Filling unit, electrically operated, Series AS3-SSU

- adjustable filling time
- Compressed air connection G 3/8 G 1/2
- Pipe connection
- ATEX optional

Type	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	3500 l/min
Nominal flow 1 ▸ 2	3500 l/min
Nominal flow 2 ▸ 3	3200 l/min
Working pressure min./max.	2,5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	See table below

Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412007277		–	G 3/8	G 3/8	G 1/2
R412007282		–	G 1/2	G 1/2	G 1/2
R412007287		–	G 1/2	G 1/2	G 1/2
R412007278			G 3/8	G 3/8	G 1/2
R412007280			G 3/8	G 3/8	G 1/2
R412007394			G 1/2	-	G 1/2
R412007283			G 1/2	G 1/2	G 1/2
R412007284			G 1/2	G 1/2	G 1/2
R412007285			G 1/2	G 1/2	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007277	-	-	-
R412007282	-	-	-
R412007287	-	-	-
R412007278	24 V	-	-
R412007280	-	220 V	230 V
R412007394	24 V	-	-
R412007283	24 V	-	-

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007284	-	110 V	110 V
R412007285	-	220 V	230 V

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412007277	-	-	-	-
R412007282	-	-	-	-
R412007287	-	-	-	-
R412007278	2 W	-	-	-
R412007280	-	1,6 VA	1,4 VA	2,2 VA
R412007394	2 W	-	-	-
R412007283	2 W	-	-	-
R412007284	-	1,6 VA	1,4 VA	2,2 VA
R412007285	-	1,6 VA	1,4 VA	2,2 VA

Part No.	Switch-on power	Electrical connection	Connector standard
	AC 60 Hz	Pilot valve	
R412007277	-	-	-
R412007282	-	-	-
R412007287	-	-	-
R412007278	-	Plug, ISO 15217, form C	ISO 15217
R412007280	1,6 VA	Plug, ISO 15217, form C	ISO 15217
R412007394	-	Plug, M12x1	-
R412007283	-	Plug, ISO 15217, form C	ISO 15217
R412007284	1,6 VA	Plug, ISO 15217, form C	ISO 15217
R412007285	1,6 VA	Plug, ISO 15217, form C	ISO 15217

Part No.	basic valve with electrical connector
R412007277	Basic valve without pilot valve
R412007282	Basic valve without pilot valve
R412007287	Basic valve without pilot valve, with CNOMO subbase
R412007278	Basic valve with pilot valve
R412007280	Basic valve with pilot valve
R412007394	Basic valve with pilot valve
R412007283	Basic valve with pilot valve
R412007284	Basic valve with pilot valve
R412007285	Basic valve with pilot valve

Part No.	Reverse polarity protection	Weight	Fig.	
R412007277	-	0,889 kg	Fig. 1	1)
R412007282	-	0,889 kg	Fig. 1	1)
R412007287	-	0,895 kg	Fig. 2	1)
R412007278	Protected against polarity reversal	0,924 kg	Fig. 3	-
R412007280	Protected against polarity reversal	0,924 kg	Fig. 3	-
R412007394	Protected against polarity reversal	0,9 kg	Fig. 4	2)
R412007283	Protected against polarity reversal	0,924 kg	Fig. 3	-

Part No.	Reverse polarity protection	Weight	Fig.	
R412007284	Protected against polarity reversal	0,924 kg	Fig. 3	-
R412007285	Protected against polarity reversal	0,924 kg	Fig. 3	-

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 0.1 bar

1) Suitable for use in Ex zones 1, 2, 21, 22.

2) With adjustment screw lock

Technical information

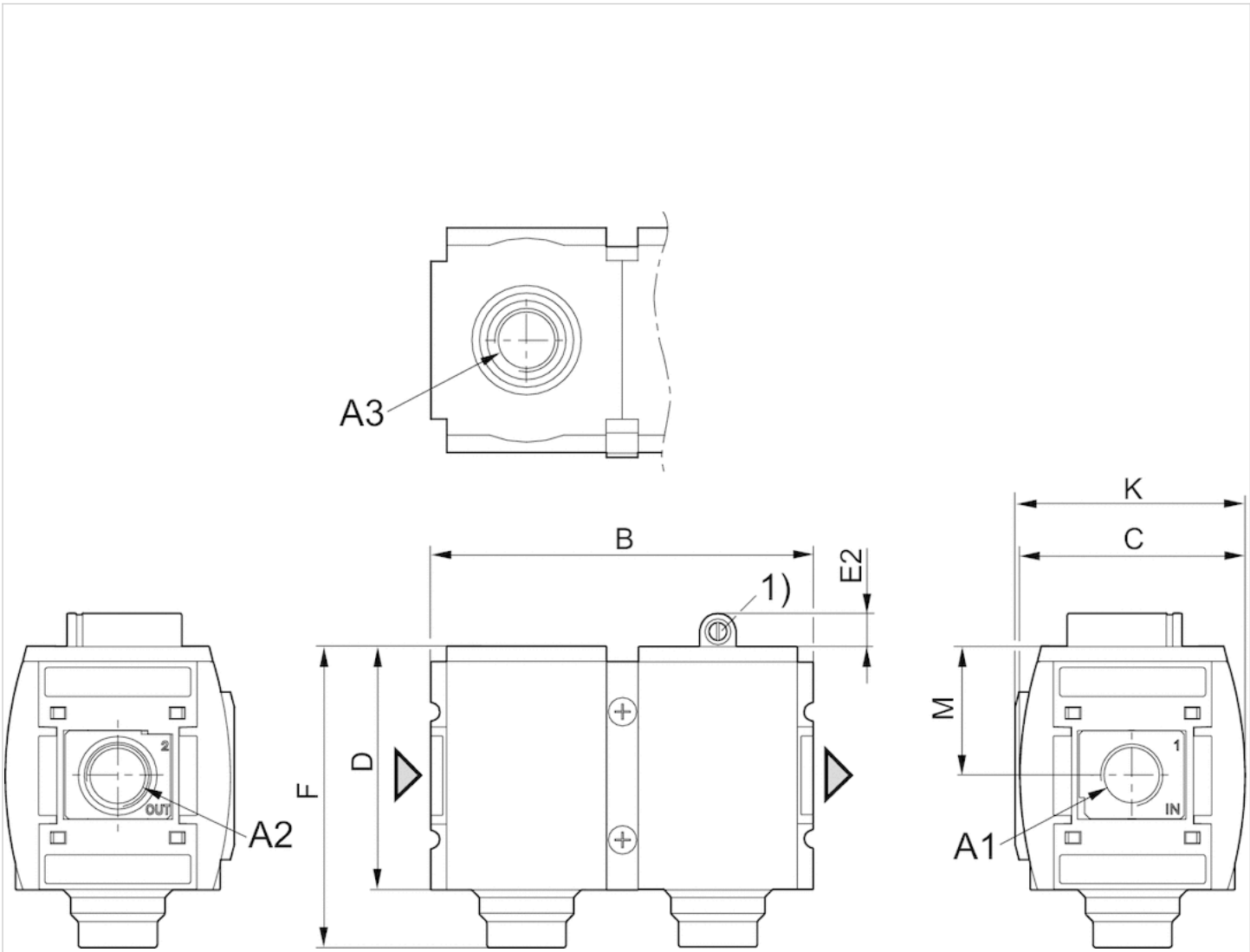
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.
ATEX optional: The ATEX ID depends on the selected pilot valve.
Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Dimensions

Fig. 1: Filling unit without pilot valve with porting configuration for series DO16



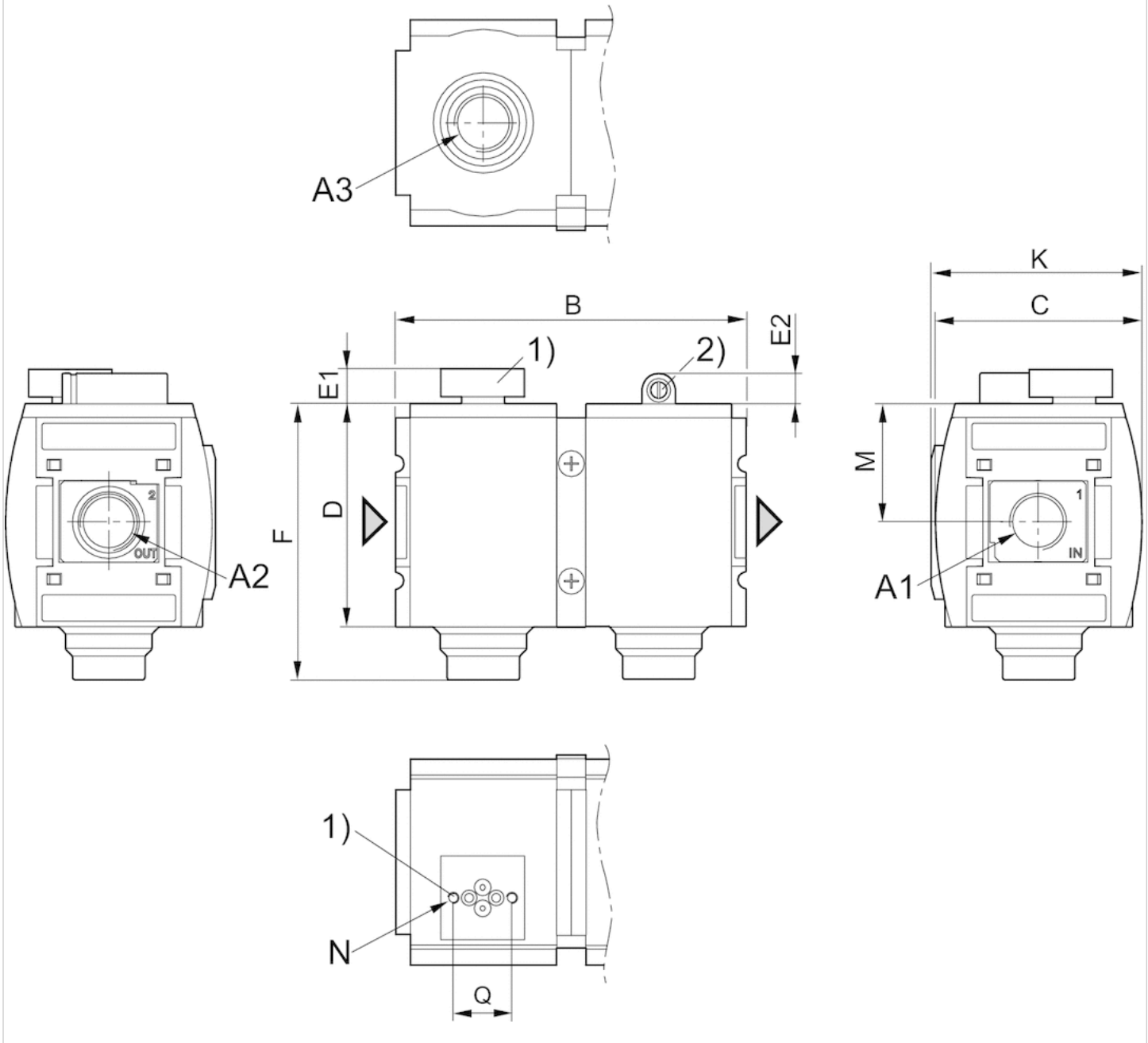
A1 = input
A2 = output
1) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E2	F	K	M
G 3/8	G 3/8	G 1/2	125.75	74	80	11	99	75.5	42.5
G 1/2	G 1/2	G 1/2	125.75	74	80	11	99	75.5	42.5

Dimensions

Fig. 2: Filling unit with transition plate for pilot valve series DO30



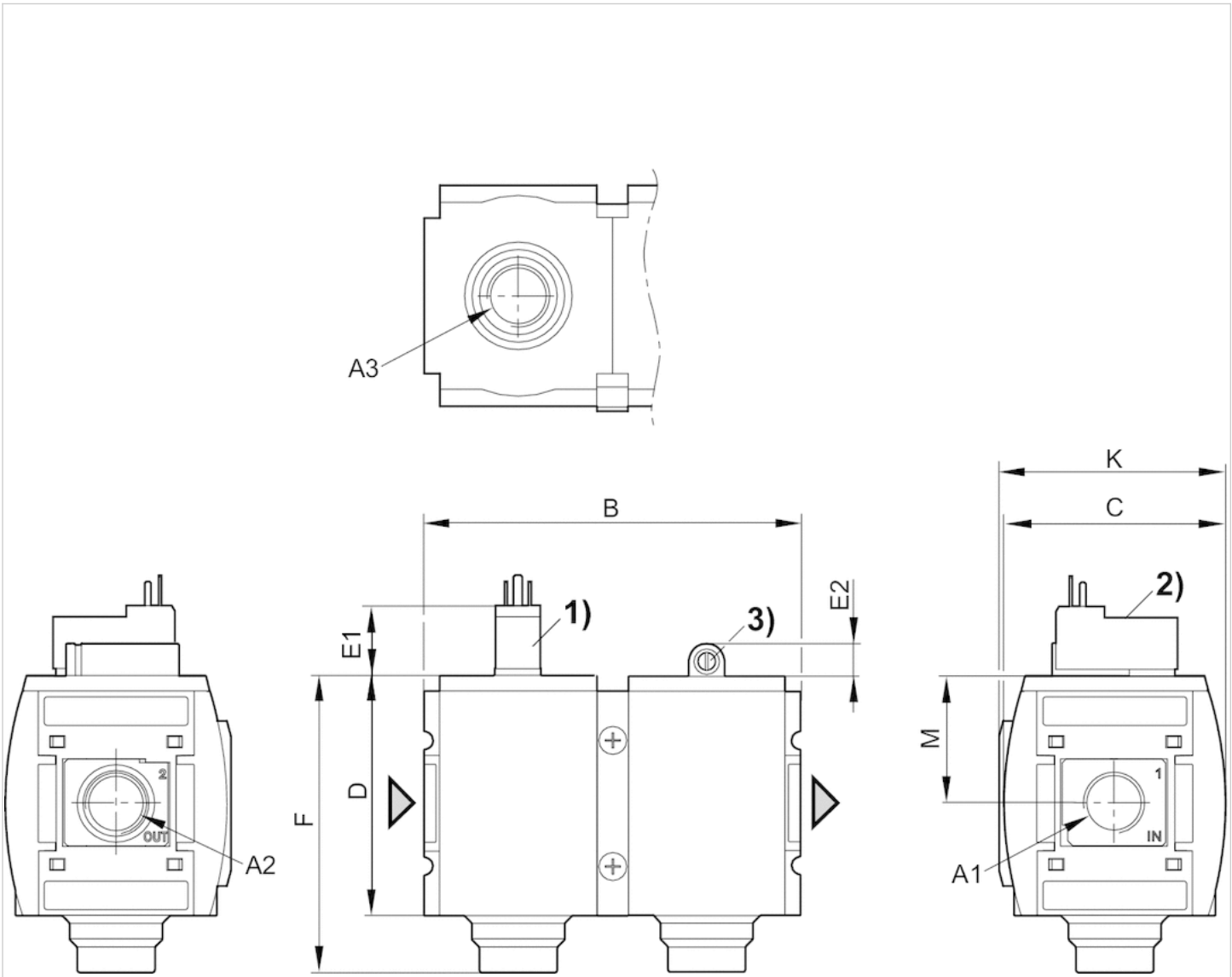
A1 = input
A2 = output
A3 = ventilation port
1) Transition plate with CNOMO porting configuration for pilot valve DO30
2) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M	N	Q
G 1/2	G 1/2	G 1/2	125.75	74	80	12.3	11	99	75.5	42.5	M4	21

Dimensions

Fig. 3: Filling unit with pilot valve and port for valve plug connector



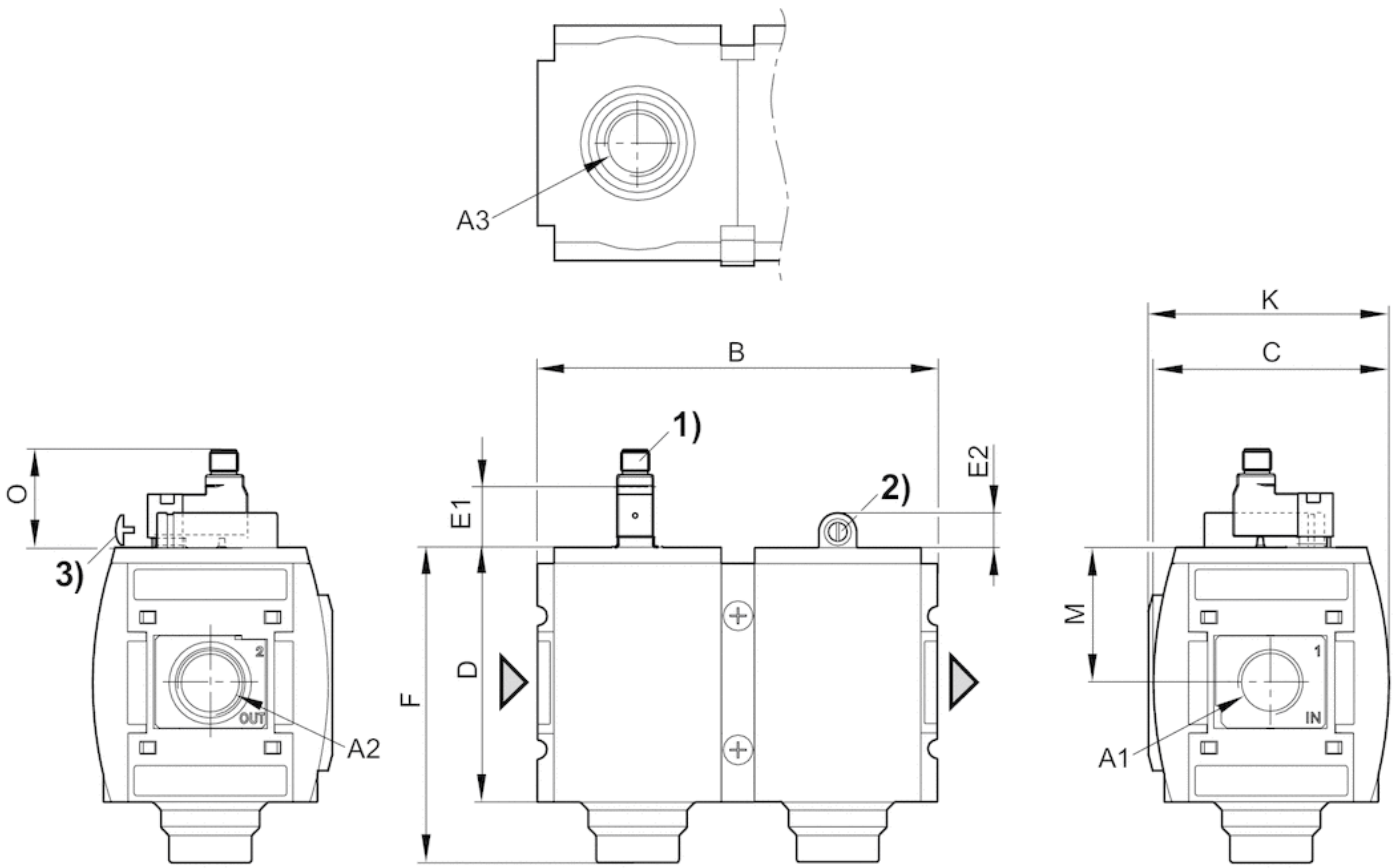
A1 = input
A2 = output
A3 = ventilation port
1) Connection for valve plug connector according to ISO 15217 (form C)
2) Manual override
3) Adjustment screw for filling time

Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M
G 3/8	G 3/8	G 1/2	125.75	74	80	23.2	11	99	75.5	42.5
G 1/2	G 1/2	G 1/2	125.75	74	80	23.2	11	99	75.5	42.5

Dimensions

Fig. 4: Filling unit with pilot valve and valve plug connector for plug



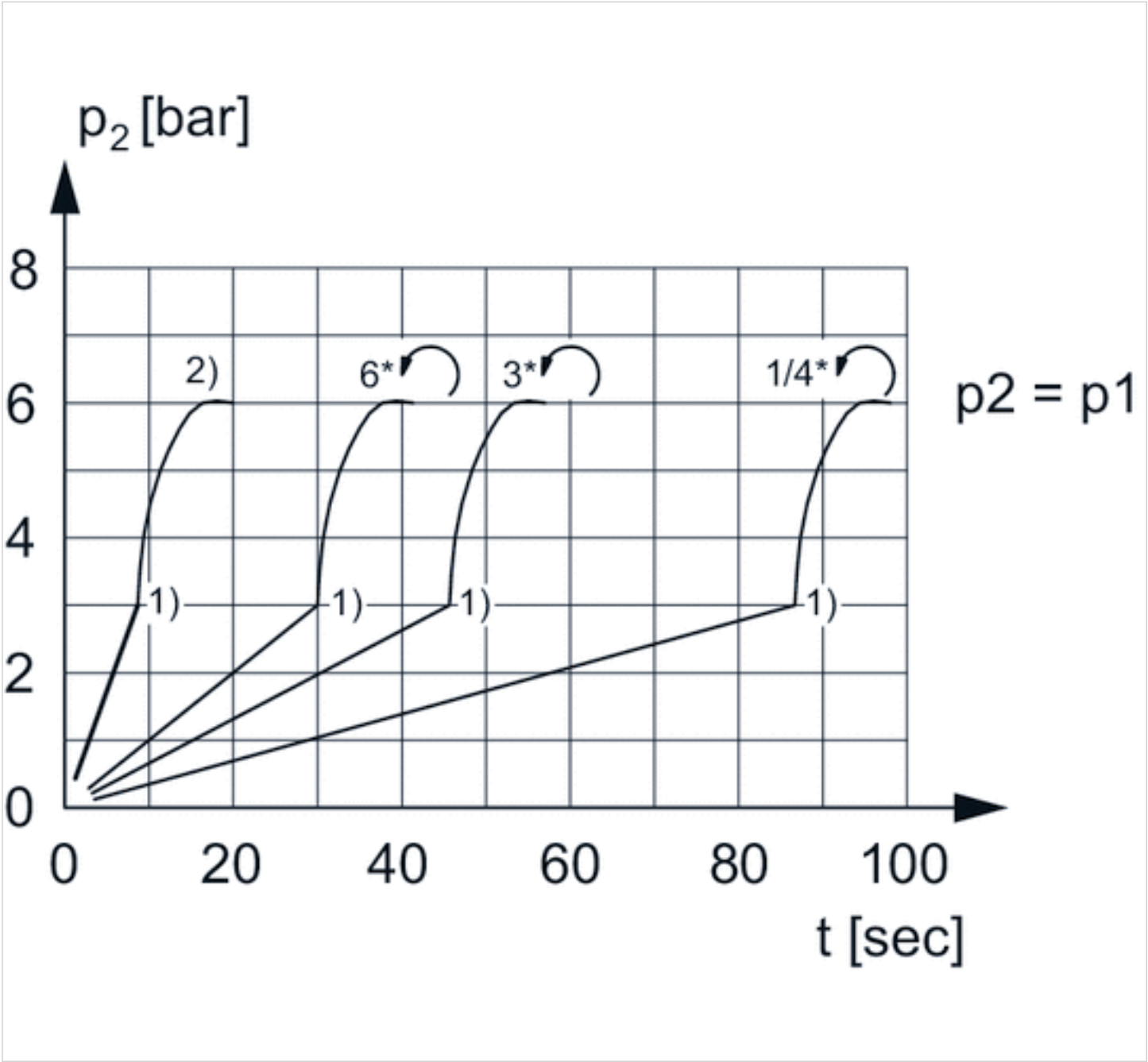
A1 = input
A2 = output
A3 = ventilation port
1) Port for plug M12x1
2) Adjustment screw for filling time
3) Adjustment screw lock

Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M
G 1/2	G 1/2	G 1/2	125.75	74	80	39	11	99	75.5	42.5

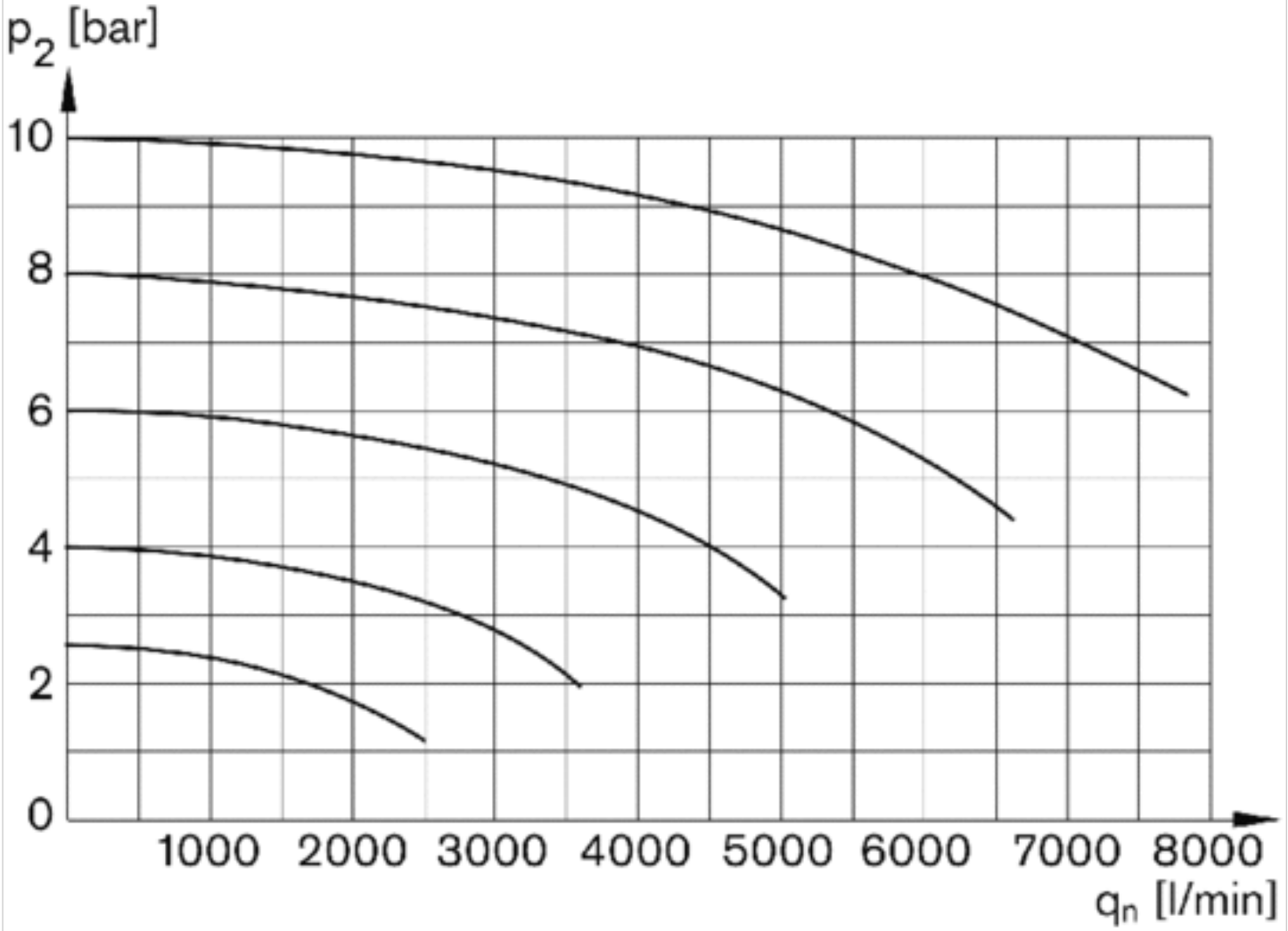
Diagrams

Secondary pressure while filling



p1 = working pressure
p2 = secondary pressure
t = filling time, adjustable via adjustment screw (throttle)
1) Switching point: adjustable filling time, fixed change-over pressure ≈ 0.5 x p1 (50%)
2) Throttle fully opened
* Adjustment screw rotations

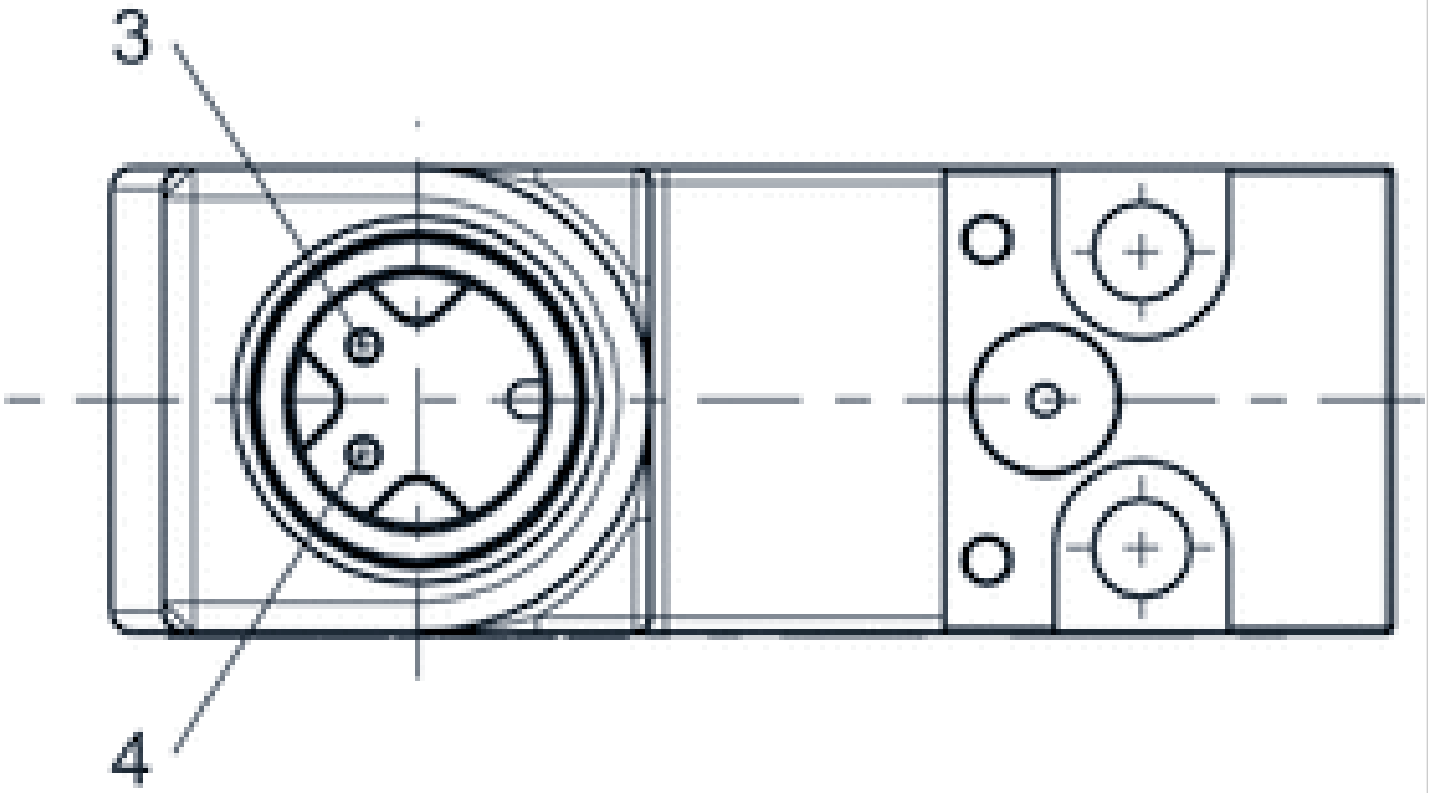
Flow rate characteristic



p2 = secondary pressure
qn = nominal flow

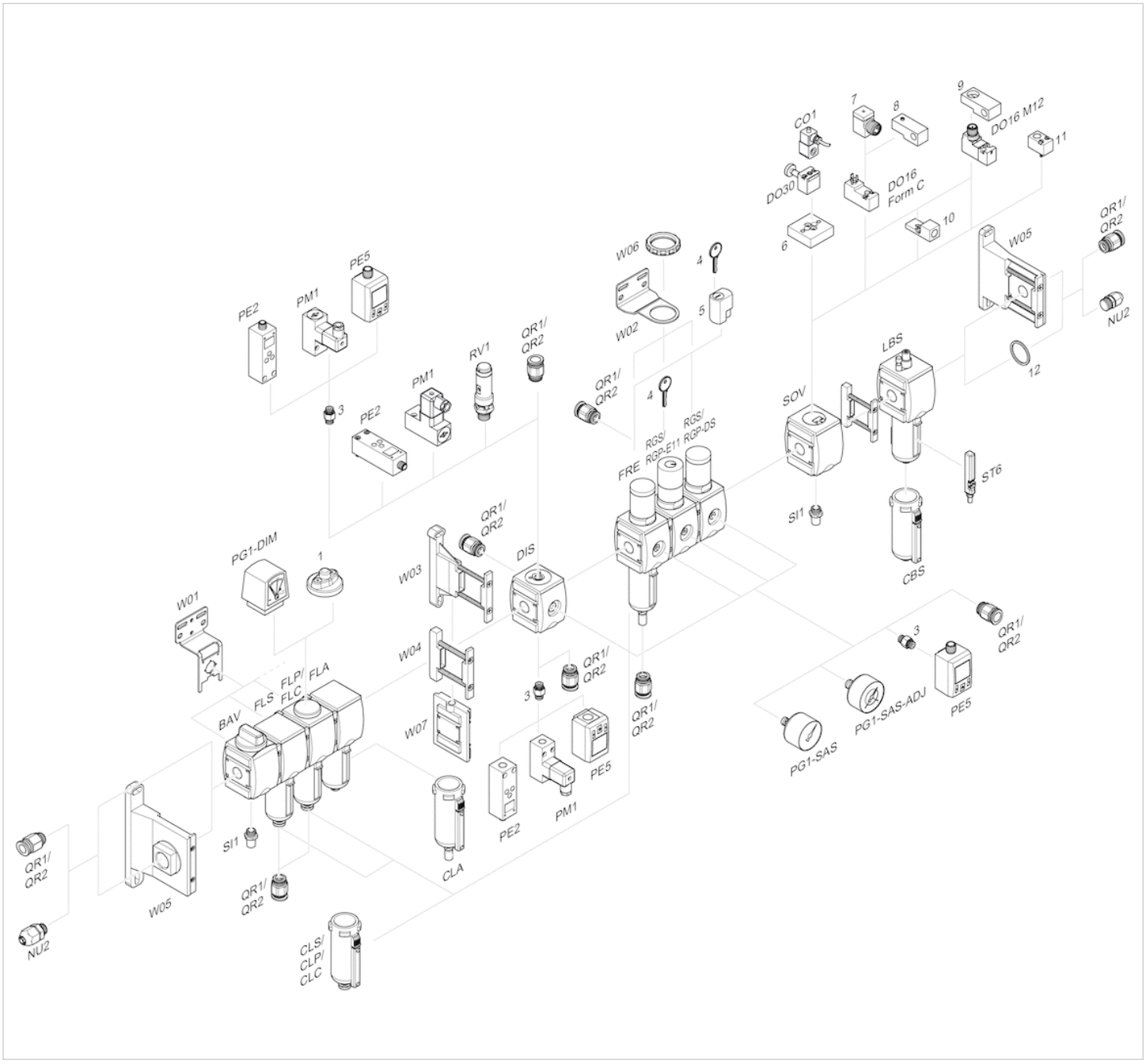
Pin assignments

Pin assignment M12x1



3: +/-
4: +/-

Accessories overview



1 = contamination display
3 = Double nipple
4 = Key for E11 locking
5 = mortise lock
6 = Transition plate DO30
7 = Adapter, Series CON-VP
8 = Mounting aid DO16, form C
9 = Mounting aid DO16, M12
10 = Adapter for external pilot air
11 = Adapter pneumatic operation
12 = Sealing ring

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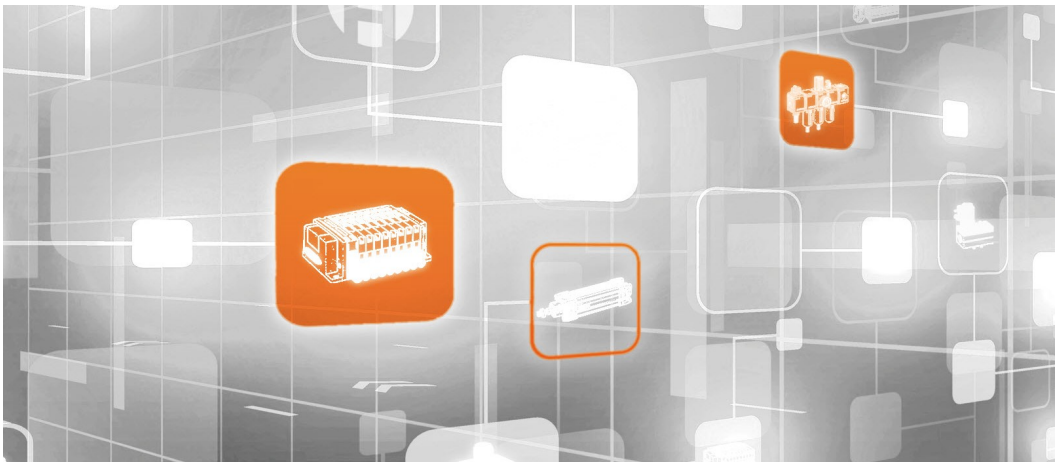

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