

EV03



AVENTICS™

**AVENTICS EV03 Pilot-Operated
Proportional Control Valve**


EMERSON™

AVENTICS EV03 Pilot-Operated Proportional Control Valve

The AVENTICS EV03 pilot-operated proportional control valve is ideal for applications requiring infrequent pressure adjustments. It works according to the indirect control principle with pilot valves. In the event of power loss and thus a failure of the electrical control, mechanical pressure control is maintained by the pressure in the pilot volumes, even if air escapes from the main valve. The EV03 is optimally suited for static conditions with only occasional set point changes. A key feature of the valve is its extremely low energy consumption. It can be mounted on AV03 or AV05 valve manifolds to minimize wiring, plumbing and space requirements.

- High flow rate with compact dimensions
- Easy to assemble
- Lightweight
- Configuration available
- Different electrical connections available
- Analog or I/O-link control options
- Can be mounted on standard AV03 and AV05 valve manifolds (AVENTICS Series AV-EP)



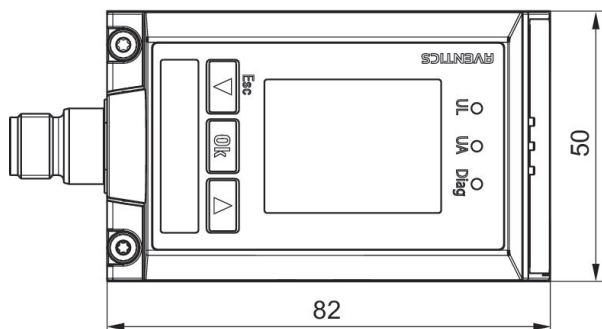
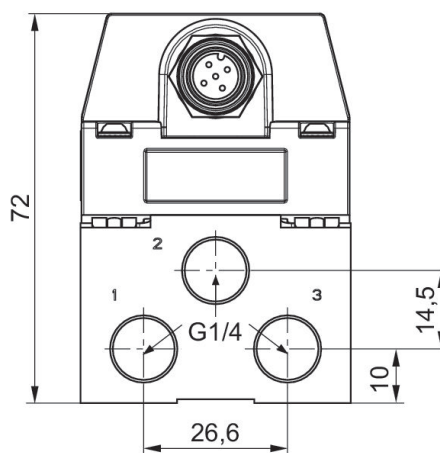
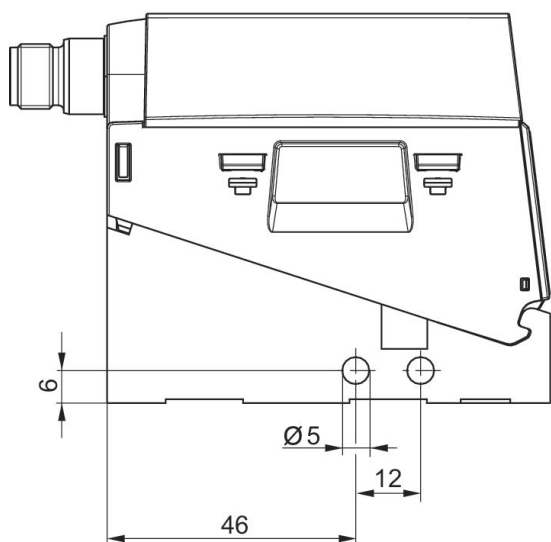
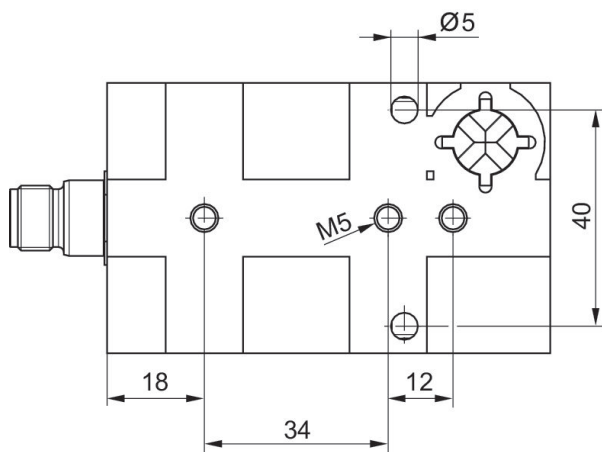
EV03 series proportional pressure regulator

550 l/min
M12
Basic valve with base plate



Display	Function	Actual output value	Nominal input value	Max. current consumption [mA]	Flow [l/min]	Regulation range min. [bar]	Regulation range max. [bar]	Part No.
LCD display	Air exhaust	0 ... 10 V	0 ... 10 V	220	550	0.5	6	R414008246
LCD display	Air exhaust	4 ... 20 mA	4 ... 20 mA	220	550	0.5	6	R414008251
LCD display	Air exhaust	0 ... 10 V	0 ... 10 V	220	550	0.5	10	R414008256
LCD display	Air exhaust	4 ... 20 mA	4 ... 20 mA	220	550	0.5	10	R414008261
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	6	R414008247
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	6	R414008252
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	10	R414008257
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	10	R414008262
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	10	R414008229
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	10	R414008232

Dimensions



Port for plug M12x1

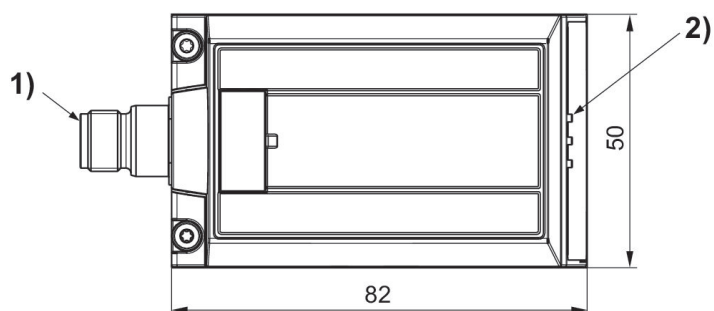
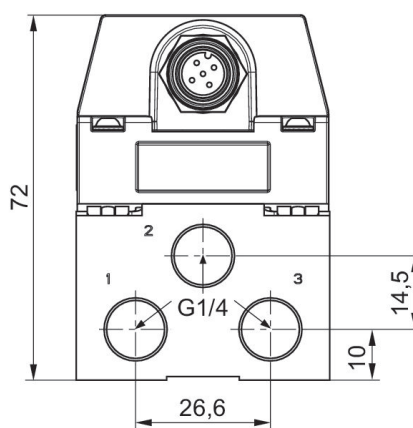
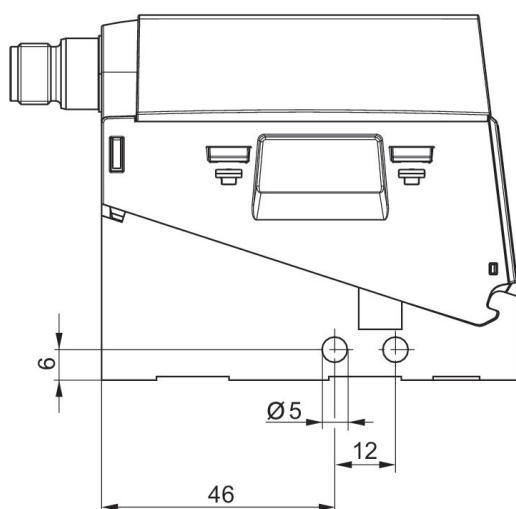
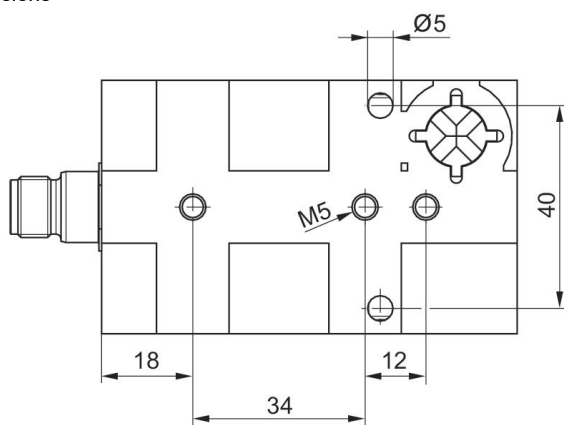
EV03 series proportional pressure regulator

550 l/min
M12
Basic valve with base plate

Display	Function	Actual out-put value	Nominal input value	Max. current consumption [mA]	Flow [l/min]	Regulation range min. [bar]	Regulation range max. [bar]	Part No.
LED	Air exhaust	0 ... 10 V	0 ... 10 V	180	550	0.5	6	R414008243
LED	Air exhaust	4 ... 20 mA	4 ... 20 mA	180	550	0.5	6	R414008248
LED	Air exhaust	0 ... 10 V	0 ... 10 V	180	550	0.5	10	R414008253
LED	Air exhaust	4 ... 20 mA	4 ... 20 mA	180	550	0.5	10	R414008258
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414008244
LED	Pressure-holding	0 ... 20 mA	0 ... 20 mA	120	550	0.5	6	R414008449
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	6	R414008249
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414008245
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	120	550	0.5	6	R414008250
LED	Pressure-holding, output 10V constant to supply a set point potentiometer.	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414008451
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414008453
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414008254
LED	Pressure-holding	0 ... 20 mA	0 ... 20 mA	120	550	0.5	10	R414008450
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414008259
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414008255
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414008260
LED	Pressure-holding, output 10V constant to supply a set point potentiometer.	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414008452

Display	Function	Actual out-put value	Nominal input value	Max. current consumption [mA]	Flow [l/min]	Regulation range min. [bar]	Regulation range max. [bar]	Part No.
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414008227
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414008230
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414008228
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	180	550	0.5	10	R414008231

Dimensions



- 1) Port for plug M12x1
- 2) LED status display

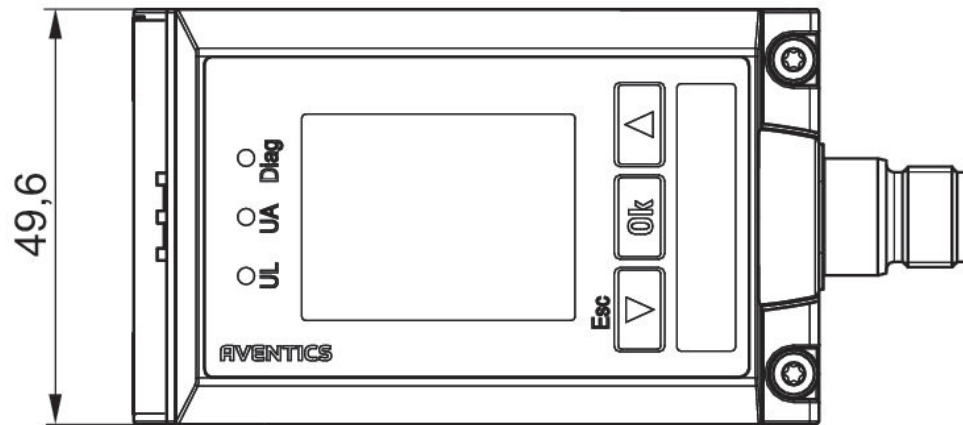
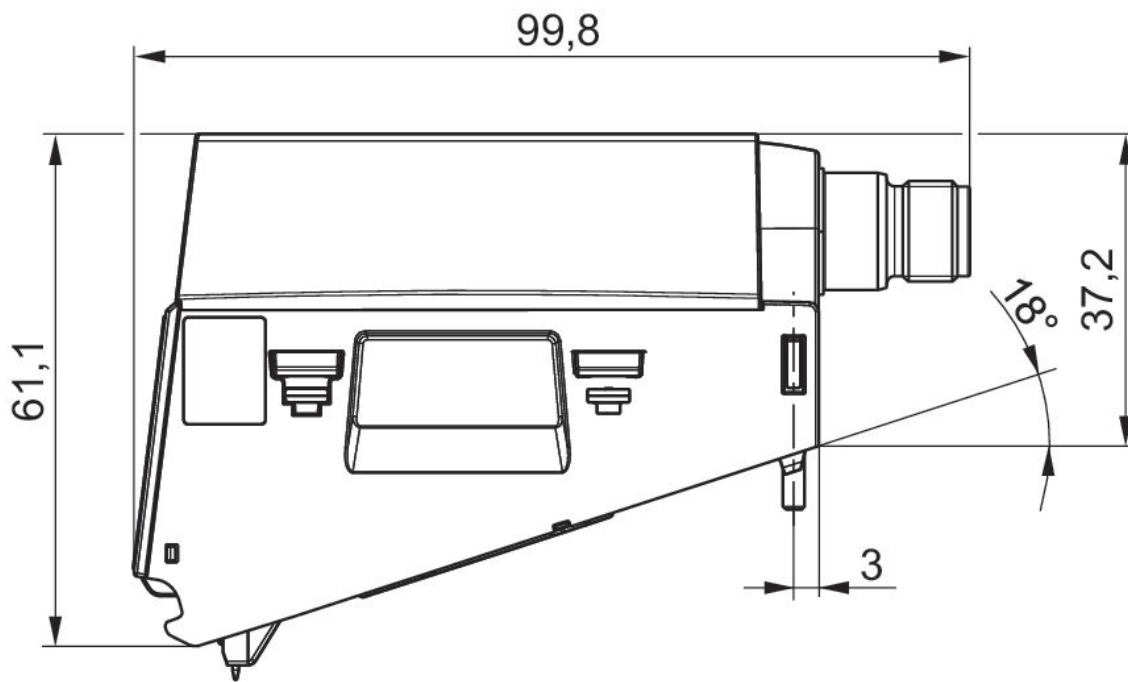
EV03 series proportional pressure regulator

550 l/min
M12
Basic valve without base plate



Display	Function	Actual output value	Nominal input value	Max. current consumption [mA]	Flow [l/min]	Regulation range min. [bar]	Regulation range max. [bar]	Part No.
LCD display	Air exhaust	0 ... 10 V	0 ... 10 V	220	550	0.5	6	R414009027
LCD display	Air exhaust	4 ... 20 mA	4 ... 20 mA	220	550	0.5	6	R414009032
LCD display	Air exhaust	0 ... 10 V	0 ... 10 V	220	550	0.5	10	R414009037
LCD display	Air exhaust	4 ... 20 mA	4 ... 20 mA	220	550	0.5	10	R414009042
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	6	R414009028
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	6	R414009033
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	10	R414009038
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	10	R414009043
LCD display	Pressure-holding	0 ... 10 V	0 ... 10 V	160	550	0.5	10	R414009020
LCD display	Pressure-holding	4 ... 20 mA	4 ... 20 mA	160	550	0.5	10	R414009023

Dimensions



Port for plug M12x1

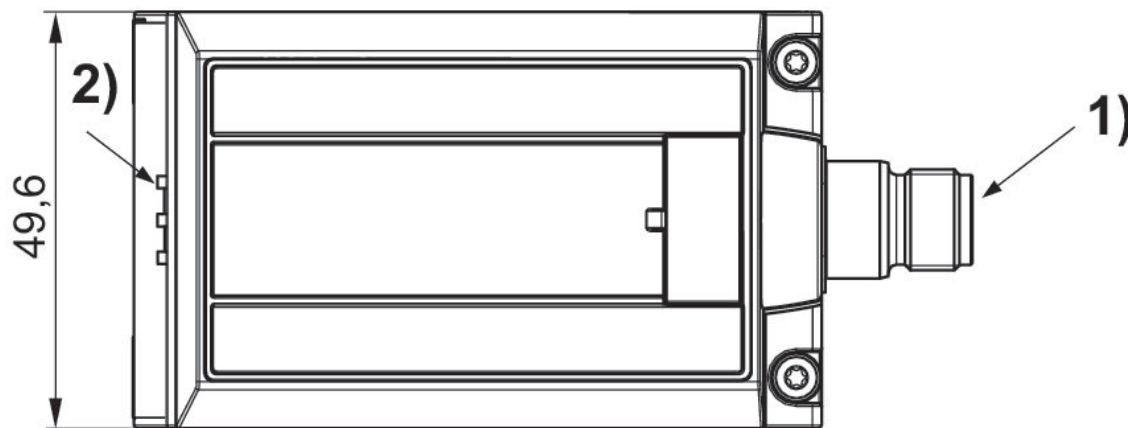
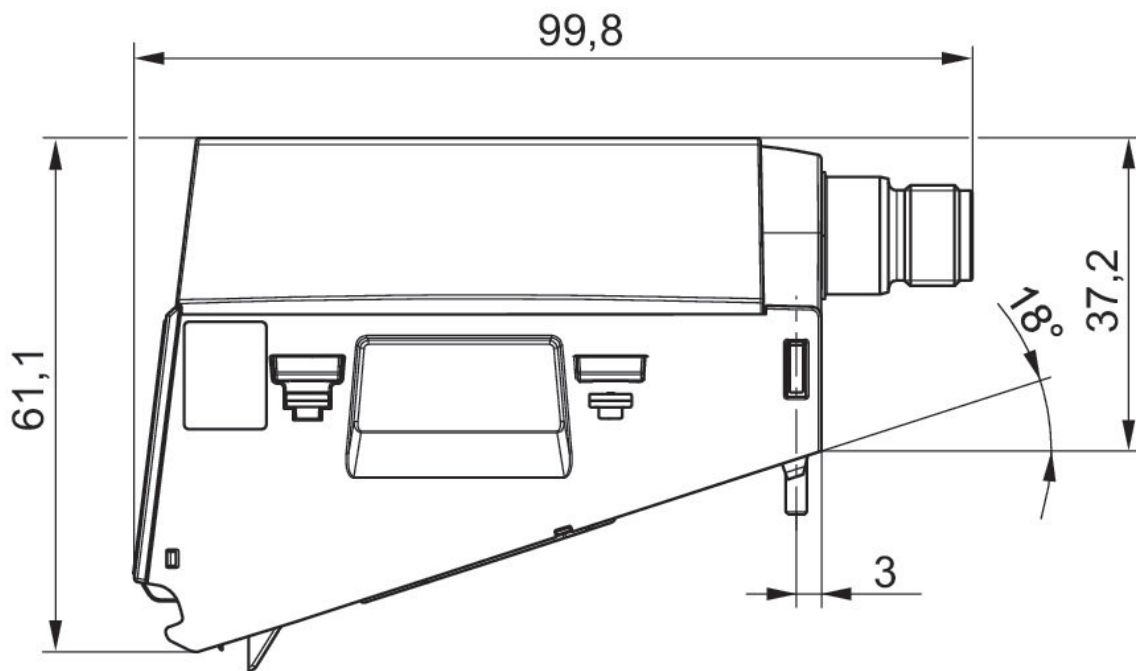
EV03 series proportional pressure regulator

550 l/min
M12
Basic valve without base plate



Display	Function	Actual output value	Nominal input value	Max. current consumption [mA]	Flow [l/min]	Regulation range min. [bar]	Regulation range max. [bar]	Part No.
LED	Air exhaust	0 ... 10 V	0 ... 10 V	180	550	0.5	6	R414009024
LED	Air exhaust	4 ... 20 mA	4 ... 20 mA	180	550	0.5	6	R414009029
LED	Air exhaust	0 ... 10 V	0 ... 10 V	180	550	0.5	10	R414009034
LED	Air exhaust	4 ... 20 mA	4 ... 20 mA	180	550	0.5	10	R414009039
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414009025
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	6	R414009030
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414009035
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414009040
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	6	R414009026
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	120	550	0.5	6	R414009031
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414009036
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414009041
LED	Pressure-holding	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414009018
LED	Pressure-holding	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414009021
LED	Pressure-holding, with switch output	0 ... 10 V	0 ... 10 V	120	550	0.5	10	R414009019
LED	Pressure-holding, with switch output	4 ... 20 mA	4 ... 20 mA	120	550	0.5	10	R414009022

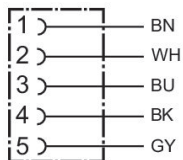
Dimensions



- 1) Port for plug M12x1
- 2) LED status display

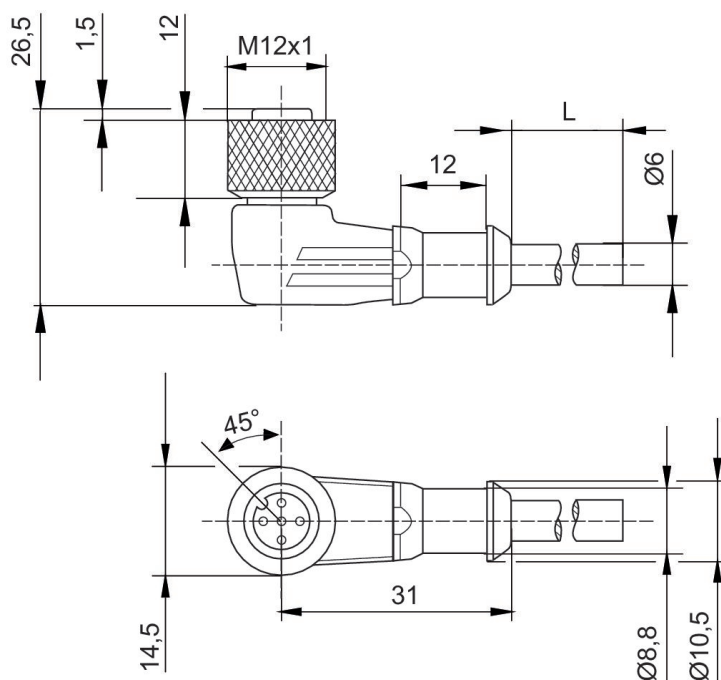
Round plug connector, Series CON-RD

Socket
M12x1
5-pin



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 2, type	Cable length [m]	Part No.
48 V AC/DC	Socket	M12x1	open cable ends	2.5	R419800109
48 V AC/DC	Socket	M12x1	open cable ends	5	R419800110
48 V AC/DC	Socket	M12x1	open cable ends	10	R419800546

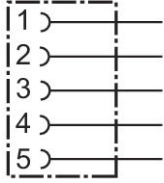
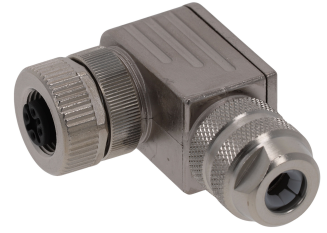
Dimensions



L = length

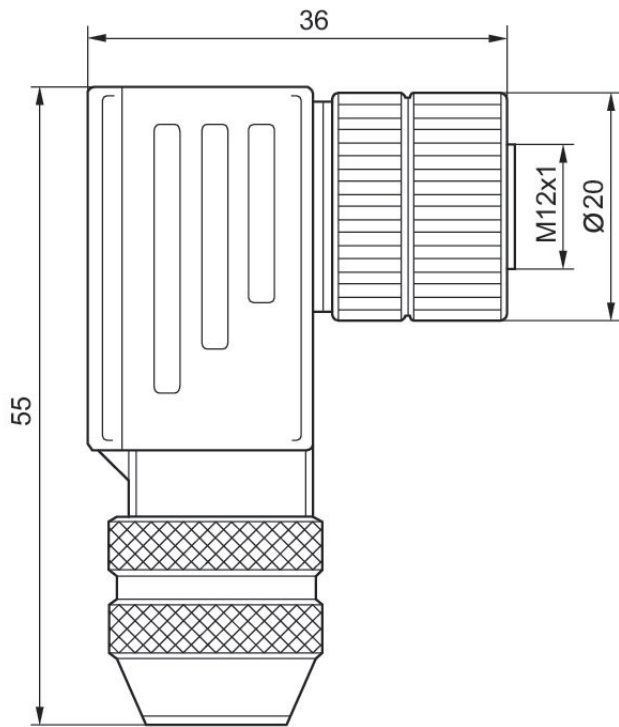
Round plug connector, Series CON-RD

Socket
M12x1
5-pin



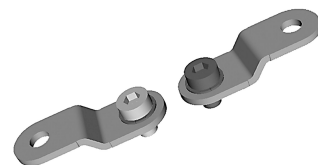
Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Part No.
48 V AC/DC	Socket	M12x1	1824484029

Dimensions

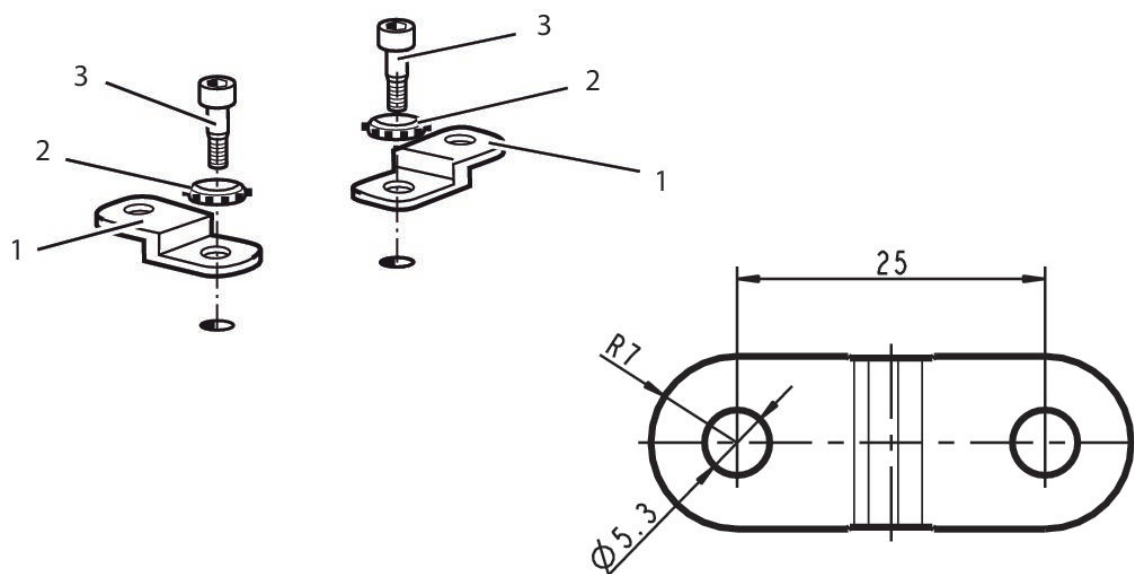


Mounting kit, for mounting plate

ED02
EV03



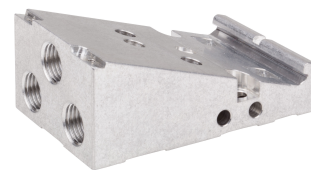
Part No.
R414002582



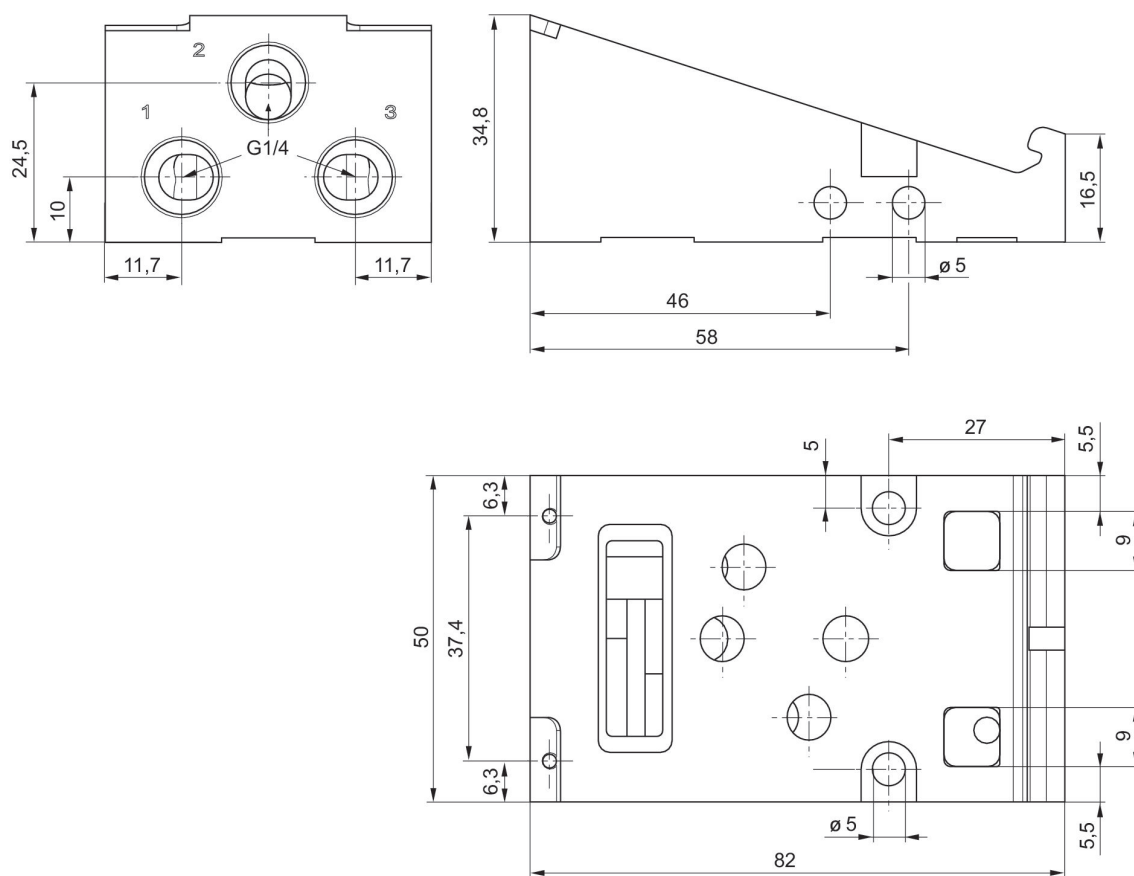
- 1) Mounting plate
- 2) toothed ring
- 3) Mounting screw Tightening torque: 6 Nm

Base plate

EV03



Thread connection	Part No.
G 1/4	R414007542







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



Visit us: [Emerson.com/Aventics](https://www.emerson.com/aventics)

Your local contact: [Emerson.com/contactus](https://www.emerson.com/contactus)

-  [Emerson.com](https://www.emerson.com)
-  [Facebook.com/EmersonAutomationSolutions](https://www.facebook.com/EmersonAutomationSolutions)
-  [LinkedIn.com/company/Emerson-Automation-Solutions](https://www.linkedin.com/company/Emerson-Automation-Solutions)
-  [Twitter.com/EMR_Automation](https://twitter.com/EMR_Automation)

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

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2019 Emerson Electric Co. All rights reserved.



CONSIDER IT SOLVED™