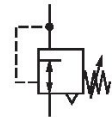


0821302165

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 1/2
Nominal flow Q_n	5600 l/min
Min. regulation range	0.05 bar
Max. regulation range	10 bar
Min. working pressure	0.5 bar
Max. working pressure	16 bar
Min. ambient temperature	-35 °C
Max. ambient temperature	60 °C
Activation	Pneumatically
Regulator function	with relieving air exhaust
Certificates	Suitable for ATEX
Pressure supply	single
Max. internal air consumption q_v	6 l/min
Max. control pressure	10 bar

Precision pressure regulator, Series PR1-RGP

2024-04-05

0821302165

Medium	Compressed air Neutral gases
Recommended pre-filtering	5 μm
Weight	1.25 kg

Material

Housing material	Die cast zinc
Seal material	Chloroprene rubber
Part No.	0821302165

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

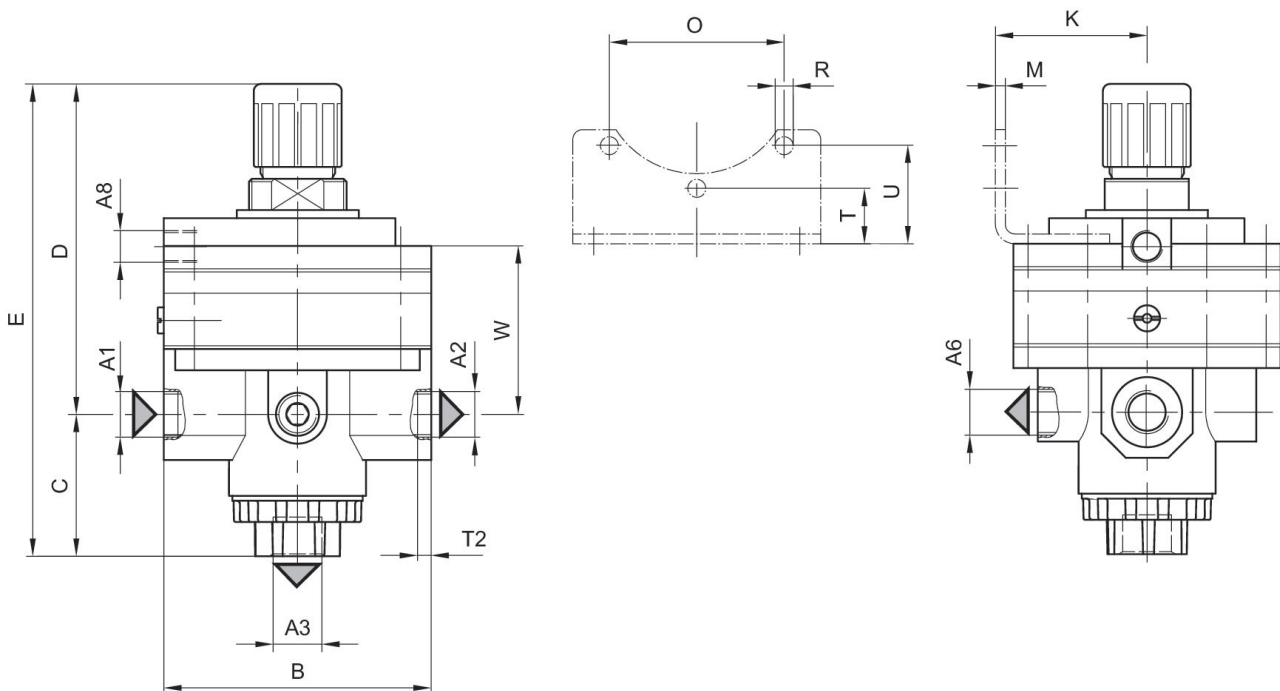
Notice: This product may only be operated with oil-free, dry compressed air.

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

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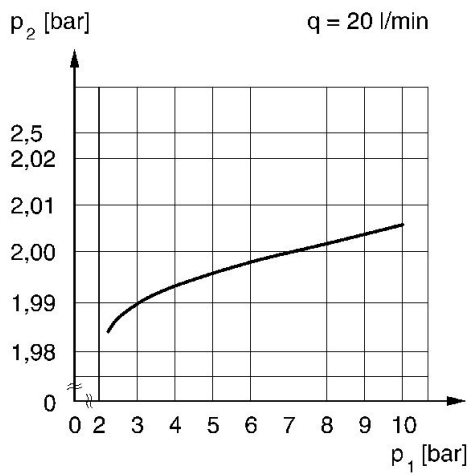
A3 = output
A6 = output

Dimensions in mm

Part No.	A1	A2	A3	A6	A8	B	C	D	E
0821302165	G 1/2	G 1/2	G 3/8	G 1/4	G 1/8	82	43.5	100.5	144

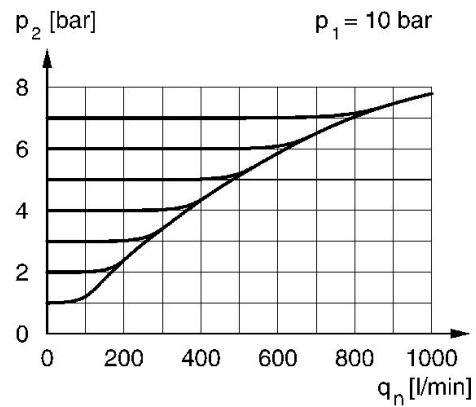
Part No.	J	K	M	O	R	T	T2	U	W
0821302165	16	47	3	54	4	17	16	30	51

Pressure characteristics curve



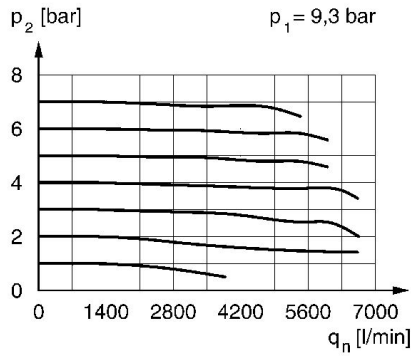
p1 = Working pressure
p2 = Secondary pressure
q = flow rate

exhaust characteristics (contact limit < 10 mbar)



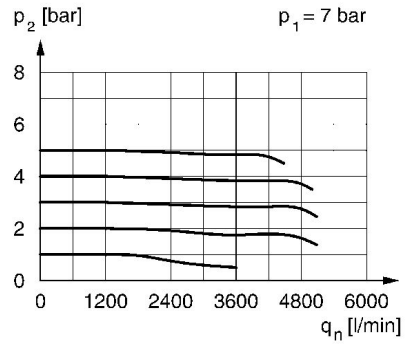
p1 = Working pressure
p2 = Secondary pressure
qn = Nominal flow

Flow rate characteristic, $p_2 = 0,05 - 7$ bar



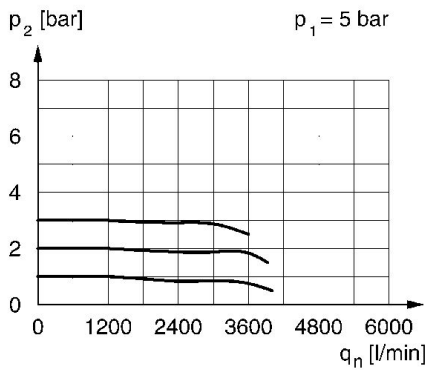
p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

Flow rate characteristic, $p_2 = 0,05 - 5$ bar



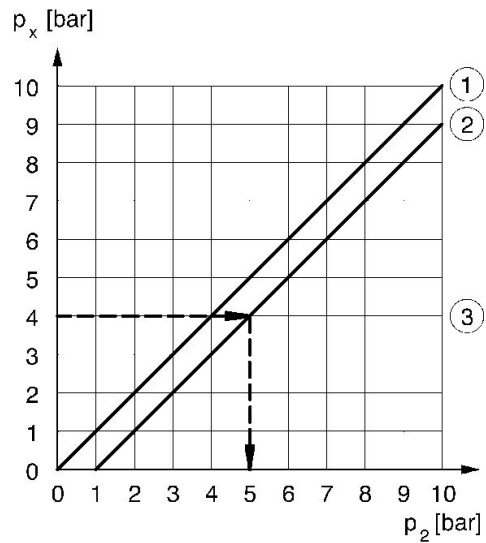
p_1 = Working pressure
 p_2 = Secondary pressure
 q_n = Nominal flow

Flow rate characteristic, $p_2 = 0,05 - 3$ bar



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

control pressure characteristic



p_x = control pressure
 p_2 = Secondary pressure
 1) Pneumatically operated
 2) Man. adjustment up to 1 bar