

0821302554

AVENTICS Series PR1 Precision pressure regulators

The AVENTICS Series PR1/PR2 is designed for applications that demand fast responses to the slightest fluctuation in compressed air. They can be adjusted precisely and are an alternative to electronic pressure regulators. Precision pressure regulators are used to achieve extremely accurate pressure control independent from the pilot pressure and the flow rate. They offer high performance and flexibility, combined with increased reliability.



Technical data

Industry	Industrial
Function	Precision pressure regulator
Parts	Precision pressure regulator
Mounting orientation	Any
Regulator type	Diaphragm-type pressure regulator
Port	G 3/8
Nominal flow Q_n	3200 l/min
Min. regulation range	0.05 bar
Max. regulation range	3 bar
Min. working pressure	0.5 bar
Max. working pressure	16 bar
Min. ambient temperature	-35 °C
Max. ambient temperature	60 °C
Activation	Mechanical
Regulator function	with relieving air exhaust
Certificates	Suitable for ATEX
Pressure supply	single
Max. internal air consumption q_v	6 l/min
Medium	Compressed air Neutral gases

Precision pressure regulator, Series PR1-RGP

2024-04-05

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Recommended pre-filtering	5 µm
Weight	1.5 kg

Material

Housing material	Die cast zinc
Seal material	Chloroprene rubber
Part No.	0821302554

Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

Relieving exhaust (≤ 10 mbar over set pressure)

Mounting: mounting bracket R412004872 or installation in piping

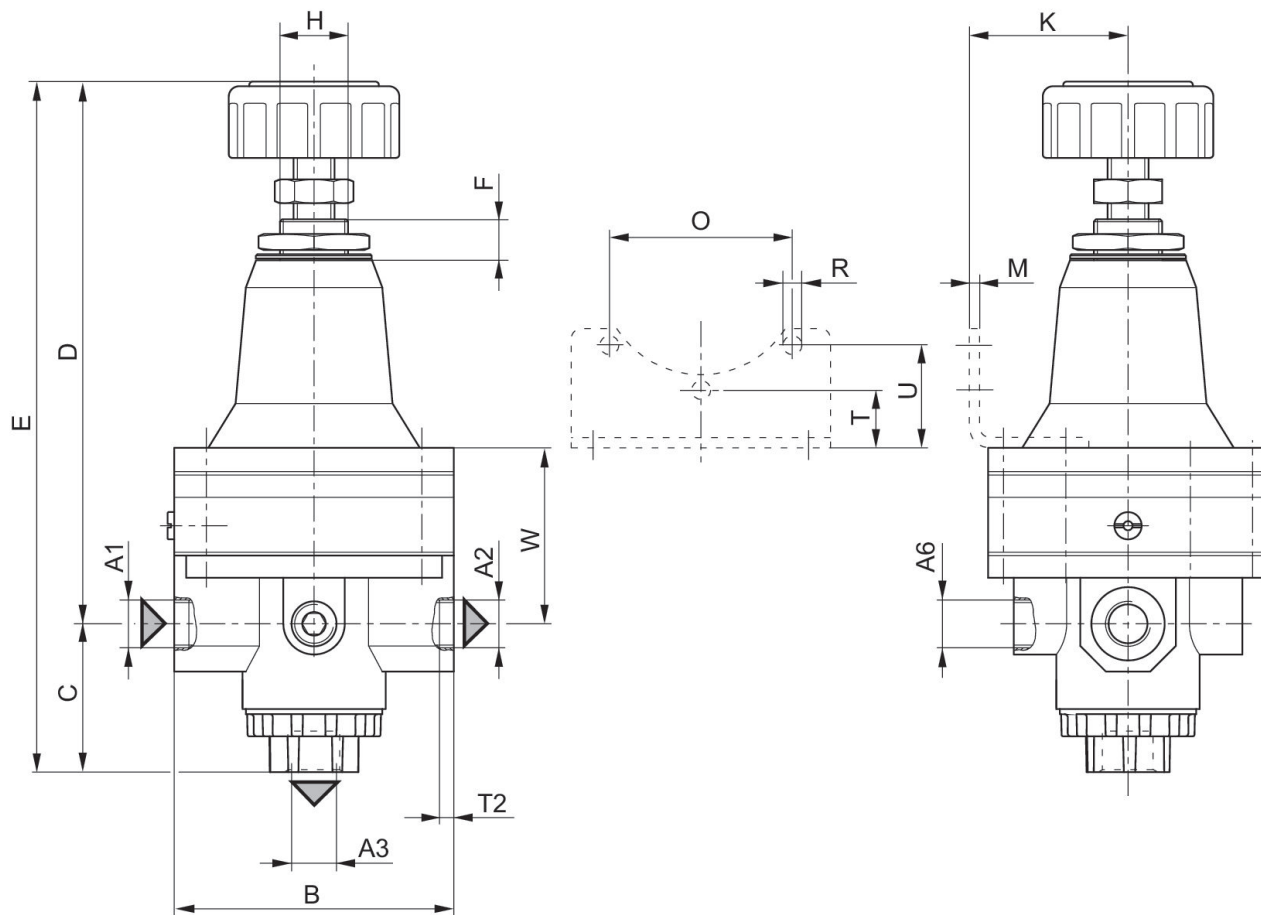
Notice: This product may only be operated with oil-free, dry compressed air.

Internal air consumption depending on adjustment range

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

Nominal flow Q_n with secondary pressure $p_2 = 6$ bar at $\Delta p = 1$ bar

Dimensions



A1 = input
 A2 = output
 A3 = output
 A6 = output

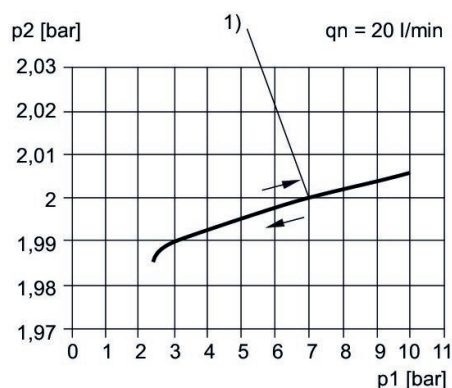
Dimensions in mm

Part No.	A1	A2	A3	A6	B	C	D	E	F
0821302554	G 3/8	G 3/8	G 3/8	G 1/4	82	43.5	159	202.5	10

Part No.	H	K	M	O	R	T	T2	U	W
0821302554	M20x1,5	47	3	54	4	17	16	30	51.6

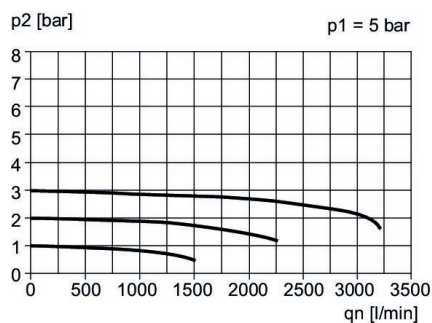
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Hysteresis



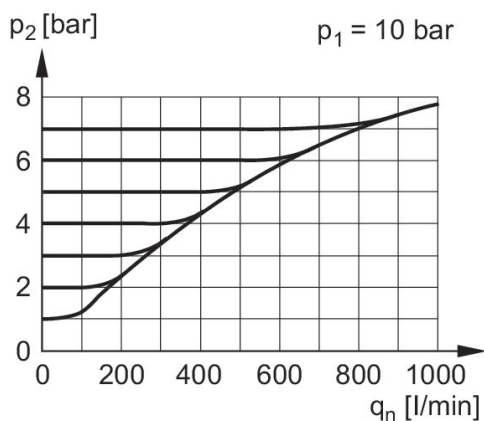
p_1 = Working pressure
 p_2 = Secondary pressure
 q = flow rate
 1) * starting point

Flow rate characteristic



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

exhaust characteristics (contact limit < 10 mbar)



p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow