

Pressure regulators → Proportional Valves

E/P pressure regulator, Series ED05

- ▶ Qn= 1000 l/min ▶ compressed air connection output: G 1/4 ▶ Electr. connection: Plug, ISO 15217, form C
- ▶ Signal connection: input and output, Plug, ISO 15217, form C



00123797

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+0 °C / +70 °C
Medium temperature min./max.	+0 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Qn	1000 l/min
Installation location	α = 0-90° β = 0-90°
Hysteresis	< 0,06 bar
DC operating voltage	24 V
Voltage tolerance DC	-20% / +20%
Permissible ripple	5%
Max. power consumption	1.3 A
Protection class according to EN 60529:2001 with electrical connector/plug	IP 65
Compressed air connection input	G 1/4
Compressed air connection output	G 1/4
Compressed air connection, exhaust	G 1/4
Weight	1.1 kg
Materials:	
Housing	Die-cast aluminum; Steel
Seal	Hydrogenated acrylonitrile butadiene rubber

Nominal flow Qn with working pressure 7 bar, with secondary pressure 6 bar and Δp = 0.2 bar

Technical Remarks	
■	The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
■	The oil content of air pressure must remain constant during the life cycle.
■	Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
■	With oil-free, dry air, other installation positions are possible on request.
■	The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

	Operating pressure max.	Pressure setting range min./max.	Nominal input value		Actual output value		Note	Part No.
	[bar]	[bar]						
	11	0 / 6	0 - 20	mA	0 - 20	mA	Fig. 1	5610141300
		0 / 6	4 - 20	mA	4 - 20	mA	Fig. 1	5610141310
		0 / 6	0 - 10	V	0 - 10	V	Fig. 2	5610141330
		0 / 6	0 - 10	V	-	-	1); Fig. 3	5610141320
		0 / 10	0 - 20	mA	0 - 20	mA	Fig. 1	5610141500
		0 / 10	4 - 20	mA	4 - 20	mA	Fig. 1	5610141510
		0 / 10	0 - 10	V	0 - 10	V	Fig. 2	5610141530
		0 / 10	0 - 10	V	-	-	1); Fig. 3	5610141520

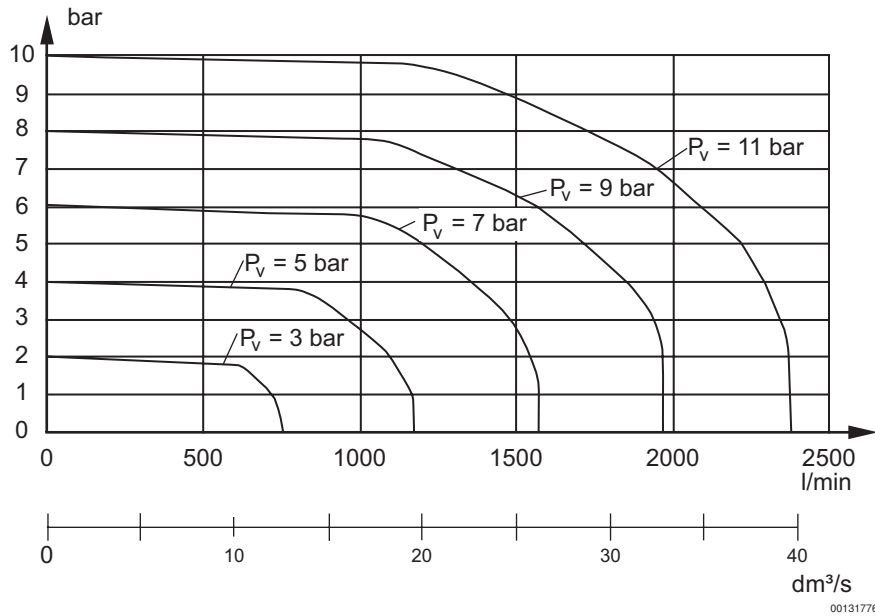
1) Output 10V constant to supply a potentiometer
 Minimum working pressure = 0.5 bar + max. required secondary pressure
 Additional pressure ranges available on request

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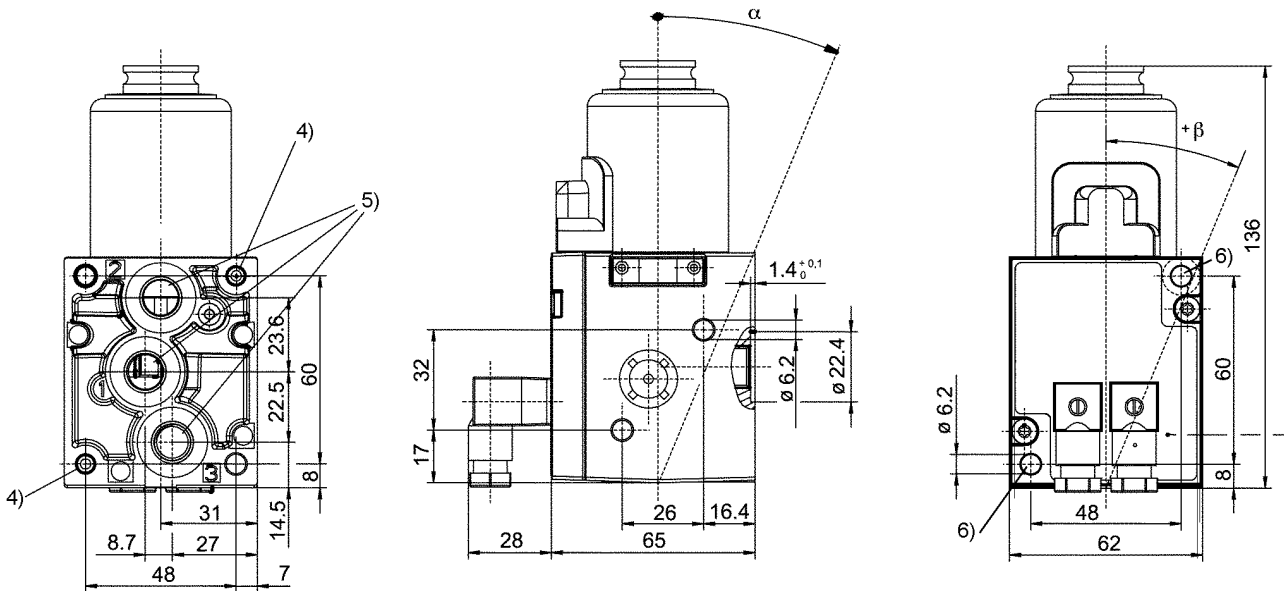
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Flow diagram



Dimensions



D561_015

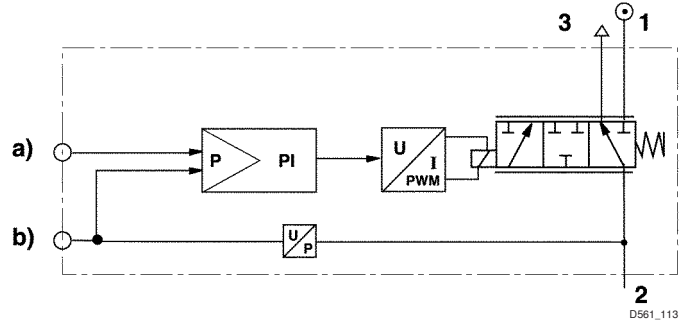
- 4) Core hole 15 mm deep for self-tapping screws M6
- 5) Universal threaded connection, suitable for G1/4 according to ISO 228/1:2000 and 1/4-27 NPTF
- 6) Through hole

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Functional diagram

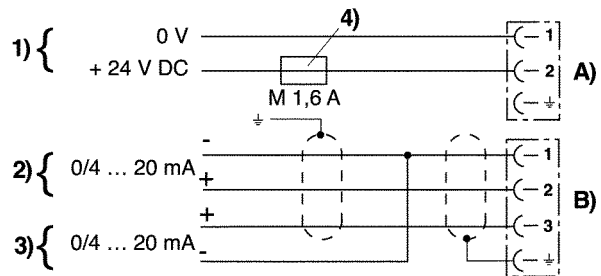
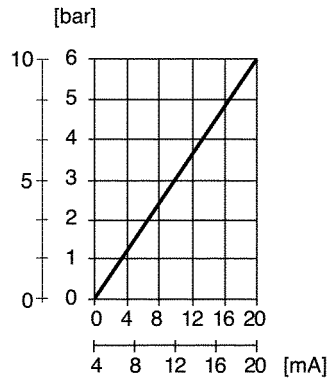


a) Nominal input value b) Actual output value

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

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

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



D561_213

- 1) supply voltage
 - 2) input current nominal value (ohmic load 100 Ω, max. 50 mA).
The voltage at the nominal input value may not exceed 12 V.
 - 3) actual output value (max. total resistance of downstream devices < 300 Ω).
 - 4) the supply voltage must be protected by an external M 1.6 A fuse.
- Connect plug 2 via a shielded cable to ensure EMC. A) plug 1 B) plug 2

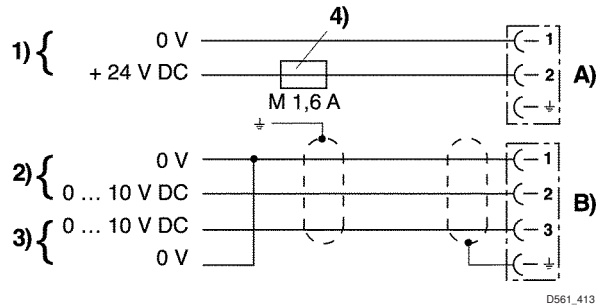
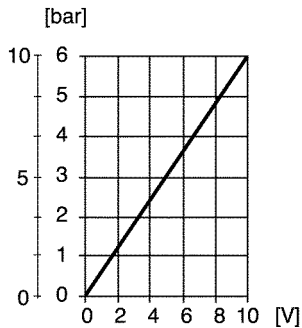
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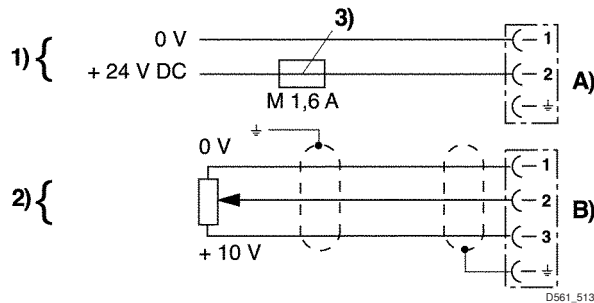
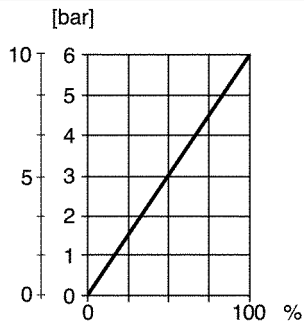
Fig. 2, Characteristic and pin assignment for voltage control with actual output value



D561_413

- 1) Supply voltage
 - 2) Nominal input value voltage
 - 3) Actual output value (min. external ohmic load $1 \text{ k}\Omega$)
 - 4) The supply voltage must be protected by an external M 1.6 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



D561_513

- 1) Supply voltage
 - 2) Potentiometer control (0 to $2 \text{ k}\Omega$ (min.), 0 to $10 \text{ k}\Omega$ (max.))
 - 3) The supply voltage must be protected by an external M 1.6 A fuse.
- Connect plug 2 via a shielded cable to ensure EMC.
A) Plug 1 B) Plug 2