

## XP 4, 22, 41: Pneumatic restrictor

### Areas of application

Air supply of bleed-off pneumatic devices, e.g. transmitters, transducers and controllers.

### Features

- As air supply if no alternative is available

### Technical description

- Supply pressure 1.3 bar ± 0.1
- Nominal flow rate 33 l<sub>n</sub>/h

Type	Restrictor Ø mm	Type of connection	Weight kg
<b>XP22 F001</b>	0,2	for copper or hard plastic pipes of Ø 6 mm (external)	0,09
<b>XP4 F002</b>	0,2	for soft plastic tubing of Ø 4 mm (internal)	0,005
<b>XP41 F001</b>	0,2	for hard plastic tubing of Ø 4 mm (internal)	0,01

Supply pressure <sup>2)</sup>	1,3 ± 0,1 bar	Dimension drawing	XP22	<a href="#">M193234</a>
Nominal flow	33 l <sub>n</sub> /h		XP4	<a href="#">M277901</a>
Permissible ambient temp.	0...70 °C	Fitting instructions	XP41	<a href="#">M277936</a>
				none

1) In the RCP and RPP 20 controllers, the restrictors (Ø 0,2 mm) are fitted at inputs 3 and 4.

2) See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperature.

### Operation

The air supply should be connected at the side that has the intermediary (filter and restrictor). On the XP22, the intermediary can also be fitted to either side of the T-piece.

### Additional details

The XP22 is made of brass, the XP41 of plastic; both have SERTO connectors for pipes of 6 mm external diameter. When soft plastic tubes of polyethylene are used, special inserts are required in order to prevent the tube from collapsing. The XP4 is made of plastic and has push-on connectors for soft plastic tubing. The XP22 is designed to be fitted into the supply-air line for pneumatic transmitters and controllers.

Types XP4 and XP41 are used for supplying the *pem 800* temperature controller.

### Additional technical details

Flow rate at other pressures:-

$$\text{Air: } \dot{V} = \dot{V}_N \cdot \sqrt{\Delta p \cdot p_2}$$

$\Delta p$  = pressure difference (bar)

$p_2$  = absolute pressure after the restrictor (bar)

$\dot{V}_N$  = nominal flow



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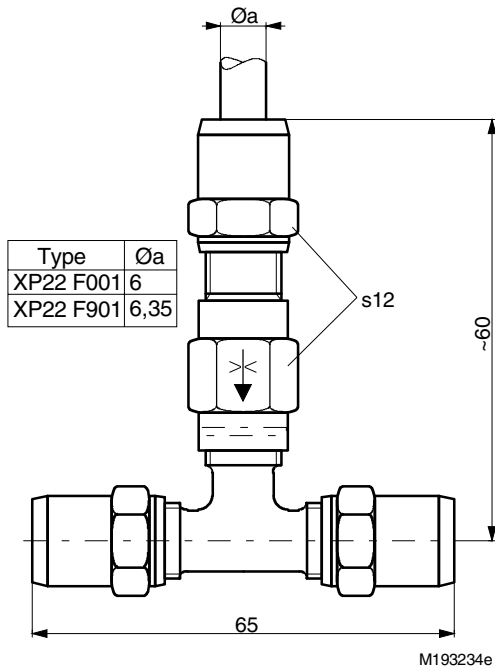
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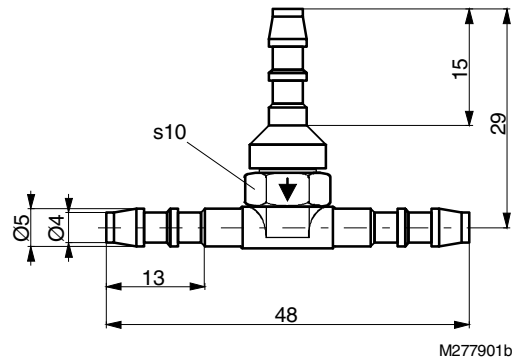
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Dimension drawings

XP22



XP4



XP41

