

Precision filter pressure regulator, Series PR1-FRE

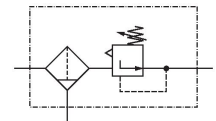
0821300410

Series PR1

2024-01-25

Series PR1

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
Parts	Precision filter pressure regulator
Reservoir	Metal reservoir without window
Port	G 1/4
Nominal flow Qn	750 l/min
Filter porosity	10 µm
Condensate drain	Manual
Min. working pressure	0.2 bar
Max. working pressure	16 bar
Min. ambient temperature	-10 °C
Max. ambient temperature	60 °C
Min. regulation range	0.1 bar
Max. regulation range	2 bar
Type	1-part
Pressure supply	single
Mounting orientation	vertical
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Max. Internal air consumption	0.01 l/min

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Filter element ~~exchangeable~~

Filter reservoir volume 11.5 cm³

Medium Compressed air
Neutral gases

Max. particle size 5 µm

Weight 0.975 kg

Material

Housing material Die cast zinc

Seal material Acrylonitrile butadiene rubber

Material reservoir Die cast zinc

Material filter insert Polyethylene

Part No. 0821300410

Technical information

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

Nominal flow Q_n with secondary pressure p₂ = 6 bar at Δp = 1 bar

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

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

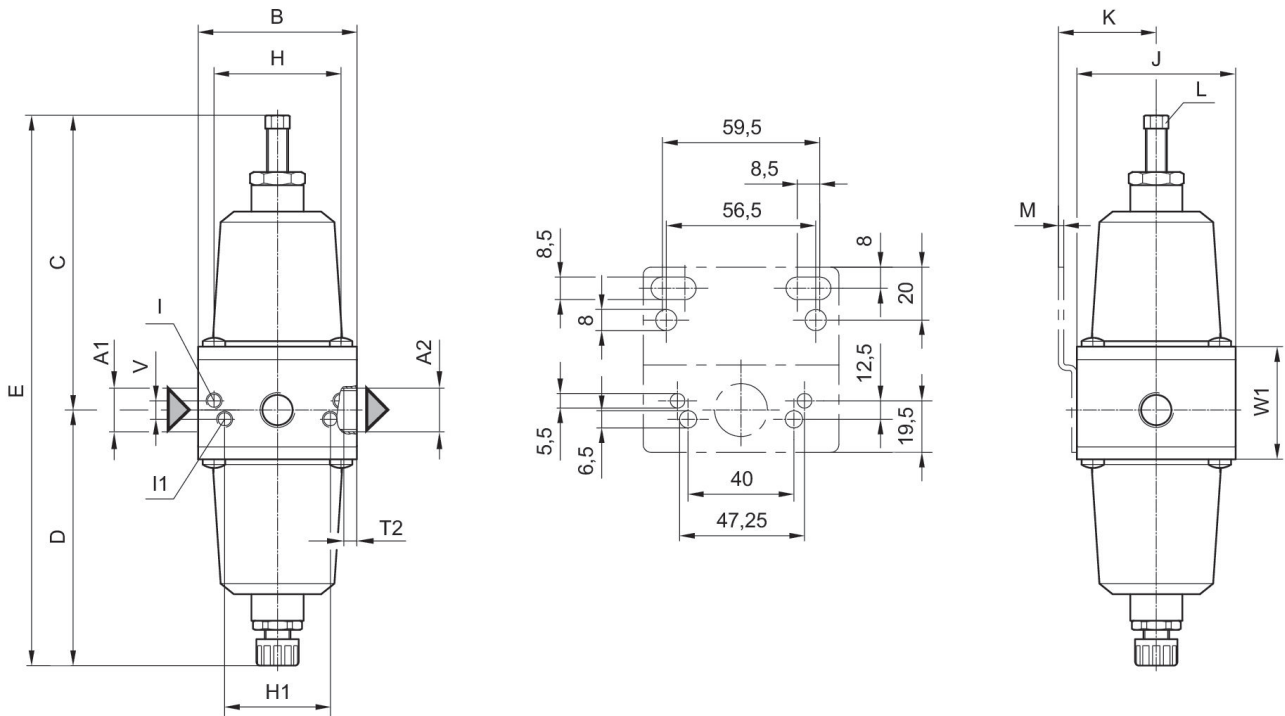
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

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Dimensions



A1 = input A2 = output

Dimensions in mm

Part No.	A1	A2	B	C	D	E	H	H1	I
0821300410	G 1/4	G 1/4	60	120	96	216	48	40	M5
0821300411	G 1/4	G 1/4	60	120	96	216	48	40	M5

Part No.	I1	J	K	L	M	T2	V	W1
0821300410	M6	60	37	8	2	6	7	42.5
0821300411	M6	60	37	8	2	6	7	42.5

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FRE

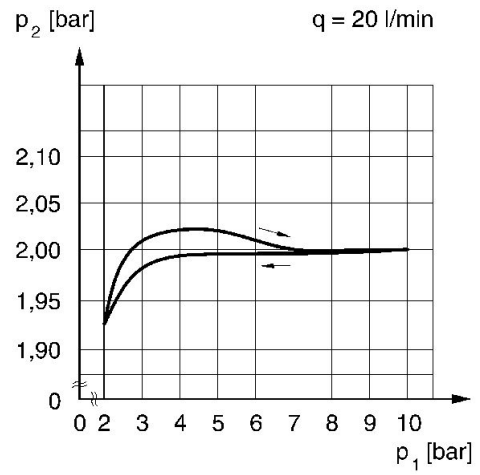
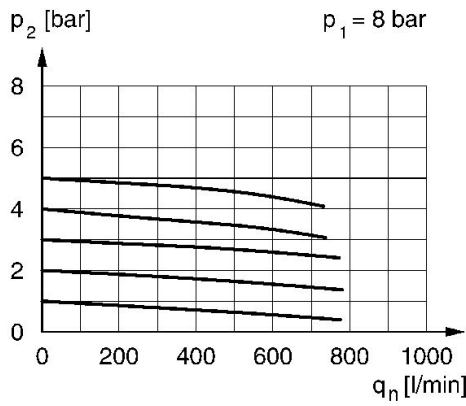
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Flow rate characteristic, $p_2 = 0,05 - 7$ Pressure characteristics curve

bar

$p_2 = 0,2 - 5$ bar



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

p_1 = working pressure p_2 = secondary pressure q = flow rate