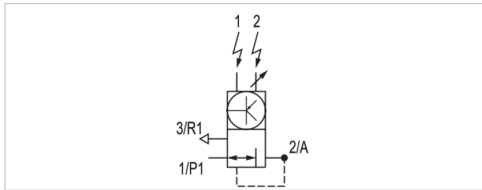
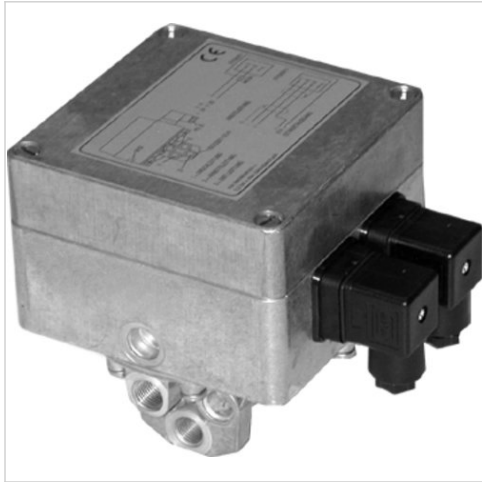


# E/P pressure regulator, Series EV07

- Qn = 0.813 Cv
- Compressed air connection output G 1/4
- Electr. connection Plug, EN 175301-803, form A
- Signal connection input and output, Plug, EN 175301-803, form A
- Pilot valves



Version	Poppet valve
Mounting orientation	vertical
Certificates	CE declaration of conformity
Working pressure max	See table below
Ambient temperature min./max.	41 ... 122 °F
Medium temperature min./max.	41 ... 122 °F
Compressed air connection input	G 1/4
Compressed air connection output	G 1/4
Compressed air connection, exhaust	G 1/4
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 0.1 mg/m <sup>3</sup>
Nominal flow Qn	0.813 Cv
Control	Analog
DC operating voltage	24 V
Voltage tolerance DC	-20% / +20%
Hysteresis	0.58 psi
Permissible ripple	5%
Max. power consumption	200 mA
Protection class	IP54
Weight	4.41 lbs
	Nominal flow Qn with working pressure 101.5 psi , with secondary pressure 87 psi and Δp = 2.9 psi

## Technical data

Part No.	Working pressure max	Pressure setting range min./max.	Nominal input value
			Min./max.
5610102050	116 psi	2 ... 87 psi	0 ... 20 mA
5610102060	116 psi	2 ... 87 psi	0 ... 20 mA
5610102070	116 psi	2 ... 87 psi	0 ... 10 V
5610102150	116 psi	2 ... 87 psi	4 ... 20 mA
5610102170	159 psi	3 ... 145 psi	4 ... 20 mA

Part No.	Actual output value	Control	
	Min./max.		
5610102050	0 ... 20 mA	Analog	-
5610102060	4 ... 20 mA	Analog	-
5610102070	-	Analog	1)
5610102150	4 ... 20 mA	Analog	-
5610102170	4 ... 20 mA	Analog	-

Minimum working pressure = 7.25 psi + max. required secondary pressure, The zero point and range of the output characteristics curve can be adjusted. The recommended range for the pilot device is 0.1 to 6 bar.

1) Output 10V constant to supply a set point potentiometer.

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 5.4 °F .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

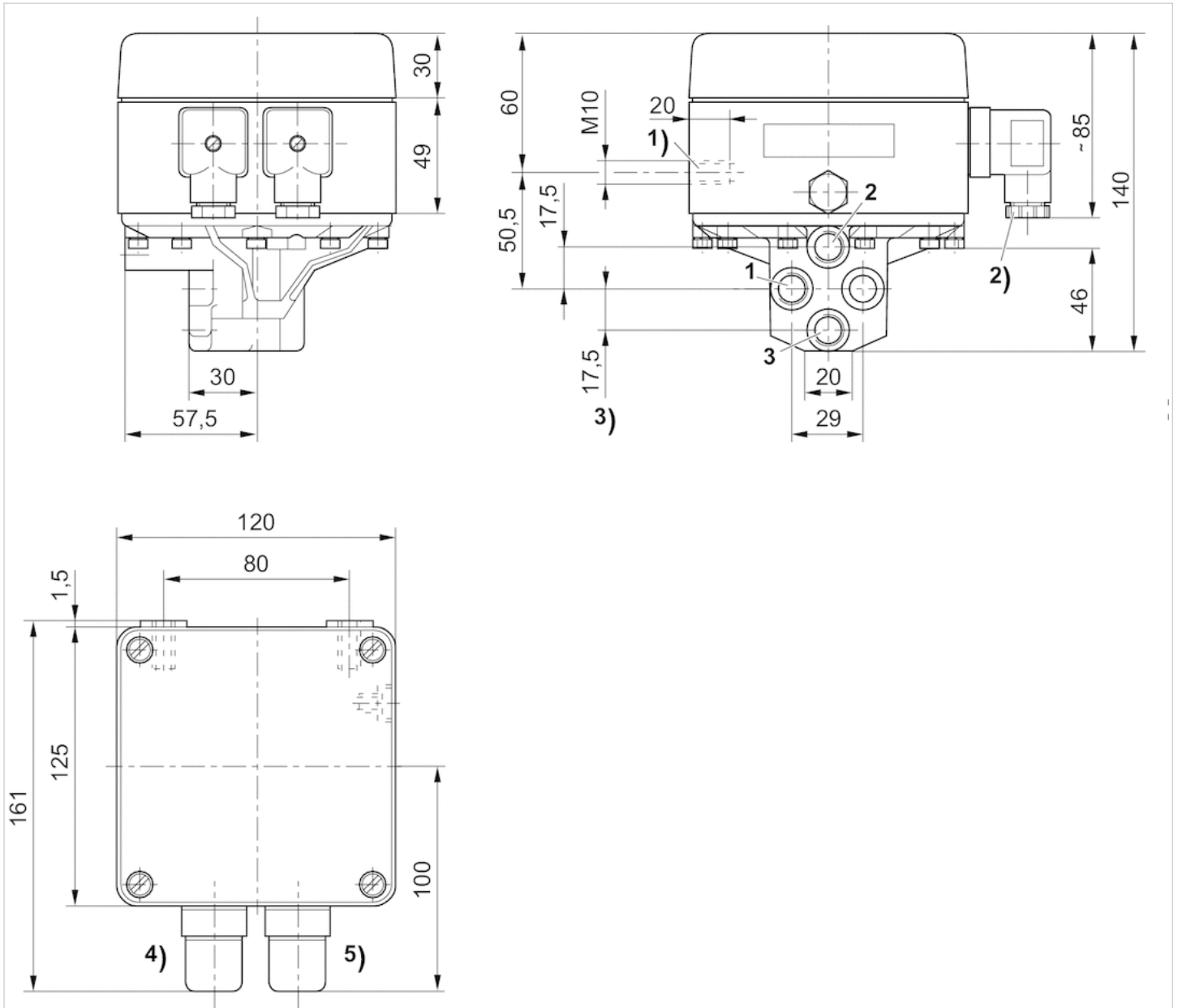
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

## Technical information

Material	
Housing	Die-cast aluminum
Seals	Acrylonitrile butadiene rubber

## Dimensions

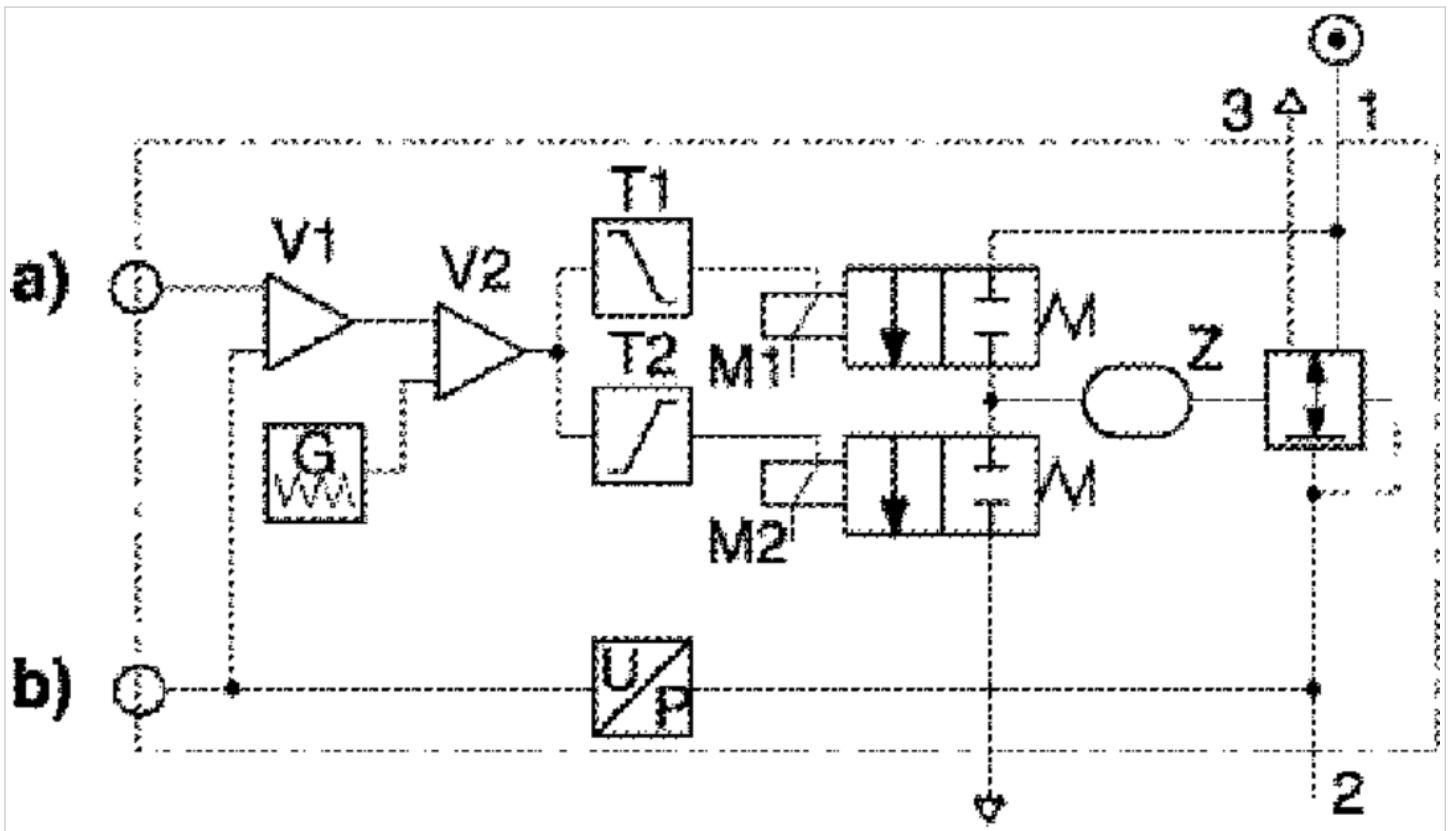
### Dimensions



- 1) mounting thread
- 2) PG 9
- 3) threaded connection 1 - 3 = G1/4 ISO 228/1:2000
- 4) plug 1
- 5) plug 2

Circuit diagram

Functional diagram



a) Nominal input value b) Actual output value

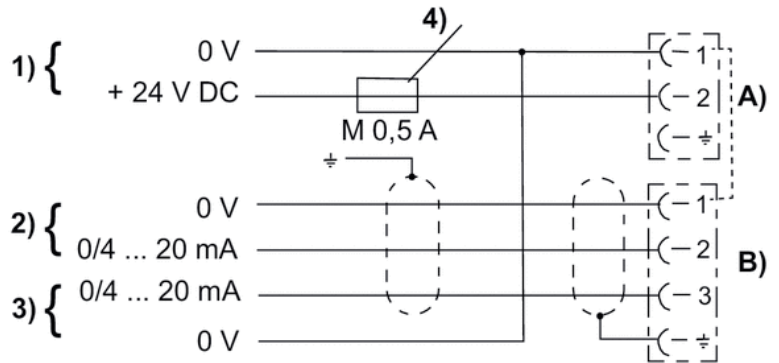
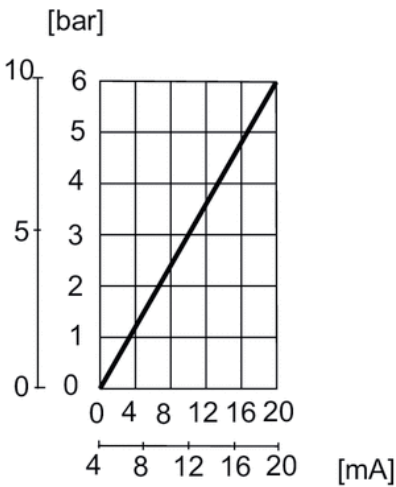
The E/P pressure control valve modulates the pressure corresponding to an analog electrical nominal input value.

The integrated electronics make a comparison between the nominal input value and the pressure in the output line (actual value).

The controller generates electrical input signals, which either ventilate or exhaust control volume Z of the relay valve by means of two pilot valves (M1, M2) until the specified pressure is attained in the output line.

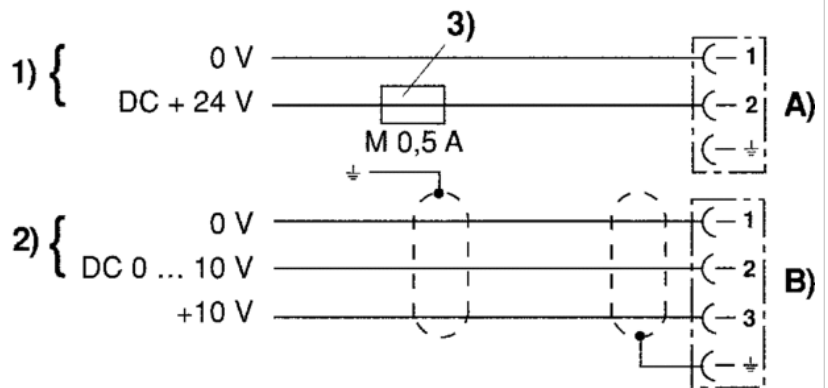
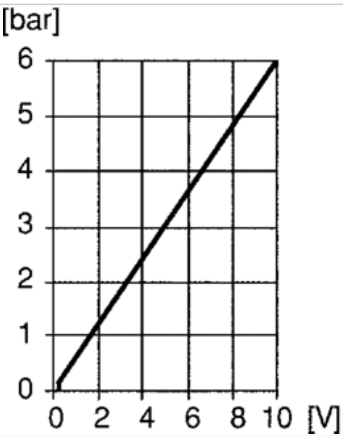
- 1) Operating pressure
- 2) Working pressure
- 3) Exhaust

Fig. 1 Characteristic and pin assignment for current control with actual output value



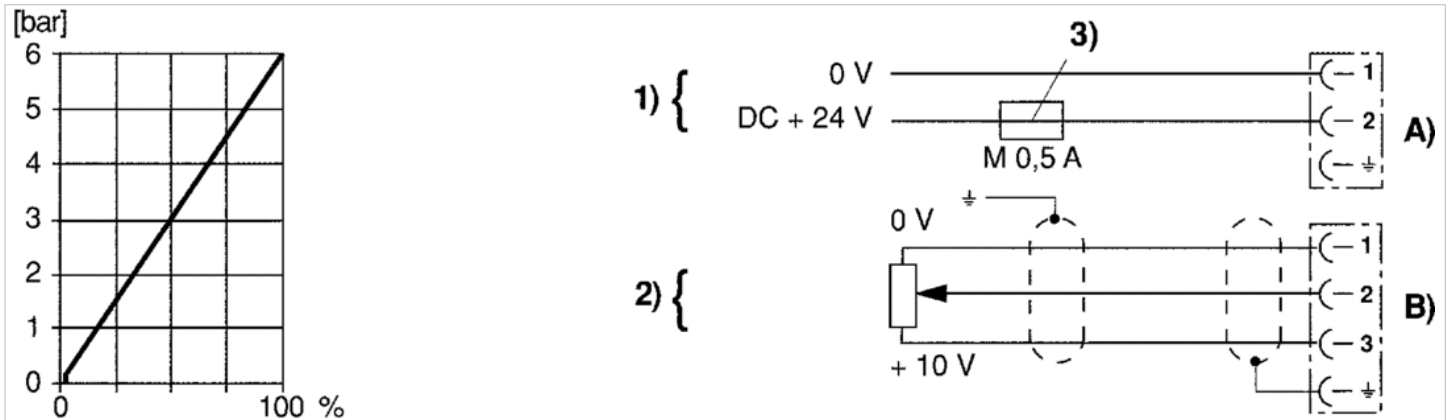
- 1) Supply voltage
  - 2) Input current nominal value (ohmic load 100 Ω, max. 50 mA).  
The (+) and (-) connection potential must be in the range 0-12 V related to plug 1, pin 1.
  - 3) Actual output value (max. total resistance of downstream devices 300 Ω)  
The actual value is measured between plug 2, pin 3 and plug 1, pin 1. The actual value is short circuit resistant for a limited time.
  - 4) The supply voltage must be protected by an external M 0.5 A fuse.  
Connect plug 2 via a shielded cable to ensure EMC.
- A) Plug 1 B) Plug 2

Fig. 2 Characteristic and pin assignment for voltage control with actual output value



- 1) Supply voltage
  - 2) Voltage control
  - 3) The supply voltage must be protected by an external M 0.5 A fuse.  
Connect plug 2 via a shielded cable to ensure EMC.
- A) Plug 1 B) Plug 2

Fig. 3 Characteristic and pin assignment for potentiometer control without actual output value



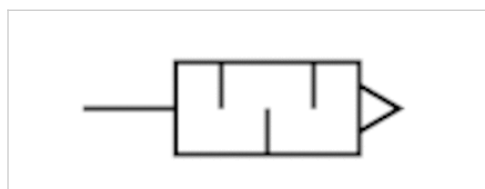
- 1) Supply voltage
- 2) Potentiometer control (0 - 2 kΩ (min.), 0 - 10 kΩ (max.))
- 3) The supply voltage must be protected by an external M 0.5 A fuse.  
Connect plug 2 via a shielded cable to ensure EMC.
- A) Plug 1
- B) Plug 2

# Silencers, series SI1

- Sintered bronze



Working pressure min./max.	0 ... 145 psi
Ambient temperature min./max.	-13 ... 176 °F
Medium	Compressed air
Sound pressure level	79 dB
Weight	0.044 lbs
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000001	G 1/4	2.9 Cv	10 piece

Weight per piece

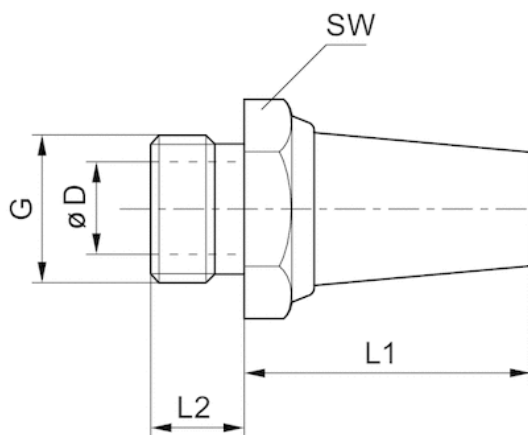
Nominal flow Qn at p1 = 87 psi (absolute) freely discharged. Sound pressure level measured at 87 psi against atmosphere at 3.281 ft. distance.

## Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

## Dimensions

### Dimensions

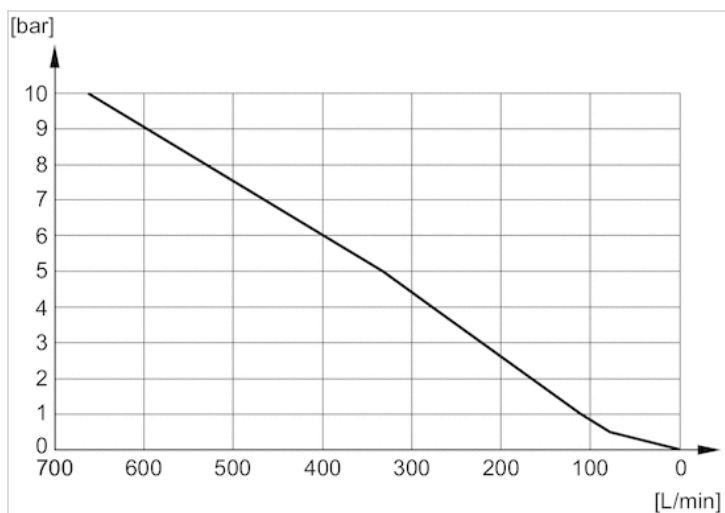


## Dimensions

Part No.	Port G	SW	Ø D	L1	L2
1827000001	G 1/4	17	8.5	25	8

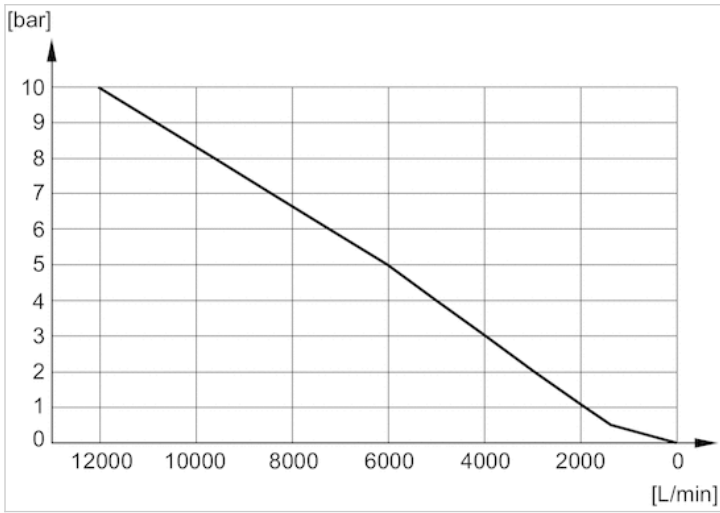
## Diagrams

### Flow diagram 1827000006

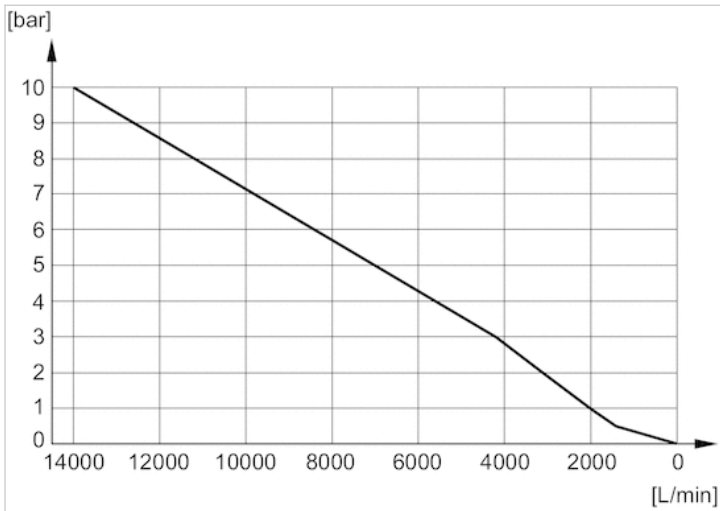




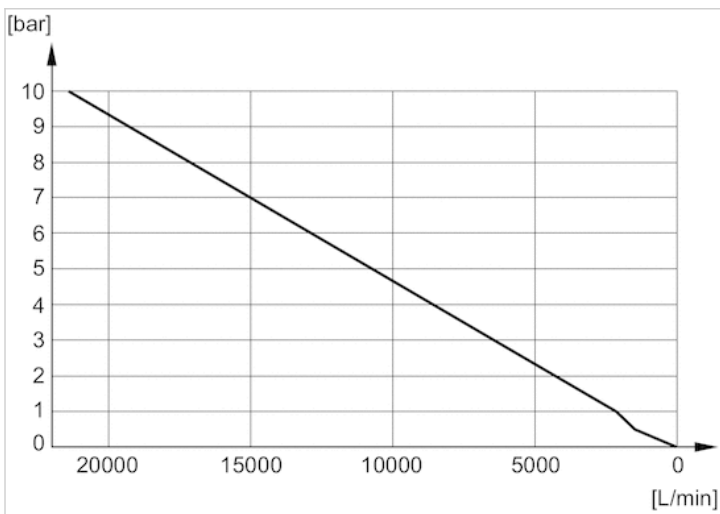
Flow diagram 1827000003



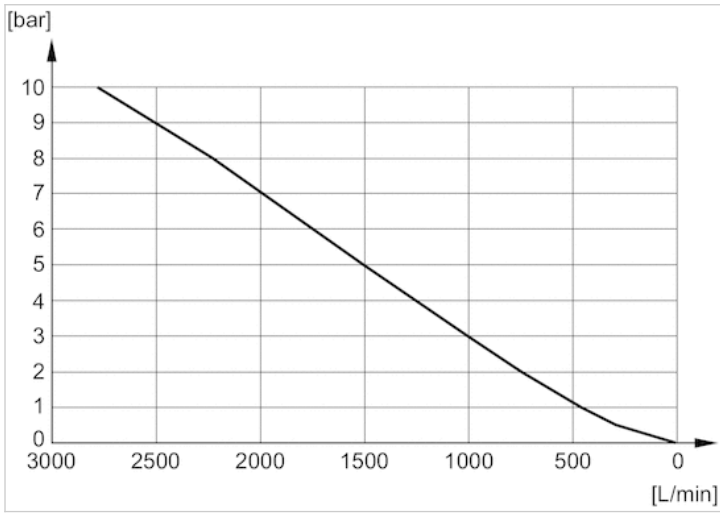
Flow diagram 1827000004



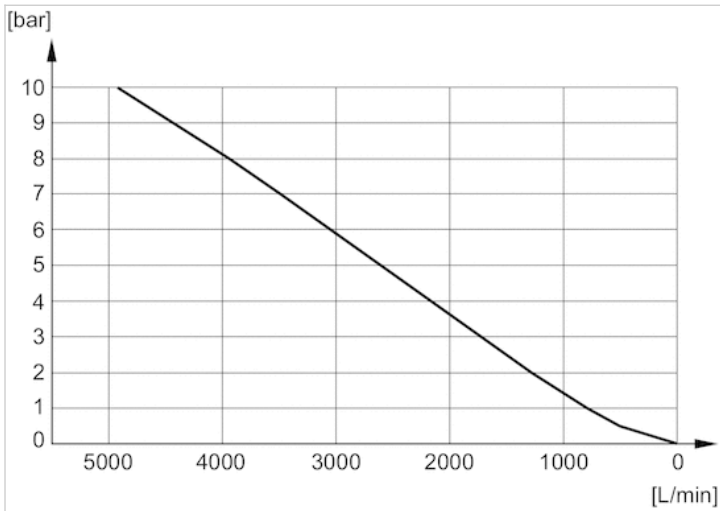
Flow diagram 1827000005



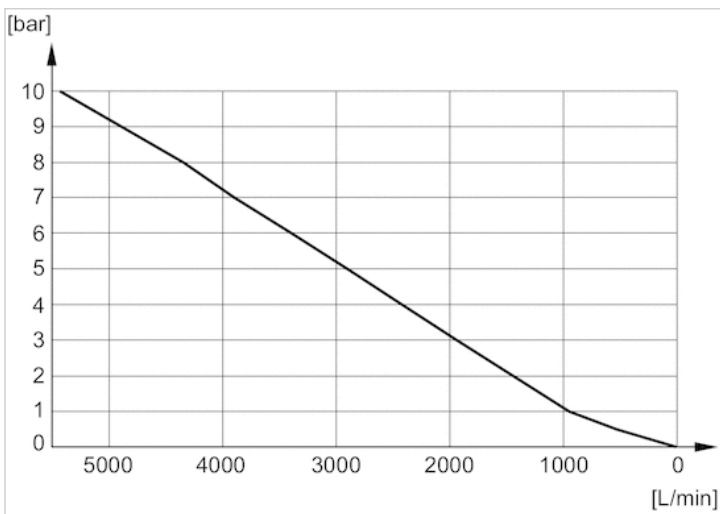
Flow diagram 5324001110



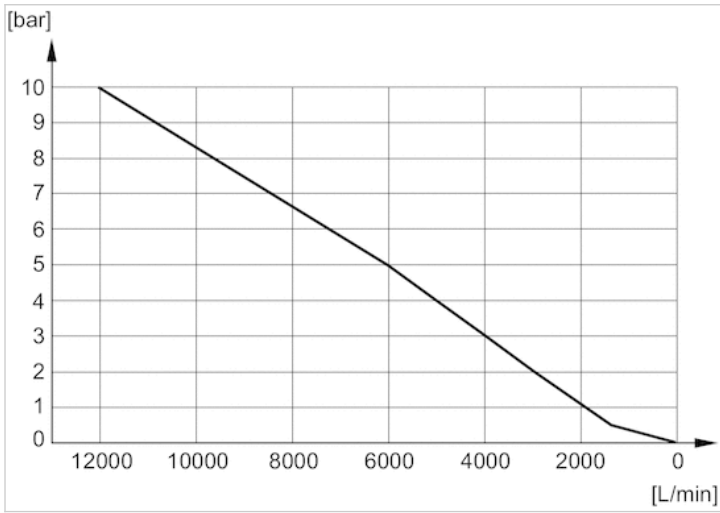
Flow diagram 5324001170



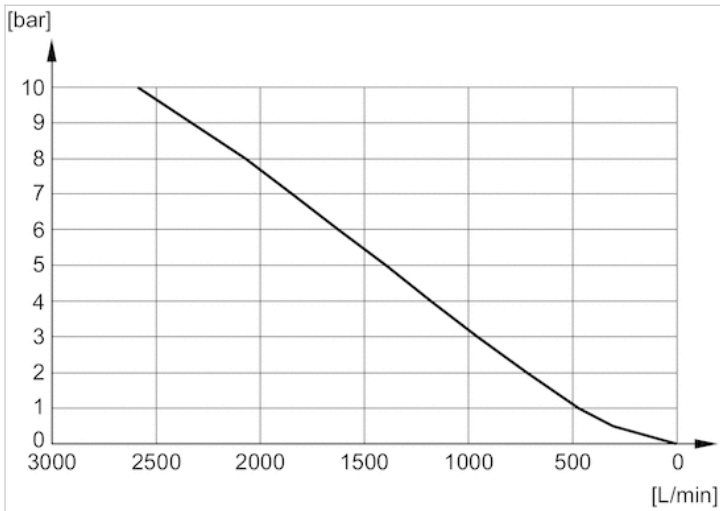
Flow diagram 5324001120



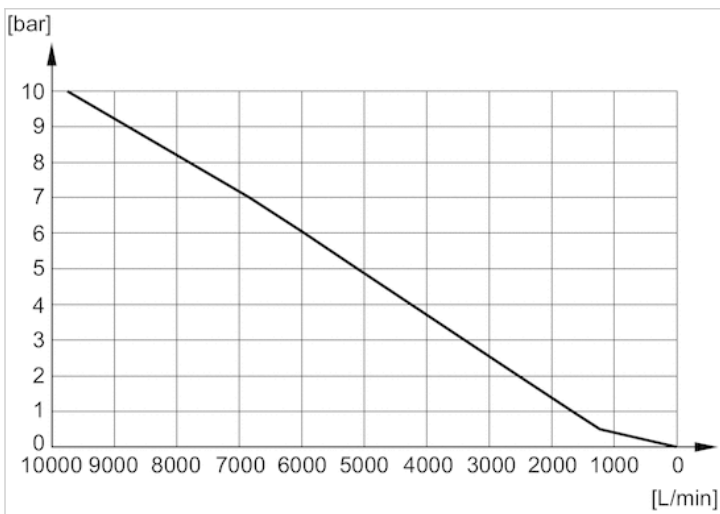
Flow diagram 5324001140



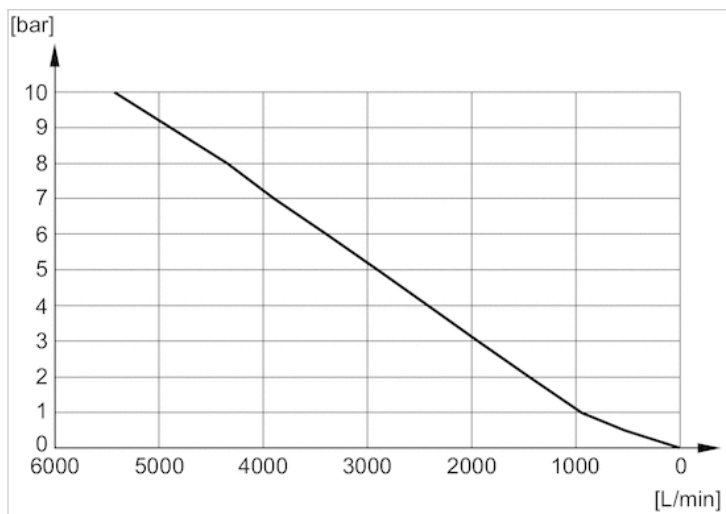
Flow diagram 1827000000



Flow diagram R412004817



Flow diagram 1827000001



Flow diagram 1827000002

