

T 8546-2 EN

SAMSTATION Type 7029 Supply Pressure Regulator

Application

Supply pressure regulator to provide pneumatic measuring and control equipment with a constant supply pressure
Set point range 0.5 to 6 bar (8 to 90 psi)

The supply pressure regulator filters and controls the pressure of a compressed air network (max. 12 bar/180 psi) to the pressure adjusted at the set point adjuster.

The device has an air blow-off and a 20 µm filter.

Special features

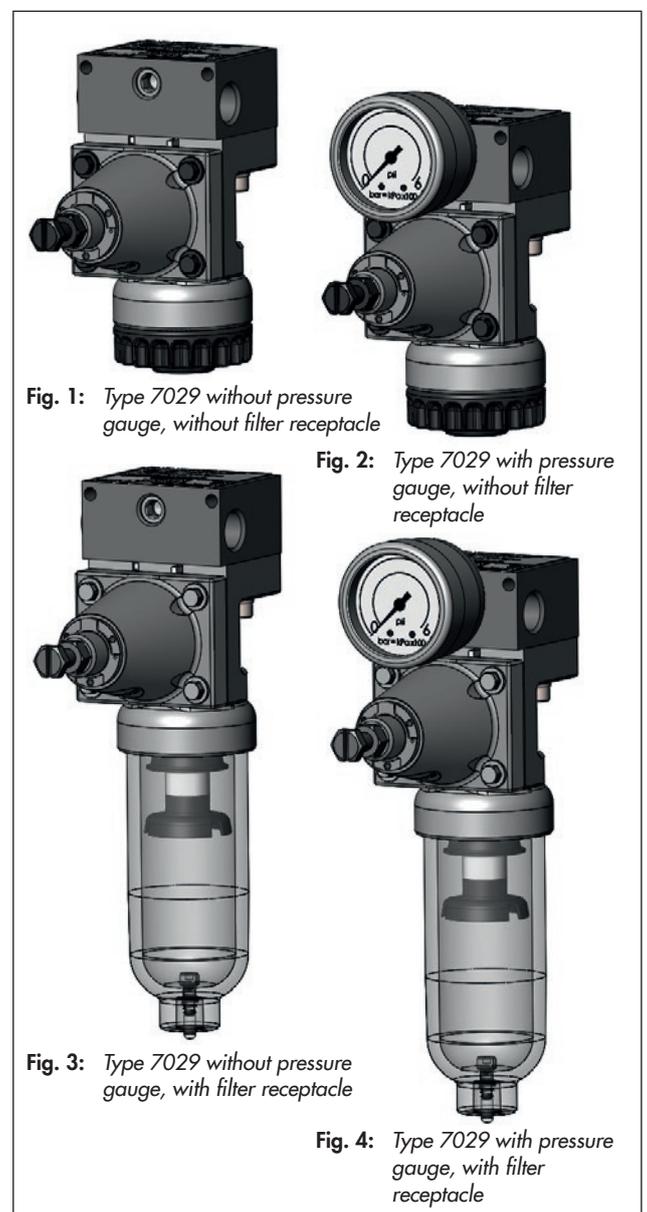
- Low air consumption
- Pneumatic connections G ¼ or ¼-18 NPT
- Installation into the pipeline
- Pressure reading on a pressure gauge (optional)
- Transparent filter housing (optional)
- 5 µm filter (optional)
- Protective cap to cover the set point screw (accessories)

Versions

- Type 7029 without pressure gauge, without filter receptacle (Fig. 1)
- Type 7029 with pressure gauge, without filter receptacle (Fig. 2)
- Type 7029 without pressure gauge, with filter receptacle (Fig. 3)
- Type 7029 with pressure gauge, with filter receptacle (Fig. 4)

Optional accessories

- Cap to cover the set point screw
- Pressure gauge
- Filter receptacle
- Bracket for mounting onto a Type 3271/3277 Actuator



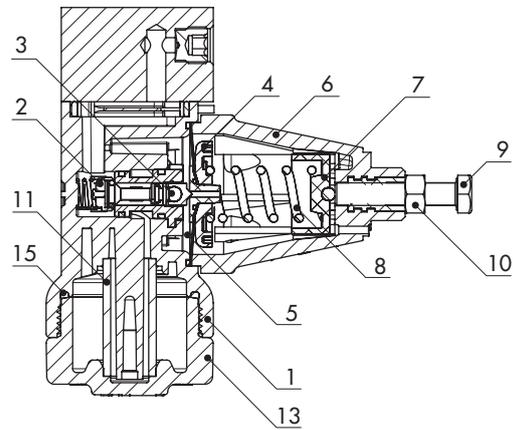
Design and principle of operation

The supply pressure regulator is used to provide pneumatic measuring and control equipment with a constant supply pressure. The maximum 12 bar pressure of the compressed air network in a plant is reduced to an adjustable minimum pressure of 0.5 to 6 bar.

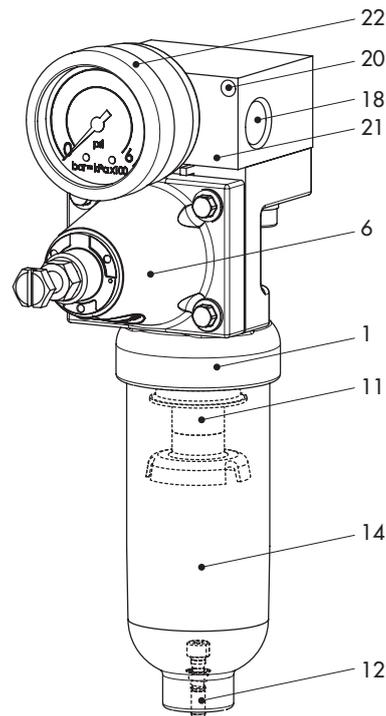
The supply pressure regulator operates according to the force-balance principle. By turning the set point screw (9), the tension of the set point spring (8) is changed and the output pressure is adjusted accordingly.

The supply pressure regulator contains a filter cartridge (11). The condensate is drained by opening the screw lid (13) by half a turn.

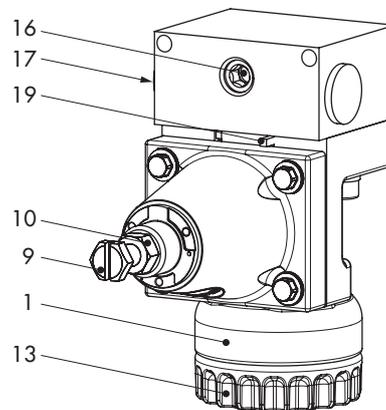
The manual drain (12) of versions with separate filter receptacle (14) can be activated to drain condensed water.



Version with pressure gauge and with filter receptacle



Version without pressure gauge and without filter receptacle



i Note

The filter cartridge can be replaced.

Legend for Fig. 5:

- 1 Body
- 2 Seat
- 3 Plug
- 4 Plate
- 5 Diaphragm
- 6 Cover
- 7 Centering bushing
- 8 Set point spring
- 9 Set point screw
- 10 Lock nut
- 11 Filter cartridge
- 12 Condensate drain
- 13 Screw lid
- 14 Filter receptacle
- 15 Seal
- 16 Stopper
- 17 Input
- 18 Output
- 19 Formed seal
- 20 Fastening bore
- 21 Connecting plate
- 22 Pressure gauge

Fig. 5: Design of Type 7029

Technical data

Type 7029 Supply Pressure Regulator	
Supply pressure ¹⁾	1 to 12 bar (15 to 180 psi)
Set point range	0.5 to 6 bar (8 to 90 psi)
Air consumption	≤0.1 m _n ³ /h (with 7 bar supply air)
Air output	Refer to Fig. 6
Permissible ambient temperature	-20 to +60 °C
Dependency on inlet pressure	<150 mbar/Δp = 1 bar
Reversing error	100 to 400 mbar (depending on set point)
Hysteresis	<100 mbar
Filter cartridge mesh size	20 μm
Connection	G ¼ or ¼-18 NPT
Pressure gauge	
Indicating range	0 to 6 bar (0 to 90 psi)
Connection	G ⅙
Degree of protection	IP 53 ²⁾
Weight	
Approx.	320 to 425 g (depending on version)

¹⁾ Recommendation: min. 1.0 bar (15 psi) above the adjusted set point

²⁾ Use a Type 4708 Supply Pressure Regulator when a higher degree of protection is required due to the ambient conditions

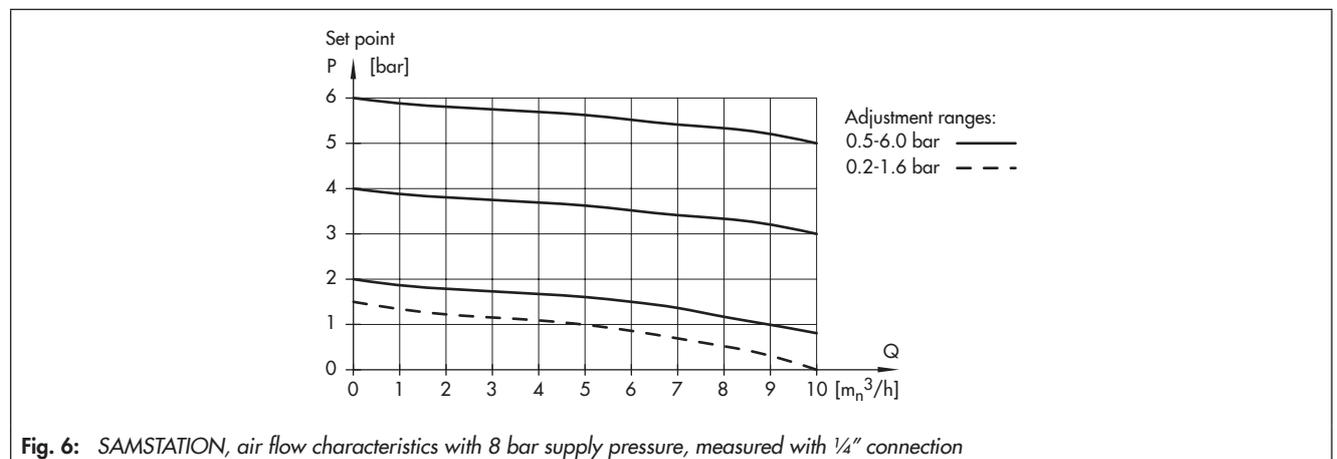
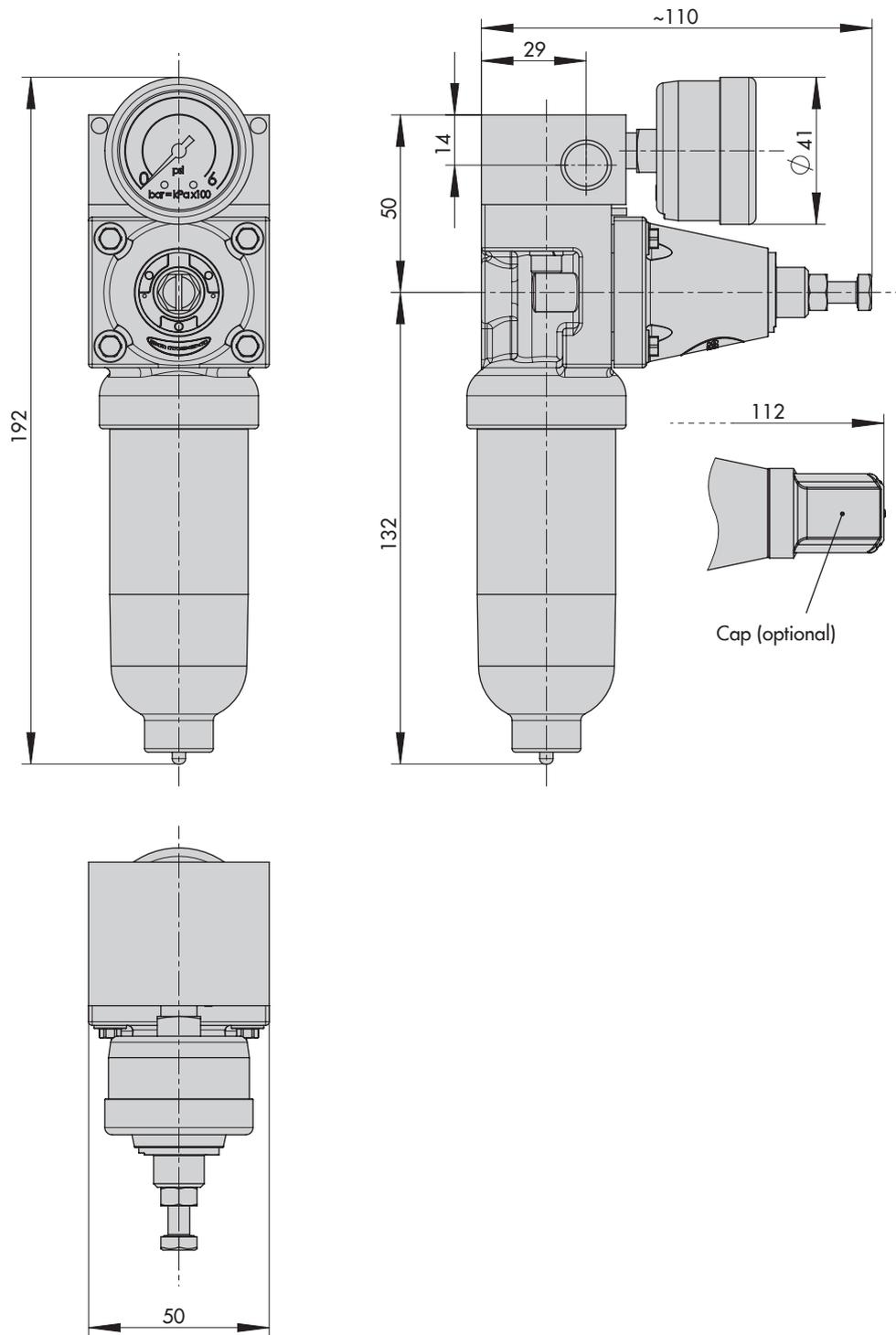
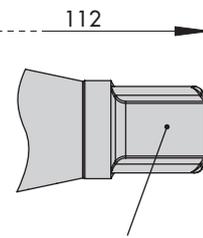
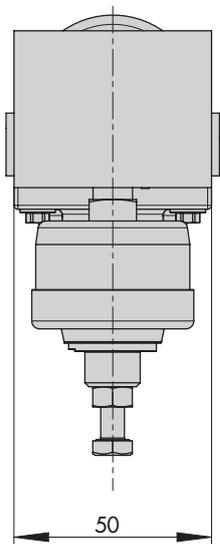
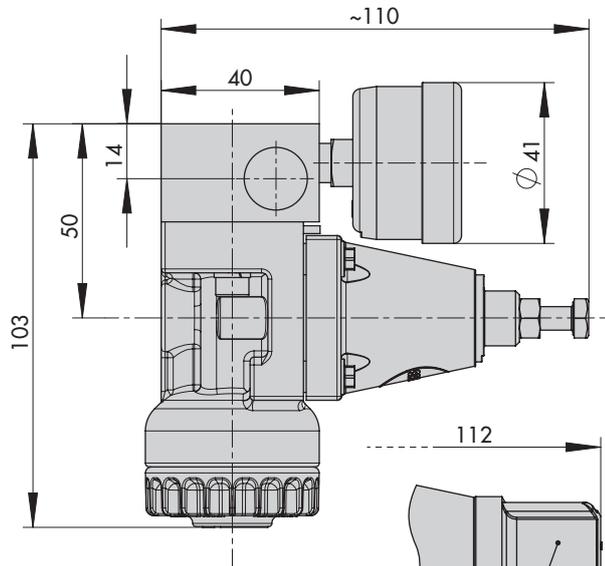
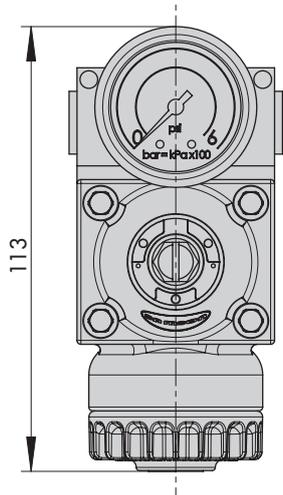


Fig. 6: SAMSTATION, air flow characteristics with 8 bar supply pressure, measured with ¼" connection

Materials	
Connecting plate	Aluminum
Cover, body, filter stopper	PA glass fiber reinforced
Plug	PA glass fiber reinforced and POM
Plug lip seal	PVMQ
Screw (plug)	Nickel-plated steel
O-rings	PVMQ
Diaphragm	NBR
Diaphragm plate	PA
Screws	A4
Set point spring	1.4310
Filter receptacle	UV-resistant PA
Filter cartridge	PE





Cap (optional)

Article code

SAMSTATION Supply Pressure Regulator	Type 7029-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	0
Version																
Aluminum connecting part, plastic body	1															
Connecting thread																
G ¼		0														
¼-18 NPT		2														
Set point range																
0.5 to 6.0 bar			0	1												
Pressure gauge																
Without					0											
1 pressure gauge, 0 to 6 bar, plastic body					2											
Material																
Aluminum connecting part, plastic body						0										
Filter																
20 µm								1								
5 µm								2								
Temperature range																
-20 to +60 °C									2							
Filter receptacle																
With transparent filter housing										0						
With stopper										1						
Special version																
Without											0	0				
Packaging																
Without packaging															0	

Accessories

Accessories	Order no.
20 caps to cover the set point screw	1402-1165
Bracket for mounting onto a Type 3271/3277 Actuator	1400-7343

Spare parts

Accessories	Order no.
Filter cartridge 20 µm	8504-9027
Filter cartridge 5 µm	8504-9030

