

## Overview

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## Special units

- For high pressure ranges
- For special temperature ranges
- For special media



## Special units

- For high pressure ranges
- For special temperature ranges
- For special media

### Characteristics

Pressures quoted as gauge pressure							
Characteristics	Symbol	Unit	Filter-regulator for -40 to +80°C	Pressure regulating valve for -40 to +80°C	Pressure regulating valve for -40 to +80°C	Filter-water-separator $p_{max.} = 30 \text{ bar}$	
For series			airfit swing	airfit swing	airfit comfort	airfit swing	
Type			SK-1/4-5D	SR-1/4-SO	CR-1/2-SO	SF-1/4-D-SO	
Port size			G1/4	G1/4	G1/2	G1/4	
Max. condensate capacity		cm <sup>3</sup>	22	–	–	22	
Pore size of filter element		µm	5	–	–	30	
Condensate drainage			Manual, semi-automatic (pressure relief)	–	–	Manual, semi-automatic (pressure relief)	
Installation			Vertical, bowl at the bottom	In any position	In any position	Vertical, bowl at the bottom	
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C °C	-40 +80	-40 +80	-40 +80	0 +50 at 10 bar	
Weight (mass)		kg	0.35	0.3	0.55	0.25	
Pneumatic characteristics							
Operating pressure range – inlet pressure	$p_{1 \text{ min}}$	bar	0	0	0	0	
	$p_{1 \text{ max}}$	bar	16	16	16	30	
Operating pressure range – outlet pressure	$p_{2 \text{ min}}$	bar	0.5	0.5	0.5	–	
	$p_{2 \text{ max}}$	bar	8	8	8	–	
Min. pressure difference	$p_1 - p_2$	bar	0.2	0.2	0.2	–	
Hysteresis $p_1=10/p_2=0$ $p_1=10/p_2=8$		bar	0.5	0.5	0.9	–	
		bar	0.4	0.4	0.7	–	
Maximum flow <sup>1)</sup>	$Q_{max}$	l/min	2280	2850	5700	1440 <sup>3)</sup>	
		m <sup>3</sup> /h	137	171	342	86	
Degree of moisture separation at recommended flow	$\eta$	%	95	–	–		
Own air usage	Q	l/min	–	–	–		

<sup>1)</sup> At  $p_1 = 10 \text{ bar}$  and  $p_2 = 6.3 \text{ bar}$ ,  $\Delta p = 1 \text{ bar}$

<sup>3)</sup> At  $p_1 = 6.3 \text{ bar}$ ,  $\Delta p = 1 \text{ bar}$



Pressure regulating valve $p_{max.} = 40 \text{ bar}$	Pressure regulating valve for panel mounting		Pressure regulating valve for water applications		Low-pressure regulating valve		Pressure regulating valve for weight compensation		Filter-regulator for small capacity compressors	Precision pressure regulating valve for three different pressure ranges		
airfit swing	airfit light (with brass housing)		airfit light		airfit light		airfit swing		–	–		
SR-1/4-SO	MRS-06	MRS-08	WRP-06	WRP-08	MRP-1/8-SO	MRP-1/4-SO	SR-1/4-PE-MW	SR-1/4-PE-MW	MFRS-08	XRP-08-8	XRP-08-4	XRP-08-08 <sup>2)</sup>
G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/4	G3/8	$p_1 = G3/8 \text{ A}$ $p_2 = G1/4 \text{ I}$	G1/4	G1/4	G1/4
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	30	–	–	–
–	–	–	–	–	–	–	–	–	Permanent	–	–	–
In any position	In-line mounting, panel mounting $\emptyset$ to DIN 43696 (30.3 <sup>+0.2</sup> mm)		In-line mounting, wall mounting with bracket, panel mounting $\emptyset$ to DIN 43696 (30.3 <sup>+0.2</sup> mm)		In any position		In any position		Vertical, bowl at the bottom	In any position		
0 +60	0 +60	0 +60	0 +60	0 +60	0 +50	0 +50	0 +60	0 +60	0 +60 at 10 bar	-5 +60	-5 +60	-5 +60
0.3	0.18	0.18	0.11	0.11	0.11	0.11	–	–	0.5	0.7	0.7	0.7
0 40	0 16	0 16	0 10	0 10	0 10	0 10	0 16	0 16	0 10	1 10	1 7	1 7
0.5 16	0.5 8	0.5 8	1 4	1 4	0.1 0.25	0.1 0.25	0.2 2	0.2 2	0.5 8	0.5 8	0.1 4	0.02 0.8
0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.2	–	–	–
0.5 0.4	1.6 0.6	1.6 0.6	–	–	–	–	–	–	1.6 0.6	Max. 0.1 bar		
2850 171	550 33	585 35	11 <sup>5)</sup> 0.66	11 <sup>5)</sup> 0.66	650 39	650 39	560 34		550 33	675 <sup>4)</sup> 41	375 <sup>4)</sup> 23	135 <sup>4)</sup> 8
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	Max. 10 at full airflow		

<sup>2)</sup> The precision pressure regulator should not be used for "static" applications, i.e. with zero airflow. In such cases a small "artificial" airflow should be created on the secondary side using a 0.3 – 0.6 mm  $\emptyset$  jet.

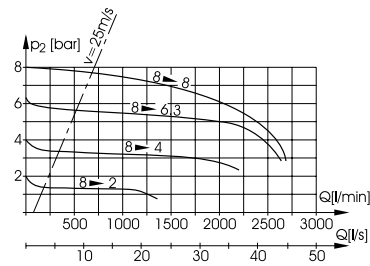
<sup>4)</sup> Corresponds to 25 m/s with NW8 mm bore.

<sup>5)</sup> At  $p_1 = 5 \text{ bar}$  and  $p_2 = 2 \text{ bar}$

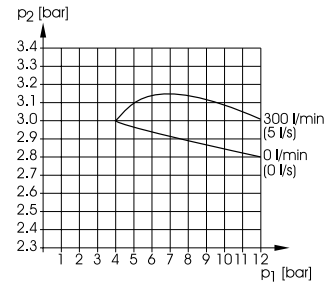
# Special units

## Flow characteristics

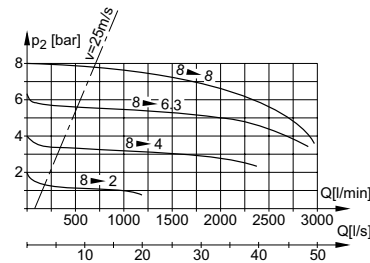
**Filter-regulator – Type: SK-1/4-5D (-40°C to +80°C)**



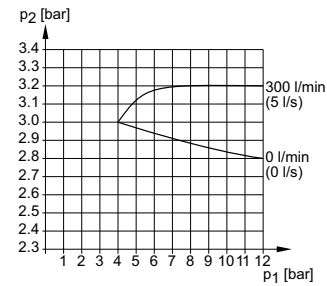
**Outlet pressure variation with fluctuating inlet pressure**



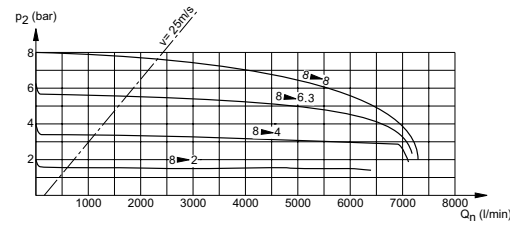
**Pressure regulating valve Type: SR-1/4 -SO (-40°C to +80°C) Type: SR-1/4 -SO (0 to 40 bar)**



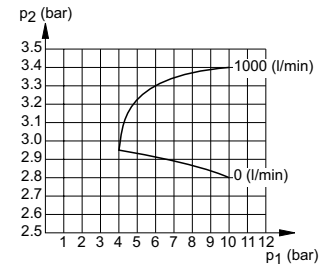
**Outlet pressure variation with fluctuating inlet pressure**



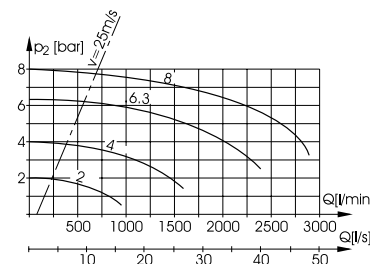
**Pressure regulating valve – Type: CR-1/2 -SO (-40°C bis +80°C)**



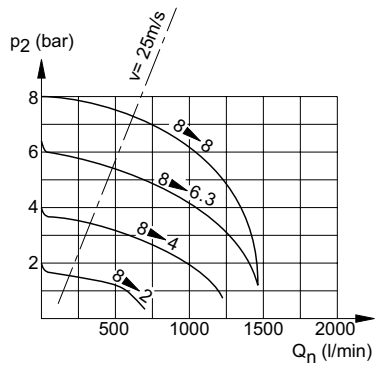
**Outlet pressure variation with fluctuating inlet pressure**



**Filter-water-separator – Type: SF-1/4-D-SO (0 to 30 bar)**



**Pressure regulating valve – Type: MRS-08**



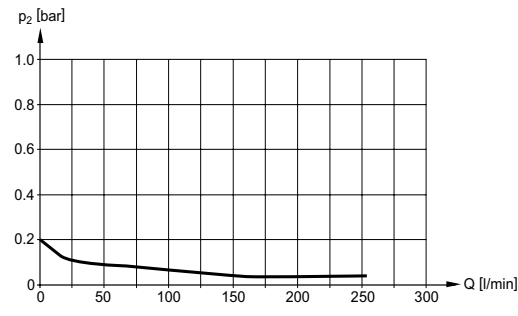
**Special units**

*Flow characteristics*

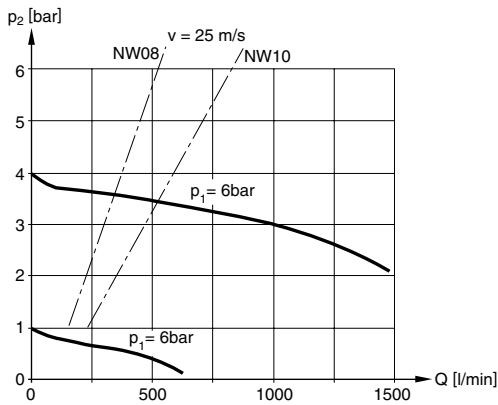
**Pressure regulating valve for use with water  
Type: WRP-06, WRP-08**



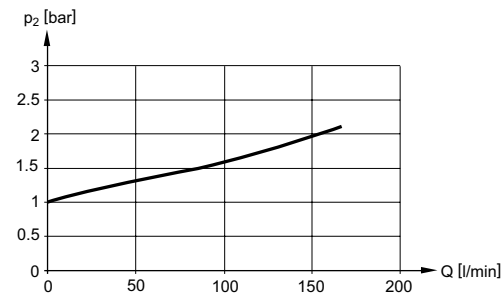
**Low-pressure regulating valve  
Type: MRP-06-SO, MRP-08-SO**



**Pressure regulating valve – Type: SR-1/4-PE-MW, SR-1/4-PE-MW**

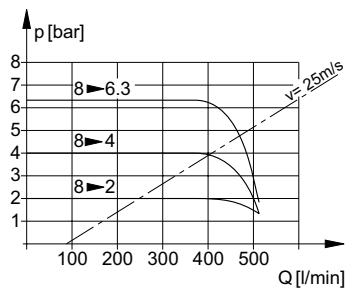


**Exhaust flow (from 2→3)**

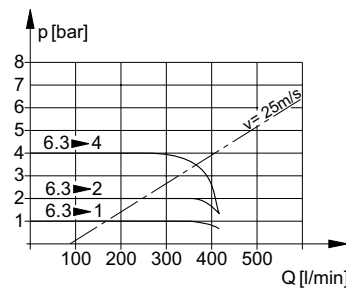


**Precision pressure regulating valve**

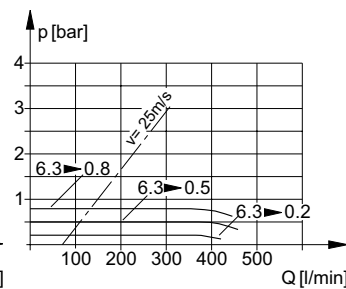
**Type: XRP-08-8  
 $p_2 = 0.5-8 \text{ bar}$**



**Type: XRP-08-4  
 $p_2 = 0.1-4 \text{ bar}$**



**Type: XRP-08-08  
 $p_2 = 0.02-0.8 \text{ bar}$**



# Special units

## Dimensions

### Filter-regulator

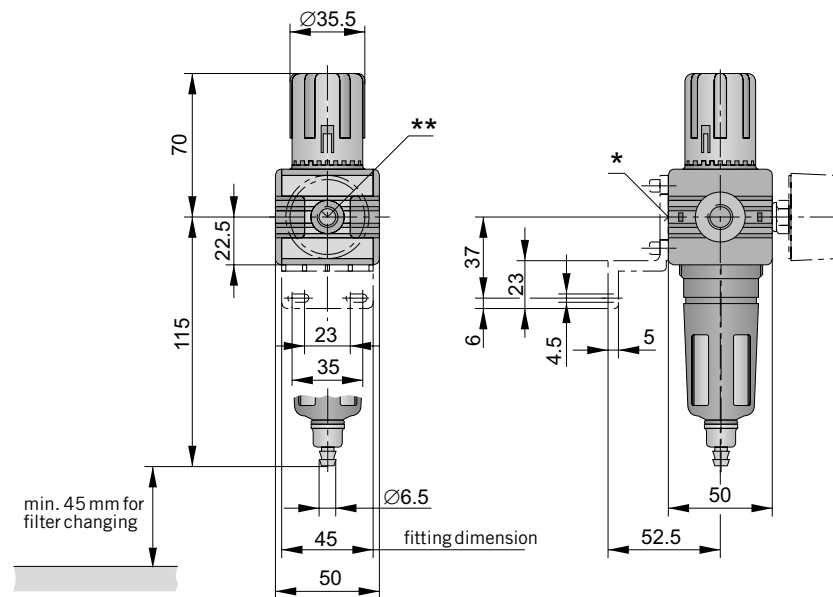
#### Series airfit swing G1/4

Quick, easy filter change  
with Quick-Snap system

### Pressure regulating valve

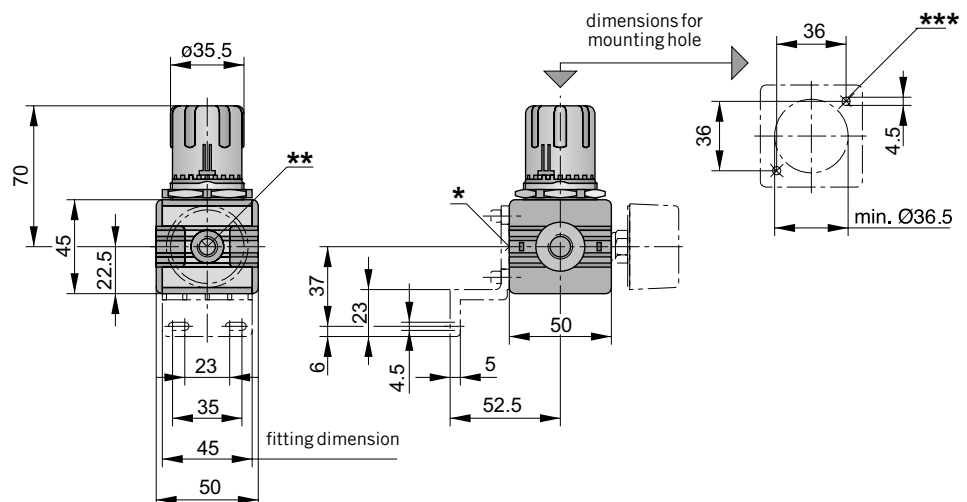
#### Series airfit swing G1/4

Filter-regulator – Type: SK-1/4-5D (-40°C to +80°C)



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8

Pressure regulating valve  
Type: SR-1/4-SO (-40°C to +80°C)  
Type: SR-1/4-SO (0 to 40 bar)



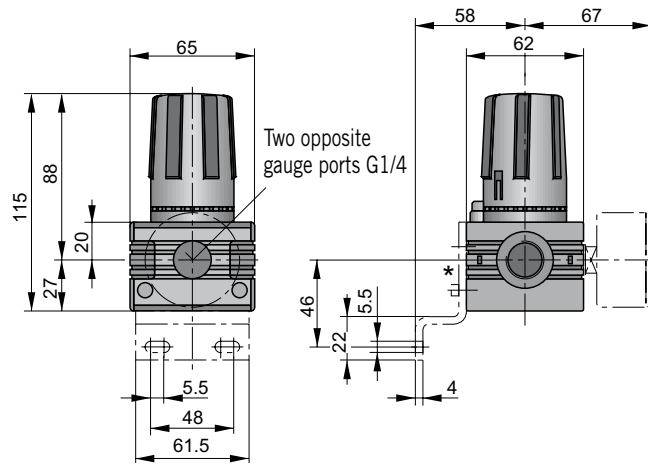
- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8
- \*\*\* For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm



For order instructions see page 176, for characteristics see page 168–171,  
for accessories see page 177

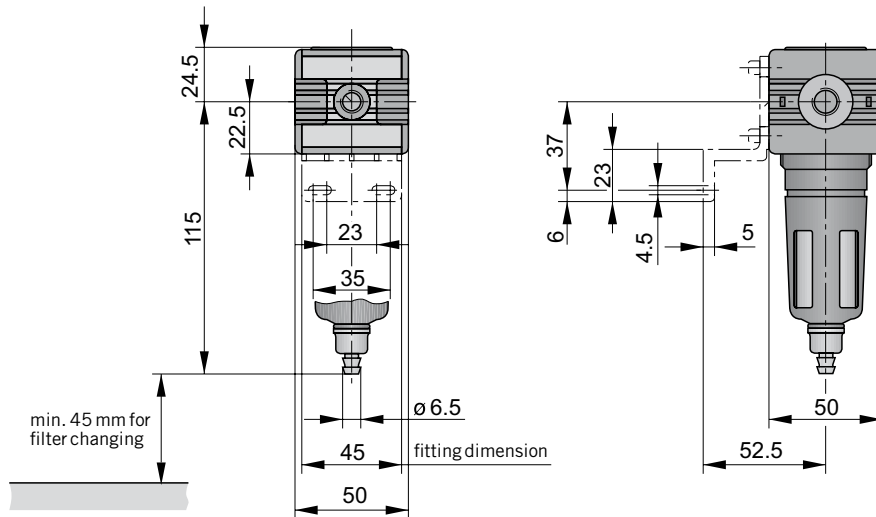
Dimensions in mm

**Pressure regulating valve – Type: CR-1/2-SO (-40°C to +80°C)**



\* On delivery the plug screw is not assembled.

**Filter-water-separator – Type: SF-1/4-5D (0 to 30 bar)**



## Special units

### Dimensions

*Pressure regulating valve*

*Series airfit comfort G1/2*

### Filter-water-separator

*Series airfit swing G1/4*

Quick, easy filter change with Quick-Snap system

For order instructions see page 176, for characteristics see page 168–171, for accessories see page 177

Dimensions in mm



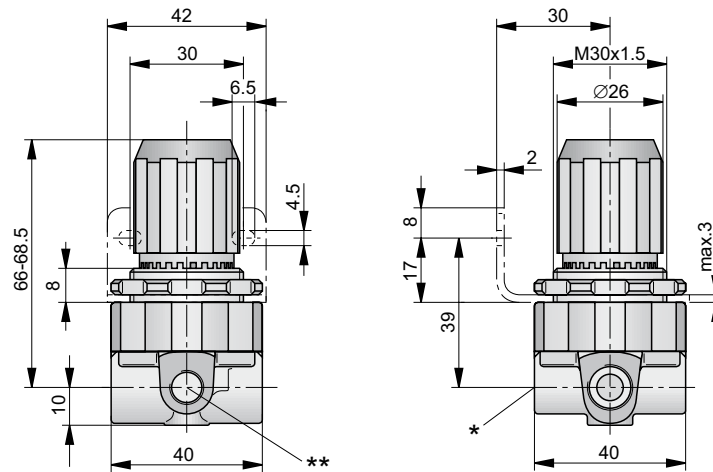
# Special units

## Dimensions

### Pressure regulating valve

#### Series airfit light G1/8, G1/4

Pressure regulating valve, for panel mounting to DIN 43696 – Type: MRS-06, MRS-08



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8

### Pressure regulating valve

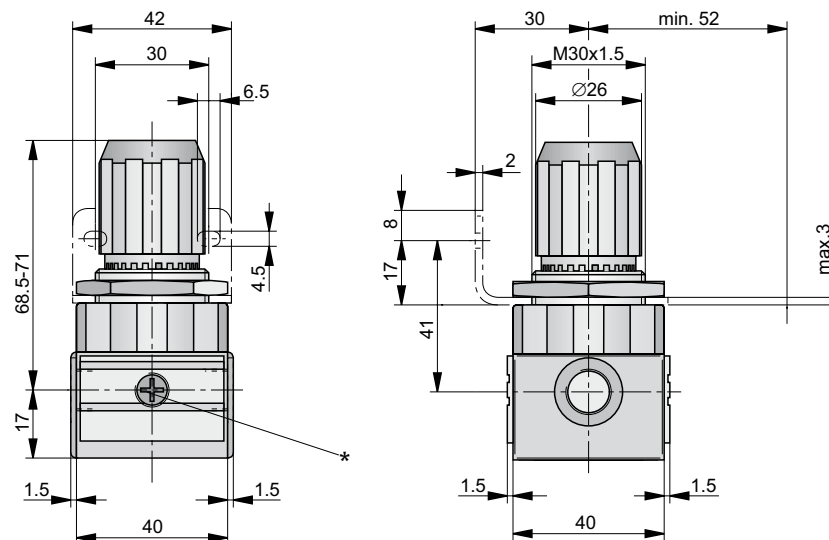
#### Series airfit light G1/8, G1/4

#### For use with water and drinking water

**Material:**  
External parts – PA66  
Internal parts – Brass/POM  
Seals – EPDM

- Bracket can be fitted immediately
- Direct wall-mounting preparation provided

Pressure regulating valve for use with water – Type: WRP-06, WRP-08



- \* On delivery the two plug screws are not assembled.

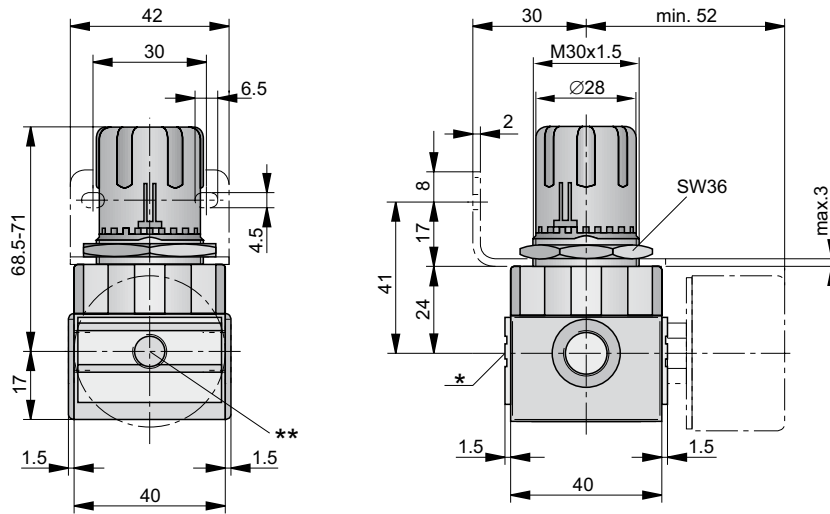


For order instructions see page 176, for characteristics see page 168–171, for accessories see page 177

Dimensions in mm



Low-pressure regulating valve – Type: MRP-06-SO, MRP-08-SO



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8

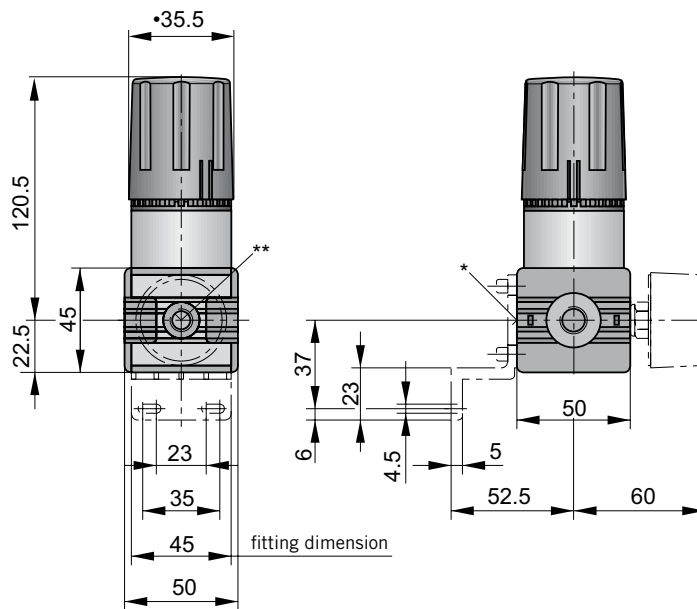
## Special units

*Dimensions*

*Pressure regulating valve*

*Series airfit light G1/8, G1/4*

Pressure regulating valve for weight compensation – Type: SR-1/4-PE-MW, SR-3/8-PE-MW



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8

For order instructions see page 176, for characteristics see page 168–171, for accessories see page 177

Dimensions in mm

*Pressure regulating valve*

*Series airfit swing G1/4, G3/8*



# Special units

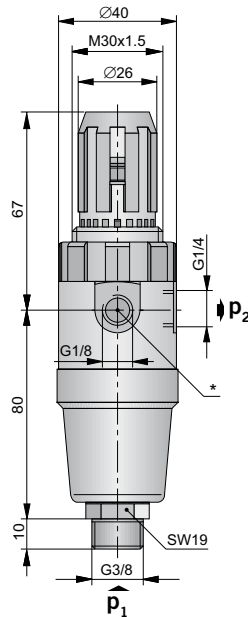
## Dimensions

### Filter-regulator

Series airfit  
 G3/8 external thread  
 G1/4 internal thread

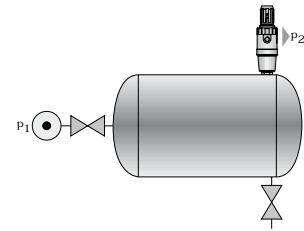
– Robust filter-regulator for direct mounting onto compressor's receiver.

Filter-regulator – Type: MFRS-08



\* Gauge port G1/8

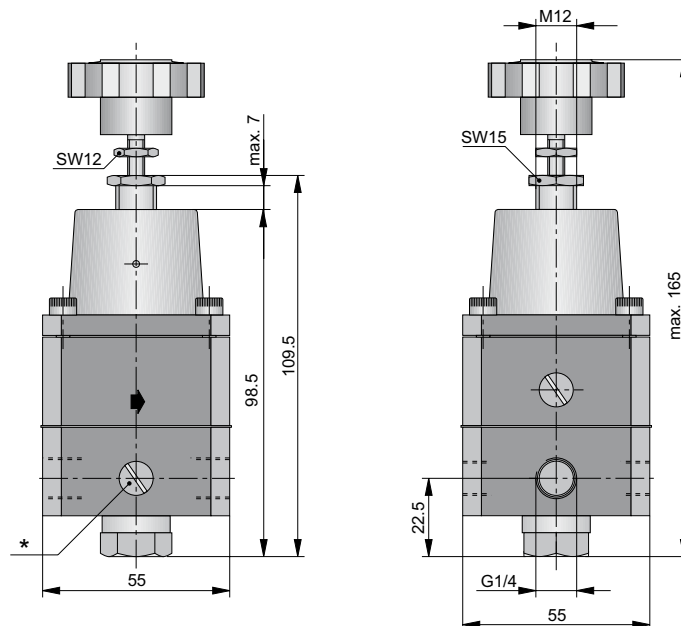
Installation instruction



## Precision pressure regulating valve

G1/4

Precision pressure regulating valve – Type: XRP-08-8, -4, -08




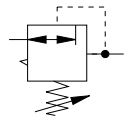

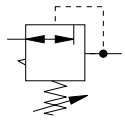
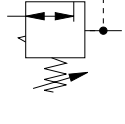

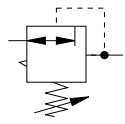
\* Two opposite gauge ports G1/8  
 On delivery the plug screw is not assembled.



For order instructions see page 176, for characteristics see page 168–171, for accessories see page 177

Dimensions in mm

## Special units

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Filter-regulator for $T_{\min/\max} = -40$ to $+80$ °C		G1/4	SK-1/4-5D	PB 45749-065
Pressure regulating valve for $T_{\min/\max} = -40$ to $+80$ °C		G1/4	SR-1/4-SO	PB 45449-080
Pressure regulating valve for $T_{\min/\max} = -40$ to $+80$ °C		G1/2	CR-1/2-SO	PB 55649-080
Pressure regulating valve for $p_{\min/\max} = 0$ to 40 bar		G1/4	SR-1/4-SO	PB 45449-208
Filter-water-separator $p_{\min/\max} = 0$ to 30 bar		G1/4	SF-1/4-SO	PB 45149-049
Pressure regulating valve for panel mounting to DIN 43696		G1/8	MRS-06	PB 21749-010
		G1/4	MRS-08	PB 21649-010
Pressure regulating valve for use with water		G1/8	WRP-06	PB 21749-554
		G1/4	WRP-08	PB 21649-554
Low-pressure regulating valve		G1/8	MRP-06-SO	PB 21749-850
		G1/4	MRP-08-SO	PB 21649-850
Pressure regulating valve for weight compensation		G1/4	SR-1/4-PE-MW	PB 45449-252
		G3/8	SR-3/8-PE-MW	PB 45549-252
Filter-regulator for direct mounting onto compressor's receiver.		G3/8 external G1/4 internal	MFRS-08	PB 40199-029
Precision pressure regulating valve $p_2 = 0$ to 8 bar		G1/4	XRP-08-8	PB 03249-000
Precision pressure regulating valve $p_2 = 0.1$ to 4 bar		G1/4	XRP-08-4	PB 03249-001
Precision pressure regulating valve $p_2 = 0.02$ to 0.8 bar		G1/4	XRP-08-8	PB 03249-002

## Accessories

The order data for the accessories can be found under the respective series

airfit light	see page 17–19
airfit swing	see page 39–41
airfit comfort	see page 75–79

## Special units

*Order instructions*



