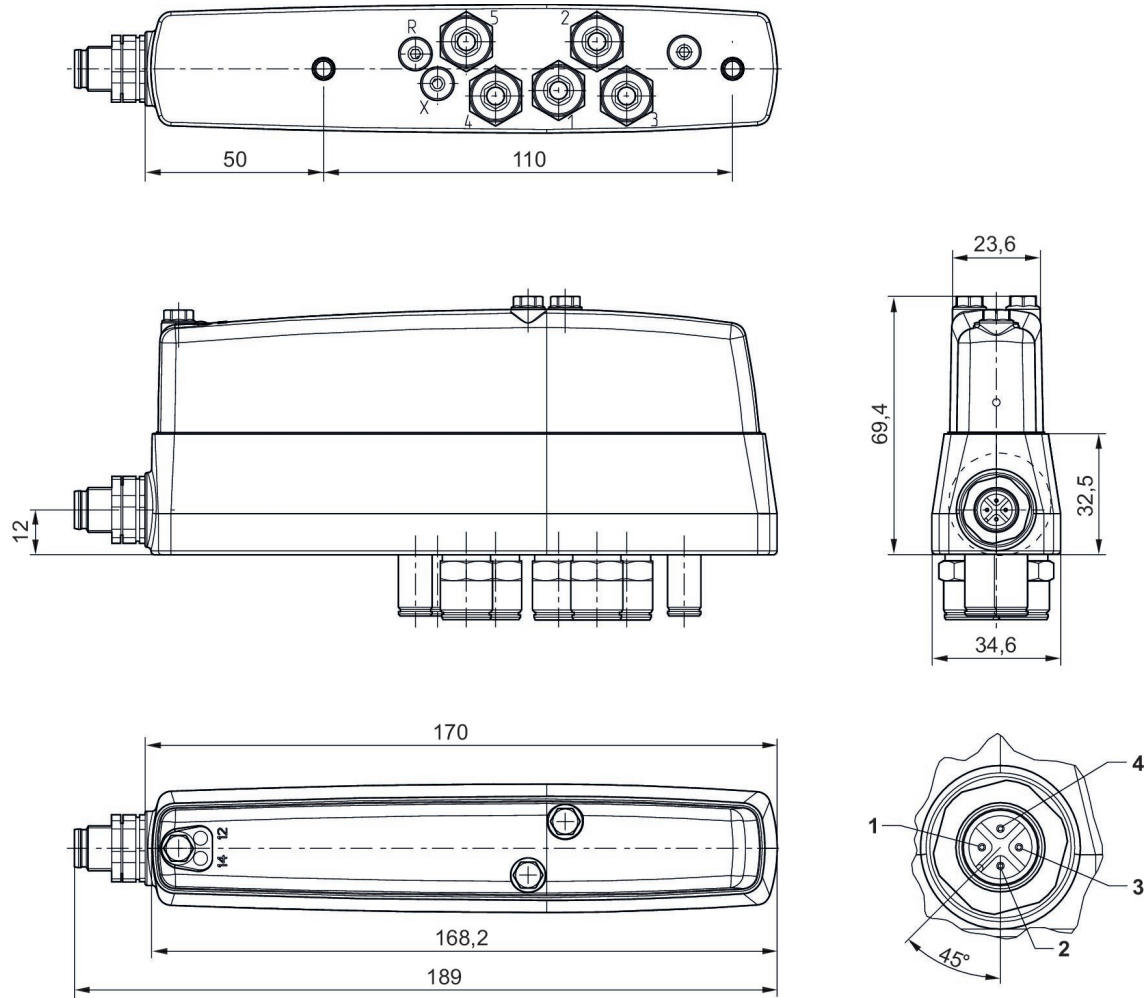
Flow: 700 l/min
 Activation: Electrically
 : suitable for use in food processing
 Certificates: UR (Underwriters Laboratories)
 Pilot valve width: 16 mm
 Duty cycle: 100 %
 Type: Spool valve, positive overlapping
 Ambient temperature min./max.: 0 °C ... 50 °C
 Medium temperature min./max.: 0 °C ... 50 °C
 Control pressure min./max.: 3 bar ... 10 bar
 Working pressure min./max.: -0.9 bar ... 10 bar



	Valve function	Switching principle	port pneumatic input 1	Compressed air connection output	Compressed air connection, exhaust	Threaded bushing	Operational voltage	Part No.
	Closed Center	5/3, closed center	Ø 8	Ø 8	Ø 8	Brass	24 V DC	R412017953
	Closed Center	5/3, closed center	Ø 8	Ø 8	Ø 8	Stainless Steel	24 V DC	R412017954
	Closed Center	5/3, closed center	G 1/8	G 1/8	G 1/8		24 V DC	R412017955

Pilot	Power consumption DC [W]	Voltage tolerance DC	Manual override	Nominal flow Qn 1 to 2 [l/min]	Part No.
External	0.35	-15 % / +20 %	with detent	700	R412017953
External	0.35	-15 % / +20 %	with detent	700	R412017954
External	0.35	-15 % / +20 %	with detent	700	R412017955

Dimensions

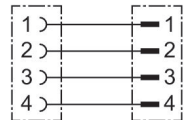


Electrical connection:

1) Not connected 2) Solenoid 12 3) 0 V 4) Solenoid 14

Round plug connector, Series CON-RD

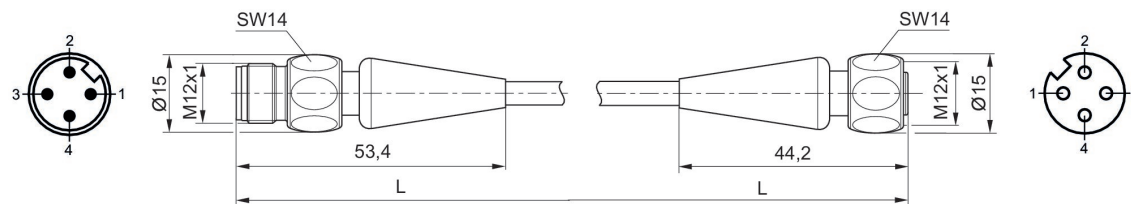
Electrical connection 1: Plug ... M12x1 ... 4-pin ... A-coded ... straight ... 180°
 Electrical connection 2: Socket ... M12x1 ... 4-pin ... A-coded ... straight
 Ambient temperature min./max.: -25 °C ... 70 °C



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
240 V AC	Socket	M12x1	4-pin	A-coded	Plug	M12x1	4-pin	R402003761
240 V AC	Socket	M12x1	4-pin	A-coded	Plug	M12x1	4-pin	R402003762

Electrical connection 2, coding	Cable length [m]	Part No.
A-coded	5	R402003760
A-coded	10	R402003761
A-coded	15	R402003762

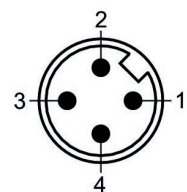
Dimensions



L = cable length

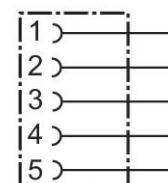
R402003760, R402003761, R402003762

Plug pin assignment



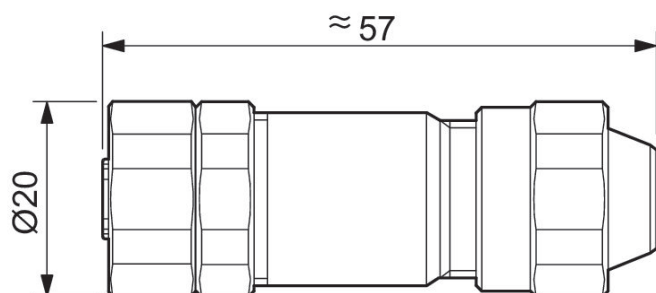
Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M12x1 ... 5-pin ... A-coded ... straight
 Protocol: CANopen, DeviceNet
 Connection type: Screws
 Shielding: shielded
 Ambient temperature min./max.: -40 °C ... 85 °C



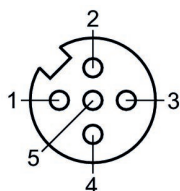
Operational voltage	Coding	Shielding	Protocol	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	shielded	CANopen, DeviceNet	Screws	4	6	8	R402003757

Dimensions



R402003757





Pin assignment, socket



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



Visit us: www.Emerson.com/aventics
Your local contact: Emerson.com/contactus

-  Emerson.com
-  Facebook.com/EmersonAutomationSolutions
-  LinkedIn.com/company/Emerson-Automation-Solutions
-  Twitter.com/EMR_Automation



The Emerson logo is a trademark and service mark of Emerson Electric Co. AVENTICS is a registered trademark of one of the Emerson family of companies. All other trademarks are the property of their respective owners. © 2020 Emerson Electric Co. All rights reserved.



CONSIDER IT SOLVED™