

# Air preparation units ...

*ORIGA – simply the first*

  
**HOERBIGER**  
*because performance counts*



## Information on application

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## Importance of EU Directives

Various Directives have been issued by the EU Commission in the course of the unification of the single European market; the following Directives are in part of significance for ORIGA products:

- Simple pressure vessels (87/404/EEC, amended by 90/488/EEC and 93/68/EEC)
- Low-voltage electrical equipment (73/23/EEC, amended by 93/68/EEC)
- Machinery Directive (89/392/EEC, amended by 91/368/EEC, 93/44/EEC and 98/37/EC)
- Pressure Equipment Directive (97/23/EEC)
- Equipment and protective systems intended for use in potentially explosive atmospheres (ATEX Directive, 94/9/EC)
- Electromagnetic Compatibility Directive (EMC Directive, 89/336/EEC, amended by 92/31/EEC)

If a product comes within the scope of application of one of these Directives, then an EU Declaration of Conformity with CE mark (CE for Communauté Européenne) is required. This CE marking does not represent a quality feature but verifies that the conformity assessment procedure specified has been concluded successfully and the protective requirements of the relevant EU Directives have been observed.

Products that do not come under any of the above-mentioned Directives may not bear the CE mark nor may any manufacturer's declaration according to the EU Machinery Directive or Declaration of Conformity be issued for these products.

If a product may not be CE marked according to the Machinery Directive, it must however be marked if it comes within the scope of application of any other Directive.

The following harmonized standards are applied in the design of ORIGA components and systems:

- DIN EN ISO 12100 Safety of machinery
- DIN EN 60204.1 Electrical equipment of machines
- DIN EN 983 Safety requirements for fluid power systems and their components















## The following Directives are of particular significance to HOERBIGER:

- ORIGA products in potentially explosive atmospheres, to which the above-mentioned ATEX Directive applies, are treated according to the Directive and CE and EX marked.
- According to the Machinery Directive, ORIGA products are mainly components for installation in machines and therefore do not require an EU Declaration of Conformity with CE mark. HOERBIGER-ORIGA issues a manufacturer's declaration according to the Machinery Directive for these components. This declaration corresponds to a great extent to the Declaration of Conformity with the comment that commissioning is only permitted if the machine or system conforms to the Directives. This manufacturer's declaration impacts neither our product liability based on the product liability law nor warranty assurances according to our General Terms of Sale and Delivery. Neither does the manufacturer's declaration affect our quality assurance measures according to our Quality Management Manual nor our quality certification according to ISO 9001.
- According to the Pressure Equipment Directive, ORIGA products are components of low hazard potential, thus most of the products do not come under this Directive. The exceptions to this are maintenance equipment from a certain pressure/volume level onwards. These components are treated according to the Directive, if required, and bear the CE mark.






## ORIGA products are excluded from the following EU Guidelines:

- End-of-life vehicles (2000/53/EC).
- Waste Electronic and Electrical equipment (WEEE, 2002/96/EC) and Restriction on Hazardous Substances (RoHS, 2002/95/EC).
- Pressure Equipment Directive (97/23/EEC) with the above-mentioned exceptions.

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### Explosion protection versions

Details of the available ATEX-compliant devices and further information about the ATEX Directives can be found in our brochure no. A5P060 (see also [www.hoerbiger.com](http://www.hoerbiger.com))

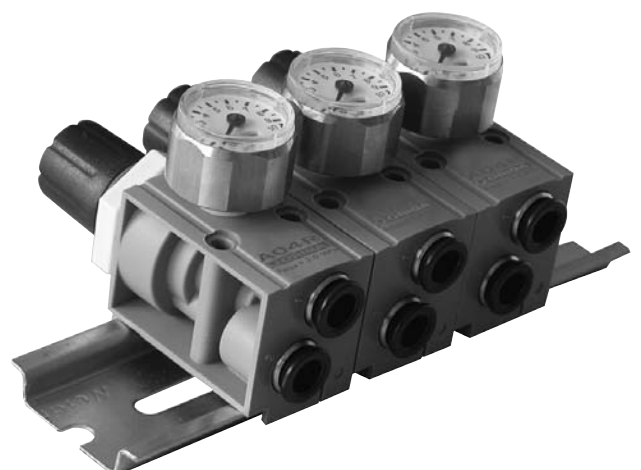
**Overview**

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## Pressure regulating valve

*Series A04R*

- *with push-in connections OD4*
- *with push-in connections OD6*



## Pressure regulating valve

### Series A04R

- with push-in connections OD4
- with push-in connections OD6

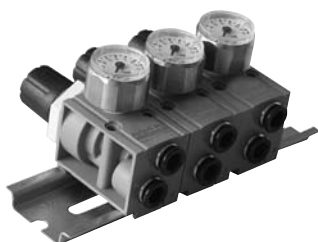
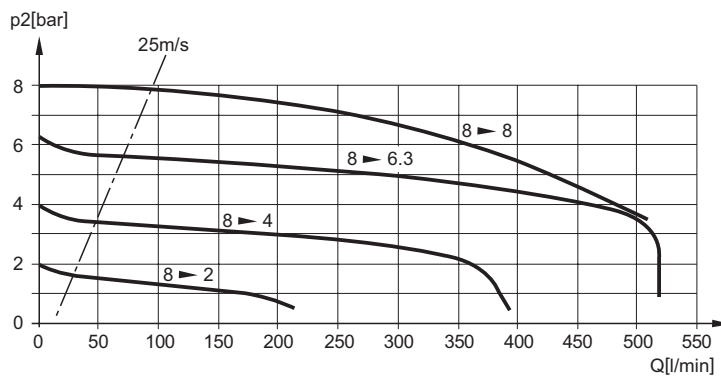
Pressure regulating valve with push-in connections  
– for panel mounting  
– for rail mounting  
to EN06175

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description
System			Piston-type pressure regulating valve (spring loaded) with secondary pressure relief
Type			A04R-Q4 A04R-Q6
Port size (tube diameter)		mm	OD 4 OD 6
Installation			In any position
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C	0 +50
Weight (mass)		kg	0.05
Pneumatic characteristics			
Operating pressure range – inlet pressure	$p_{1 min}$ $p_{1 max}$	bar	0 10
Operating pressure range – outlet pressure	$p_{2 min}$ $p_{2 max}$	bar	0.5 8
Min. pressure difference	$p_1 - p_2$	bar	0.3
Maximum flow <sup>1)</sup>	$Q_{max}$	l/min m <sup>3</sup> /h	200 12.0 235 14.1

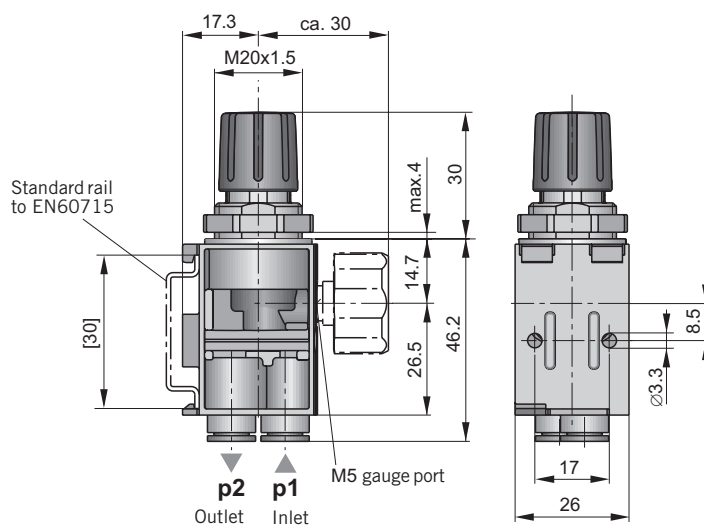
<sup>1)</sup> at  $p_1 = 10$  bar and  $p_2 = 6.3$  bar,  $\Delta p = 1$  bar

### Flow characteristics – Type: A04R-Q6

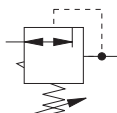




## Dimensions (mm)



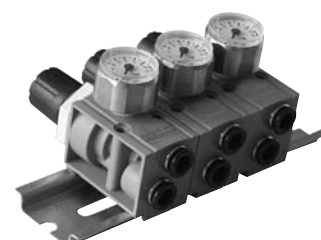
## Order instructions

Description	Symbol	Port size Tube Ø OD/ID	Order instructions	
			Type	Order No.
Basic model with push-in connections		4/2.3	A04R-Q4	PB64149-000
Basic model with push-in connections		6/4	A04R-Q6	PB64249-000

## Accessories

Description	Order No.
Gauge, Ø 23, 0–10 bar, M5	KG8049-00
Y-connector for A04R-Q4 (for through p1 supply port)	KT0340
Y-connector for A04R-Q6 (for through p1 supply port)	KT0341
Elbow adaptor for A04R-Q4	KT0482
Elbow adaptor for A04R-Q6	KT0316
Standard rail to EN60715, length 187 mm – for 7 pressure regulating valves	KG5013
Standard rail to EN60715, length 287 mm – for 11 pressure regulating valves	KG5014

Dimensions in mm







**Overview**

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**Air preparation units**

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



## Air preparation units

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

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special units



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Air preparation unit three-piece	Air preparation unit two-piece	
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator*, gauge, mounting ring, and locating ring	Consisting of filter-regulator, oil mist lubricator*, gauge, mounting ring, and locating ring	
Type			MFRLS-08	MKLS-06	MKLS-08
Material					
– Housing			Fiber – reinforced polyamide 66		
– Plastic bowl			Polycarbonate		
– Standard sealings			NBR	NBR	
Port size (NPTF version)			G1/4	G1/8	G1/4
Max. condensate capacity		cm <sup>3</sup>	12	12	12
Pore size of filter element		µm	30 or 5	30 or 5	
Condensate drainage			Manual or semi-automatic (pressure relief)		
Oil/air ratio			Constant oil drip rate independent of air flow		
Max. oil capacity		cm <sup>3</sup>	35	35	
Oil refilling			Manual	Manual	
Installation			Vertical, bowl at the bottom		
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C	0 +50 at 10 bar	0 +50 at 10 bar	
Weight (mass)		kg	0.40	0.32	
Pneumatic characteristics					
Operating pressure range – inlet pressure	p <sub>1 min</sub> p <sub>1 max</sub>	bar	0 10	0 10	
Operating pressure range – outlet pressure	p <sub>2 min/max</sub>	bar	0.5 to 8	0.5 to 8	
Smallest pressure difference	p <sub>1</sub> –p <sub>2</sub>				
Hysteresis p <sub>1</sub> =10/p <sub>2</sub> =0 p <sub>1</sub> =10/p <sub>2</sub> =8					
Maximum flow <sup>1)</sup>	Q <sub>max</sub>	l/min m <sup>3</sup> /h	440 27	400 24	580 35
Degree of moisture separation at recommended flow <sup>2)</sup>	η	%	> 90	> 90	
Residual oil amount		mg/m <sup>3</sup>	–	–	

<sup>1)</sup> at p<sub>1</sub> = 10 bar and p<sub>2</sub> = 6.3 bar, Δp = 1 bar

<sup>2)</sup> at 6.3 bar and 25 m/s

\*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm<sup>2</sup>/s at 40°C) or HOERBIGER special oil, Order No.: KY 8766 (see page 191)

	Filter-regulator		Filter-water-separator		Pressure regulating valve		Oil mist lubricator		Submicrofilter		Activated carbon filter	
	Cyclone system with filter element, combined with piston-type pressure regulating valve (spring loaded) with secondary pressure relief, locating ring, handwheel lockable		With cyclone system and filter element		Piston-type pressure regulating valve (spring loaded) with secondary pressure relief, locating ring, handwheel lockable		Oil mist lubricator with flow compensation*)					
	MKS-06	MKS-08	MFS-06	MFS-08	MRP-06	MRP-08	MLS-06	MLS-08	MF007-1/8	MF007-1/4	MC007-1/8	MC007-1/4
	Fiber – reinforced polyamide 66											
	Polycarbonate				–		Polycarbonate					
	NBR		NBR		NBR		NBR		NBR		NBR	
	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4
	12	12	12	12	–		–		12	12	–	–
	30 or 5		30 or 5									
	Polycarbonate or semi-automatic (pressure relief)				–		–		Manual			
							Constant oil drip rate independent of air flow					
	–		–		–		35		–		–	
							Manual					
	Vertical, bowl at the bottom				In any position		Vertical, bowl at the bottom					
	0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +40 at 10 bar	
	0.12		0.10		0.11		0.09		0.10		0.10	
	0 10		0 10		0 10		0 10		0 10		0 10	
	0.5 to 8				0.5 to 8							
	0.2		–		0.2		–		–		–	
	1.6 0.6				1.6 0.6							
	550 33	550 33	1085 65	1830 110	530 32	770 46	865 52	1400 84	350 at 6 bar 21		350 at 6 bar 21	
	> 90		> 90		–		–		Over 99.99999%, related to 0.01 µm		–	
	–		–		–		–		< 0.01 (input conc. 3 mg/m³)		0.003% in combination MF-...	

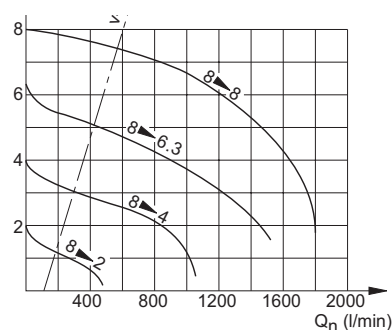
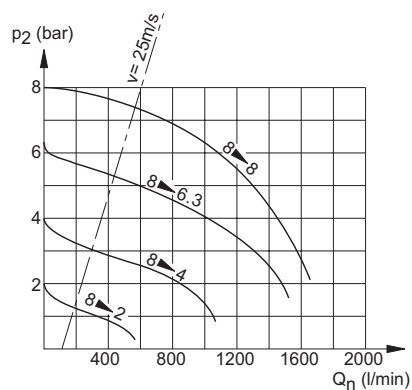
## Air preparation units

Series airfit light  
G1/8, G1/4

Flow characteristics

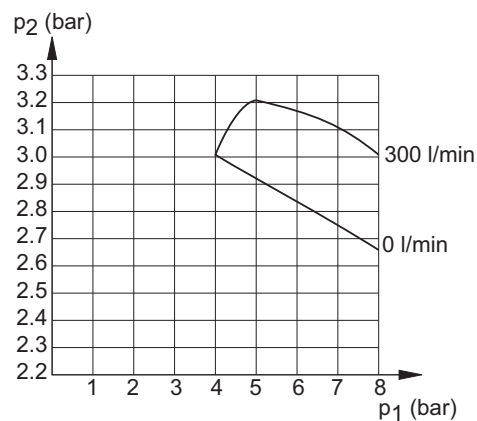
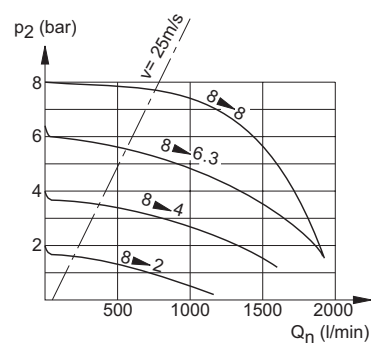
Air preparation units, three-piece, two-piece  
Type: MFRLS-08

Type: MKLS-08

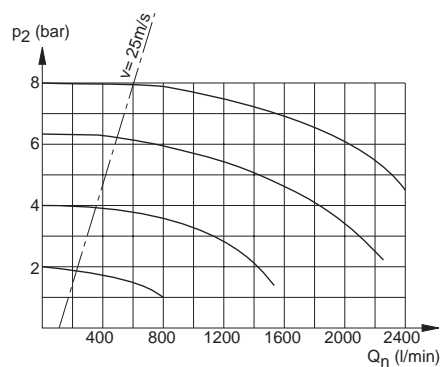


Filter-regulator  
Type: MKS-08

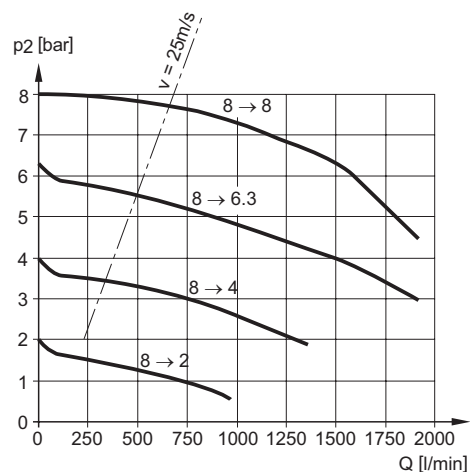
Outlet pressure variation with fluctuation inlet pressure  
Type: MKS-08



Filter-water-separator  
Type: MFS-08



**Pressure regulating valve**  
Type: MRP-08

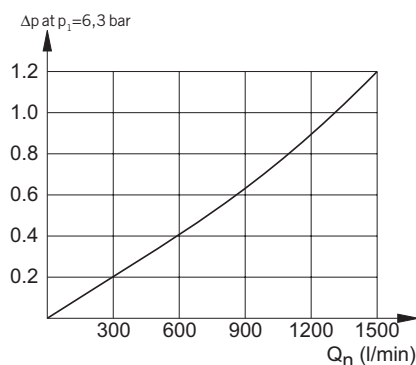


**Air preparation units**

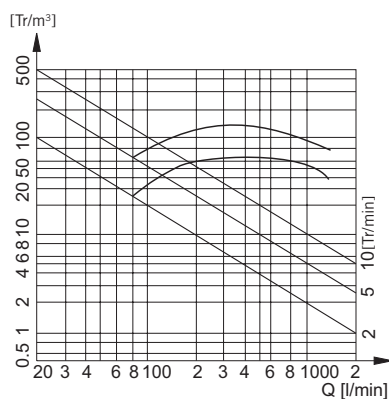
Series airfit light  
G1/8, G1/4

Flow characteristics

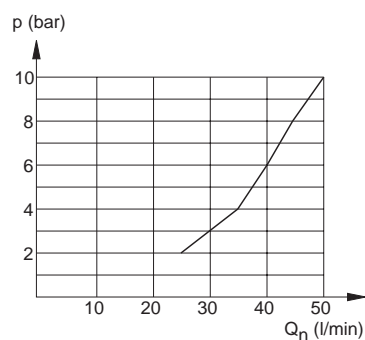
**Oil mist lubricator**  
Type: MLS-08



**Oil/air ratio**  
Type: MLS-08



**Min. operating conditions**  
Type: MLS-08



For order instructions see page 16, 17, for characteristics see page 8–11,  
for accessories see page 18, 19

Dimensions in mm



## Air preparation units

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

### Dimensions

#### Delivery includes:

Air preparation unit three-piece:

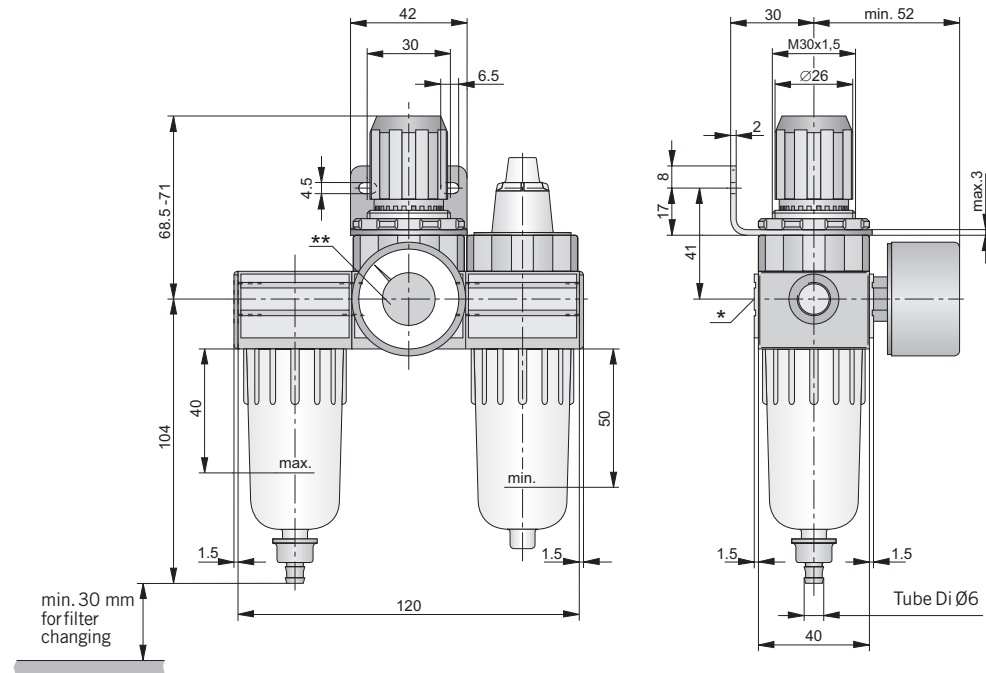
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Air preparation unit two-piece:

- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Filter-regulator:  
Mounting ring included  
Pressure regulating valve:  
Mounting ring included

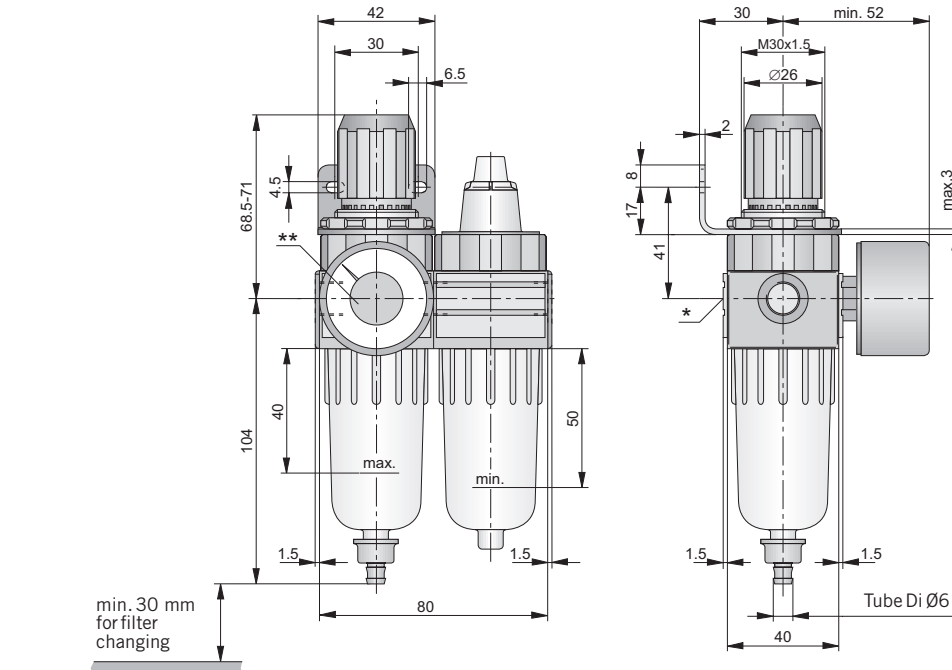
Air preparation unit three-piece – Type: MFRLS-08



\* On delivery the plug screw is not assembled.

\*\* Two opposite gauge ports G1/8

Air preparation unit two-piece – Type: MKLS-06, -08



\* On delivery the plug screw is not assembled.

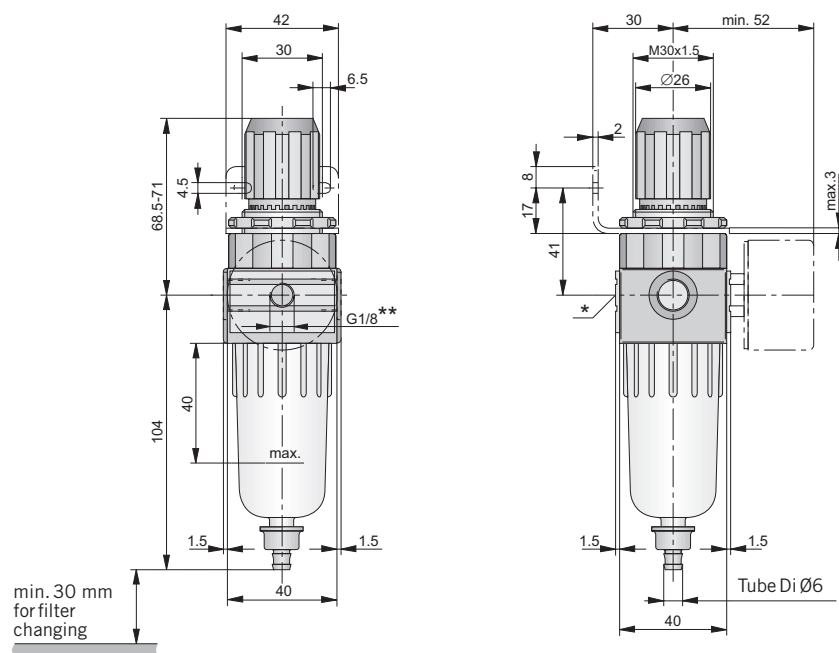
\*\* Two opposite gauge ports G1/8

For order instructions see page 16, 17, for characteristics see page 8–11,  
for accessories see page 18, 19

Dimensions in mm



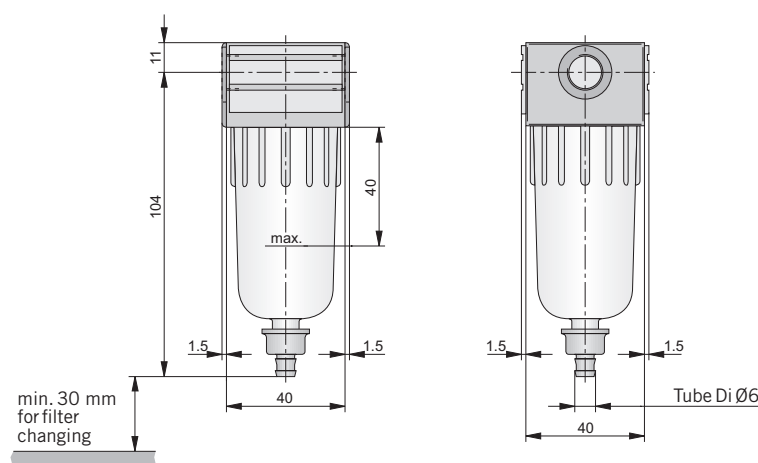
## Filter-regulator – Type: MKS-06, -08



\* On delivery the plug screw is not assembled.

\*\* Two opposite gauge ports G1/8

## Filter-water-separator – Type: MFS-06, -08



## Air preparation units

Series airfit light  
G1/8, G1/4

Dimensions



For order instructions see page 16, 17, for characteristics see page 8–11,  
for accessories see page 18, 19

Dimensions in mm

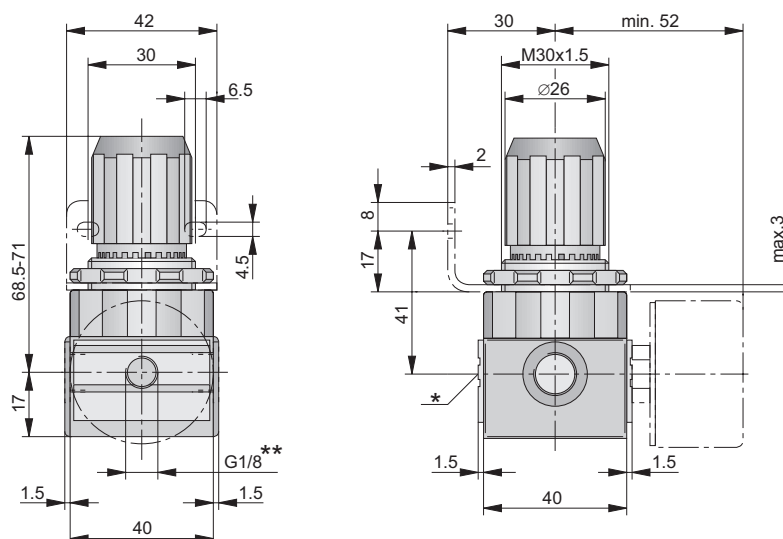


## Air preparation units

Series airfit light  
G1/8, G1/4

Dimensions

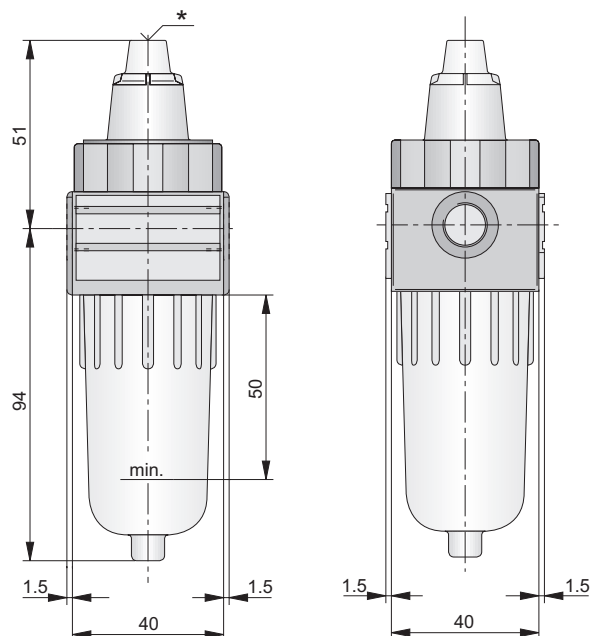
Pressure regulator – Type: MRP-06, -08



\* On delivery the plug screw is not assembled.

\*\* Two opposite gauge ports G1/8

Oil mist lubricator – Type: MLS-06, -08



\* Oil adjusting screw



For order instructions see page 16, 17, for characteristics see page 8-11,  
for accessories see page 18, 19

Dimensions in mm




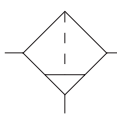
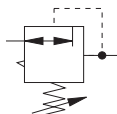


## Air preparation units

Series airfit light  
G1/8, G1/4

Order instructions

### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Air preparation unit three-piece				
– basic model		G1/4	MFRLS-08	PB 40949-100
– with filter element 5 µm		G1/4	MFRLS-08-5	PB 40949-110
– with semi-automatic drainage		G1/4	MFRLS-08-H	PB 40949-104
Air preparation unit two-piece				
– basic model		G1/8	MKLS-06	PB 40449-100
– basic model		G1/4	MKLS-08	PB 40549-100
– with filter element 5 µm		G1/8	MKLS-06-5	PB 40449-109
– with filter element 5 µm		G1/4	MKLS-08-5	PB 40549-109
– with semi-automatic drainage		G1/8	MKLS-06-H	PB 40449-104
– with semi-automatic drainage		G1/4	MKLS-08-H	PB 40549-104
Filter-regulator				
– basic model		G1/8	MKS-06	PB 40049-100
– basic model		G1/4	MKS-08	PB 40149-100
– with filter element 5 µm		G1/8	MKS-06-5	PB 40049-116
– with filter element 5 µm		G1/4	MKS-08-5	PB 40149-116
– with semi-automatic drainage		G1/8	MKS-06-H	PB 40049-101
– with semi-automatic drainage		G1/4	MKS-08-H	PB 40149-101
Filter-water-separator				
– basic model		G1/8	MFS-06	PB 40649-100
– basic model		G1/4	MFS-08	PB 40749-100
– with filter element 5 µm		G1/8	MFS-06-5	PB 40649-116
– with filter element 5 µm		G1/4	MFS-08-5	PB 40749-116
– with semi-automatic drainage		G1/8	MFS-06-H	PB 40649-101
– with semi-automatic drainage		G1/4	MFS-08-H	PB 40749-101
Pressure regulating valve				
– basic model with p <sub>1</sub> - flow compensation		G1/8	MRP-06	PB 21749-800
– basic model with p <sub>1</sub> - flow compensation		G1/4	MRP-08	PB 21649-800

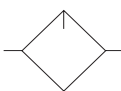
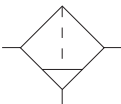
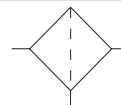


## Air preparation units

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

*Order instructions*

### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
<b>Oil mist lubricator</b>				
– basic model		G1/8	MLS-06	PB 40249-100
– basic model		G1/4	MLS-08	PB 40349-100
<b>Submicrofilter</b>				
– basic model		G1/8	MF 007-1/8	PB 37349-000
– basic model		G1/4	MF 007-1/4	PB 37449-000
<b>Activated carbon filter</b>				
– basic model		G1/8	MC 007-1/8	PB 37849-000
– basic model		G1/4	MC 007-1/4	PB 37949-000

### Accessories

Description	For type	Order No.
Mounting bracket	MKS, MRP, MRS	PL15531
Mounting kit	MFS, MLS	PL16859
Mounting kit for DIN rail mounting	MRP	PL17889
Gauge Ø 40, 0–10 bar, G1/8*	MKS, MRP	KZ8813
Gauge with front ring, Ø 40, 0–10 bar, G1/8*		KZ8822
Coupling kit		PL16030
Porting block		PL16031
Porting block NPTF		PL17766
Bowl guard kit		PL18541-00
Coupling kit for combination types	MKS/MRP+MF+MC	PL16755
Coupling kit for combination types	MF+MC, MFS+MF, MFS+MLS	PL16669
Mounting ring		KG5006

\* for more gauges see page 186, 187

For more information see accessories page 18, 19



## Air preparation units

Series airfit light  
G1/8, G1/4

Accessories  
– Porting block

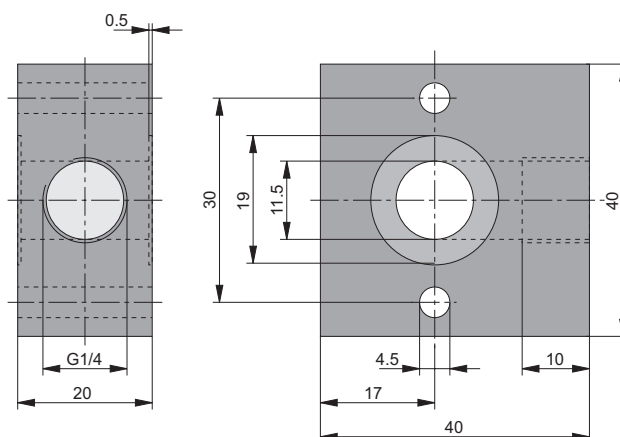
To provide unlubricated air,  
e.g. for air gun

### Delivery includes:

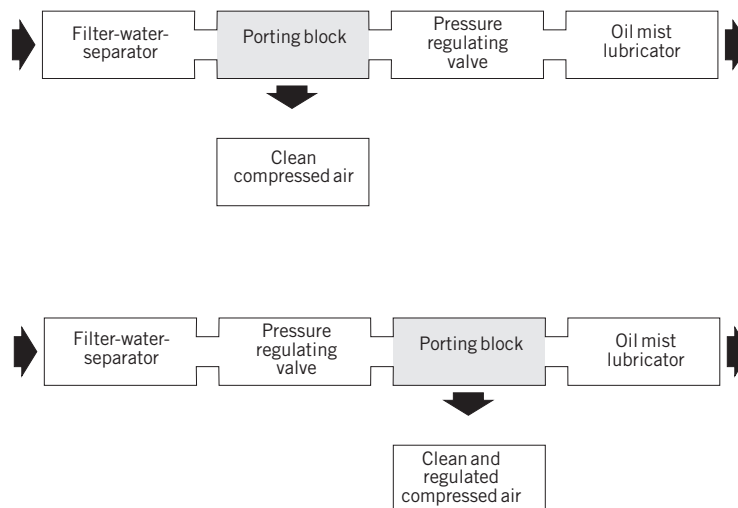
Porting block  
2 sealing rings  
2 mounting screws

Characteristics	Description
Installation	Between two units of the airfit light series
Mounting	With coupling kit supplied
Material	Aluminum – black lacquered

### Dimensions



### Installation Instructions

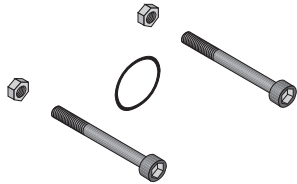


### Order instructions – Accessories

Description	Order No.
Porting block kit G1/4-Standard	PL16031
Porting block kit G1/4 -NPTF	PL17766

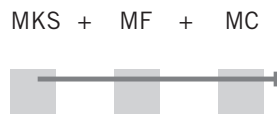
Dimensions in mm

**Coupling kit**



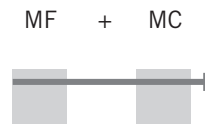
**Order No. PL16030**

**Coupling kit**



**Order No. PL16755**

**Coupling kit**



**Order No. PL16669**

## Air preparation units

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

*Accessories*

- Coupling kits
- Mounting brackets
- Gauges

**Mounting bracket**



**Order No. PL15531**

**Gauge Ø 40, 0–10 bar, G1/8**



**Order No. KZ8813**





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	22, 23, 26	29	37, 39
Air preparation unit two-piece	22, 23, 26	29	37, 39
Filter-regulator	22, 23, 26	30	37, 39
Filter-water-separator	22, 23, 26	30	37, 39
Dust filter	22, 23, 26	30	37, 39
Pressure regulating valve	22, 23, 27	31, 32	38, 39
Pressure regulating valve, pilot operated	22, 23, 27	33	38, 39
Oil mist lubricator	24, 25, 28	33	38, 39
Start valve	24, 25	34	38, 39
Stop valve	24, 25	34, 35	38, 39
Submicrofilter	24, 25	35	39
Activated carbon filter	24, 25	35	39
3/2 Way shut-off valve	24, 25	36	39
Accessories	40, 41	39–41	39–41

**Air preparation units**

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



## Air preparation units

Series airfit swing  
G1/4, G3/8

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special units



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Air preparation unit three-piece		Air preparation unit two-piece			
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator*, gauge, mounting bracket		Consisting of filter-regulator, oil mist lubricator*, gauge, mounting bracket			
Type			SFRL-1/4	SFRL-3/8	SKL-1/4	SKL-3/8		
Material								
– Housing			Diecast zinc					
– Plastic bowl			Polycarbonate		Polycarbonate			
– Metal bowl			Diecast zinc		Diecast zinc			
– Diaphragm			NBR		NBR			
– Standard sealings			NBR					
Port size (NPTF version)			G1/4	G3/8	G1/4	G3/8		
Max. condensate capacity		cm <sup>3</sup>	22	22	22	22		
Pore size of filter element		µm	30 or 5		30 or 5			
Condensate drainage			Manual, semi-automatic (pressure relief), or automatic (float type)					
Oil/air ratio			Constant oil drip rate independent of air flow					
Max. oil capacity		cm <sup>3</sup>	45		45			
Oil refilling			Manual – also during operation					
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom			
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)			
Weight (mass)		kg	0.95		0.75			
Pneumatic characteristics								
Operating pressure range – inlet pressure	p <sub>1 min</sub> p <sub>1 max</sub>	bar bar	0 16		0 16			
Operating pressure range – outlet pressure	p <sub>2 min/max</sub>	bar	0.5 to 8 on request 0.5 to 4 <sup>3)</sup> on request 0.5 to 15 <sup>3)</sup>		0.5 to 8 on request 0.5 to 4 <sup>3)</sup> on request 0.5 to 15 <sup>3)</sup>			
Min. pressure difference		p <sub>1</sub> –p <sub>2</sub>						
Hysteresis p <sub>1</sub> =10/p <sub>2</sub> =0 p <sub>1</sub> =10/p <sub>2</sub> =8								
Maximum flow <sup>1)</sup>	Q <sub>max</sub>	l/min m <sup>3</sup> /h	825 50	790 47	890 53	790 47		
Degree of moisture separation at recommended flow		η	%	> 95	> 90	> 95	> 90	

<sup>1)</sup> at  $p_1 = 10$  bar and  $p_2 = 6.3$  bar,  $\Delta p = 1$  bar

<sup>2)</sup> at 6 bar and 25 m/s flow velocity

<sup>3)</sup> By the use of special springs, the outlet pressure can be precisely regulated in the specified  $p_2$  range

<sup>4)</sup> Recommended pilot pressure regulating valve MRP-1/8 (see page 9)

\*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm<sup>2</sup>/s at 40°C) or HOERBIGER special oil, Order No.: KY 8766 (see page 191)

	Filter-regulator		Filter-water-separator		Dust filter		Pressure regulating valve		Pressure regulating valve pilot operated
	Cyclone system with filter element combined with diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, handwheel lockable		With cyclone system and filter element		With cyclone system and dust filter element		Diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, inlet pressure and volume compensation, locating ring, hand-wheel lockable		Pilot operated piston-type pressure regulator with secondary pressure relief and flow compensation <sup>4)</sup>
	SK-1/4	SK-3/8	SF-1/4	SF-3/8	SFD-1/4	SFD-3/8	SR-1/4 (-T)	SR-3/8 (-T)	SRV-1/4
	Diecast zinc								
	Polycarbonate		Polycarbonate		Polycarbonate		–		–
	Diecast zinc		Diecast zinc		Diecast zinc		–		–
	NBR						NBR		NBR
	NBR								
	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8	G1/4
	22	22	22	22	22	22	–		–
	30 or 5		30 or 5		1				
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual		–		–
	–		–		–		–		–
	–		–		–		–		–
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position
	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)
	0.35		0.25		0.25		0.30		0.40
	0 16		0 16		0 16		0 16		0 16
	0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>						0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>		–
	0.2						0.2		0.2
	0.5 0.4						0.5 0.4		0.5 0.4
	2280 137	3200 192	1440 86	1520 91	1340 80	1620 97	2850 171	3300 198	2200 132
	> 95	> 90	> 95	> 90	Only solid particles > 99% related to 1 µm		–		–

For more characteristics of air preparation units see page 24–25

## Air preparation units

Series airfit swing  
G1/4, G3/8

### Characteristics

Special solutions (e.g. temperature, pressure, medium ...) on request, or see page 155–166 for special units



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Oil mist lubricator		Start valve			
System			Oil mist lubricator with flow compensation *)		Poppet valve with integral throttle for slow pressure build-up (e.g. after emergency shutdown). At 0.5 x operating pressure the valve switches to full			
Type			SL-1/4	SL-3/8	SDA-1/4	SDA-3/8		
Material								
– Housing			Diecast zinc					
– Plastic bowl			Polycarbonate					
– Metal bowl			Diecast zinc		–			
– Diaphragm			–		–			
– Standard sealings			NBR					
Port size (NPTF version)			G1/4	G3/8	G1/4	G3/8		
Max. condensate capacity		cm <sup>3</sup>						
Condensate drainage								
Oil/air ratio			Constant oil drip rate independent of air flow		–			
Max. oil capacity		cm <sup>3</sup>	45		–			
Oil refilling			Manual		–			
Installation			Vertical		In any position – direct assembly to air preparation units series airfit swing			
Medium and ambient temperatures		T <sub>min</sub> T <sub>max</sub> °C °C	0 +50 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)			
Weight (mass)		kg	0.25		0.35			
Pneumatic characteristics								
Operating pressure range – inlet pressure		p <sub>1 min</sub> p <sub>1 max</sub> bar bar	0 16		2 16			
Maximum flow <sup>1)</sup>		Q <sub>max</sub> l/min m <sup>3</sup> /h	1830 110	1880 113	1500 90	1600 96		
Best, recommended operating range for the oil mist lubricator		Q <sub>n</sub> m <sup>3</sup> /h	0.2–30	0.2–54	–			
Degree of filtration at recommended flow <sup>2)</sup>		η %	–		–			
Residual oil amount		mg/m <sup>3</sup>	–		–			

<sup>1)</sup> at  $p_1 = 10$  bar and  $p_2 = 6.3$  bar,  $\Delta p = 1$  bar, start-stop valve and 3/2 Way shut-off valve: at  $p_1 = 6.3$  bar,  $\Delta p = 1$  bar

<sup>2)</sup> at 6 bar and 25 m/s flow velocity

\*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm<sup>2</sup>/s at 40°C) or HOERBIGER special oil, Order No.: KY 8766 (see page 191)

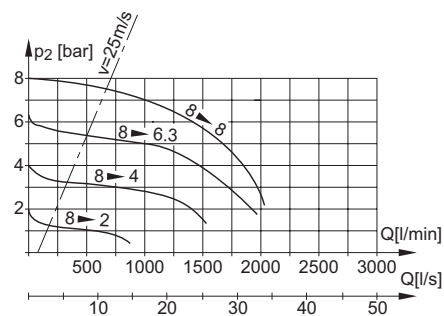
	Stop valve		Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
	3/2 Way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 Way valve (spool type), direct assembly to any unit from the airfit swing series, with coupling kit PL16959	
	SDR-1/4P (E)	SDR-3/8P (E)	MF012-1/4	MF012-3/8	MC012-1/4	MC012-3/8	SDV-1/4-XS	SDV-3/8-XS
	Diecast zinc							
	–		Polycarbonate		Polycarbonate			
	–		Diecast zinc		Diecast zinc		–	–
	–		–		–		–	
	NBR							
	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8
			13	13	–	–	–	–
			Manual		Manual			
	–		–		–		–	–
	–		–		–		–	–
	–		–		–		–	–
	Follow the installation notes		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position	
	0 +60 at 10 bar (further temperatures on request)		0 +50 at 10 bar		0 +40 at 10 bar		0 +60 at 10 bar (further temperatures on request)	
	0.5 (P) 0.8 (E)		0.30		0.30		0.25	
	2 16 (10 E)		0 16		0 16		0 16	
	1500 90	1600 96	580 at 6 bar 35		580 at 6 bar 35		4100 246	5300 318
	–		–		–		–	
	–		Over 99.99999% related to 0.01µm		–		–	
	–		< 0.01 input conc. 3 mg/m³		0.003 ‰ in combination MF		–	

## Air preparation units

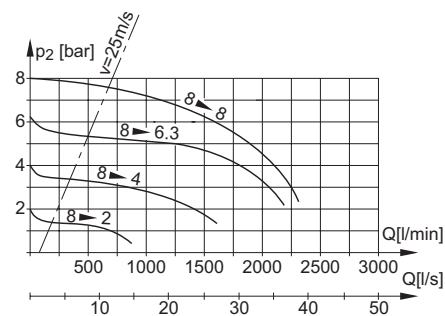
Series airfit swing  
G1/4, G3/8

Flow characteristics

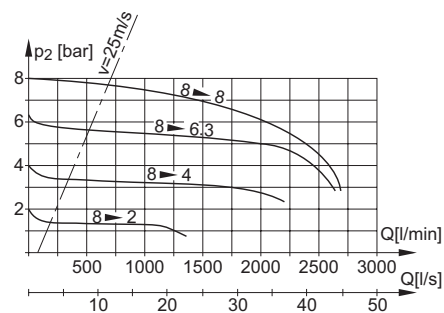
Air preparation unit three-piece/two-piece  
Type: SFRL-1/4



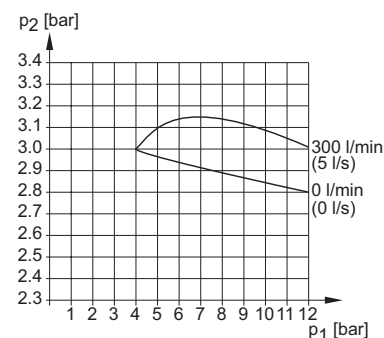
Type: SKL-1/4



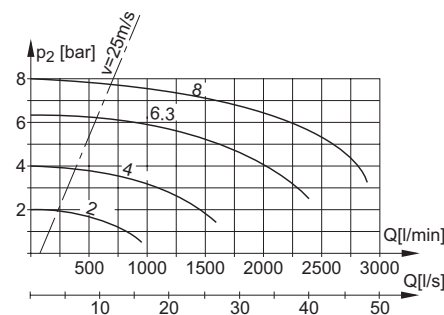
Filter-regulator  
Type: SK-1/4



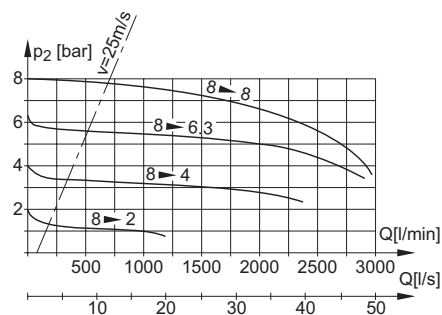
Outlet pressure variation with fluctuation  
inlet pressure  
Type: SK-1/4



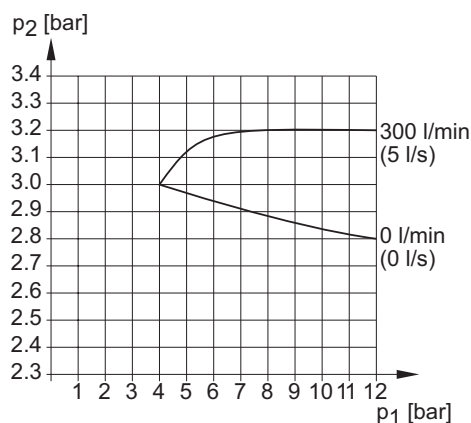
Filter-water-separator  
Type: SF-1/4



**Pressure regulating valve**  
Type: SR-1/4, SR-1/4-T



**Outlet pressure variation with fluctuation inlet pressure**  
Type: SR-1/4, SR-1/4-T

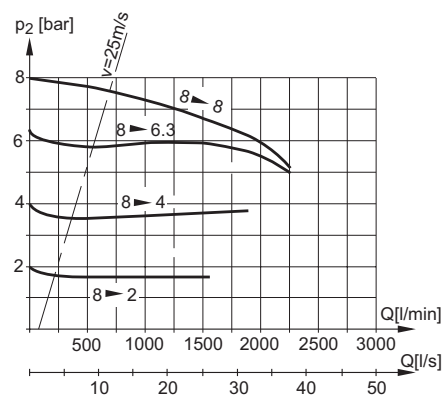


## Air preparation units

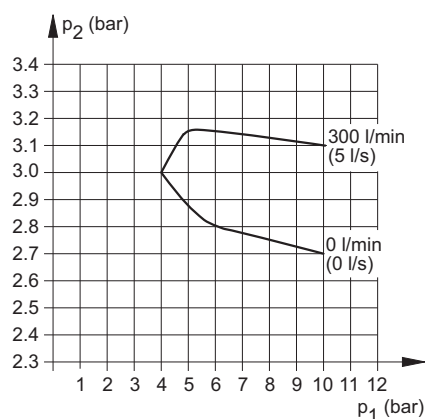
*Series airfit swing*  
G1/4, G3/8

*Flow characteristics*

**Pressure regulating valve, pilot operated**  
Type: SRV-1/4



**Outlet pressure variation with fluctuation inlet pressure**  
Type: SRV-1/4



For order instructions see page 37–39, for characteristics see page 22–28,  
for accessories see page 40, 41

Dimensions in mm



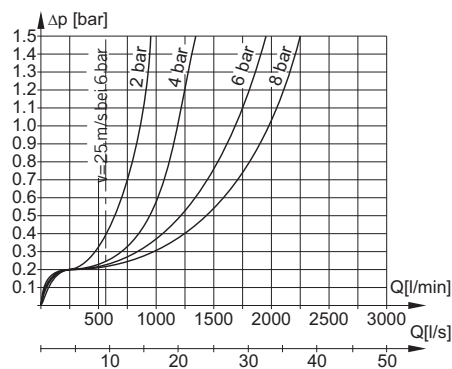


## Air preparation units

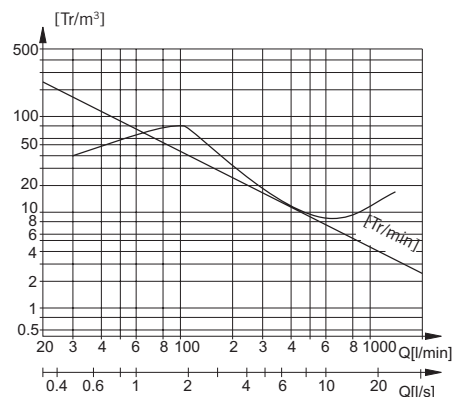
Series airfit swing  
G1/4, G3/8

Flow characteristics

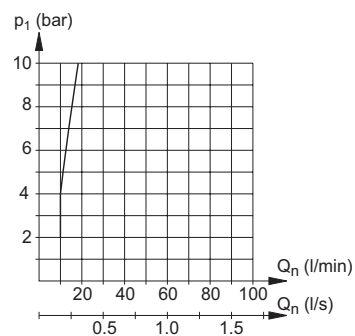
Oil mist lubricator  
Type: SL-08



Oil/air ratio  
Type: SL-08



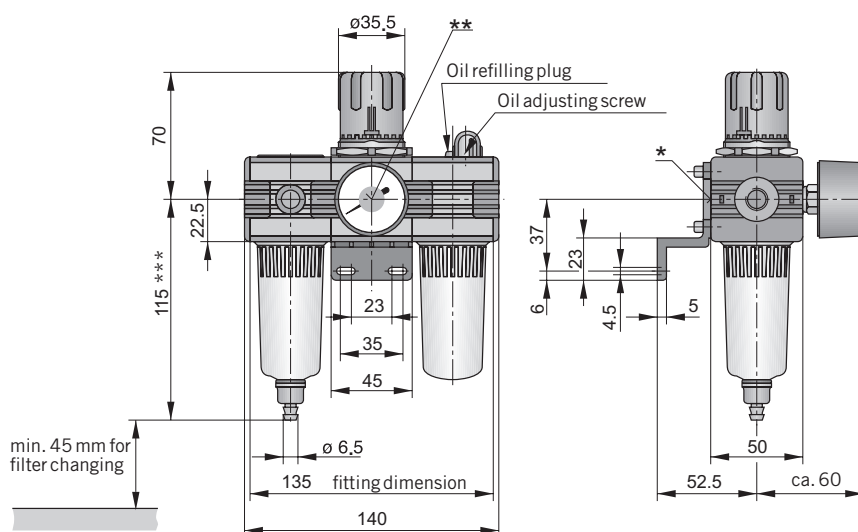
Min. operating conditions  
Type: SL-08



For order instructions see page 37–39, for characteristics see page 22–28,  
for accessories see page 40, 41

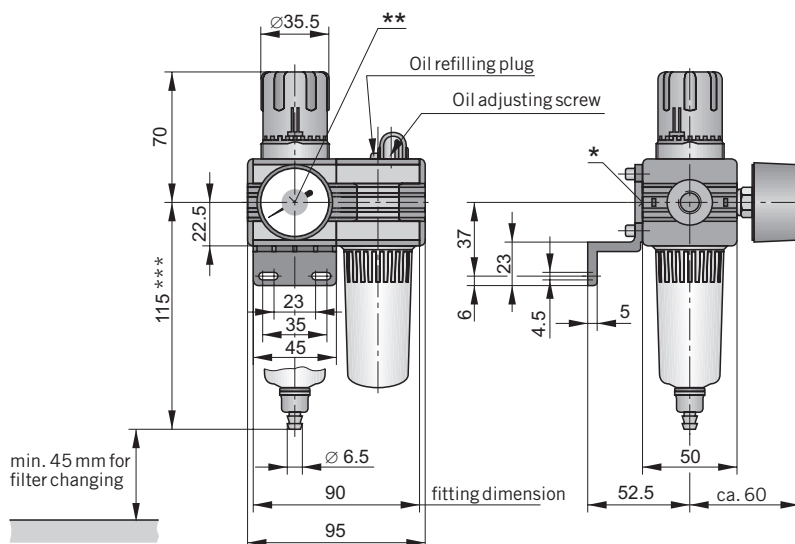
Dimensions in mm

### Air preparation unit three-piece – Type: SFRL-1/4, 3/8



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8
- \*\*\* 130 mm on version with automatic drainage

### Air preparation unit two-piece – Type: SKL-1/4, 3/8



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/8
- \*\*\* 130 mm on version with automatic drainage

For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

Dimensions in mm

## Air preparation units

Series airfit swing  
G1/4, G3/8

### Dimensions

#### Features:

- easily adaptable to customer's choice of color and private labeling
- quick, easy filter change with new Quick-Snap system

#### Delivery includes:

Air preparation unit three-piece:

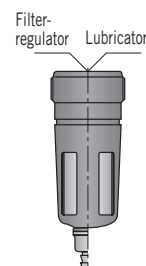
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Air preparation unit two-piece:

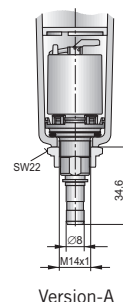
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

Filter-regulator

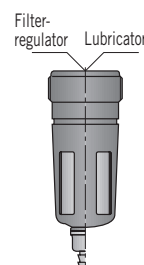
Pressure regulating valve:  
Mounting ring included



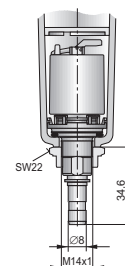
Version-E



Version-A



Version-E



Version-A

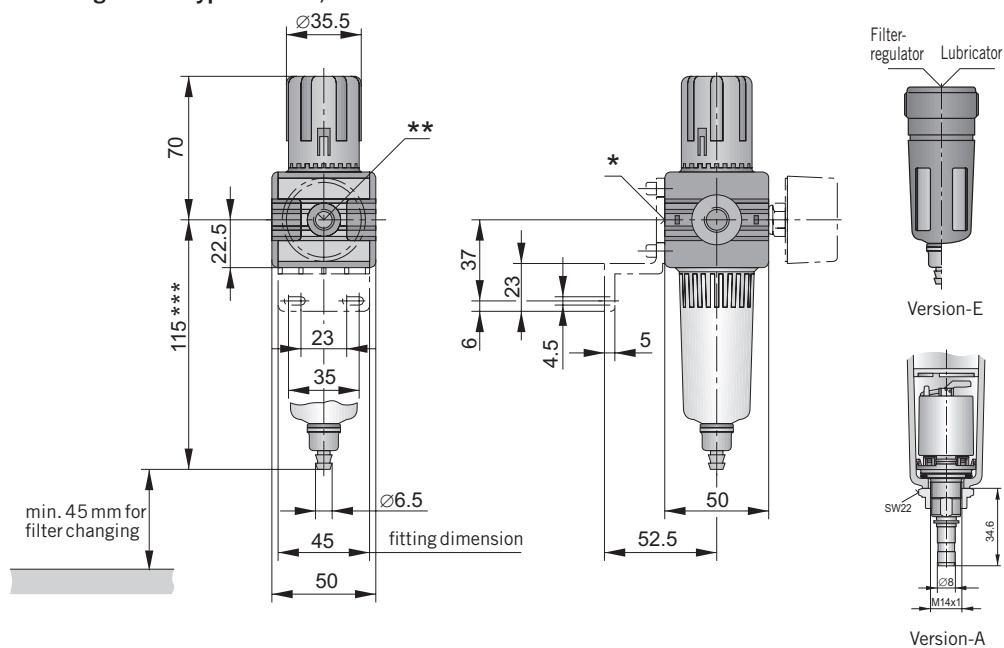


## Air preparation units

Series airfit swing  
G1/4, G3/8

Dimensions

Filter-regulator – Type: SK-1/4, 3/8



\* On delivery the plug screw is not assembled.

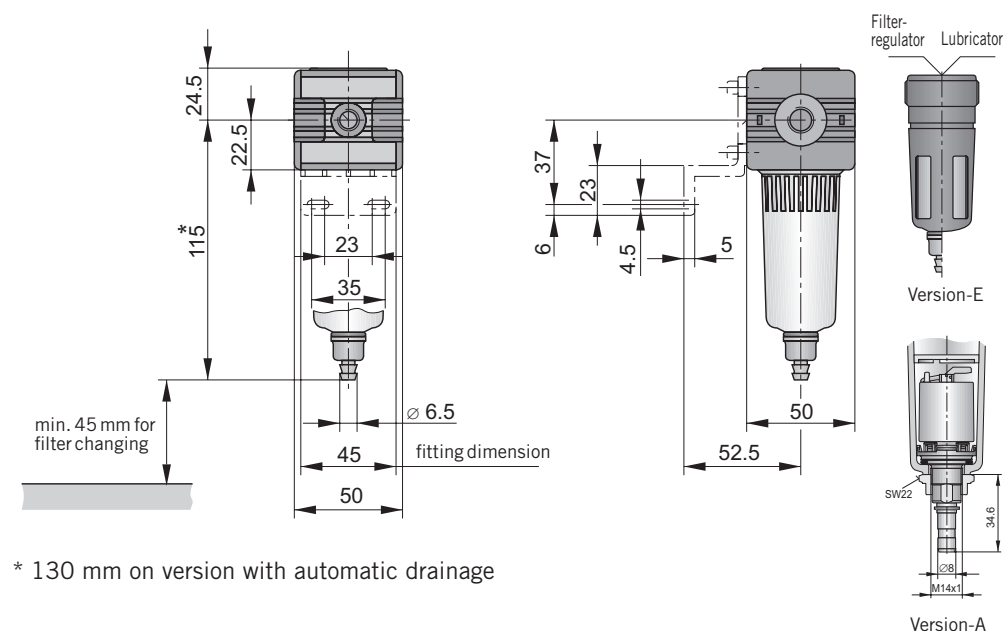
\*\* Two opposite gauge ports G1/8

\*\*\* 130 mm on version with automatic drainage

\* Dust filter with extra large filter surface for long service life; developed specifically for use with air dryers

Filter-water-separator – Type: SF-1/4, 3/8

Dust filter – Type: SFD-1/4, 3/8\*



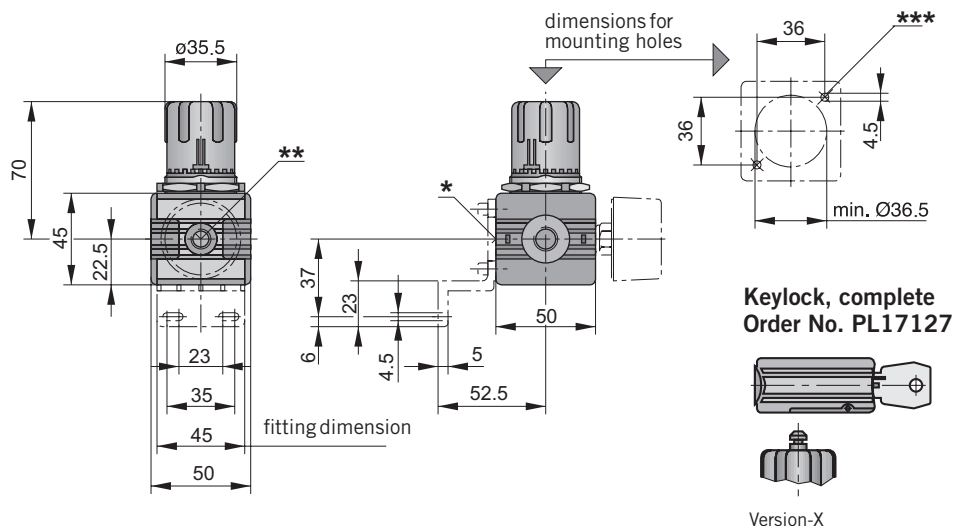
\* 130 mm on version with automatic drainage



For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

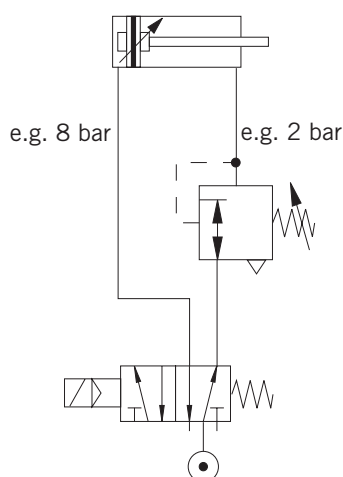
Dimensions in mm

**Pressure regulating valve – Type: SR-1/4, 3/8**  
**Special pressure regulating valve for high relief capacity – SR-1/4SO**



- \* 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

**Installation instructions for special pressure regulating valve, for high relief capacity**  
**Type: SR-1/4SO, PB 45449-030**



Example:  
 To regulate the pressure  
 in the direction of the stroke,  
 install the regulator as shown  
 in the diagram. The pressure  
 relief uses the full cross-  
 section of the valve, allowing  
 the cylinder to travel at full  
 speed.

For order instructions see page 37–39, for characteristics see page 22–28,  
 for accessories see page 40, 41

Dimensions in mm

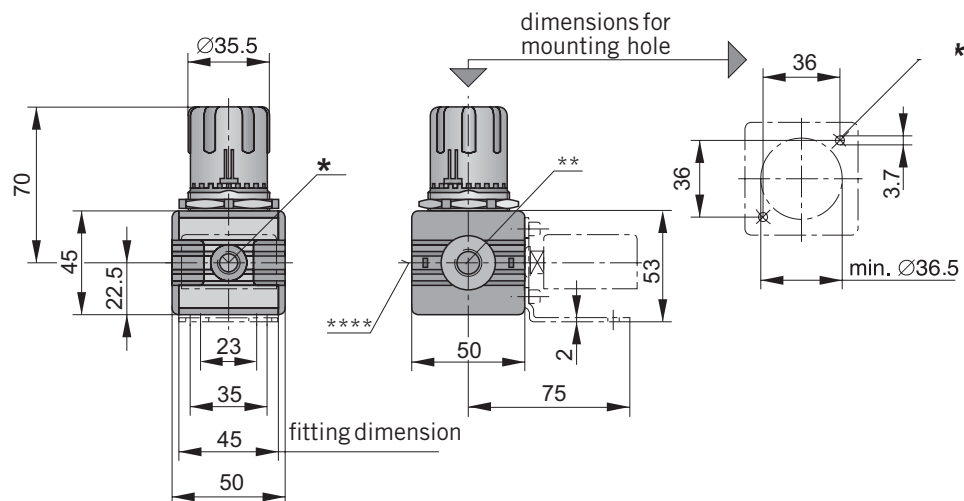


## Air preparation units

Series airfit swing  
G1/4, G3/8

Dimensions

Pressure regulating valve, with through  $p_1$  supply port – Type: SR-1/4-T, 3/8-T



- \* Gauge ports G1/8
- \*\* With through  $p_1$  supply port G1/4, G3/8
- \*\*\* For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm
- \*\*\*\*  $p_2$  port G1/4

### Installation instructions for battery mounting

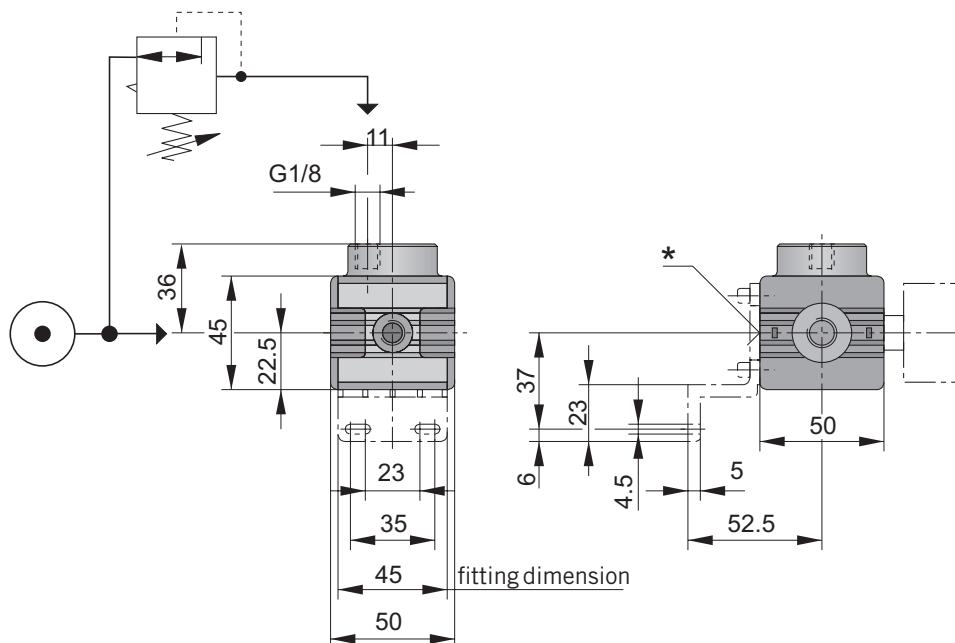


For order instructions see page 37–39, for characteristics see page 22–28,  
for accessories see page 40, 41

Dimensions in mm

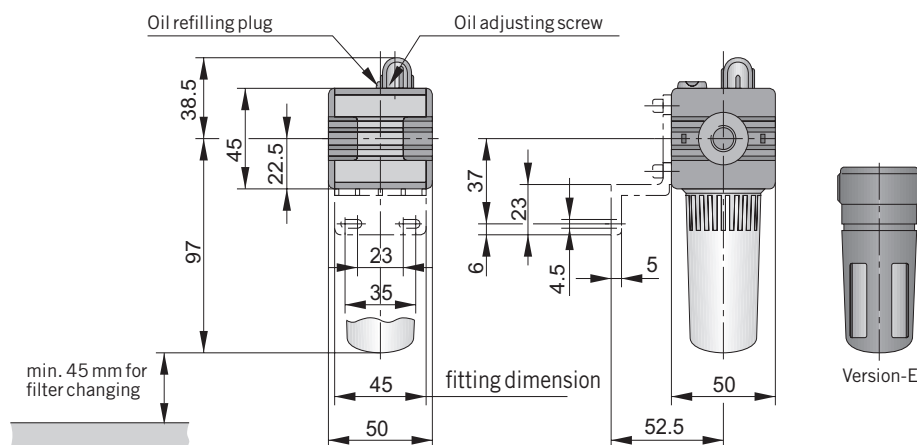
### Pressure regulating valve, pilot operated – Type: SRV-1/4

– Recommended pilot pressure regulating valve, series airfit light, Type: MRP-1/8, PB21749-800



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

### Oil mist lubricator – Type: SL-1/4, 3/8



For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

Dimensions in mm

## Air preparation units

Series airfit swing  
G1/4, G3/8

Dimensions



## Air preparation units

Series airfit swing  
G1/4, G3/8

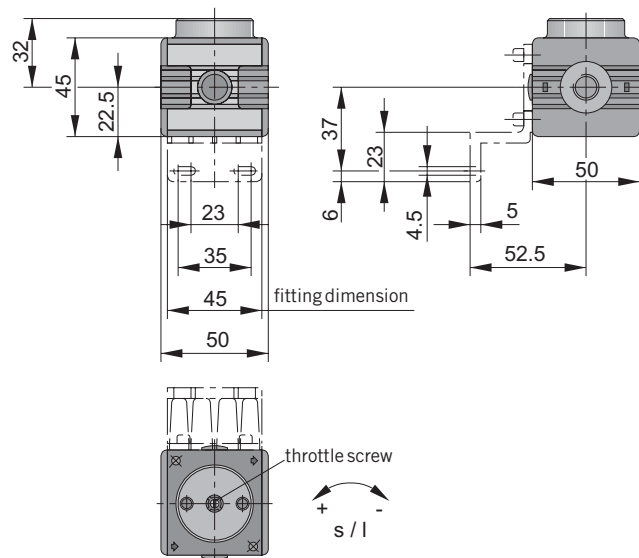
### Dimensions

#### Features:

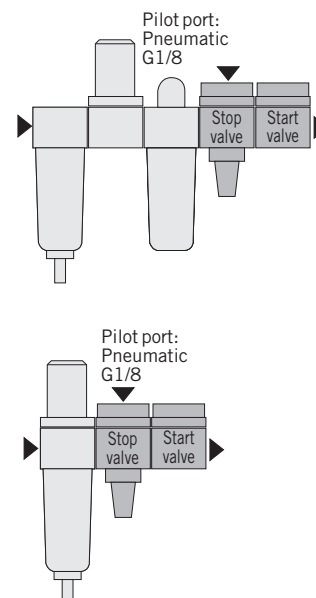
Safety valve for slow pressure build-up in pneumatic circuits. It prevents uncontrolled movements of the pneumatic components under the impact of full operating pressure. Pressure build-up time can be adjusted with the throttle screw.

Note:  
System operation must not be switched on during the starting phase.

Start valve – Type: SDA-1/4, 3/8

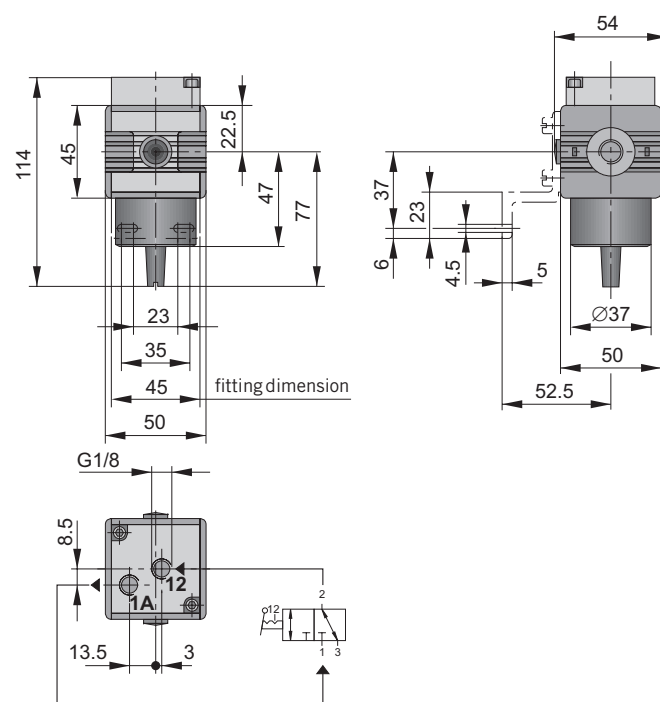


### Installation instructions for start-stop valve



The stop valve is used in conjunction with the soft start valve for exhausting pneumatic circuits.

Stop valve – Type: SDR-1/4P, 3/8P (pneumatically actuated)



### Venting time (s) in relation to volume

Pressure reduction range	Venting time (s) *
8 → 0.1 bar	$0.7 \times V (l) = t (s)$
6 → 0.1 bar	$0.65 \times V (l) = t (s)$
4 → 0.1 bar	$0.55 \times V (l) = t (s)$
2 → 0.1 bar	$0.45 \times V (l) = 6 (s)$

\* Notes:  
This calculation assumes short connections with NW 8 mm tubing directly after the SDR stop valve.

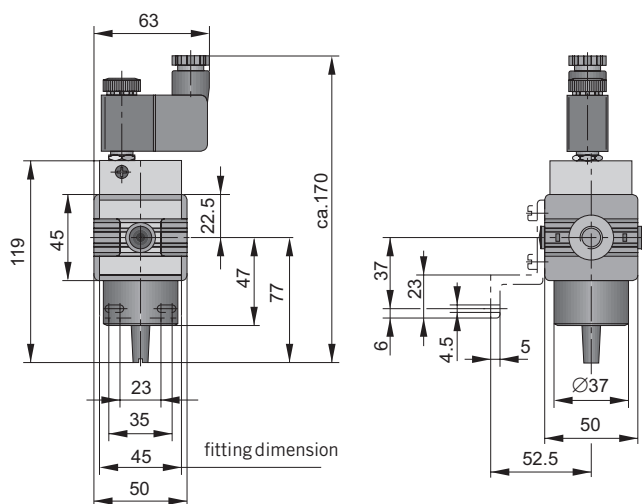


For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

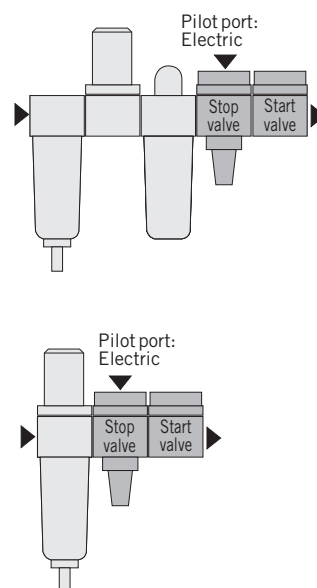
Dimensions in mm



## Stop valve – Type: SDR-1/4E, 3/8E (electrically actuated)



## Installation instructions

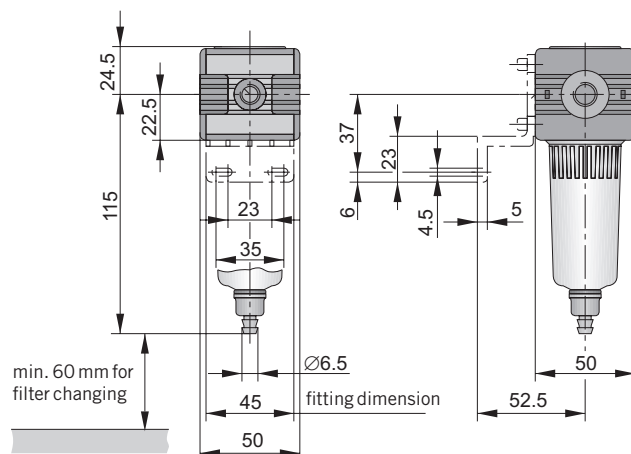


## Air preparation units

Series airfit swing  
G1/4, G3/8

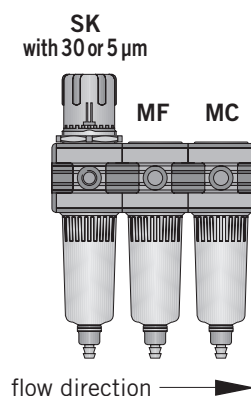
Dimensions

## Submicrofilter – Type: MF012-1/4, 3/8 Activated carbon filter – Type: MC012-1/4, 3/8



## Installation procedure

To increase the life span of the filter elements, we recommend the following order.



For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

Dimensions in mm



## Air preparation units

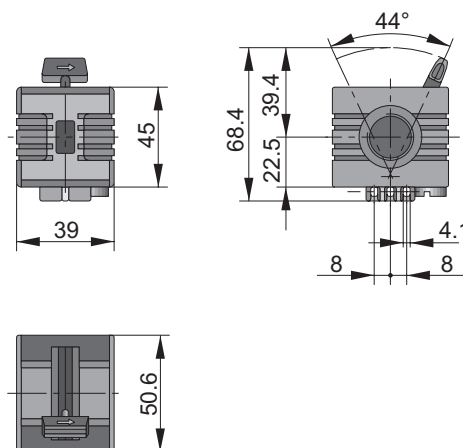
3/2 Way shut-off valve  
Type: SDV-1/4-XS, -3/8-XS

Series airfit swing  
G1/4, G3/8

### Dimensions

#### Features:

- Spool type valve
- 3-piece lockable
- Color coded optical position indicator – Controlled exhaust
- Arrow symbol indicates flow direction



For order instructions see page 37–39, for characteristics see page 22–28,  
for accessories see page 40, 41

Dimensions in mm

## Air preparation units


Series airfit swing  
G1/4, G3/8

Order instructions


### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.


#### Air preparation unit three-piece

Basic version		G1/4	SFRL-1/4	PB 48149-000
		G3/8	SFRL-3/8	PB 48249-000
with semi-automatic drainage		G1/4	SFRL-1/4-H	PB 48149-001
		G3/8	SFRL-3/8-H	PB 48249-001
with automatic drainage		G1/4	SFRL-1/4-A	PB 48149-002
		G3/8	SFRL-3/8-A	PB 48249-002

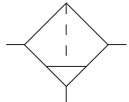
#### Air preparation unit two-piece

Basic version		G1/4	SKL-1/4	PB 48449-000
		G3/8	SKL-3/8	PB 48549-000
with semi-automatic drainage		G1/4	SKL-1/4-H	PB 48449-001
		G3/8	SKL-3/8-H	PB 48549-001
with automatic drainage		G1/4	SKL-1/4-A	PB 48449-002
		G3/8	SKL-3/8-A	PB 48549-002
with metal bowl (sight glass) <sup>1)</sup>		G1/4	SKL-1/4-E	PB 48449-004
		G3/8	SKL-3/8-E	PB 48549-004

#### Filter-regulator

Basic version		G1/4	SK-1/4	PB 45749-000
with filter element 5 µm		G3/8	SK-3/8	PB 45849-000
		G1/4	SK-1/4-5	PB 45749-016
with semi-automatic drainage		G3/8	SK-3/8-5	PB 45849-016
		G1/4	SK-1/4-H	PB 45749-001
with automatic drainage		G3/8	SK-3/8-H	PB 45849-001
		G1/4	SK-1/4-A	PB 45749-002
with metal bowl (sight glass) <sup>1)</sup>		G3/8	SK-3/8-A	PB 45849-002
		G1/4	SK-1/4-E	PB 45749-004
			G3/8	SK-3/8-E

#### Filter-water-separator

Basic version		G1/4	SF-1/4	PB 45149-000
		G3/8	SF-3/8	PB 45249-000
with filter element 5 µm		G1/4	SF-1/4-5	PB 45149-016
		G3/8	SF-3/8-5	PB 45249-016
with filter element 1 µm (dust filter)		G1/4	SFD-1/4-1	PB 45149-070
		G3/8	SFD-3/8-1	PB 45249-070
with semi-automatic drainage		G1/4	SF-1/4-H	PB 45149-001
		G3/8	SF-3/8-H	PB 45249-001
with automatic drainage		G1/4	SF-1/4-A	PB 45149-002
		G3/8	SF-3/8-A	PB 45249-002
with metal bowl (sight glass) <sup>1)</sup>		G1/4	SF-1/4-E	PB 45149-004
		G3/8	SF-3/8-E	PB 45249-004

<sup>1)</sup> Versions with metal bowl and automatic drainage on request



## Air preparation units

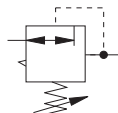
Series airfit swing  
G1/4, G3/8

Order instructions


### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

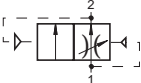
### Pressure regulating valve

– Basic version		G1/4	SR-1/4	PB 45449-000
		G3/8	SR-3/8	PB 45549-000
– with adapter for keylock		G1/4	SR-1/4-X	PB 45449-006
		G3/8	SR-3/8-X	PB 45549-006
– Special pressure regulating valve for high relief capacity		G1/4	SR-1/4SO	PB 45449-030
– Pressure regulating valve with through p <sub>1</sub> supply port		p <sub>1</sub> -G1/4, through p <sub>2</sub> -G1/4, Output	SR-1/4-T-1/4	PB 45449-100
– Pressure regulating valve with through p <sub>1</sub> supply port		p <sub>1</sub> -G3/8, through p <sub>2</sub> -G1/4, Output	SR-3/8-T-1/4	PB 45549-100
– Pressure regulating valve, pilot operated		G1/4	SRV-1/4	PB 45449-070

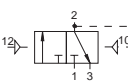
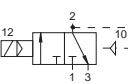
### Oil mist lubricator

– Basic version		G1/4	SL-1/4	PB 46149-000
		G3/8	SL-3/8	PB 46249-000
– with metal bowl (sight glass)		G1/4	SL-1/4-E	PB 46149-004
		G3/8	SL-3/8-E	PB 46249-004

### Start valve

– Start valve		G1/4	SDA-1/4	PB 47149-100
		G3/8	SDA-3/8	PB 47249-100

### Stop valve

– pneumatically actuated		G1/4	SDR-1/4 P	PB 47149-200	
		G3/8	SDR-3/8 P	PB 47249-200	
– electrically actuated 24 V DC		G1/4	SDR-1/4 E	PB 47149-201	
		G3/8	SDR-3/8 E	PB 47249-201	
– electrically actuated 230 V/50 Hz		G1/4	SDR-1/4 E	PB 47149-204	
		G3/8	SDR-3/8 E	PB 47249-204	

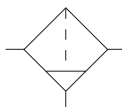
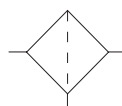
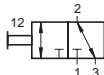


## Air preparation units

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

*Order instructions*

### Standard versions

Standard versions				
Description	Symbol	Port size	Order instruction	
			Type	Order No.
Submicrofilter				
– Basic version		G1/4	MF 012-1/4	PB 49149-000
		G3/8	MF 012-3/8	PB 49249-000
– with metal bowl (sight glass)		G1/4	MF 012-1/4-E	PB 49149-004
		G3/8	MF 012-3/8-E	PB 49249-004
Activated carbon filter				
– Basic version		G1/4	MC 012-1/4	PB 49449-000
		G3/8	MC 012-3/8	PB 49549-000
– with metal bowl (sight glass)		G1/4	MC 012-1/4-E	PB 49449-004
		G3/8	MC 012-3/8-E	PB 49549-004
3/2 Way shut-off valve				
– 3/2 Way shut-off valve		G1/4	SDV-1/4-XS	PB 46749-101
– 3/2 Way shut-off valve		G3/8	SDV-3/8-XS	PB 46849-101

### Accessories

Description	For type	Order No.
Mounting kit	Standard	PL16965
Mounting kit	SR...T	PL18519
Gauge Ø 40, 0–10 bar, G1/8*	SK, SR, SR-T	KZ8813
Coupling kit		PL16959
Porting block kit 3 x G1/8, 1 x G1/4 (coupling kit included)		PL16969
Porting block kit 3 x G1/8, 1 x G1/4 for pressure switch (mounting material included)		PL16977
Bowl guard kit		PL16970-00
Keylock for pressure regulating valve	SR...X	PL17127
Keylock for 3/2 Way shut-off valve	SDV	KG9017
Solvent resistant sight glass	SL	PL07233
Special oil for oil mist lubricators 1 l (see page 191)		KY8766

\* for more gauges see page 186, 187

For more information see accessories page 40, 41



## Air preparation units

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

Accessories  
– Porting block kit

To provide unlubricated air  
e.g. for air gun

### Versions:

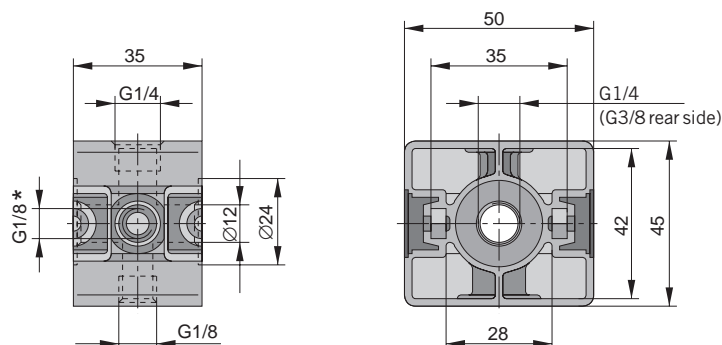
- Standard
- For pressure switch mounting

### Delivery includes:

- 1 porting block
- 1 coupling kit
- Plug screws

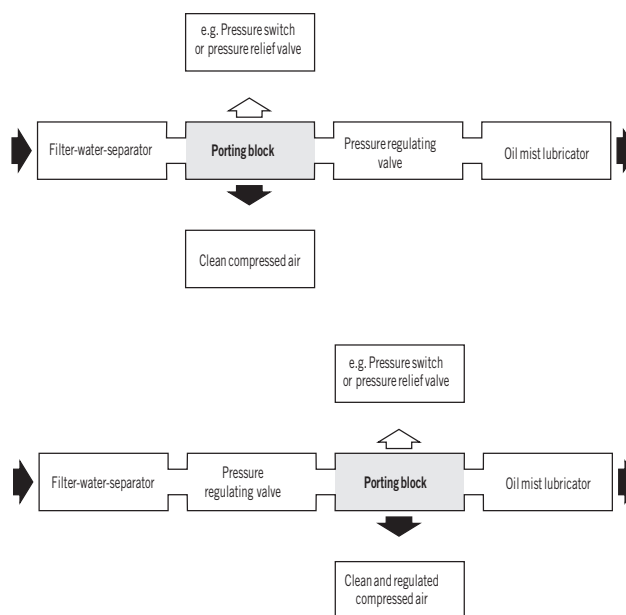
Characteristics	Description
Installation	Between 2 units of the airfit swing series
Mounting	Directly flange mountable with coupling kit supplied
Material	Zinc diecasting, black finish

### Dimensions



\* G1/8 thread on both sides

### Installation instructions



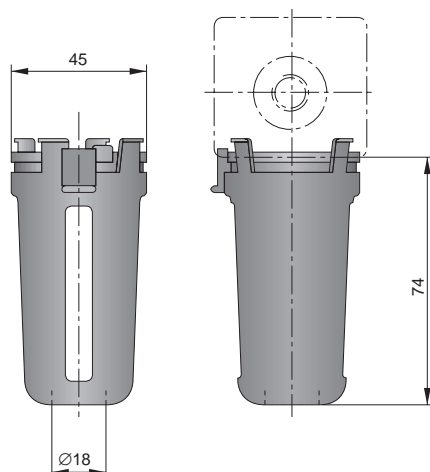
### Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit – standard G1/4 - G3/8	SX	PL 16969
Porting block kit – for pressure switch mounting	SXH	PL16977
Porting block kit – NPTF 1/4 standard	SX-US	PL17826

Dimensions in mm

**Bowl guard kit**

Characteristics	Description
Mounting	With snap mounting
Material	Zinc diecasting, polymer (POM)

**Dimensions**

**Order instructions**

Port size	Order No.
G1/4, G3/8	PL 16970-00

**Air preparation units**

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

*Accessories*  
– Bowl guard kit

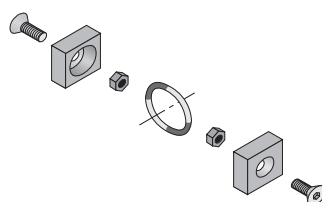
The bowl guard protects the plastic bowl of filter-water-separators, oil mist lubricators, and filter-regulators against external damage.

**Delivery includes:**

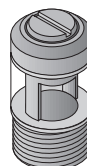
1 bowl guard  
(with snap mounting)

**Mounting kit**


Order No. PL16965

**Coupling kit**


Order No. PL16959

**Solvent resistant sight glass**


Order No. PL07233

*Accessories*  
– Mounting kit  
– Coupling kit  
– Solvent resistant sight glass  
– Keylock  
– Gauges

**Keylock for pressure regulator Type: SR...-X**


Order No. PL17127

**Gauge Ø40, 0–10 bar, G1/8**


Order No. KZ8813

Dimensions in mm





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	44, 45, 48	52	60
Air preparation unit two-piece	44, 45, 48	52	60
Filter-regulator	44, 45, 48	53	60
Filter-water-separator	44, 45, 49	53	61
Dust filter	44, 45, 49	53	61
Pressure regulating valve	44, 45, 49	54–56	61
Pressure regulating valve, pilot operated	44, 45, 50	57	61
Oil mist lubricator	46, 47, 50, 51	57	62
Start valve	46, 47, 51	57	62
Stop valve	46, 47	58	62
Submicrofilter	46, 47	58	62
Activated carbon filter	46, 47	58	62
3/2 Way shut-off valve	46, 47	59	62
Accessories	63–67	63–67	63–67

**Air preparation units**

*Series airfit comfort  
G3/8, G1/2*



## Air preparation units

Series *airfit comfort*  
G3/8, G1/2

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request,  
or see page 155–166 for  
special units



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Air preparation unit three-piece		Air preparation unit two-piece		
System			Consisting of filter- water-separator, pressure regulating valve, oil mist lubricator *), gauge, mounting bracket		Consisting of filter- regulator and oil mist lubricator *), gauge, mounting bracket		
Type			CFRL-3/8	CFRL-1/2	CKL-3/8	CKL-1/2	
Material							
– Housing			Diecast zinc				
– Plastic bowl			Polycarbonate		Polycarbonate		
– Metal bowl			Diecast aluminum with polypropylene insert				
– Diaphragm			NBR		NBR		
– Standard sealings			NBR				
Port size (NPTF version)			G3/8	G1/2	G3/8	G1/2	
Max. condensate capacity		cm <sup>3</sup>	57	57	57	57	
Pore size of filter element		µm	30 or 5		30 or 5		
Condensate drainage			Manual, semi-automatic (pressure relief), or automatic (float type)				
Oil/air ratio			Constant oil drip rate independent of air flow				
Max. oil capacity		cm <sup>3</sup>	112		112		
Oil refilling			Manual - also during operation				
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom		
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		
Weight (mass)		kg	1.85		1.5		
Pneumatic characteristics							
Operating pressure range – inlet pressure	p <sub>1 min</sub> p <sub>1 max</sub>	bar bar	0 16		0 16		
Operating pressure range – outlet pressure	p <sub>2 min/max</sub>	bar	0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>		0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>		
Min. pressure difference	p <sub>1</sub> –p <sub>2</sub>		0.2		0.2		
Hysteresis p <sub>1</sub> =10/p <sub>2</sub> =0 p <sub>1</sub> =10/p <sub>2</sub> =8			0.9 0.7		0.9 0.7		
Maximum flow <sup>1)</sup>	Q <sub>max</sub>	l/min m <sup>3</sup> /h	1900 114	2000 120	1900 114	1950 117	
Degree of moisture separation at recommended flow <sup>2)</sup>	η	%	95		95		

<sup>1)</sup> at  $p_1 = 10$  bar and  $p_2 = 6.3$  bar,  $\Delta p = 1$  bar

<sup>2)</sup> at 6 bar and 25 m/s flow velocity

<sup>3)</sup> By the use of special springs, the outlet pressure can be precisely regulated in the specified  $p_2$  range

<sup>4)</sup> Recommended pilot pressure regulating valve SR-1/4 (see page 23)

	Filter-regulator		Filter-water-separator		Dust filter		Pressure regulating valve		Pressure regulating valve pilot operated	
	Cyclone system with filter element, combined with diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, inlet pressure and volume compensation, locating ring, handwheel lockable		With cyclone system and filter element		With cyclone system and dust filter element		Diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, inlet pressure and volume compensation, handwheel lockable		Pilot operated piston-type pressure regulator with secondary pressure relief and flow compensation <sup>4)</sup>	
	CK-3/8	CK-1/2	CF-3/8	CF-1/2	CFD-3/8	CFD-1/2	CR-3/8	CR-1/2 (-T)	CRV-3/8	CRV-1/2
	Diecast zinc									
	Polycarbonate		Polycarbonate		Polycarbonate		–		–	
	Diecast aluminum with polypropylene insert						–		–	
	NBR		–		–		NBR		NBR	
	NBR									
	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2
	57	57	57	57	57	57	–		–	
	30 or 5		30 or 5		1		–		–	
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual, semi-automatic (pressure relief)		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position	
	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)	
	0.75		0.55		0.55		0.55		0.50	
	0 16		0 16		0 16		0 16		0 16	
	0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>		–		–		0.5 to 8 On request 0.5 to 4 <sup>3)</sup> On request 0.5 to 15 <sup>3)</sup>		0.5 to 8	
	0.2						0.2		0.2	
	0.9 0.7						0.9 0.7		0.3 0.3	
	3000 180	3300 198	4500 270	5000 300	4130 248	4820 289	4200 252	5700 342	5300 318	7200 432
	95	95	95	95	Only solid particles > 99% related to 1 µm					

<sup>\*)</sup> Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm<sup>2</sup>/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.  
HOERBIGER-Origa compressed air oil KY8766 (see page 191)

For more characteristics of air preparation units see page 46–47

## Air preparation units

Series airfit comfort  
G3/8, G1/2

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request,  
or see page 155–166  
for special units



Pressures quoted as gauge pressure							
Characteristics	Symbol	Unit	Oil mist lubricator		Start valve		
System			Oil mist lubricator with flow compensation *)		Poppet valve with integral throttle for slow pressure build-up (e.g. after emergency shutdown). At 0.5 x operating pressure the valve switches to full flow.		
Type			CL-3/8	CL-1/2	CDA-3/8	CDA-1/2	
Material							
– Housing			Diecast zinc				
– Plastic bowl			Polycarbonate		–		
– Metal bowl			Diecast aluminum with polypropylene		–		
– Diaphragm			–		–		
– Standard sealings			NBR				
Port size (NPTF version)			G3/8	G1/2	G3/8	G1/2	
Max. condensate capacity		cm <sup>3</sup>	–		–		
Pore size of filter element			–		–		
Condensate drainage			Constant oil drip rate independent of air flow		–		
Oil/air ratio		cm <sup>3</sup>	112		–		
Max. oil capacity			Manual – also during operation		–		
Oil refilling			Vertical, bowl at the bottom		In any position – direct assembly to air preparation units series airfit comfort		
Installation	T <sub>min</sub> T <sub>max</sub>	°C °C	0 +50 at 10 bar (further temperatures on request)		0 +60 (further temperatures on request)		
Weight (mass)		kg	0.55		0.60		
Pneumatic characteristics							
Operating pressure range – inlet pressure	p <sub>1 min</sub> p <sub>1 max</sub>	bar bar	0 16		2 16		
Maximum flow <sup>1)</sup>	Q <sub>max</sub>	l/min m <sup>3</sup> /h	5000 300	5300 318	3500 210	3700 222	
Recommended	Q <sub>n</sub>	l/min m <sup>3</sup> /h	33–833 2–50	33–2000 2–120	–		
Degree of filtration at recommended flow <sup>2)</sup>	η	%	–		–		
Residual oil amount		mg/m <sup>3</sup>	–		–		

<sup>1)</sup> at p<sub>1</sub> = 10 bar, Δp = 1 bar

<sup>2)</sup> at 6 bar and 25 m/s flow velocity

\*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm<sup>2</sup>/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.  
HOERBIGER Origa compressed air oil KY8766 (see page 191)

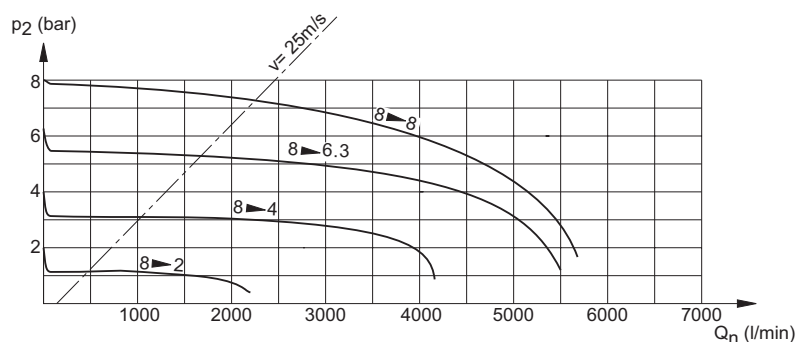
	Stop valve		Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
	3/2 Way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 Way valve (spool type), direct assembly to any unit from the airfit comfort series, with coupling kit PL17608	
	CDR-3/8P (E)	CDR-1/2P (E)	MF036-3/8	MF036-1/2	MC036-3/8	MC036-1/2	CDV-3/8-XS	CDV-1/2-XS
	Diecast zinc							
	–		Polycarbonate		Polycarbonate		–	
	–		Diecast aluminum with polypropylene insert		Diecast aluminum with polypropylene insert		–	
	–		–		–		–	
	NBR							
	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2
	–		48	48	–	–	–	
	–		Manual, semi-automatic or automatic (pressure relief), or automatic (float type)		Manual, semi-automatic, or automatic (pressure relief)		–	
	–		–		–		–	
	–		–		–		–	
	–		–		–		–	
	See installation instructions		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position	
	0 +60 (further temperatures on request)		0 +50 at 10 bar		0 +40 at 10 bar		0 +60 at 10 bar (further temperatures on request)	
	0.7 (P) 0.8 (E)		0.60		0.60		0.40	
	2 16		0 16		0 16		0 16	
	2500 150	2900 174	1070 at 6 bar 65		1070 at 6 bar 65		7500 450	7500 450
	–		–		–		–	
	–		Over 99.99999% related to 0.01µm		–		–	
	–		< 0.01 input conc. 3 mg/m³		0.003 ‰ in combination MF		–	

## Air preparation units

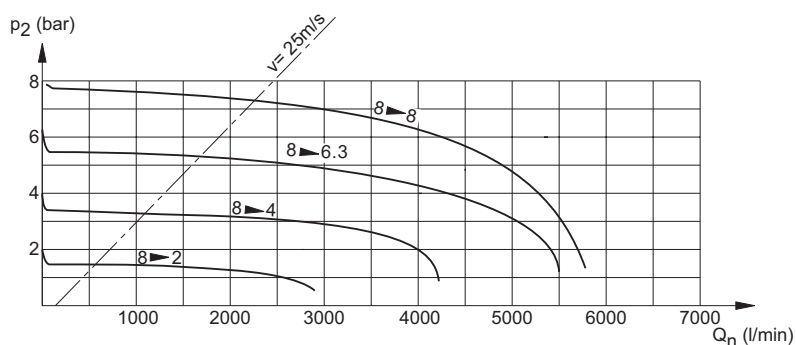
Series airfit comfort  
G3/8, G1/2

Flow characteristics

Air preparation unit three-piece  
Type: CFRL-1/2

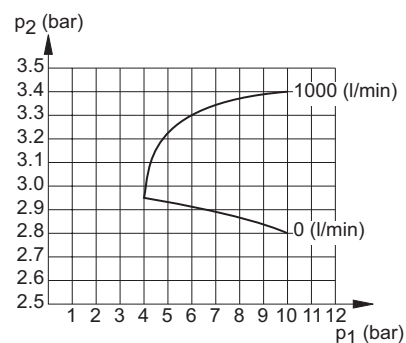
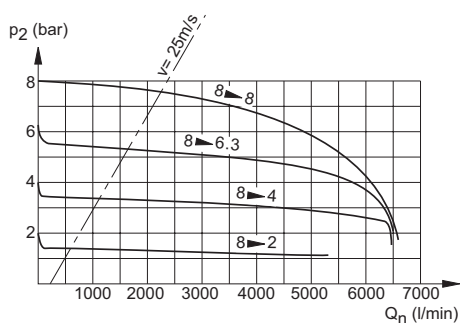


Air preparation unit two-piece  
Type: CKL-1/2

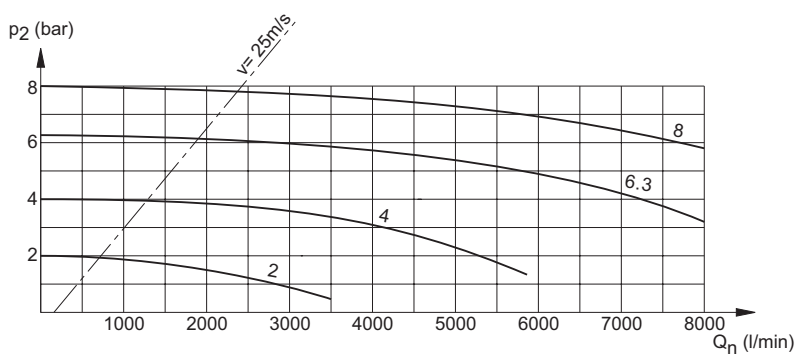


Filter-regulator  
Type: CK-1/2

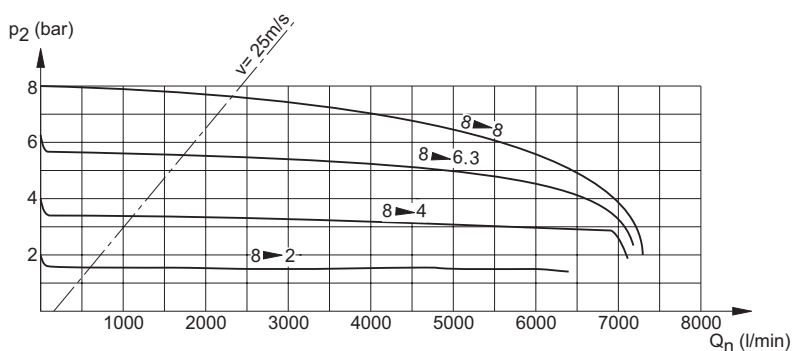
Outlet pressure variation with  
fluctuation inlet pressure Type: CK-1/2



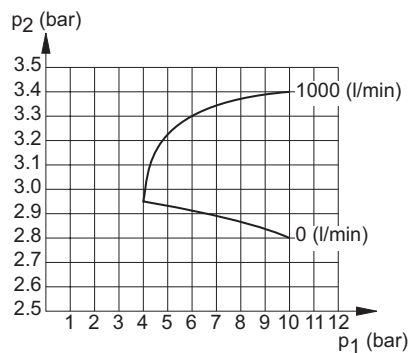
## Filter-water-separator Type: CF-1/2



## Pressure regulating valve Type: CR-1/2, CR-1/2-T



## Outlet pressure variation with fluctuation inlet pressure Type: CR-1/2, CR-1/2-T



## Air preparation units

Series airfit comfort  
G3/8, G1/2

Flow characteristics

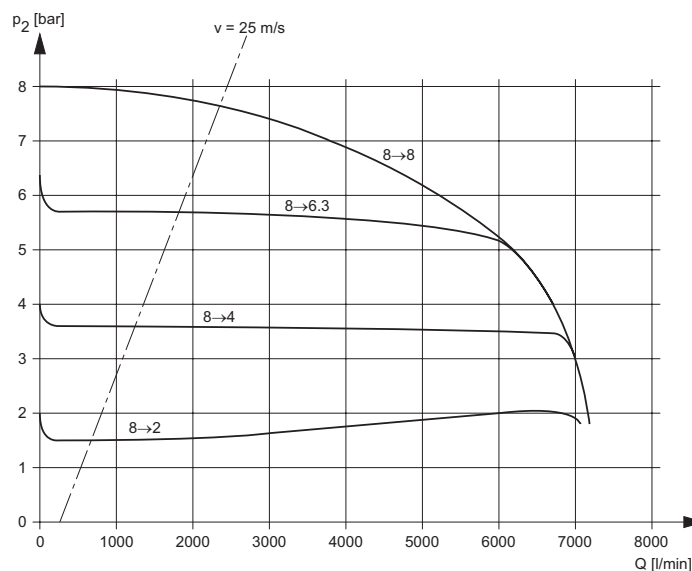


## Air preparation units

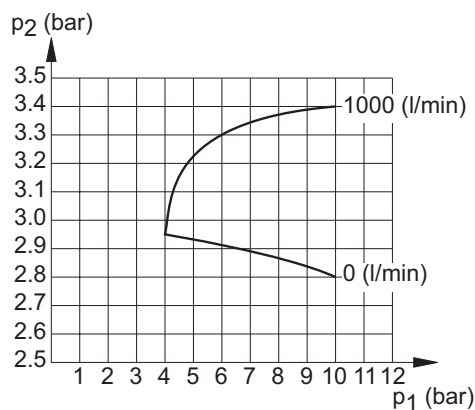
Series airfit comfort  
G3/8, G1/2

Flow characteristics

Pressure regulating valve, pilot operated  
Type: CRV-1/2

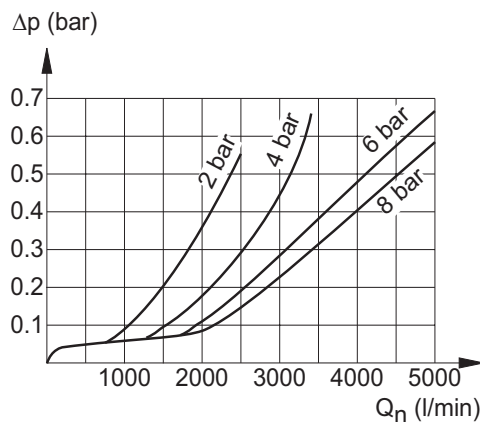


Outlet pressure variation with fluctuation inlet pressure  
Type: CRV-1/2

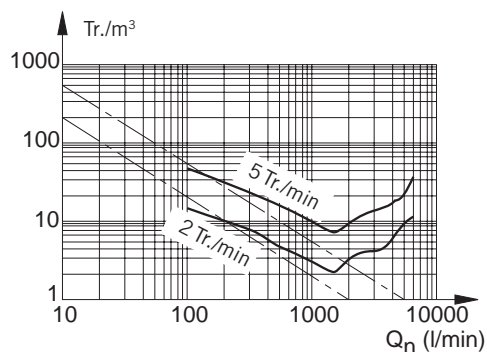




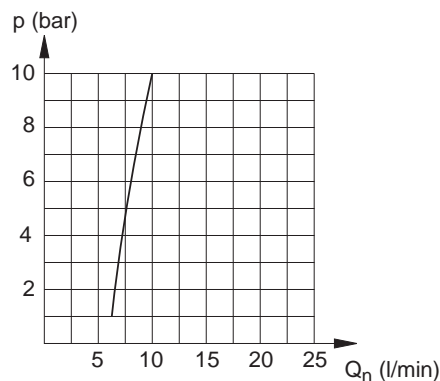
## Oil mist lubricator Type: SL-1/2



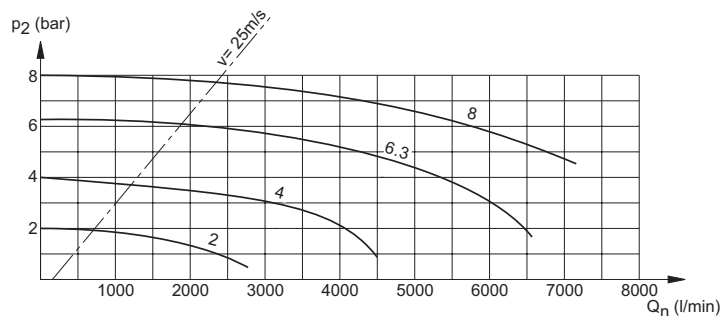
## Oil/air ratio Type: SL-1/2



## Min. operating conditions Type: SL-08



## Start valve Type: CDA-1/2



Flow time in start phase with adjustment screw fully open and 6.3 bar: 1.5 s/l

## Air preparation units

Series airfit comfort  
G3/8, G1/2

Flow characteristics



## Air preparation units

Series *airfit comfort*  
G3/8, G1/2

### Dimensions

#### Features:

- Easy and quick installation of mounting kit
- Suitable for direct wall mounting
- Modern design

#### Delivery includes:

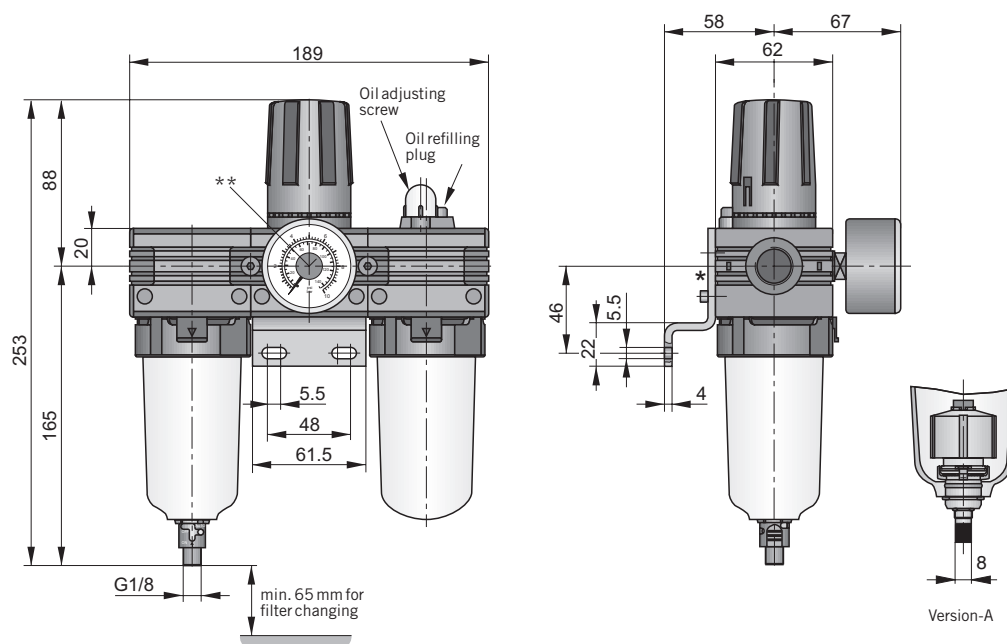
Air preparation unit three-piece:

- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket

Air preparation unit two-piece:

- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

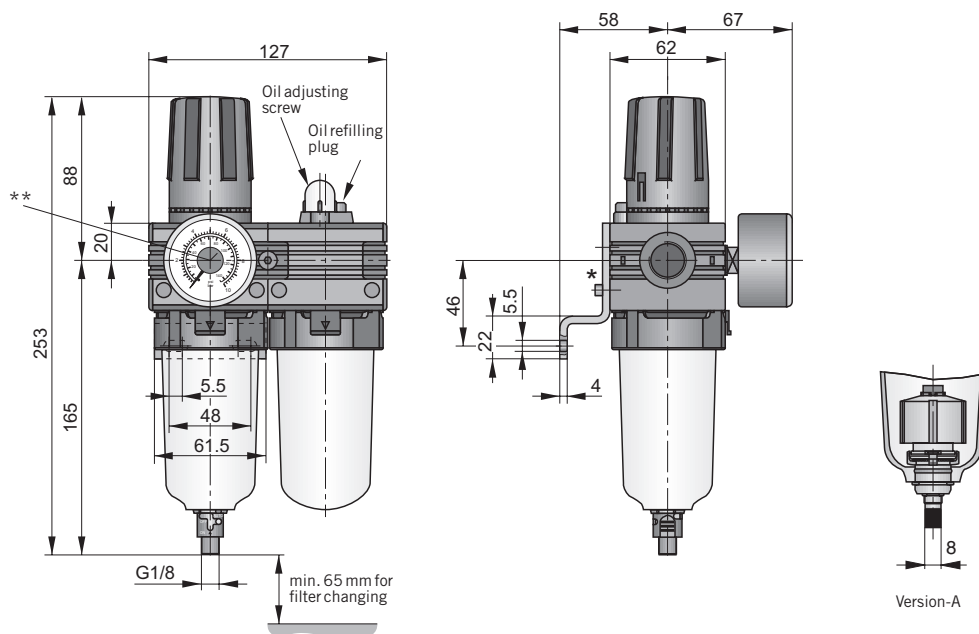
Air preparation unit three-piece – Type: CFRL-3/8, -1/2



\* On delivery the plug screw is not assembled.

\*\* Two opposite gauge ports G1/4

Air preparation unit two-piece – Type: CKL-3/8, -1/2



\* On delivery the plug screw is not assembled.

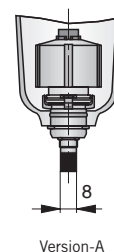
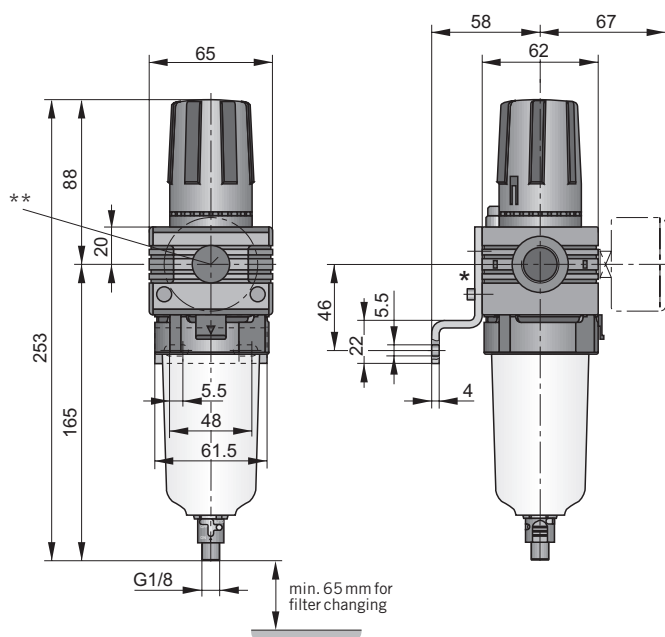
\*\* Two opposite gauge ports G1/4

For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

Dimensions in mm

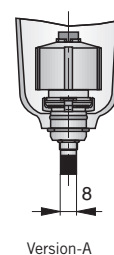
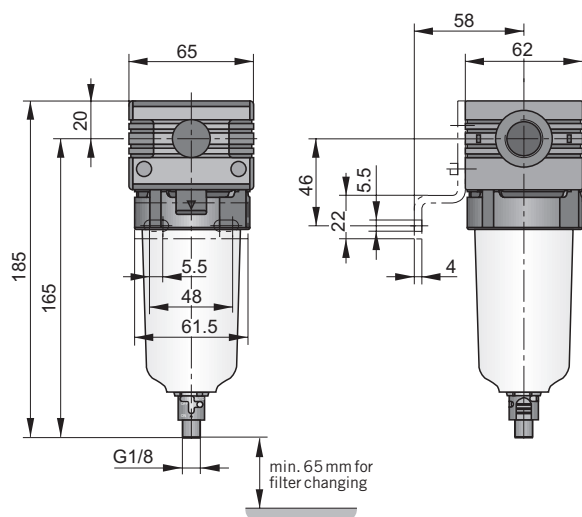


## Filter-regulator – Type: CK-3/8, -1/2



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/4

## Filter-water-separator – Type: CF-3/8, -1/2 Dust filter – Type: CFD-3/8, -1/2 \*)



## Air preparation units

Series airfit comfort  
G3/8, G1/2

Dimensions

\* Dust filter with large filter surface for long service life. For compressed air systems with air dryers.



For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

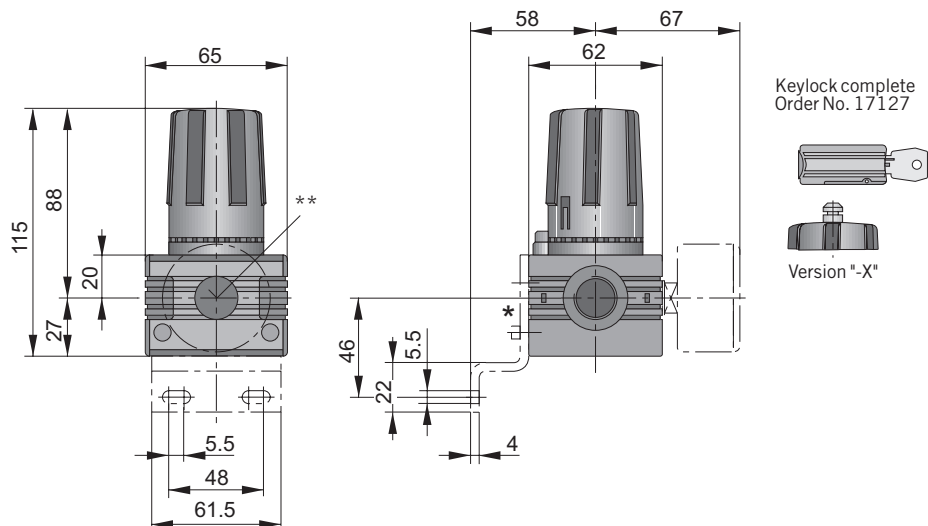
Dimensions in mm

## Air preparation units

Series airfit comfort  
G3/8, G1/2

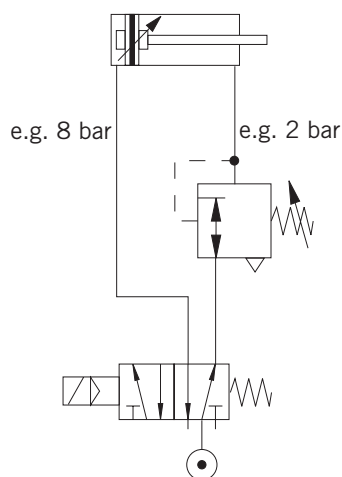
Dimensions

Pressure regulating valve – Type: CR-3/8, -1/2  
Special pressure regulating valve for high relief capacity – CR-1/2SO



- \* On delivery the plug screw is not assembled.
- \*\* Two opposite gauge ports G1/4

Installation instructions for special pressure regulating valve, for high relief capacity  
Type: CR-1/2SO, PB 55649-023



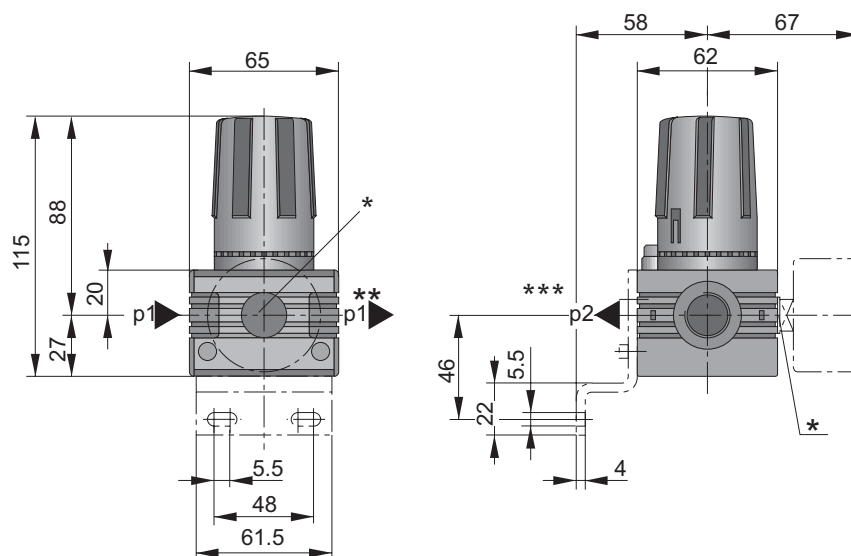
Example:  
To regulate the pressure in the direction of the stroke, install the regulator as shown in the diagram. The pressure relief uses the full cross-section of the valve, allowing the cylinder to travel at full speed.



For order instructions see page 60–63, for characteristics see page 44–51,  
for accessories see page 64–67

Dimensions in mm

Pressure regulating valve, with through  $p_1$  supply port – Type: CR-3/8-T, -1/2-T

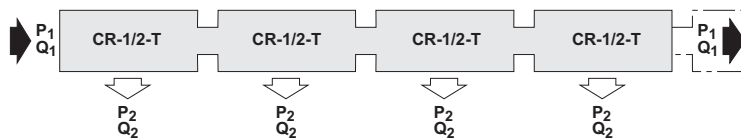


\* Gauge ports G1/4

\*\* With through  $p_1$  supply port G1/2

\*\*\*  $p_2$  port G3/8, G1/2

Installation instructions for battery mounting



For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

Dimensions in mm



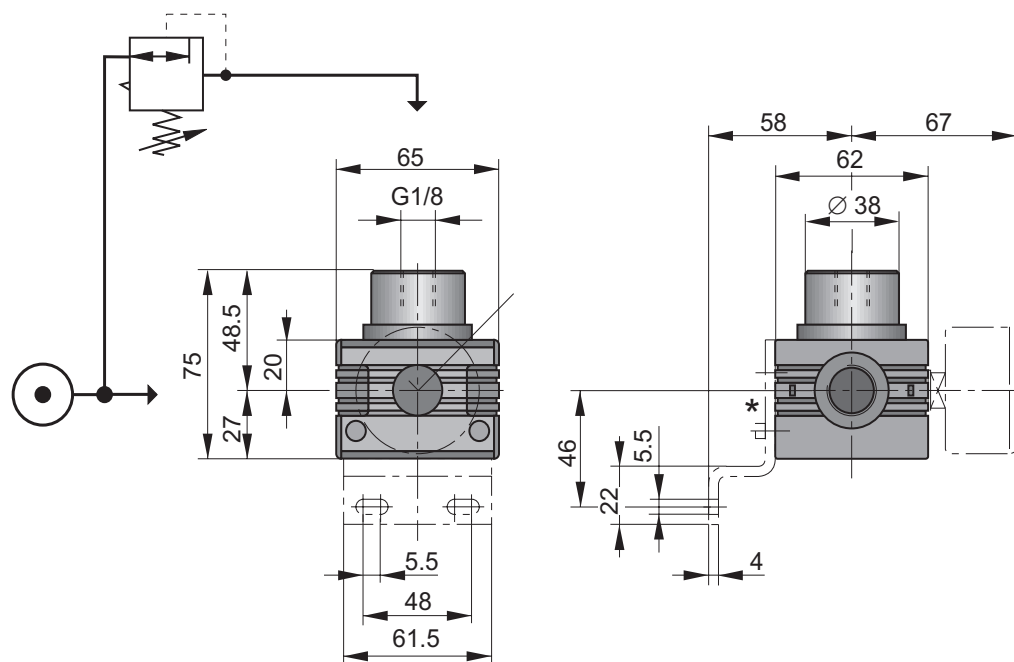
## Air preparation units

Series airfit comfort  
G3/8, G1/2

Dimensions

Pressure regulating valve, pilot operated – Type: CRV-3/8, -1/2

– Recommended pilot pressure regulating valve, series airfit swing, Type: SR-1/4, PB45449-000



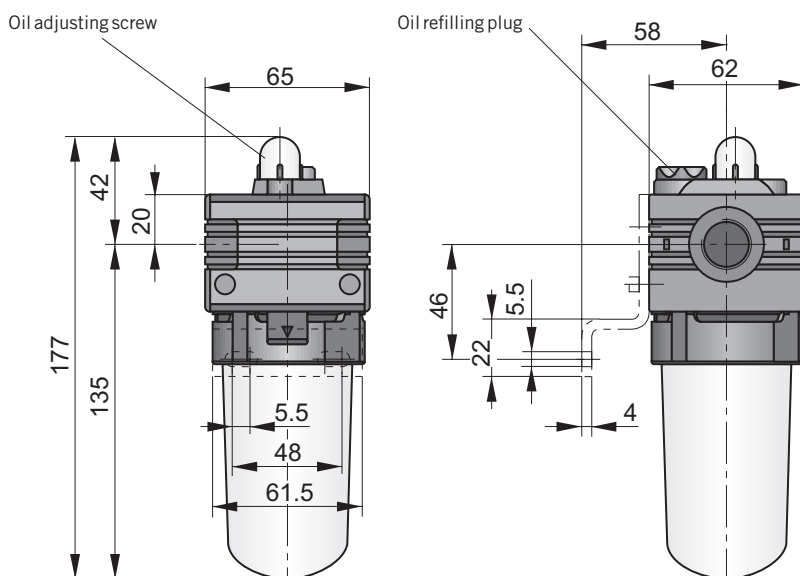
\* On delivery the plug screw is not assembled.

\*\* Two opposite gauge ports G1/4

For order instructions see page 60–63, for characteristics see page 44–51,  
for accessories see page 64–67

Dimensions in mm

## Oil mist lubricator – Type: CL -3/8, -1/2

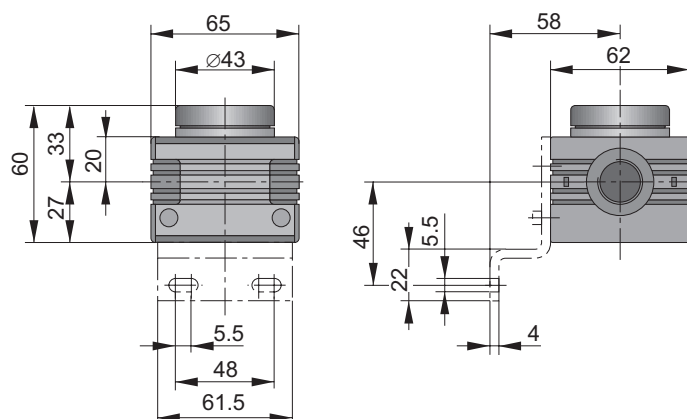


## Air preparation units

Series airfit comfort  
G3/8, G1/2

Dimensions

## Start valve – Type: CDA-3/8, -1/2



### Features:

Valve to slow pressure build-up in pneumatic circuits. It prevents uncontrolled movements of the pneumatic components under the impact of full operating pressure.

### Note:

During the start-phase no components in the system should consume any air (build-up only).

For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

Dimensions in mm



## Air preparation units

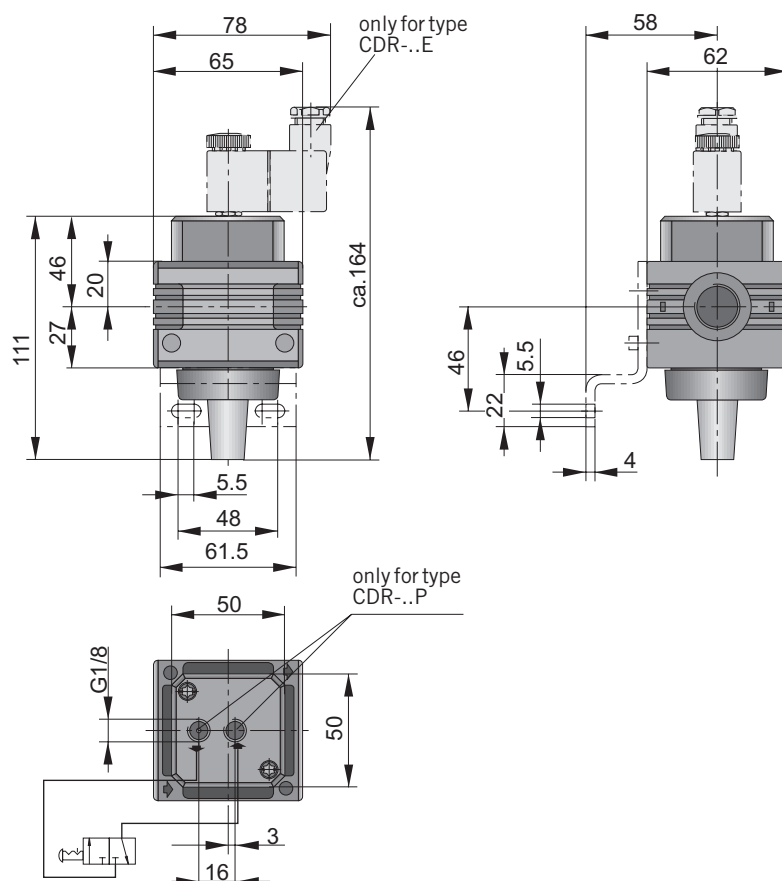
Series airfit comfort  
G3/8, G1/2

### Dimensions

#### Features:

The stop valve is used in conjunction with the soft start valve for exhausting pneumatic circuits.

Stop valve  
Type: CDR-3/8P, -1/2P (pneumatically actuated)  
Type: CDR-3/8E, -1/2E (electrically actuated)

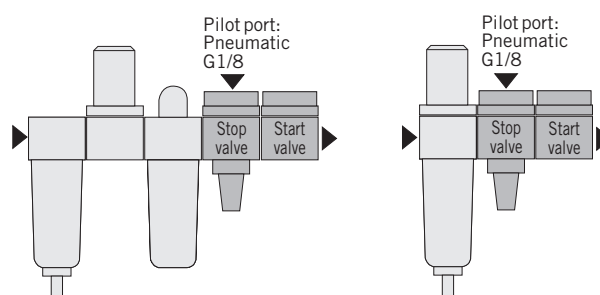


#### Venting time (s) in relation to volume

Pressure reduction from to	Venting time (s) *
8 → 0.1 bar	$0.75 \times V (l) = t (s)$
6 → 0.1 bar	$0.65 \times V (l) = t (s)$
4 → 0.1 bar	$0.50 \times V (l) = t (s)$

\* Note:  
The calculation only applies to short connections, NW 15 mm directly downstream of the CDR stop valve

#### Installation instructions



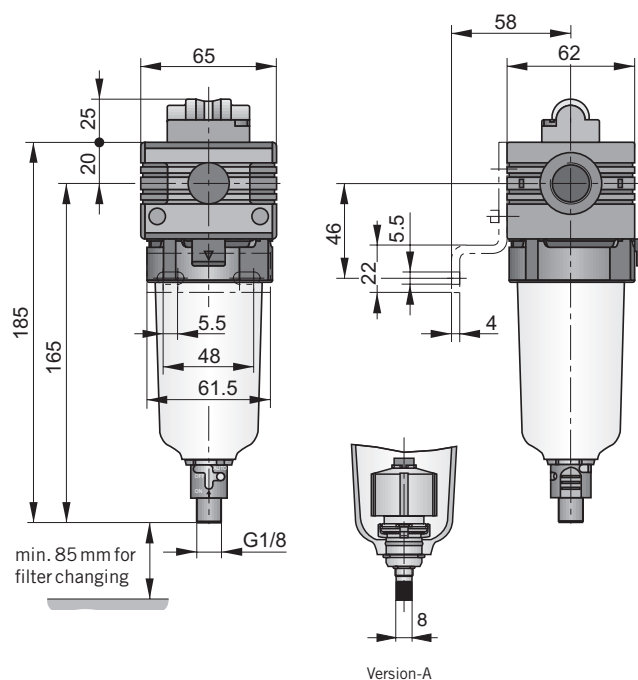
For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

Dimensions in mm



**Submicrofilter – Type: MF036-3/8, -1/2**

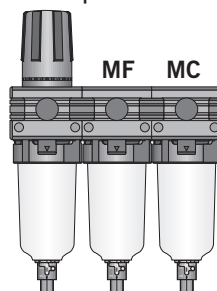
**Activated carbon filter – Type: MC036-3/8, -1/2**



## Installation instructions

To increase the life span of the filter elements, we recommend the following order.

CK  
with 30 or 5 µm

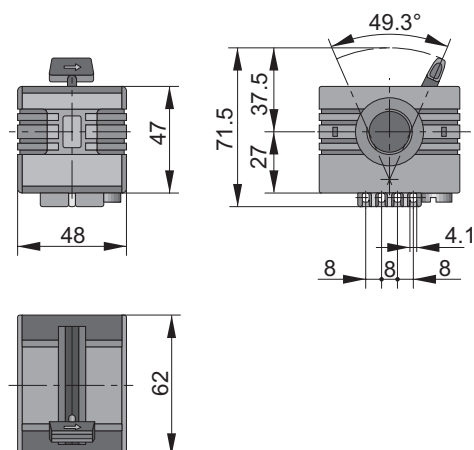


flow direction →

Note:

Activated carbon filter MC036-.. version without service life indicator

**3/2 Way shut-off valve – Type: CDV-3/8-XS, -1/2-XS**



## Features:

- Spool type valve
- 4-fold lockable
- Color coded optical position indicator
- Controlled exhaust
- Arrow symbol indicates flow direction

For order instructions see page 60–63, for characteristics see page 44–51, for accessories see page 64–67

Dimensions in mm



## Air preparation units

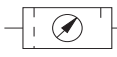
Series airfit comfort  
G3/8, G1/2

Order instructions


### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.


#### Air preparation unit three-piece

<ul style="list-style-type: none"> <li>– Basic version with combined manual and semi-automatic drainage</li> <li>– with automatic drainage</li> <li>– with metal bowl (sight glass) with combined manual and semi-automatic drainage</li> <li>– with metal bowl (sight glass) and automatic drainage</li> </ul>		G3/8	CFRL-3/8	PB 58249-000
		G1/2	CFRL-1/2	PB 58349-000
		G3/8	CFRL-3/8-A	PB 58249-002
		G1/2	CFRL-1/2-A	PB 58349-002
		G3/8	CFRL-3/8-E	PB 58249-004
		G1/2	CFRL-1/2-E	PB 58349-004
		G3/8	CFRL-3/8-AE	PB 58249-006
		G1/2	CFRL-1/2-AE	PB 58349-006

#### Air preparation unit two-piece

<ul style="list-style-type: none"> <li>– Basic version with combined manual and semi-automatic drainage</li> <li>– with automatic drainage</li> <li>– with metal bowl (sight glass) with combined manual and semi-automatic drainage</li> <li>– with metal bowl (sight glass) and automatic drainage</li> </ul>		G3/8	CKL-3/8	PB 58549-000
		G1/2	CKL-1/2	PB 58649-000
		G3/8	CKL-3/8-A	PB 58549-002
		G1/2	CKL-1/2-A	PB 58649-002
		G3/8	CKL-3/8-E	PB 58549-004
		G1/2	CKL-1/2-E	PB 58649-004
		G3/8	CKL-3/8-AE	PB 58549-006
		G1/2	CKL-1/2-AE	PB 58649-006

#### Filter-regulator

<ul style="list-style-type: none"> <li>– Basic version (30 µm) with combined manual and semi-automatic drainage</li> <li>– with filter element 5 µm, with combined manual and semi-automatic drainage</li> <li>– with automatic drainage</li> <li>– with metal bowl (sight glass), with combined manual and semi-automatic drainage</li> <li>– with metal bowl (sight glass) and automatic drainage</li> </ul>		G3/8	CK-3/8	PB 55849-000
		G1/2	CK-1/2	PB 55949-000
		G3/8	CK-3/8-5	PB 55849-016
		G1/2	CK-1/2-5	PB 55949-016
		G3/8	CK-3/8-A	PB 55849-002
		G1/2	CK-1/2-A	PB 55949-002
		G3/8	CK-3/8-E	PB 55849-004
		G1/2	CK-1/2-E	PB 55949-004
		G3/8	CK-3/8-AE	PB 55849-006
		G1/2	CK-1/2-AE	PB 55949-006



## Air preparation units

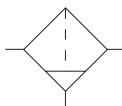
*Series airfit comfort  
G3/8, G1/2*

*Order instructions*

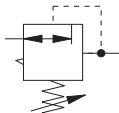
### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

#### Filter-water-separator

– Basic version (30 µm) with combined manual and semi-automatic drainage		G3/8	CF-3/8	PB 55249-000
		G1/2	CF-1/2	PB 55349-000
– with filter element 5 µm with combined manual and semi-automatic drainage		G3/8	CF-3/8-5	PB 55249-016
		G1/2	CF-1/2-5	PB 55349-016
– with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage		G3/8	CFD-3/8-1	PB 55249-070
		G1/2	CFD-1/2-1	PB 55349-070
– with automatic drainage		G3/8	CF-3/8-A	PB 55249-002
		G1/2	CF-1/2-A	PB 55349-002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		G3/8	CF-3/8-E	PB 55249-004
		G1/2	CF-1/2-E	PB 55349-004
– with metal bowl (sight glass) and automatic drainage		G3/8	CF-3/8-AE	PB 55249-006
		G1/2	CF-1/2-AE	PB 55349-006

#### Pressure regulating valve

– Basic version		G3/8	CR-3/8	PB 55549-000
		G1/2	CR-1/2	PB 55649-000
– with adapter for keylock		G3/8	CR-3/8-X	PB 55549-006
		G1/2	CR-1/2-X	PB 55649-006
– Special pressure regulating valve for high relief capacity		G1/2	CR-1/2SO	PB 55649-023
– Pressure regulating valve with through p <sub>1</sub> supply port		p <sub>1</sub> -G1/2, through p <sub>2</sub> -G3/8, Output	CR-1/2-T 3/8	PB 55649-101
– Pressure regulating valve with through p <sub>1</sub> supply port		p <sub>1</sub> -G1/2, through p <sub>2</sub> -G1/2, Output	CR-1/2-T 1/2	PB 55649-100
– Pressure regulating valve, pilot operated		G3/8	CRV-3/8	PB 55549-075
		G1/2	CRV-1/2	PB 55649-075
– Pressure regulating valve, pilot operated, actuation without own air consumption – for actuation by an electronic regulator, see page 119		G3/8	CRV-3/8-SO	PB 55549-077
	G1/2	CRV-1/2-SO	PB 55649-077	



## Air preparation units

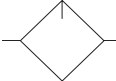
Series airfit comfort  
G3/8, G1/2

Order instructions

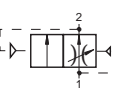
### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

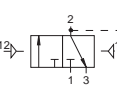
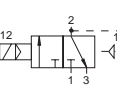
### Oil mist lubricator

– Basic version		G3/8	CL-3/8	PB 56249-000
		G1/2	CL-1/2	PB 56349-000
– with metal bowl (sight glass)		G3/8	CL-3/8-E	PB 56249-004
		G1/2	CL-1/2-E	PB 56349-004

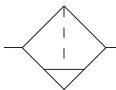
### Start valve

– Start valve		G3/8	CDA-3/8	PB 57249-100
		G1/2	CDA-1/2	PB 57349-100

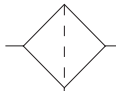
### Stop valve

– pneumatically actuated		G3/8	CDR-3/8 P	PB 57249-200
		G1/2	CDR-1/2 P	PB 57349-200
– electrically actuated 24 V DC		G3/8	CDR-3/8 E	PB 57249-201
		G1/2	CDR-1/2 E	PB 57349-201
– electrically actuated 230 V/50 Hz		G3/8	CDR-3/8 E	PB 57249-204
		G1/2	CDR-1/2 E	PB 57349-204

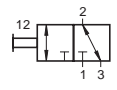
### Submicrofilter

– Basic version, standard with service life indicator, with combined manual and semi-automatic drainage		G3/8	MF 036-3/8-V	PB 59249-010
		G1/2	MF 036-1/2-V	PB 59349-010
– additionally with automatic drainage		G3/8	MF 036-3/8-AV	PB 59249-012
		G1/2	MF 036-1/2-AV	PB 59349-012
– additionally with metal bowl (sight glass) and automatic drainage		G3/8	MF 036-3/8-EAV	PB 59249-016
		G1/2	MF 036-1/2-EAV	PB 59349-016

### Activated carbon filter

– Basic version, with combined manual and semi-automatic drainage		G3/8	MC 036-3/8	PB 59549-000
		G1/2	MC 036-1/2	PB 59649-000
– with metal bowl (sight glass),		G3/8	MC 036-3/8-E	PB 59549-004
		G1/2	MC 036-1/2-E	PB 59649-004

### 3/2 Way shut-off valve

– 3/2 Way shut-off valve		G3/8	CDV-3/8-XS	PB 56849-000
		G1/2	CDV-1/2-XS	PB 56949-000



**Accessories**

Description	For type	Order No.
Mounting kit	Standard	PL17518
Gauge Ø 50, 0–10 bar, G1/4*	CK, CR, CR-T	KG8012
Coupling kit		PL17608
Porting block kit G1/8–G1/2 (coupling kit included)		PL17607
Porting block kit G1/8–G1/2 for pressure switch (incl. mounting material)		PL17609
Check valve, mountable with porting block kit PL17609		PL16596
Bowl guard kit		PL17680
Keylock for pressure regulating valve	CR...X	PL17127
Keylock for 3/2 Way shut-off valve	CDV	KG9017
Solvent resistant sight glass	CL	PL07233
Adapter plates-kit p <sub>1</sub> /p <sub>2</sub> G3/4		PL17682
Special oil for oil mist lubricators 1 l (see page 191)		KY8766

\* for more gauges see page 186, 187

For more information see accessories page 64–67

**Air preparation units**

*Series airfit comfort  
G3/8, G1/2*

*Order instructions*



## Air preparation units

*Series airfit comfort*  
G3/8, G1/2

### Accessories

#### – Porting block kit

To provide unlubricated air  
e.g. for air gun

#### Versions:

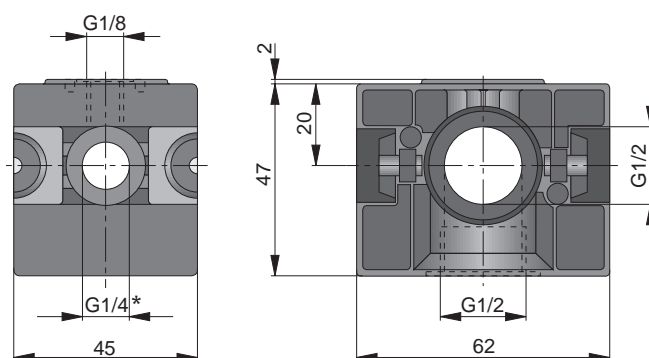
- Standard
- For pressure switch mounting
- Check valve, mountable

#### Delivery includes:

- 1 porting block
- 1 coupling kit
- Plug screws

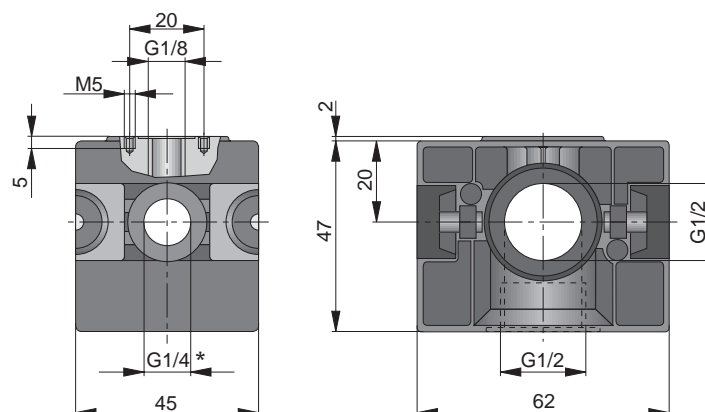
Characteristics	Description
Installation	Between 2 units of the series airfit comfort
Mounting	Directly flange mountable with coupling kit supplied
Material	Zinc diecasting, black finish

#### Standard version



\* G1/4 thread on both sides

#### Version – for mounting pressure switch

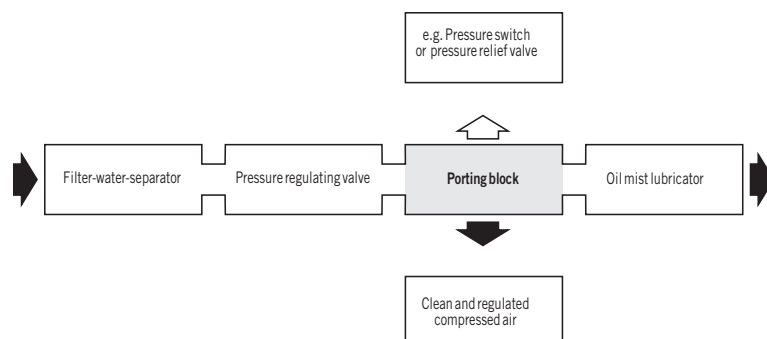
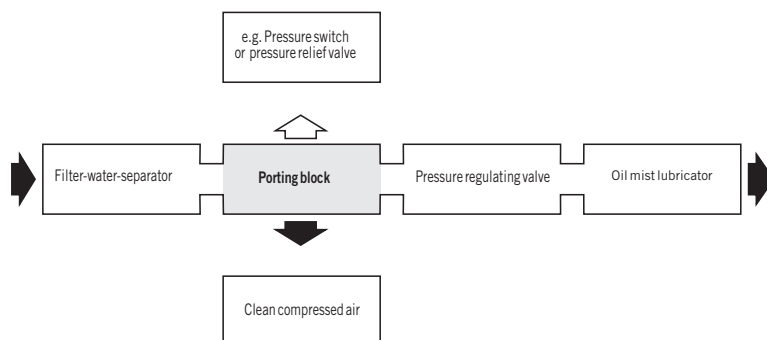


\* G1/4 thread on both sides



Dimensions in mm

## Installation instructions



## Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit – standard G1/8 - G1/2	CX-1/2	PL 17607
Porting block kit – for pressure switch mounting	CXH	PL 17609
Check valve, mountable on version for pressure switch mounting	RVC-1/2	PL 16596

Dimensions in mm



## Air preparation units

*Series airfit comfort  
 G3/8, G1/2*

*Accessories  
 – Porting block kit*

## Air preparation units

*Series airfit comfort  
G3/8, G1/2*

*Accessories  
– Bowl guard kit*

The bowl guard protects the plastic bowl of filter-water-separators, oil mist lubricators, and filter-regulators against external damage.

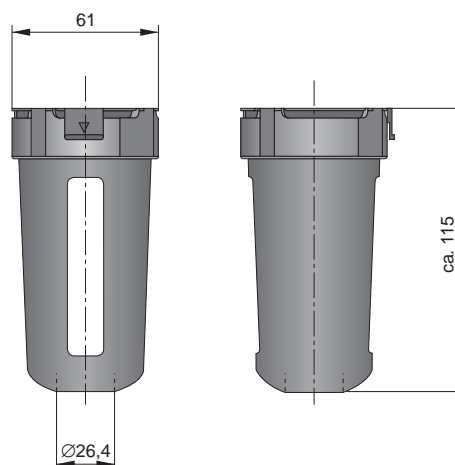
### Assembly instructions:

The bowl guard kit consists of 3 parts. Please read the assembly instructions included with delivery.

### Bowl guard kit

Characteristics	Description
Mounting	With snap mounting
Material	Zinc diecasting, polymer (POM)

### Dimensions



### Order instructions

Port size	Order No.
G3/8, G1/2	PL 17680



Dimensions in mm

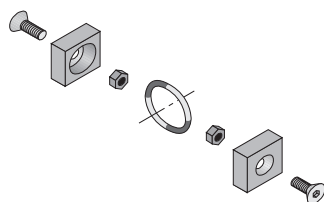


**Mounting kit**



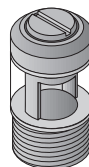
**Order No. PL17518**

**Coupling kit**



**Order No. PL17608**

**Solvent resistant sight glass**



**Order No. PL07233**

**Keylock for pressure regulator**  
Type: CR-...-X



**Order No. PL17127**

**Gauge Ø50, 0–10 bar, G1/4**



**Order No. KG8012**

## **Air preparation units**

*Series airfit comfort*  
G3/8, G1/2

### *Accessories*

- *Mounting kit*
- *Coupling kit*
- *Solvent resistant sight glass*
- *Keylock*
- *Gauges*

Dimensions in mm



**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	70, 71, 74	78	85
Air preparation unit two-piece	70, 71, 74	78	85
Filter-regulator	70, 71, 74, 75	79	85
Filter-water-separator	70, 71, 75	79	85
Dust filter	70, 71, 75	79	85
Pressure regulating valve	70, 71, 76	80	86
Pressure regulating valve, pilot operated	70, 71, 76	80	86
Oil mist lubricator	72, 73, 76	81	86
Start-stop valve	72, 73, 77	81-83	86
Submicrofilter	72, 73	84	86
Activated carbon filter	72, 73	84	86
3/2 Way shut-off valve	72, 73	84	86
Accessories	87-89	87-89	87-89

**Air preparation units**

*Series airfit A25  
G3/4, G1*



## Air preparation units

Series *airfit A25*  
G3/4, G1

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special  
units



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Air preparation unit three-piece		Air preparation unit two-piece			
System			Consisting of filter- water-separator, pressure regulating valve, oil mist lubricator *), gauge, mounting bracket, locating ring		Consisting of filter- regulator and oil mist lubricator *), gauge, mounting bracket, locating ring			
Type			A25FRL- 3/4-EMW	A25FRL- 1-EMW	A25KL- 3/4-EMW	A25KL- 1-EMW		
Material								
– Housing			Diecast zinc					
– Metal bowl			Diecast aluminum with polypropylene insert					
– Diaphragm			NBR		NBR			
– Standard sealings			NBR					
Port size (NPTF version)			G3/4	G1	G3/4	G1		
Max. condensate capacity		cm <sup>3</sup>	130	130	130	130		
Pore size of filter element		µm	30 or 5		30 or 5			
Condensate drainage			Manual, semi-automatic (pressure relief), or automatic (float type)					
Oil/air ratio			Constant oil drip rate independent of air flow					
Max. oil capacity		cm <sup>3</sup>	500		500			
Oil refilling			Manual – also during operation					
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom			
Medium and ambient temperatures		T <sub>min</sub> T <sub>max</sub> °C °C	-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +50 (+60 to 12.5 bar)			
Weight (mass)		kg	3.3		2.8			
Pneumatic characteristics								
Operating pressure range – inlet pressure		p <sub>1 min</sub> p <sub>1 max</sub> bar bar	0 17.5		0 17.5			
Operating pressure range – outlet pressure		p <sub>2 min/max</sub> bar	0.5 to 12 On request 0.5 to 17.5		0.5 to 12 On request 0.5 to 17.5			
Maximum flow <sup>1)</sup>		Q <sub>max</sub> l/min m <sup>3</sup> /h	7900 474	12580 755	8600 528	14650 879		
Degree of moisture separation at recommended flow		η %	See diagram		See diagram			

<sup>1)</sup> at p<sub>1</sub> = 10 bar and p<sub>2</sub> = 6.3 bar, Δp = 1 bar

<sup>2)</sup> for dry compressed air, ice formation must be avoided

<sup>3)</sup> at p<sub>1</sub> = 8 bar and Δp = 1 bar

<sup>4)</sup> recommended pilot pressure regulating valve SR-1/4 (see page 23)

<sup>5)</sup> at 6.3 bar and 25 m/s flow velocity

\*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm<sup>2</sup>/s at 40°C) are recommended  
to ensure optimum atomization and long oil mist paths.  
HOERBIGER-Origa compressed air oil KY8766 (see page 191)

	Filter-regulator		Filter-water-separator		Dust filter		Pressure regulating valve		Pressure regulating valve pilot operated	
	Cyclone system with filter element, combined with diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, inlet pressure and volume compensation, handwheel lockable		With cyclone system and filter element		With cyclone system and dust filter element		Diaphragm-type pressure regulating valve (spring loaded) with secondary pressure relief, inlet pressure and volume compensation, handwheel lockable		Pilot operated piston-type pressure regulator with secondary pressure relief, inlet pressure and volume compensation <sup>4)</sup>	
	A25K-3/4E	A25K-1E	A25F-3/4E	A25F-1E	A25FD-3/4E	A25FD-1E	A25R-3/4	A25R-1	A25RV-3/4	A25RV-1
	Diecast zinc									
	Diecast aluminium with polypropylene						–		–	
	NBR		–		–		NBR		NBR	
	NBR									
	G3/4	G1	G3/4	G1	G3/4	G1	G3/4	G1	G3/4	G1
	130	130	130	130	130	130				
	30 or 5		30 or 5		1		–		–	
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual, semi-automatic (pressure relief)		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position	
	-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +60		-10 <sup>2)</sup> +60	
	1.5		0.9		0.9		1.2		1.2	
	0 17.5		0 17.5		0 17.5		0 17.5		0 17.5	
	0.5 to 12 On request 0.5 to 17.5		–		–		0.5 to 12 On request 0.5 to 17.5		0.5 to 12 On request 0.5 to 17.5	
	13200 792	19000 1140	10400 <sup>3)</sup> 624	11400 <sup>3)</sup> 684	10400 <sup>3)</sup> 624	11400 <sup>3)</sup> 684	14600 876	> 20000 > 1200	> 20000 > 1200	> 20000 > 1200
	> 95		> 95		Only solid particles > 99% related to 1 µm		–		–	

For more characteristics of air preparation units see page 72–73

## Air preparation units

Series airfit A25  
G3/4, G1

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special  
units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Oil mist lubricator		Start-stop valve		
System			Oil mist lubricator with flow compensation *)		Start-stop valve pneumatically or electrically actuated		
Type			A25L-3/4-E	A25L-1-E	A25DS-3/4	A25DS-1	
Material							
– Housing			Diecast zinc				
– Metal bowl			Diecast aluminum with polypropylene insert		–		
– Diaphragm			NBR		–		
– Standard sealings			NBR				
Port size (NPTF version)			G3/4	G1	G3/4	G1	
Max. condensate capacity		cm <sup>3</sup>	–		–		
Condensate drainage			–		–		
Oil/air ratio			Constant oil drip rate independent of air flow		–		
Max. oil capacity		cm <sup>3</sup>	500		–		
Oil refilling			Manual – also during operation		–		
Installation			Vertical, bowl at the bottom		In any position		
Medium and ambient temperatures		T <sub>min</sub> °C °C T <sub>max</sub>	-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +50 (+60 to 12.5 bar)		
Weight (mass)		kg	0.8		1.6		
Pneumatic characteristics							
Operating pressure range – inlet pressure		p <sub>1 min</sub> p <sub>1 max</sub> bar bar	0 17.5		2 17.5 (16 to A25DS-..E)		
Maximum flow <sup>1)</sup>		Q <sub>max</sub> l/min m <sup>3</sup> /h	16000 960	17700 1062	10500 630	12000 720	
Degree of moisture separation at recommended flow <sup>2)</sup>		η %	–		–		
Residual oil amount		mg/m <sup>3</sup>					

<sup>1)</sup> at p<sub>1</sub> = 6.3 bar, Δp = 1 bar

<sup>2)</sup> at 6.3 bar and 25 m/s flow velocity

\*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm<sup>2</sup>/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.  
HOERBIGER-Origa compressed air oil KY8766 (see page 191)



## Air preparation units

*Series airfit A25  
G3/4, G1*

*Characteristics*

Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
				3/2 Way valve (spool type), direct assembly to any unit from the airfit A25 series, with coupling kit PL18787	
A25MF-230-3/4-E	A25MF-230-1-E	A25MC-230-3/4-E	A25MC-230-1-E	A25DV-3/4	A25DV-1
Diecast zinc					
Diecast zinc with polypropylene insert		Diecast zinc with polypropylene insert		—	
—		—		—	
NBR					
G3/4	G1	G3/4	G1	G3/4	G1
130	130	130	130	—	
Manual, semi-automatic (pressure relief), or automatic (float type)		Manual, semi-automatic (pressure relief)		—	
—		—		—	
—		—		—	
—		—		—	
Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position	
0 +50 (+60 to 12.5 bar)		0 +50 (+60 to 12.5 bar)		-10 <sup>2)</sup> +50 (+60 to 12.5 bar)	
1.5		1.5		1.2	
0 17.5		0 17.5		0 17.5	
3850 to 6 bar 230		3850 to 6 bar 230		> 20000 > 1200	> 20000 > 1200
Over 99.99999% related to 0.01µm		—		—	
< 0.01 input conc. 3 mg/m <sup>3</sup>		0.003 % in combination MF			

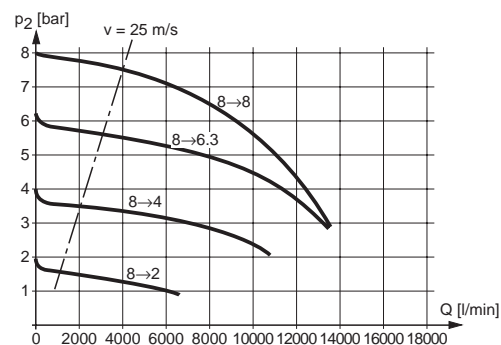


## Air preparation units

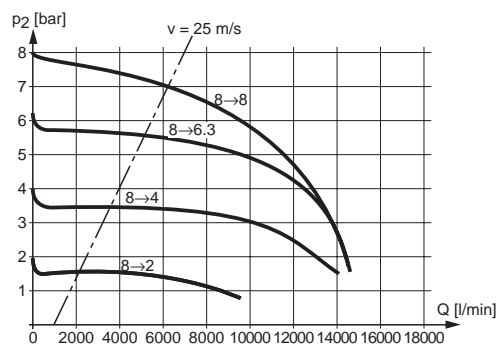
Series airfit A25  
G3/4, G1

Flow characteristics

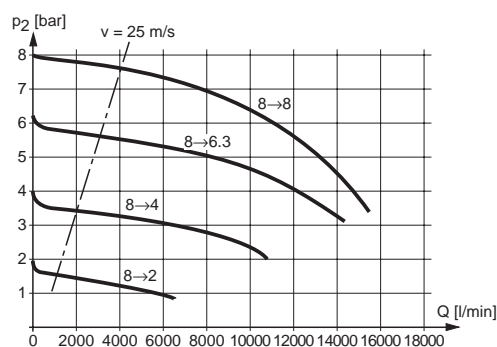
**Air preparation unit three-piece**  
**Type: A25FRL-3/4-EMW**



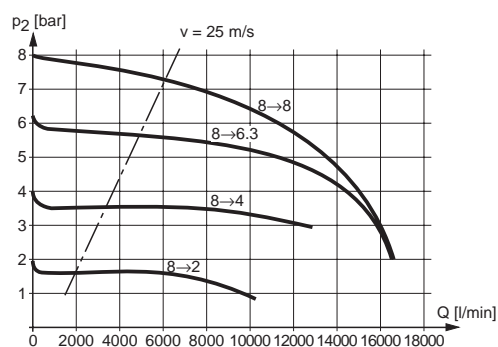
**Type: A25FRL-1-EMW**



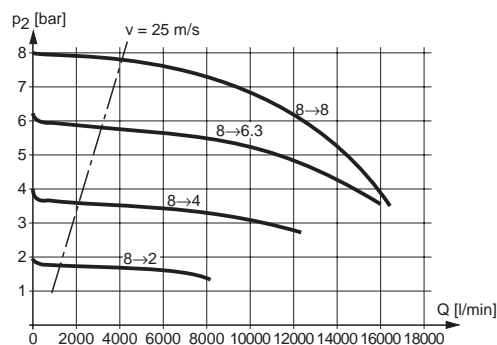
**Air preparation unit two-piece**  
**Type: A25KL-3/4-EMW**



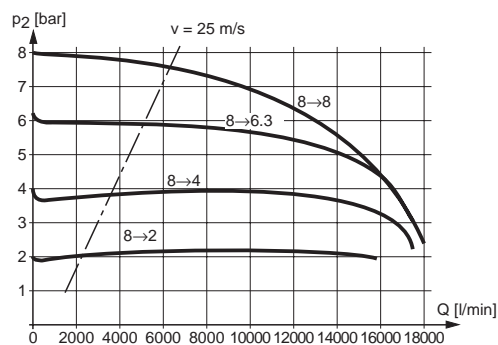
**Type: A25KL-1-EMW**



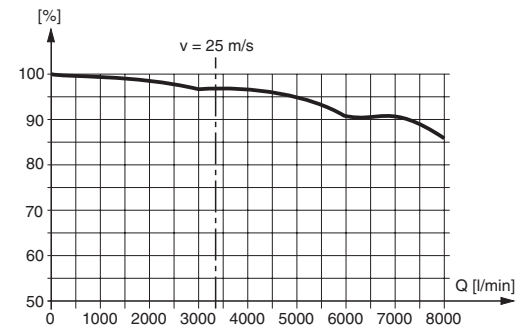
**Filter-regulator**  
**Type: A25K-3/4-E**



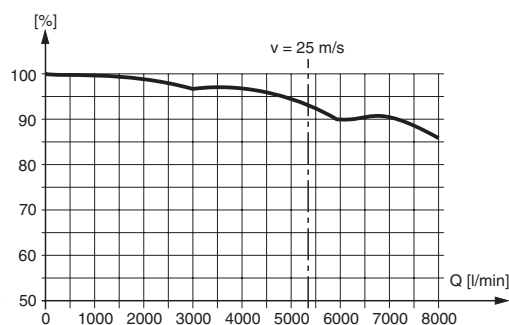
**Type: A25K-1-E**



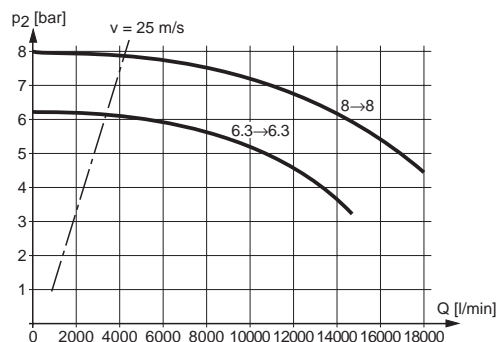
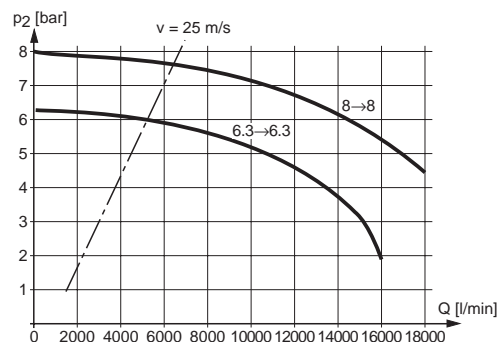
**Degree of filtration**  
**Type: A25K-3/4-E**



**Type: A25K-1-E**

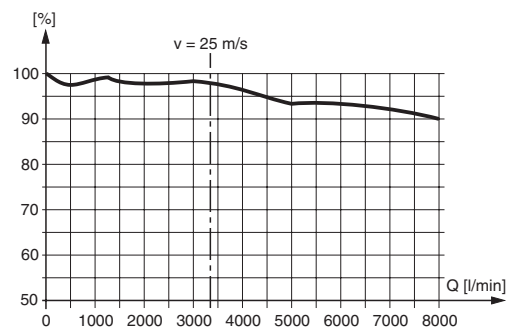
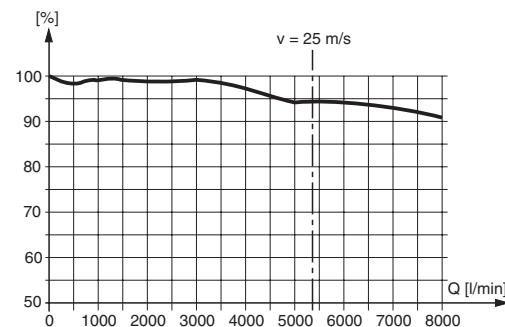




**Filter-water-separator**  
**Type: A25F-3/4-E**

**Type: A25F-1-E**

**Air preparation**  
**units**

*Series airfit A25*  
*G3/4, G1*

*Flow characteristics*

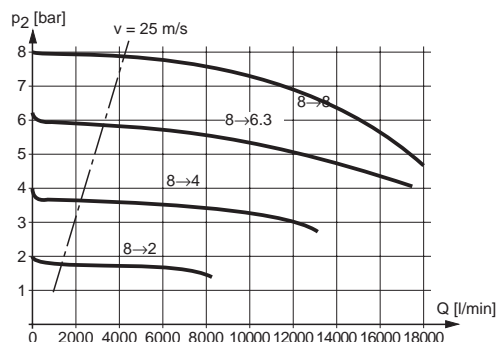
**Degree of filtration**  
**Type: A25F-3/4-E**

**Type: A25F-1-E**


## Air preparation units

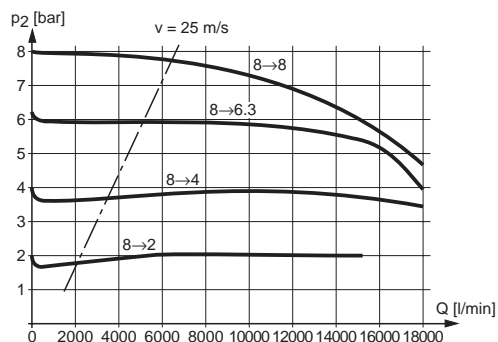
Series airfit A25  
G3/4, G1

Flow characteristics

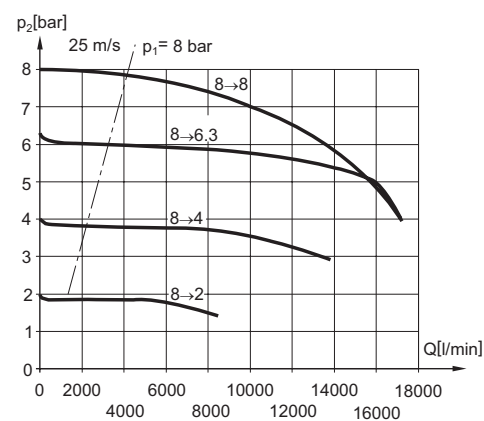
Pressure regulating valve  
Type: A25R-3/4



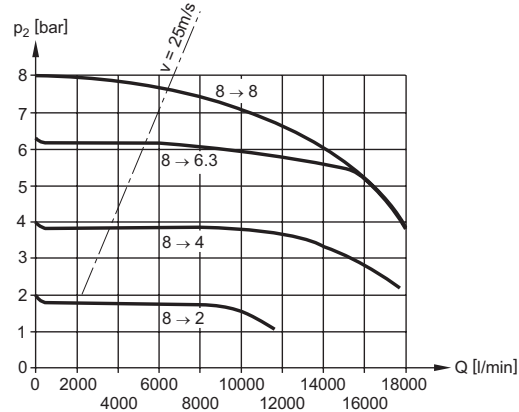
Type: A25R-1



Pressure regulating valve, pilot operated  
Type: A25RV-3/4



Type: A25RV-1



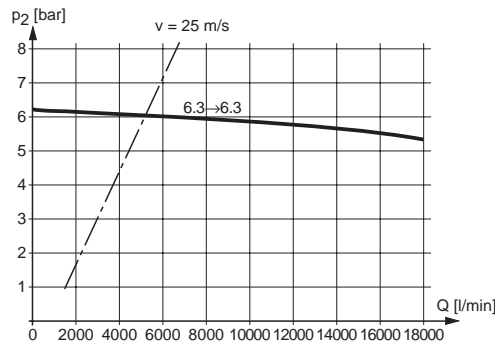
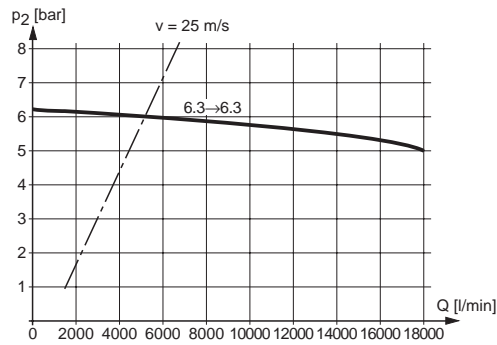
**Oil mist lubricator**  
Type: A25L-3/4-E

Type: A25L-1-E

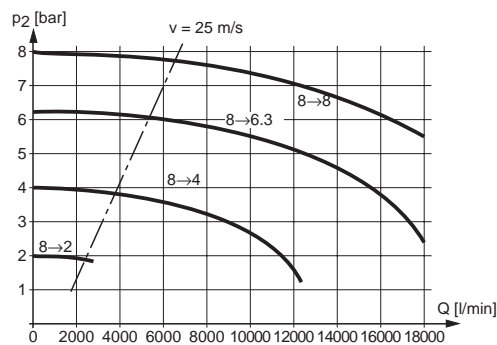
**Air preparation units**

*Series airfit A25*  
*G3/4, G1*

*Flow characteristics*



**Start-stop valve**  
Type: A25DS-3/4, A25DS-1



## Air preparation units

Series *airfit* A25  
G3/4, G1

### Dimensions

#### Delivery includes:

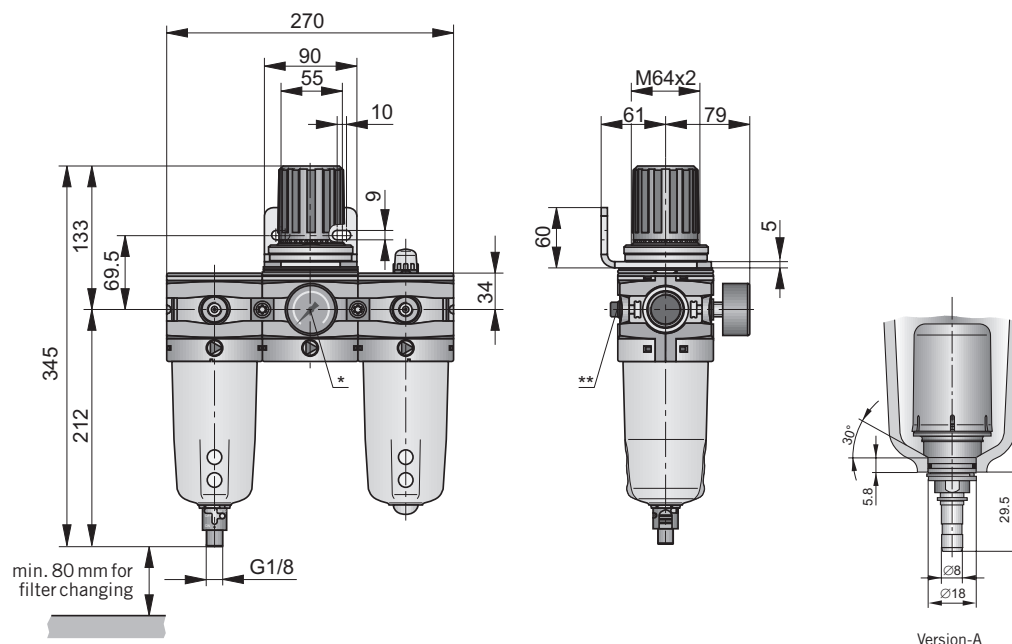
Air preparation unit three-piece:

- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket

Air preparation unit two-piece:

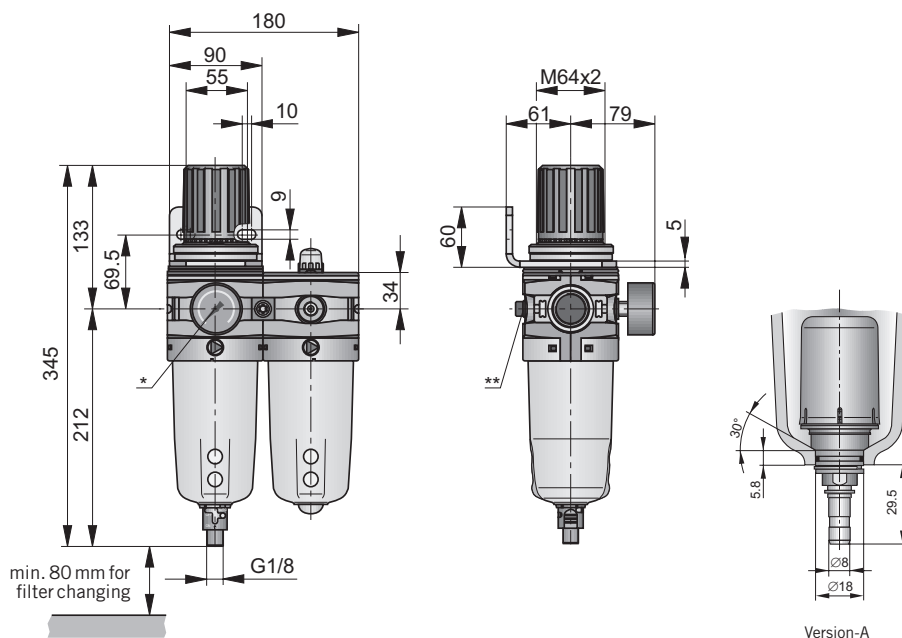
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

Air preparation unit three-piece – Type: A25FRL-3/4, -1



- \* Two opposite gauge ports G1/4
- \*\* On delivery the plug screw is not assembled.

Air preparation unit two-piece – Type: A25KL-3/4, -1



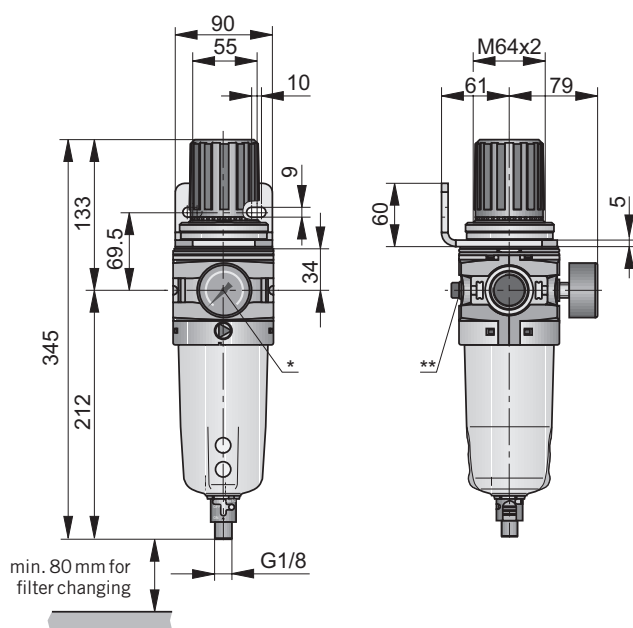
- \* Two opposite gauge ports G1/4
- \*\* On delivery the plug screw is not assembled.

For order instructions see page 85–87, for characteristics see page 70–77, for accessories see page 88, 89



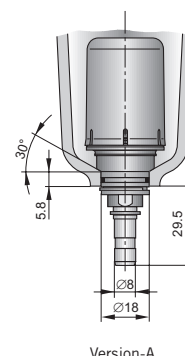
Dimensions in mm

## Filter-regulator – Type: A25K-3/4, -1



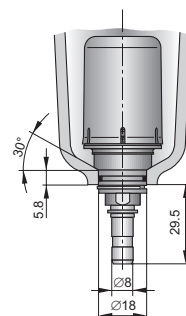
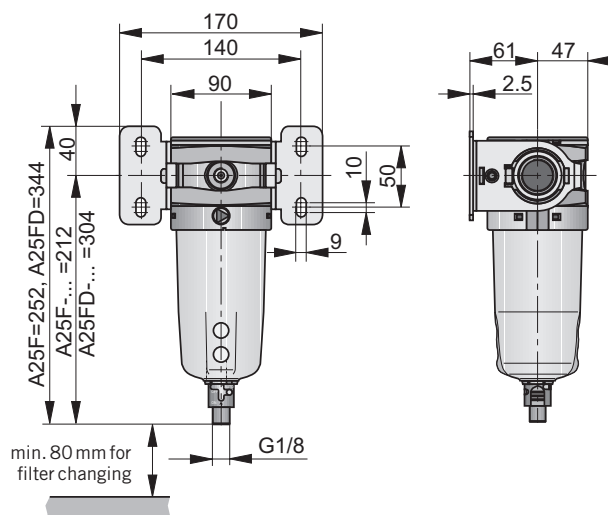
\* Two opposite gauge ports G1/4

\*\* On delivery the plug screw is not assembled.



Version-A

## Filter-water-separator – Type: A25F-3/4, -1 Dust filter – Type: A25FD-3/4, -1 \*



Version-A

\* Dust filter with large filter surface for long service life. For compressed air systems with air dryers.



For order instructions see page 85–87, for characteristics see page 70–77, for accessories see page 88, 89

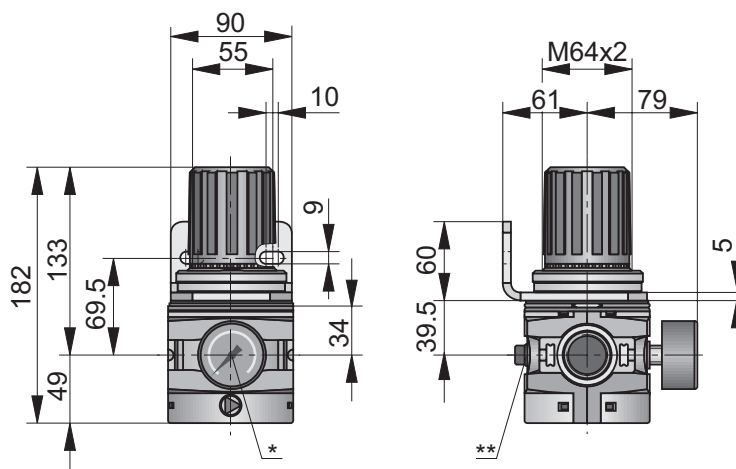
Dimensions in mm

## Air preparation units

Series airfit A25  
G3/4, G1

Dimensions

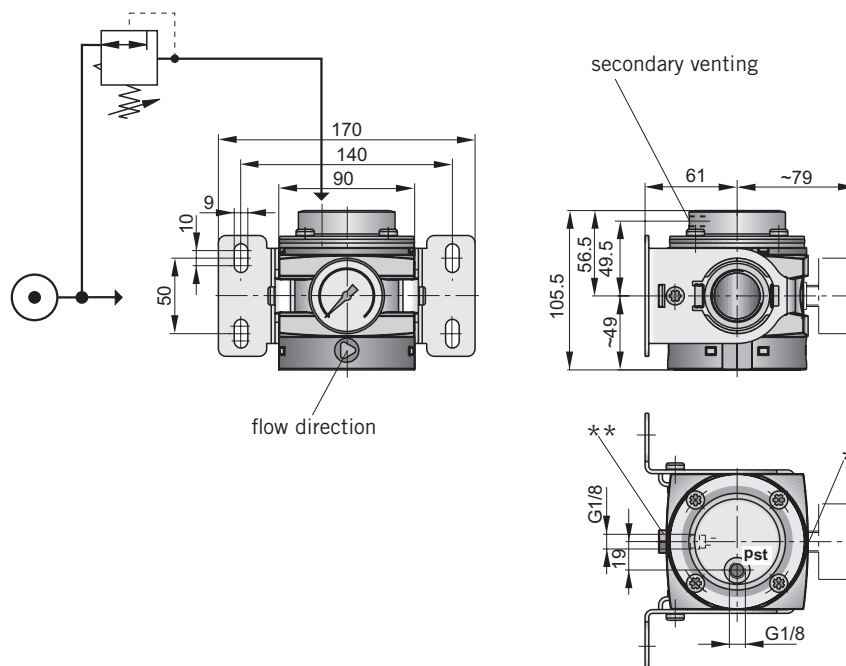
Pressure regulating valve – Type: A25R-3/4, -1



- \* Two opposite gauge ports G1/4
- \*\* On delivery the plug screw is not assembled.

Pressure regulating valve, pilot operated – Type: A25RV-3/4, -1

– Recommended pilot pressure regulating valve, series airfit swing, Type: SR-1/4, PB45449-058



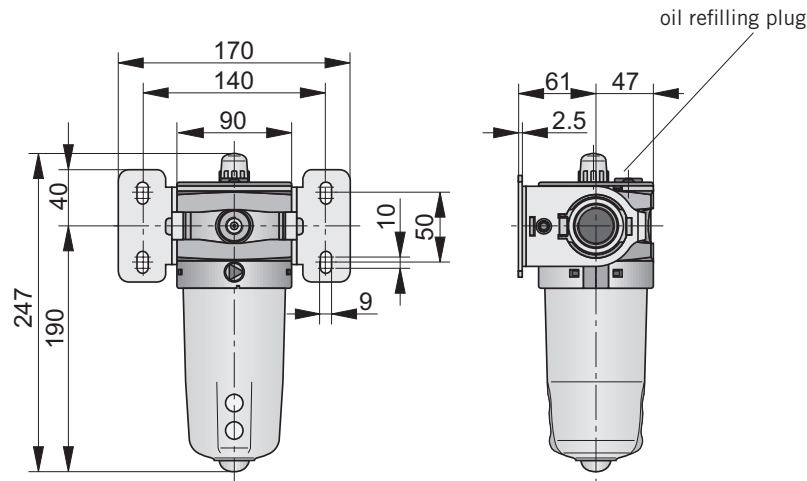
- \* Two opposite gauge ports G1/4
- \*\* On delivery the plug screw is not assembled.

For order instructions see page 85–87, for characteristics see page 70–77,  
for accessories see page 88, 89

Dimensions in mm



## Oil mist lubricator – Type: A25L-3/4, -1

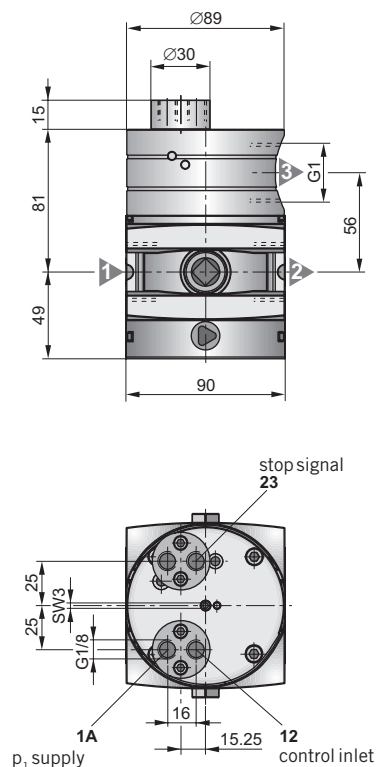


## Air preparation units

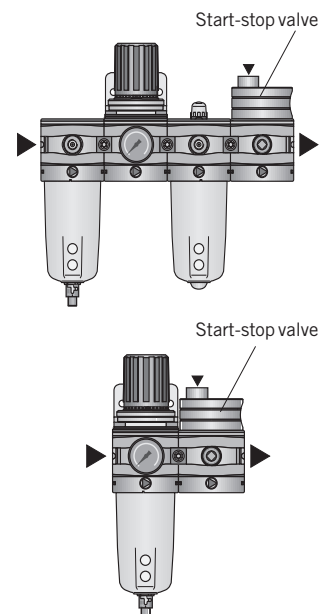
Series airfit A25  
G3/4, G1

Dimensions

## Start-stop valve, pneumatically actuated Type: A25DS-3/4 P, -1P



## Installation instruction



The start function is designed to facilitate slow pressure build-up and for ventilation in pneumatic systems.

It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle screw is used to set the pressure build-up time. The stop function facilitates rapid ventilation.



For order instructions see page 85–87, for characteristics see page 70–77, for accessories see page 88, 89

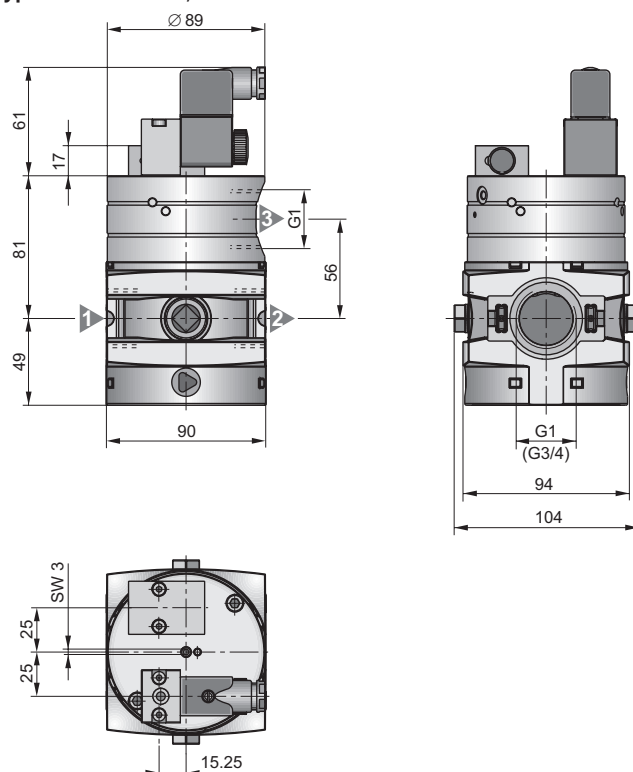
Dimensions in mm

## Air preparation units

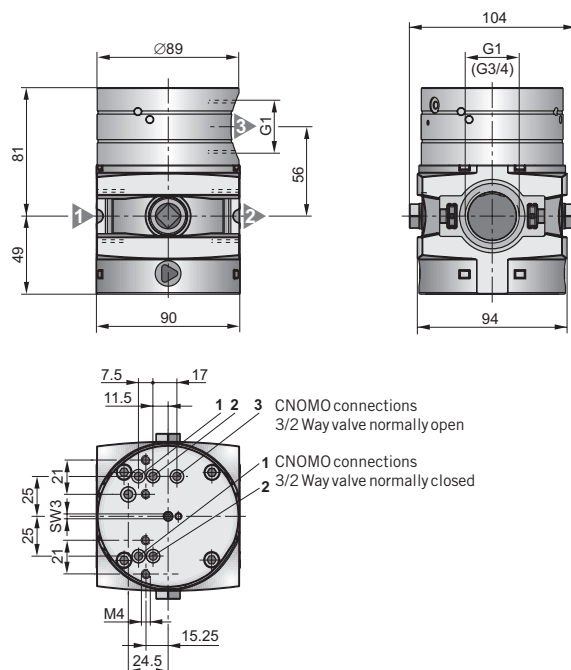
Series airfit A25  
G3/4, G1

Dimensions

Start-stop valve, electrically actuated  
Type: A25DS-3/4E, -1E



Start-stop valve, CNOMO connections  
Type: A25DS-3/4C, -1C



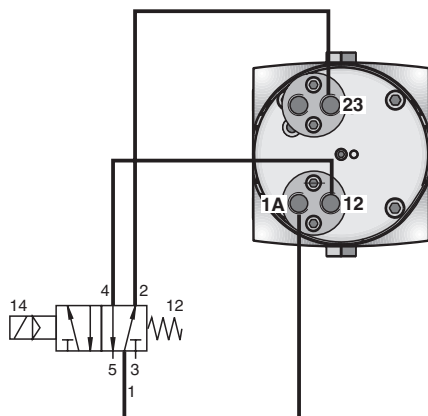
For order instructions see page 85–87, for characteristics see page 70–77,  
for accessories see page 88, 89

Dimensions in mm

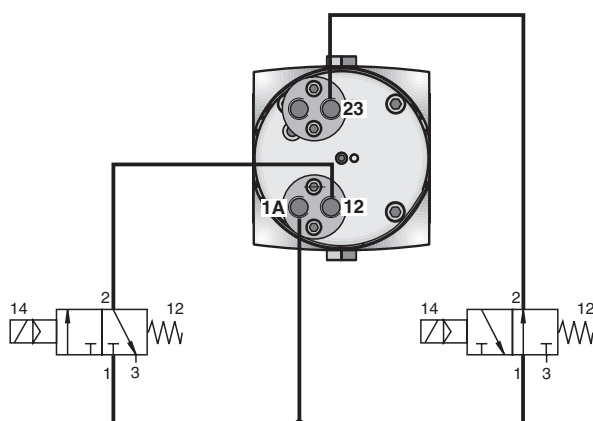


## Start-stop valve, pneumatically actuated

Combined start/stop function



Combined start/stop function with acknowledgement



Further control types on request

## Air preparation units

Series airfit A25  
G3/4, G1

Control types

For order instructions see page 85–87, for characteristics see page 70–77,  
for accessories see page 88, 89

Dimensions in mm



## Air preparation units

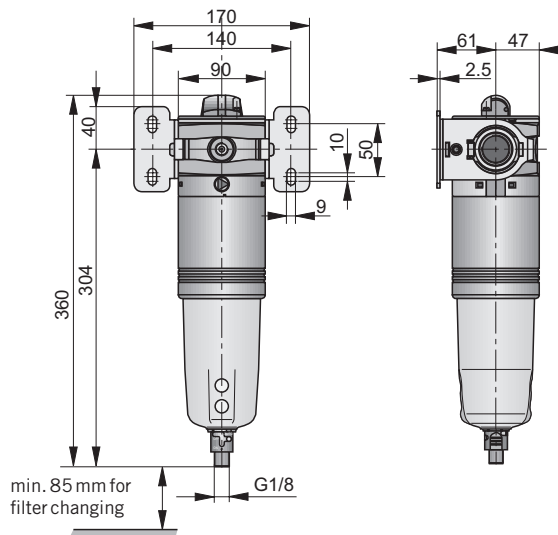
Series airfit A25  
G3/4, G1

Dimensions

Submicrofilter – Type: A25MF230-3/4, -1  
Activated carbon filter – Type: A25MC230-3/4, -1

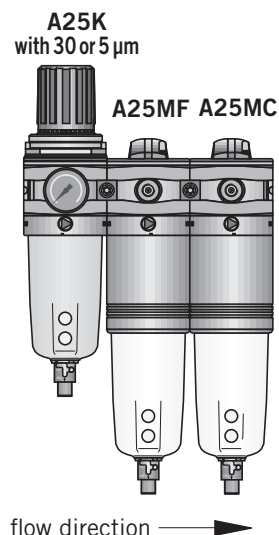
### Installation instruction

To increase the life span of the filter elements, we recommend the following order.



### Note:

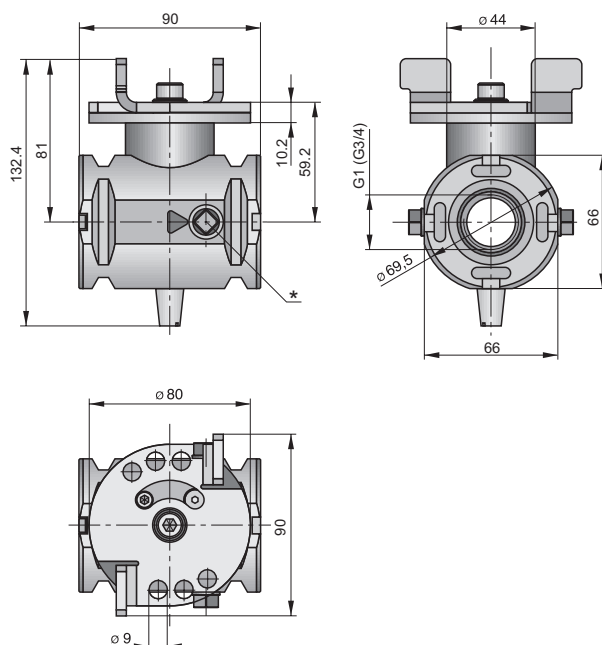
Activated carbon filter A25MC230-E without contamination indicator



### Features:

- Rotary switch can be turned 90°
- Can be shut off in 6 different modes
- Indication of positions
- Flow open, exhaust closed
- Inlet closed, outlet exhausted
- Flow direction shown by arrow

### 3/2 Way shut-off valve Type: A25DV-3/4, -1



\* Two opposite gauge ports G1/8 on request

For order instructions see page 85–87, for characteristics see page 70–77, for accessories see page 88, 89



Dimensions in mm

## Air preparation units


Series *airfit* A25  
G3/4, G1

Order instructions


### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
-------------	--------	-----------	---------------------------	-----------


#### Air preparation unit three-piece

– Basic version with combined manual and semi-automatic drainage		G3/4	A25FRL-3/4-EMW	PB 63449-000
		G1	A25FRL-1-EMW	PB 63549-000
– with automatic drainage		G3/4	A25FRL-3/4-AEMW	PB 63449-005
		G1	A25FRL-1-AEMW	PB 63549-005

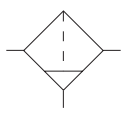
#### Air preparation unit two-piece

– Basic version with combined manual and semi-automatic drainage		G3/4	A25KL-3/4-EMW	PB 63649-000
		G1	A25KL-1-EMW	PB 63749-000
– with automatic drainage		G3/4	A25KL-3/4-AEMW	PB 63649-005
		G1	A25KL-1-AEMW	PB 63749-005

#### Filter-regulator

– Basic version with combined manual and semi-automatic drainage		G3/4	A25K-3/4-E	PB 62249-000
		G1	A25K-1-E	PB 62349-000
– with filter element 5 µm, with combined manual and semi-automatic drainage		G3/4	A25K-3/4-5E	PB 62249-016
		G1	A25K-1-5E	PB 62349-016
– with automatic drainage		G3/4	A25K-3/4-AE	PB 62249-002
		G1	A25K-1-AE	PB 62349-002
– with adapter for keylock		G3/4	A25K-3/4-EX	PB 62249-010
		G1	A25K-1-EX	PB 62349-010

#### Filter-water-separator

– Basic version with combined manual and semi-automatic drainage		G3/4	A25F-3/4-E	PB 61649-000
		G1	A25F-1-E	PB 61749-000
– with filter element 5 µm with combined manual and semi-automatic drainage		G3/4	A25F-3/4-5E	PB 61649-016
		G1	A25F-1-5E	PB 61749-016
– with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage		G3/4	A25FD-3/4-E	PB 61649-070
		G1	A25FD-1-E	PB 61749-070
– with automatic drainage		G3/4	A25F-3/4-AE	PB 61649-002
		G1	A25F-1-AE	PB 61749-002



## Air preparation units


Series airfit A25  
G3/4, G1

Order instructions

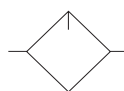
### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
-------------	--------	-----------	---------------------------	-----------

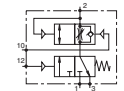
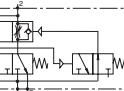
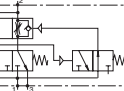
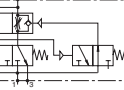
#### Pressure regulating valve

– Basic version		G3/4	A25R-3/4	PB 61849-000
		G1	A25R-1	PB 61949-000
– with adapter for keylock		G3/4	A25R-3/4-X	PB 61849-006
		G1	A25R-1-X	PB 61949-006
– Pressure regulating valve, pilot operated		G3/4	A25RV-3/4	PB 61849-070
		G1	A25RV-1	PB 61949-070


#### Oil mist lubricator

– Basic version		G3/4	A25L-3/4-E	PB 62049-000
		G1	A25L-1-E	PB 62149-000

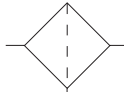
#### Start-stop valve

– pneumatically actuated		G3/4	A25DS-3/4-P	PB 63049-000
		G1	A25DS-1-P	PB 63149-000
– electrically actuated 230 V/50 Hz		G3/4	A25DS-3/4-E	PB 63049-004
		G1	A25DS-1-E	PB 63149-004
– electrically actuated 24 V DC		G3/4	A25DS-3/4-E	PB 63049-001
		G1	A25DS-1-E	PB 63149-001
– electrically actuated with CNOMO connections		G3/4	A25DS-3/4-C	PB 63049-010
		G1	A25DS-1-C	PB 63149-010

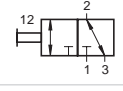
#### Submicrofilter

– Basic version, with combined manual and semi-automatic drainage		G3/4	A25MF230-3/4-EV	PB 62549-010
		G1	A25MF230-1-EV	PB 62649-010
– additionally with automatic drainage		G3/4	A25MF230-3/4-AEV	PB 62549-012
		G1	A25MF230-1-AEV	PB 62649-012

#### Activated carbon filter

– Basic version, with combined manual and semi-automatic drainage		G3/4	A25MC230-3/4-E	PB 62849-000
		G1	A25MC230-1-E	PB 62949-000

#### 3/2 Way shut-off valve

– 3/2 Way shut-off valve		G3/4	A25DV-3/4	PB 63249-000
		G1	A25DV-1	PB 63349-000



**Accessories**

Description	For type	Order No.
Mounting kit (bracket + mounting nut)		PL 18990
Gauge, Ø 50 mm, 0–16 bar, G1/4		KG 8013
Porting block kit		PL 18986
Coupling kit		PL 18987
Keylock for pressure regulating valve	A25R...-X	PL 17127
Solvent resistant sight glass	A25L	PL15717
Adapter plates-kit p <sub>1</sub> /p <sub>2</sub> , G1 1/4		PL19199
Adapter plates-kit p <sub>1</sub> /p <sub>2</sub> , G1 1/2		PL19200
Special oil for oil mist lubricators 1 l (see page 191)		KY8766

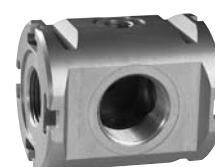
\* for more gauges see page 186, 187

For more information see accessories page 88, 89

**Air preparation units**

*Series airfit A25  
G3/4, G1*

*Order instructions*



## Air preparation units

Series airfit A25  
G3/4, G1

Accessories  
– Porting block kit

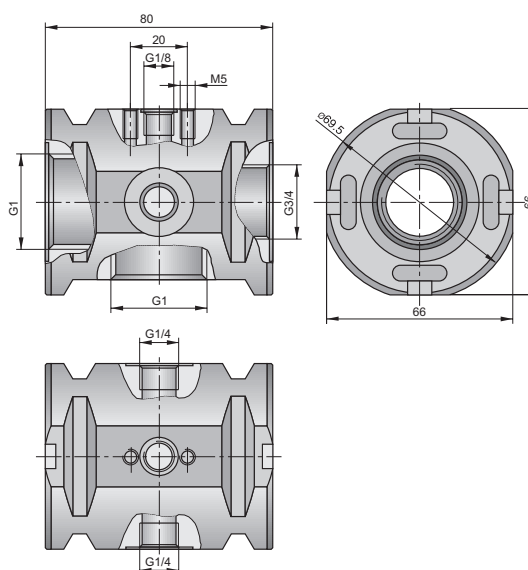
To provide unlubricated air  
e.g. for air gun. With pressure  
switch connections

### Delivery includes:

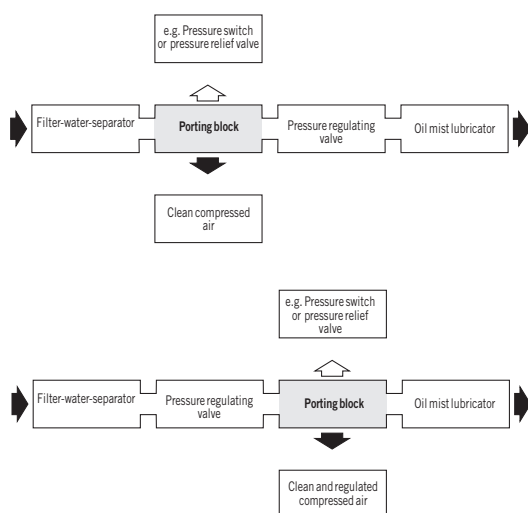
- 1 porting block
- 1 coupling kit
- 3 plug screws

Characteristics	Description
Installation	Between 2 units of the airfit A25 series
Mounting	Directly flange mountable with coupling kit supplied
Material	Aluminum

### Dimensions



### Installation instructions



### Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit	A25X	PL 18986



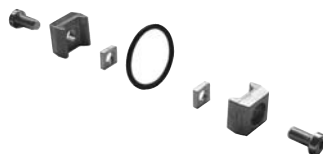
Dimensions in mm

**Mounting kit**



**Order No. PL18990**

**Coupling kit**



**Order No. PL18987**

**Keylock for pressure  
regulator Type: A25R-...-X**



**Order No. PL17127**

## Air preparation units

*Series airfit A25  
G3/4, G1*

*Accessories*

**Gauge  
Ø50, 0–16 bar, G1/4**



**Order No. KG8013**





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Filter-water-separator	92, 93, 96	98	108
Pressure regulating valve, pilot operated	92, 93, 96	98, 99	108
Submicrofilter	94, 95	106	110
Activated carbon filter	94, 95	106	110
Central air line lubricator	92, 93	107	110
Start valve	92, 93	100	109
2/2 Way start-stop valve	94, 95	100, 101	109
3/2 Way start-stop valve	94, 95, 97	102–105, 110	109, 110
Accessories	111, 112	111, 112	111, 112

**Air preparation  
units**

*Series airfit A50*  
*G1 1/2, G2*



## Air preparation units

Series airfit A50  
G11/2, G2

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Filter-water-separator	Dust filter	
System			With cyclone system and filter element and wear indicator	Dust filter with wear indicator	
Type			A50F--ADV	A50FD--ADV	
Material					
– Housing			Diecast aluminum		
– Metal bowl			Diecast aluminum		
– Diaphragm			–	–	
– Standard sealings			NBR		
Port size			G11/2, G2	G11/2, G2	
Flange connection			SAE flange	SAE flange	
Max. condensate capacity		cm <sup>3</sup>	600	600	
Pore size of filter element		µm	30 or 5	1	
Condensate drainage			Fully automatic (float type)	Manual, semi-automatic (pressure relief)	
Max. oil capacity		cm <sup>3</sup>	–	–	
Oil refilling			–	–	
Size of micro-mist particles		µm	–	–	
Installation			Vertical, bowl at the bottom		
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	0	Further temperatures on request	
Weight (mass)		kg	6.3	6.4	
Pneumatic characteristics					
Operating pressure range – inlet pressure	p <sub>1 min</sub> p <sub>1 max</sub>	bar bar	0 17.5	0 17.5	
Operating pressure range – outlet pressure	p <sub>2 min/max</sub>	bar			
Differential pressure range	p <sub>min</sub> p <sub>max</sub>	bar bar	–	–	
Maximum flow	Q <sub>max</sub>	l/min m <sup>3</sup> /h	> 40000 <sup>2)</sup> > 2400	> 40000 <sup>2)</sup> > 2400	
Degree of moisture separation at recommended flow	η	%	> 90	Only solid particles > 99% related to 1 µm	

<sup>1)</sup> at p<sub>1</sub> = 10 bar and p<sub>2</sub> = 6.3 bar, Δp = 1 bar

<sup>2)</sup> at p<sub>1</sub> = 6 bar and Δp = 1 bar

<sup>3)</sup> recommended pilot pressure regulating valve SR-1/4 (see page 23)

\*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm<sup>2</sup>/s at 40°C) or HOERBIGER special oil, Order No.: KY 8766 (see page 191)



	Pressure regulating valve	Pressure regulating valve, pilot operated	Central air line lubricator		Start valve	
	Diaphragm-type pressure regulating valve with integrated pilot pressure regulating valve, secondary pressure relief, inlet pressure, and volume compensation, hand-wheel lockable	Pilot operated diaphragm-type pressure regulator <sup>3)</sup>	Micro-mist lubricator with pilot operated differential pressure regulating valve for oil-feed adjustment *)		Seat valve for slow pressure build-up (e.g. after emergency shutdown). At 0.5 x operating pressure the valve switches to full flow	
	A50R-.-	A50RV-.-	EL-25	EL50	A50DA	A50DA
	Diecast aluminum					
	–	–	–		–	
	NBR	NBR	–		–	
	NBR					
	G11/2, G2	G11/2, G2	G1	G2	G11/2	G2
	SAE flange	SAE flange	–	–	SAE flange	SAE flange
	–	–	–	–	–	–
	–	–	–	–	–	–
	–	–	–	–	–	–
	–	–	2500	5000	–	–
	–	–	Manual – also during operation		–	–
	–	–	0.2–2	0.2–2	–	–
	In any position	In any position	Vertical, bowl at the bottom		In any position	In any position
	0 Further temperatures on request		+5	+5	0 Further temperatures on request	
	+60		+60	+60	+60	
	3.5	3.4	10	18	3.4	3.4
	0	0	–	–	2	2
	17.5	17.5	10	10	17.5	17.5
	0.5 to 8	0.5 to 16 p <sub>st</sub> > 10	–	–		
	–	–	0.2	0.2	–	–
			0.8	1.0		
	> 40000	> 40000	> 20000	> 40000	> 40000 <sup>2)</sup>	> 40000 <sup>2)</sup>
	> 2400	> 2400	> 1200	> 2400	> 2400	> 2400
	–	–	–	–	–	–

For more characteristics of air preparation units see page 94–97

## Air preparation units

Series airfit A50  
G1 1/2, G2

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special  
units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	2/2 Way start-stop valve		
System			Start-stop valve, electrically or pneumatically actuated		
Type			A50DS-..		
Material					
– Housing			Diecast aluminum		
– Metal bowl			–		
– Diaphragm			–		
– Standard sealings			NBR		
Port size			G1 1/2	G2	
Flange connection			SAE flange		
Max. condensate capacity		cm <sup>3</sup>	–		
Pore size of filter element		µm	–	–	
Condensate drainage			–	–	
Installation			In any position		
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	0 +60	Further temperatures on request	
Weight (mass)		kg	3.4		
Pneumatic characteristics					
Operating pressure range – inlet pressure	p <sub>1 min</sub>	bar	2		
	p <sub>1 max</sub>	bar	17.5		
Maximum flow <sup>1)</sup>	Q <sub>max</sub>	l/min m <sup>3</sup> /h	> 40000 > 2400		
Degree of moisture separation at recommended flow	η	%	–	–	
Residual oil amount		mg/m <sup>3</sup>	–	–	

<sup>1)</sup> at p<sub>1</sub> = 6 bar and Δp = 1 bar



## Air preparation units

*Series airfit A50*  
*G1 1/2, G2*

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request, or see  
page 155–166 for special units

	3/2 Way start-stop valve		Submicrofilter		Activated carbon filter	
	Start-stop valve, electrically or pneumatically actuated					
	A50DS-..		A50MF1080-..-ADV		A50MC1080-..-DV	
	Diecast aluminum		Diecast aluminum		Diecast aluminum	
	–		–		–	
	–		–		–	
	NBR					
	G11/2	G2	G11/2	G2	G11/2	G2
	SAE flange		SAE flange		SAE flange	
	–		600		600	
	–		–		–	
	–		Automatic (float type)		Manual, semi-automatic (pressure relief)	
	In any position		Vertical, bowl at the bottom		Vertical, bowl at the bottom	
	0 Further temperatures on request +60					
	5.0		6.4		6.4	
	2 17.5		0 17.5		0 17.5	
	> 40000 > 2400		10000 (recommended 600 at 6 bar)		10000 (recommended 600 at 6 bar)	
	–		Over 99.99999% related to 0.01 µm		Over 99.99999% related to 0.01 µm	
	–		< 0.01 input conc. 3 mg/m³		0.003‰ in combination A50MF	

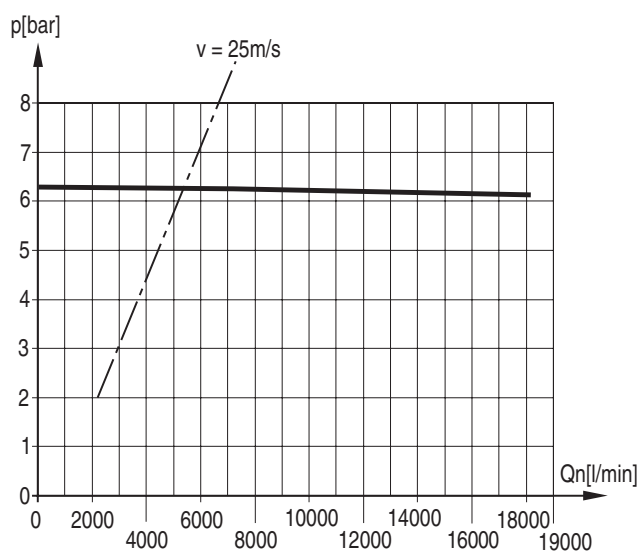


## Air preparation units

Series airfit A50  
G1 1/2, G2

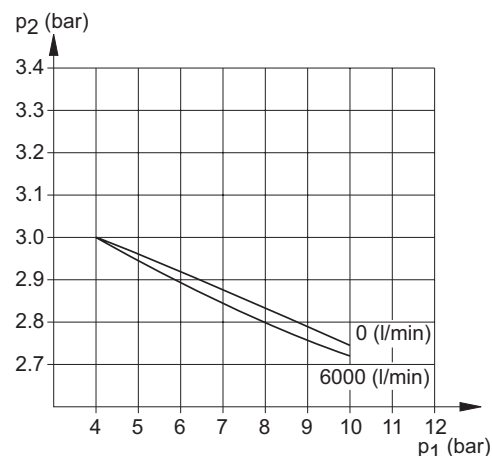
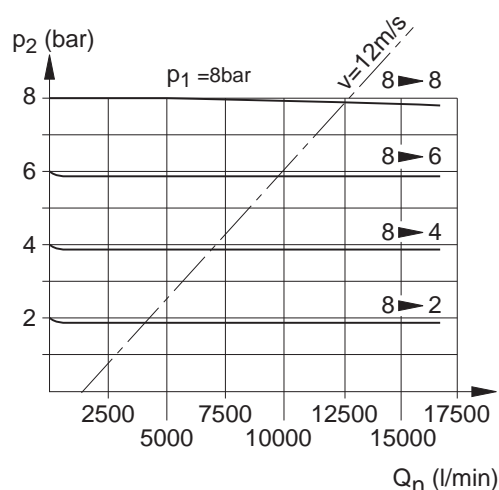
Flow characteristics

Filter-water-separator, dust filter  
Type: A50F-11/2, -2  
Type: A50FD-11/2, -2

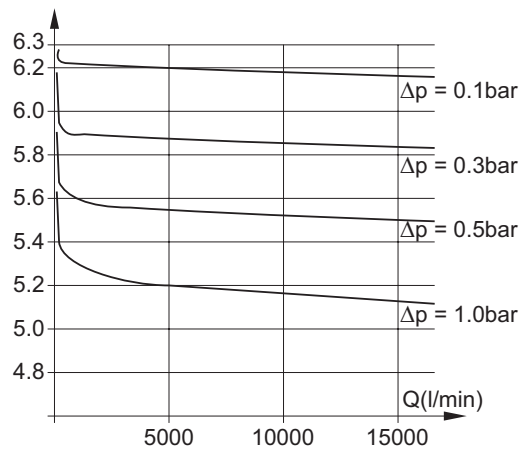


Pressure regulating valve – pilot operated  
Type: A50R-11/2, -2  
Type: A50RV-11/2, -2

Outlet pressure variation with  
fluctuating inlet pressure



Central air line lubricator – differential pressure in relation to the flow rate  
Type: EL-25, -50



## Air preparation units

Series airfit A50  
G1 1/2, G2

Flow characteristics



## Air preparation units

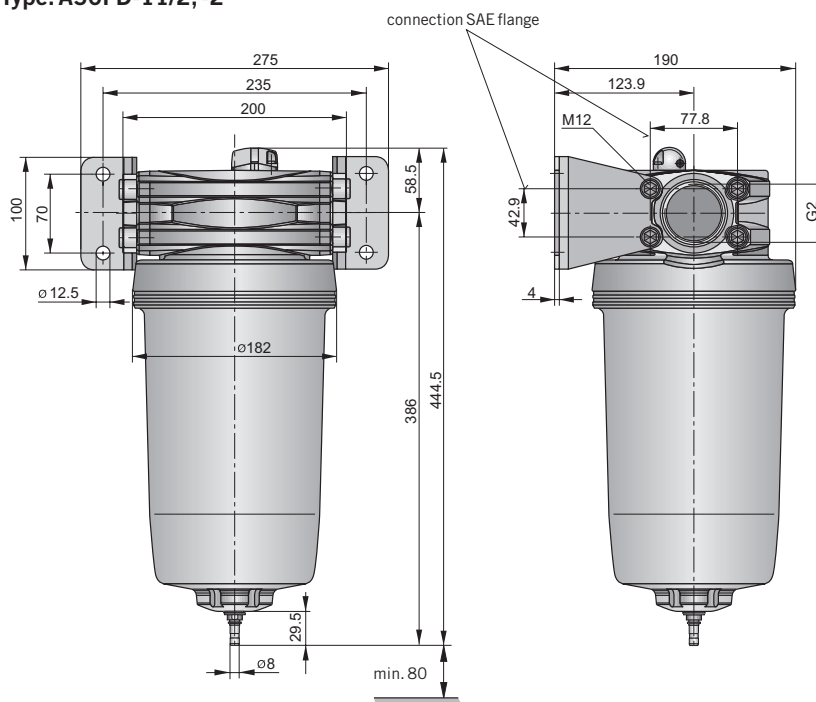
Series airfit A50  
G1 1/2, G2  
– with/without thread flanges

### Dimensions

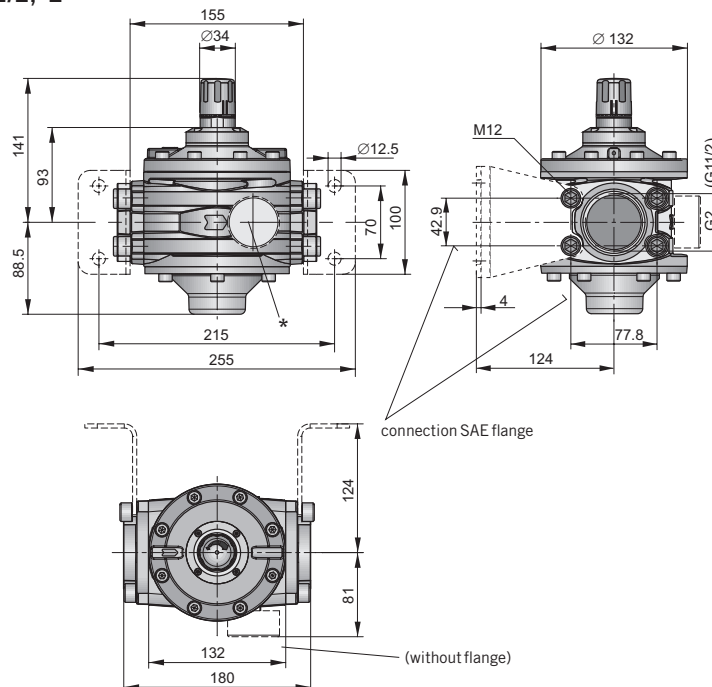
#### Delivery includes:

- Basic version  
(without thread flanges)  
1 product
- Version with thread flanges  
1 product  
2 thread flanges

Filter-water-separator – Type: A50F-11/2, -2  
Dust filter – Type: A50FD-11/2, -2



Pressure regulating valve, pilot operated with integrated pilot pressure regulating valve  
Type: A50R-11/2, -2



On delivery the plug screw is not assembled.  
\* Two opposite gauge ports G1/4

For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

Dimensions in mm



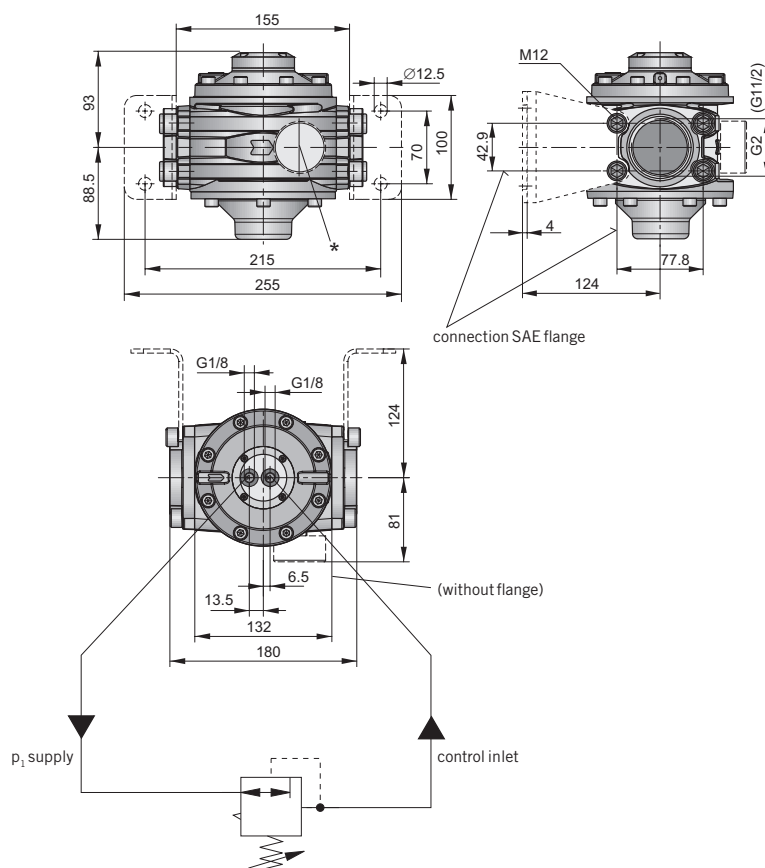
## Pressure regulating valve, pilot operated – Type: A50RV-11/2, -2

– Recommended pilot regulating valve, series airfit swing, Type: SR-1/4, PB45449-058

## Air preparation units

Series airfit A50  
G1 1/2, G2  
– with/without thread  
flanges

### Dimensions



On delivery the plug screw is not assembled.

\* Two opposite gauge ports G1/4

For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

Dimensions in mm



## Air preparation units

Series *airfit A50*  
G1 1/2, G2  
– with/without thread  
flanges

### Dimensions

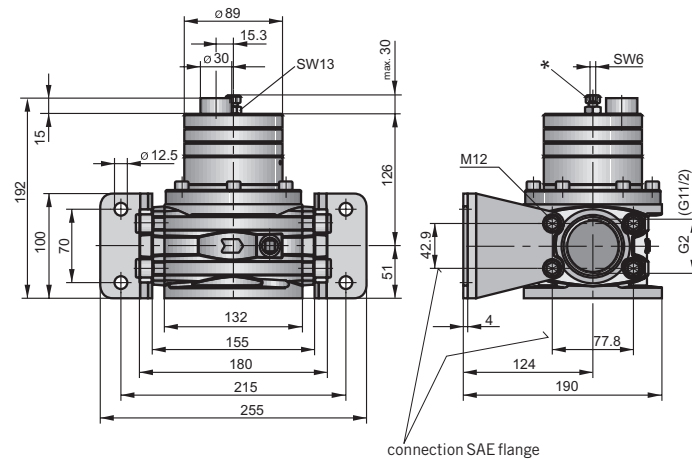
#### Start valve

The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time.

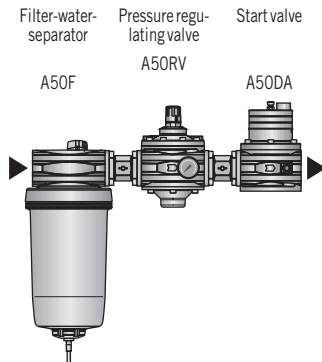
#### 2/2 Way start-stop valve

The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the air supply when the corresponding stop signal is received but does not ventilate the application (p2).

Start valve – Typ: A50DA-1 1/2, -2

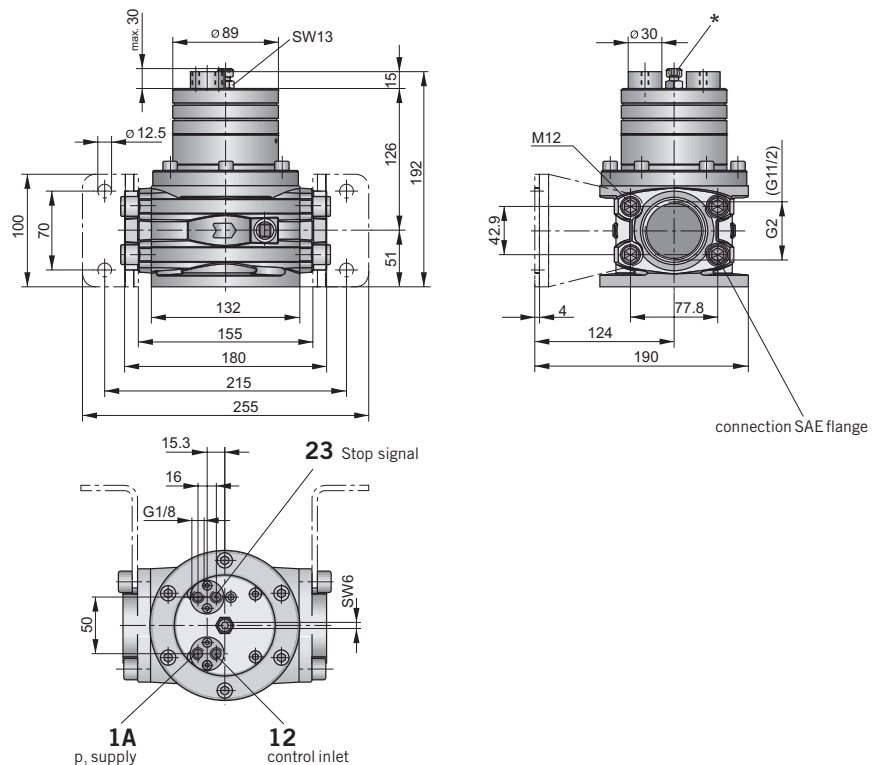


Installation instruction  
for start valve



\* Adjusting screw for start time selection (socket head screw SW 6)

2/2 Way start-stop valve, pneumatically actuated – Type: A50DS-1 1/2, -2

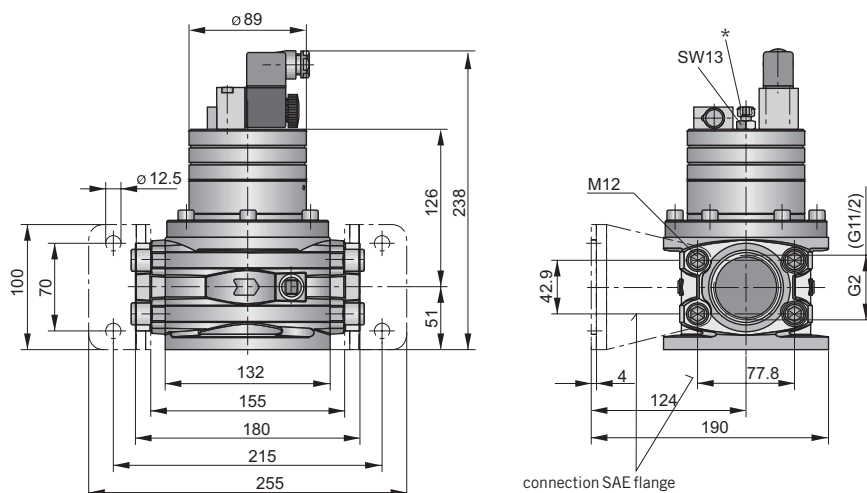


\* Adjusting screw for start time selection (socket head screw SW 6)

For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

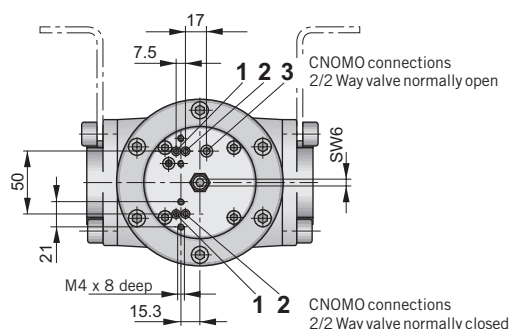
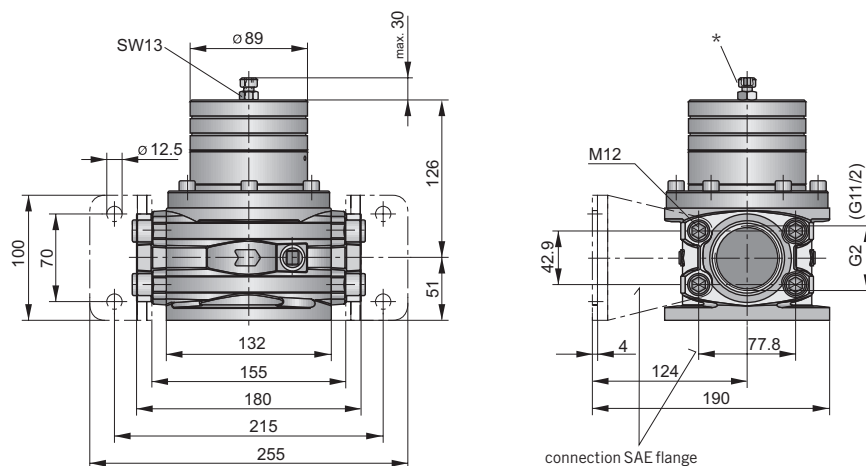
Dimensions in mm

## 2/2 Way start-stop valve, electrically actuated – Type: A50DS-11/2, -2



\* Adjusting screw for start time selection (socket head screw SW 6)

## 2/2 Way start-stop valve, CNOMO connections – Type: A50DS-11/2, -2



\* Adjusting screw for start time selection (socket head screw SW 6)

For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

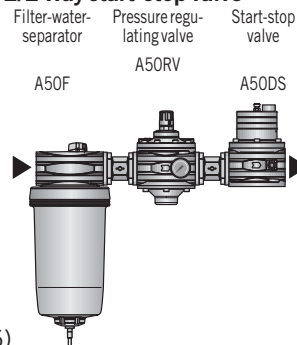
Dimensions in mm

## Air preparation units

Series airfit A50  
G1 1/2, G2  
– with/without thread  
flanges

Dimensions

### Installation instruction for 2/2 Way start-stop valve



## Air preparation units

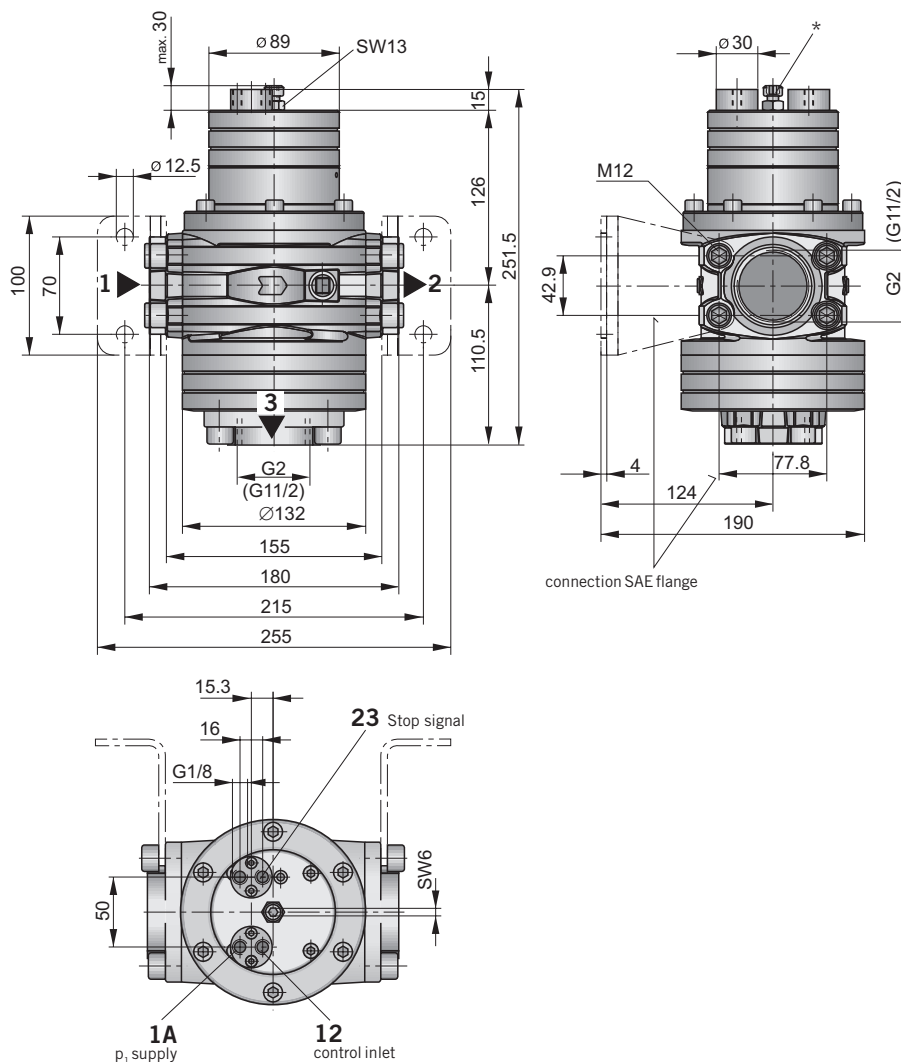
Series airfit A50  
G11/2, G2  
– with/without thread  
flanges

### Dimensions

#### 3/2 Way start-stop valve

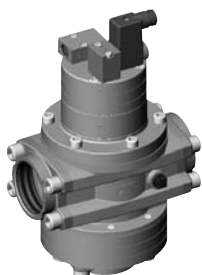
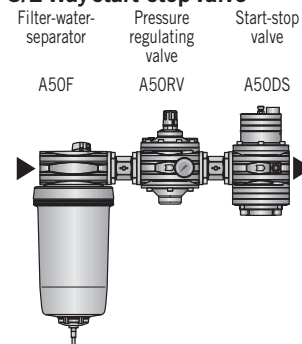
The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the air supply when the corresponding stop signal is received and the pressure in the application (p2) is quickly relieved.

#### 3/2 Way start-stop valve, pneumatically actuated – Type: A50DS-11/2, -2



\* Adjusting screw for start time selection  
(socket head screw SW 6)

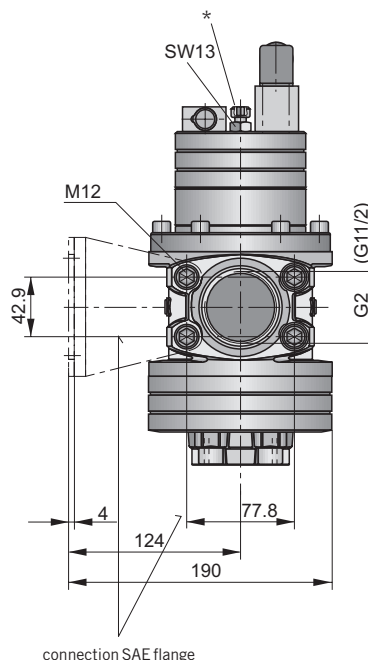
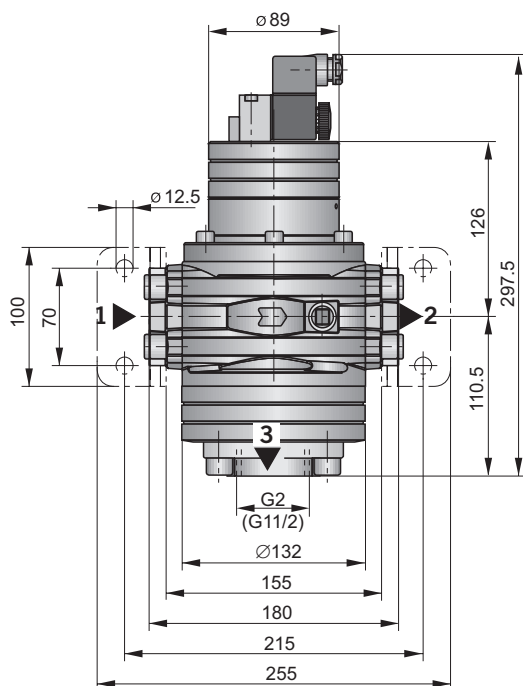
#### Installation instruction for 3/2 Way start-stop valve



For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

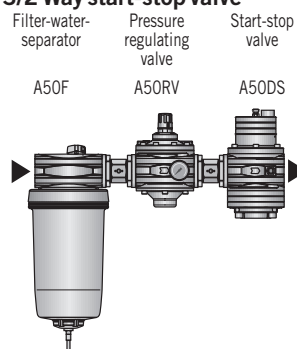
Dimensions in mm

## 3/2 Way start-stop valve, electrically actuated – Type: A50DS-1 1/2, -2



\* Adjusting screw for start time selection  
(socket head screw SW 6)

### Installation instruction for 3/2 Way start-stop valve



For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

Dimensions in mm

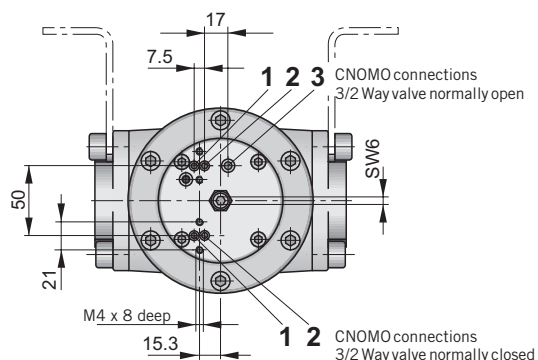
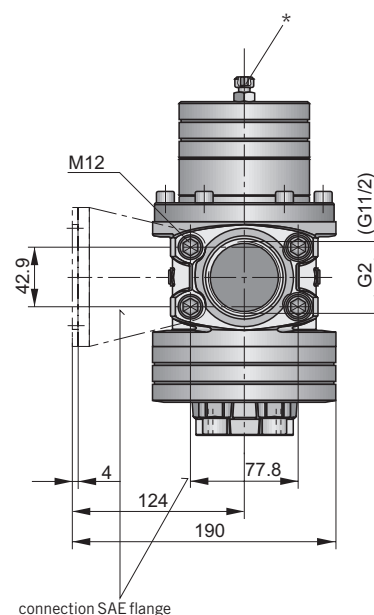
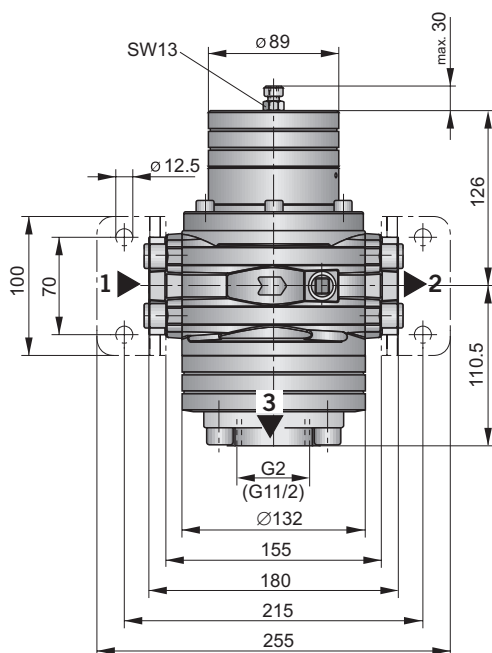


## Air preparation units

Series airfit A50  
G1 1/2, G2  
– with/without thread  
flanges

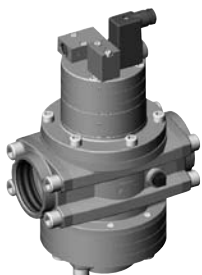
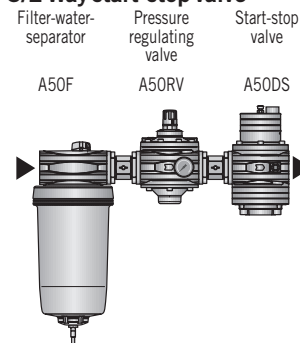
### Dimensions

3/2 Way start-stop valve, CNOMO connections – Type: A50DS-11/2, -2



\* Adjusting screw for start time selection  
(socket head screw SW 6)

### Installation instruction for 3/2 Way start-stop valve

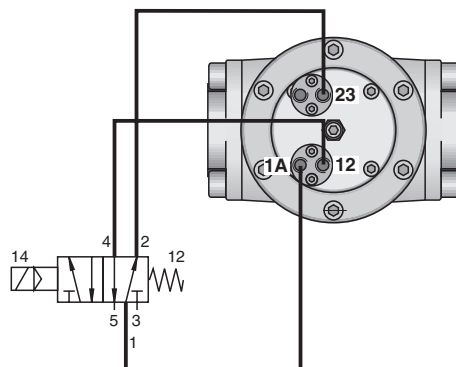


For order instructions see page 108–110, for characteristics see page 92–95,  
for accessories see page 111, 112

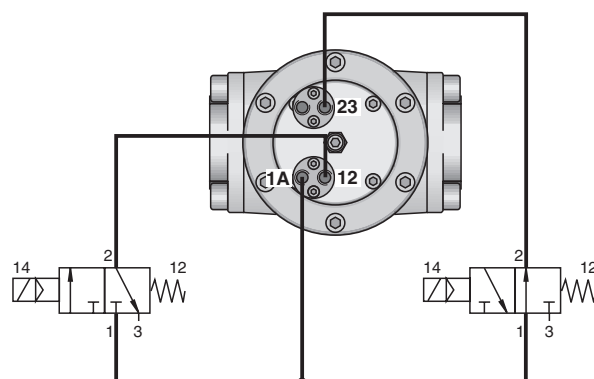
Dimensions in mm

## Start-stop valve, pneumatically actuated

Combined start/stop function



Combined start/stop function with acknowledgement



Further control types on request

## Air preparation units

*Series airfit A50*  
*G1 1/2, G2*  
 – with/without thread  
 flanges

*Control types*

For order instructions see page 108–110, for characteristics see page 92–95,  
 for accessories see page 111, 112

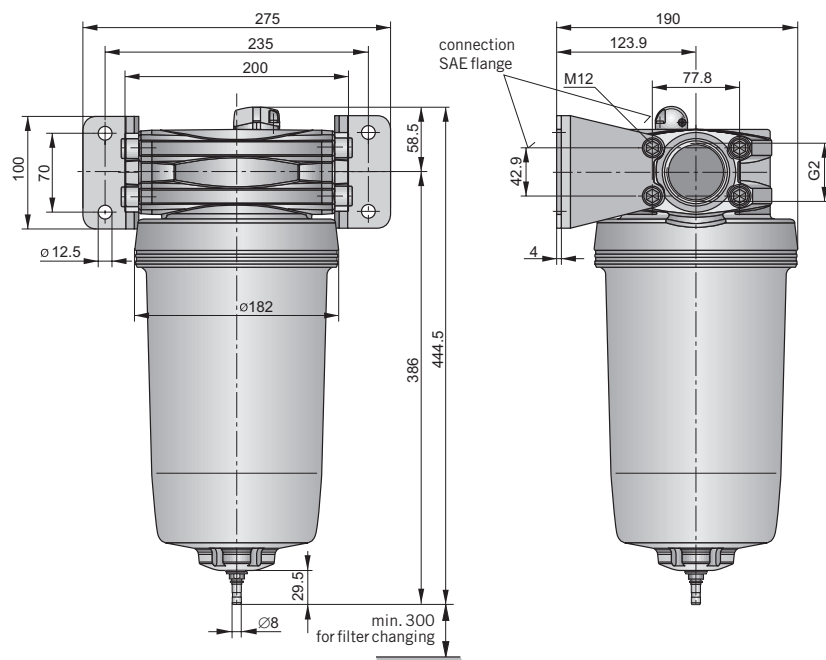
Dimensions in mm



## Air preparation units

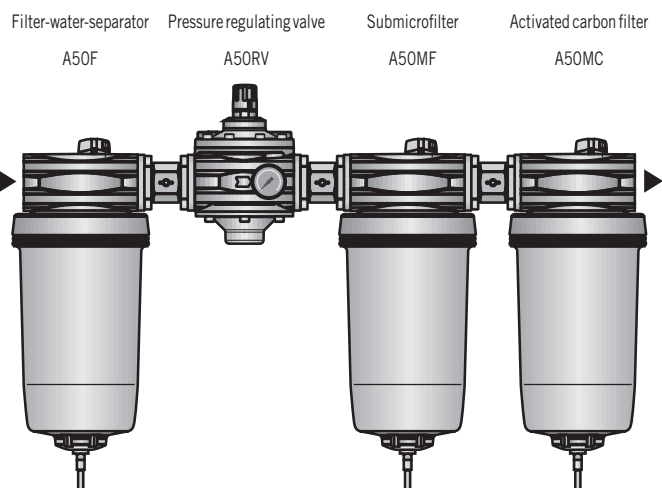
Series airfit A50  
G1 1/2, G2  
– with/without thread  
flanges

Submicrofilter – Type: A50MF-1080-11/2, -2  
Activated carbon filter – Type: A50MC-1080-11/2, -



### Installation instruction

To increase the life span of the filter elements, we recommend the following order.

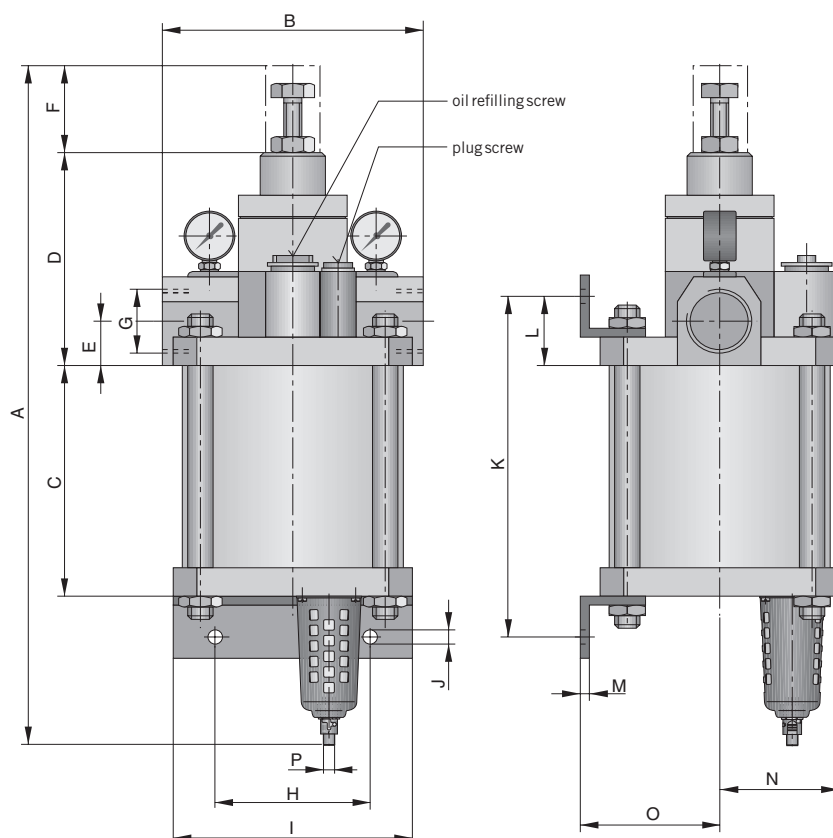


For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm



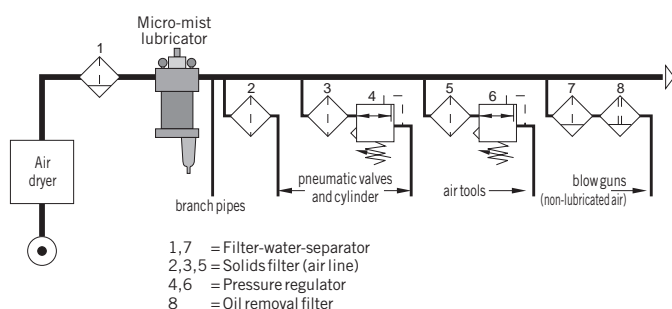
## Central air line lubricator – Type: EL-25, -50



**Dimension table**

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EL-25	530	180	187	160	35	37	G1	115	180	18	304	77	3	90	110	G1/8
EL-50	608	250	225	198	46	45	G2	150	225	13	342	72	6	112.5	124.1	G1/8

## Installation diagram



## Installation instruction

In most cases it is advisable to install air line filters in branch pipes. When constant operating pressures are required (e.g. cylinders, pneumatic screw drivers, etc.) pressure regulators should be used. If small amounts of oil-free air are needed, a filter-water-separator followed by a submicrofilter can be installed (see Installation diagram).



For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm

## Air preparation units

*Series airfit A50*  
*G1 1/2, G2*  
 – with/without thread flanges

## Dimensions

### Central air line lubricator

Micro-mist lubricator with oil-feed adjustment depending on differential pressure.

Comprising:  
 lubricator unit, 2 gauges,  
 and mounting bracket

**Differential pressure gauge:**  
 Assembly kit with mounting kit  
 For Accessories see page 112

## Air preparation units

Series airfit A50  
G1 1/2, G2  
– with/without thread  
flanges

Order instructions

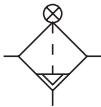
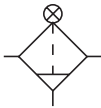
\* Connection flanges are not  
supplied assembled



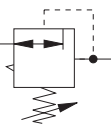
### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
-------------	--------	-----------	---------------------------	-----------

#### Filter-water-separator

– Basic version		For SAE flange	A50F-ADV	PB60949-000
– Basic version with filter element 5 µm		For SAE flange	A50F-5ADV	PB 60949-016
– Basic version with connection flange*		G1 1/2	A50F-1 1/2-ADV	PB 60849-050
– Basic version with connection flange*		G2	A50F-2-ADV	PB 60949-050
– Version with connection flange* (with filter element 5 µm)		G1 1/2	A50F-1 1/2-5ADV	PB 60849-066
– Version with connection flange* (with filter element 5 µm)		G2	A50F-2-5ADV	PB 60949-066
– Dust filter basic version (with filter element 1 µm)		For SAE flange	A50FD-DV	PB 60949-120
– Dust filter with connection flange* (with filter element 1 µm)		G1 1/2	A50FD-1 1/2-DV	PB 60849-170
– Dust filter with connection flange* (with filter element 1 µm)		G2	A50FD-2-DV	PB 60949-170

#### Pressure regulating valve

– Basic version with integrated pilot pressure regulating valve		For SAE flange	A50R	PB60649-021
– Basic version pilot operated (without pilot regulator)		For SAE flange	A50RV	PB60649-000
– Version with connection flange* with integrated pilot pressure regulating valve		G1 1/2	A50R-1 1/2	PB60549-070
– Version with connection flange* with integrated pilot pressure regulating valve		G2	A50R-2	PB60649-070
– Version with connection flange* pilot operated (without pilot regulator)		G1 1/2	A50RV-1 1/2	PB60549-050
– Version with connection flange* pilot operated (without pilot regulator)		G2	A50RV-2	PB60649-050

## Air preparation units

*Series airfit A50*

*G1 1/2, G2*

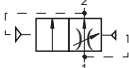
*– with/without thread flanges*

*Order instructions*

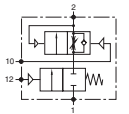
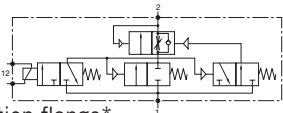
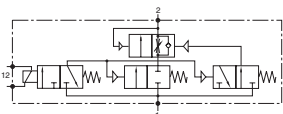
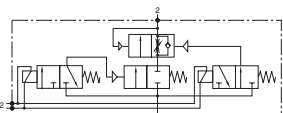
### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
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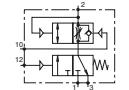
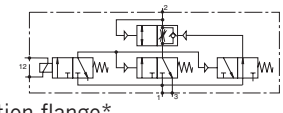
#### Start valve

– Start valve without connection flange		For SAE flange	A50DA	PB 60649-100
– Start valve with connection flange*		G1 1/2	A50DA-1 1/2	PB 60549-150
		G2	A50DA-2	PB 60649-150

#### 2/2 Way start-stop valve

– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-200
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-250
		G2	A50DS-2-P	PB 60649-250
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-204
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-254
		G2	A50DS-2-E	PB 60649-254
– electrically actuated 24V DC		For SAE flange	A50DS-E	PB 60649-201
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-251
		G2	A50DS-2-E	PB 60649-251
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-210
with connection flange*		G1 1/2	A50DS-1 1/2-C	PB 60549-260
		G2	A50DS-2-C	PB 60649-260

#### 3/2 Way start-stop valve

– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-220
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-270
		G2	A50DS-2-P	PB 60649-270
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-224
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-274
		G2	A50DS-2-E	PB 60649-274

For more types see page 110

\* Connection flanges are not supplied assembled



## Air preparation units

Series airfit A50

G1 1/2, G2

– with/without thread flanges

Order instructions

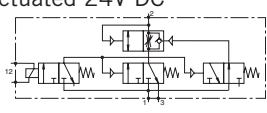
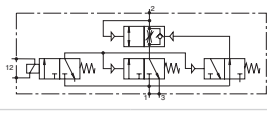
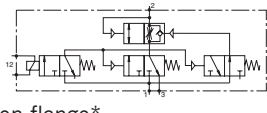


\* Connection flanges are not supplied assembled

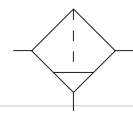
### Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
-------------	--------	-----------	------------------------	-----------

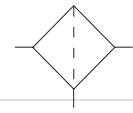
#### 3/2 Way start-stop valve – continued from page 109

– electrically actuated 24V DC		for SAE flange	A50DS-E	PB 60649-221
– electrically actuated 24V DC with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-271
		G2	A50DS-2-E	PB 60649-271
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-230
with connection flange*		G1 1/2	A50DS-1 1/2-C	PB 60549-280
		G2	A50DS-2-C	PB 60649-280

#### Submicrofilter

– with automatic drainage		For SAE flange	A50MF1080-ADV	PB 61249-000
– with automatic drainage with connection flange*		G1 1/2	A50MF1080-11/2-ADV	PB 61149-050
		G2	A50MF1080-2-ADV	PB 61249-050

#### Activated carbon filter

– Basic version		For SAE flange	A50MC1080-DV	PB 61549-000
– Basic version with connection flange*		G1 1/2	A50MC1080-11/2-DV	PB 61449-050
		G2	A50MC1080-2-DV	PB 61549-050

#### Central air line lubricator

– Basic version with aluminum tube with electrical oil level control	G1	EL-25	PB 15749-020
	G2	EL-50	PB 15549-020
	G2	EL-50-E	PB 15549-026

#### Accessories

Description	For type	Order No.
Mounting kit (2 brackets + 4 screws)		PL18672
Gauge, Ø 50 mm, 0–16 bar, G1/4 *		KG8013
Coupling kit		PL18735
Connection flange (kit) G1 1/2		PL18660
Connection flange (kit) G2		PL18662
Porting block kit G1 with flange for pressure switch mounting		PL18779
Differential pressure gauge for central air line lubricator (mounting kit, brackets included)	EL-25	PL 17653
Differential pressure gauge for central air line lubricator (mounting kit, brackets included)	EL-50	PL 17652

\* for more gauges see page 186, 187

For more information see accessories page 111, 112

## Air preparation units

*Series airfit A50*  
G1 1/2, G2

### Accessories – Porting block kit

To provide unlubricated air  
e.g. for air gun.

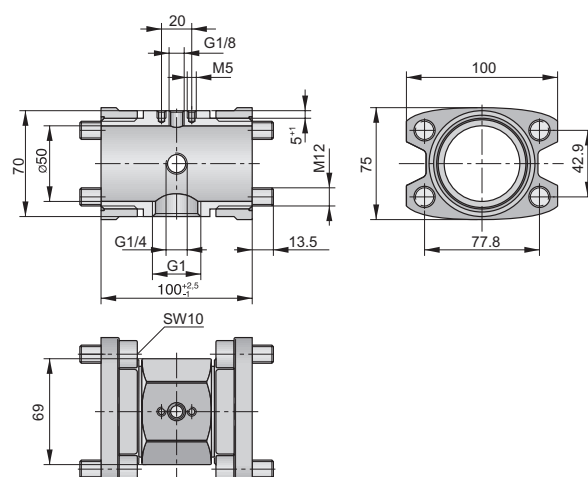
For pressure switch mounting  
as standard

#### Delivery includes:

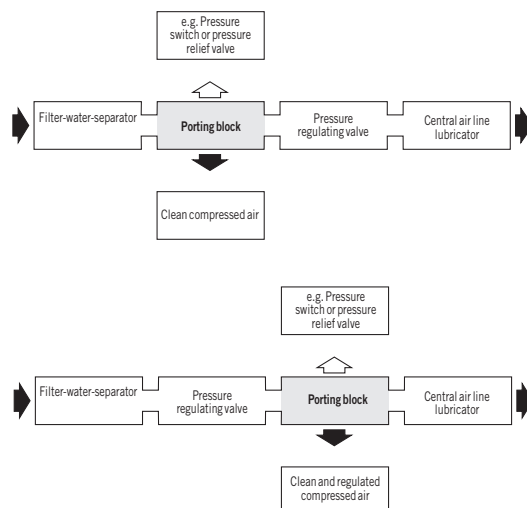
- 1 tube
- 2 flanges
- 2 o-rings for flanges
- 8 screws
- 2 o-rings
- 4 plug screws

Characteristics	Description
Installation	Between 2 units of the series airfit A50
Mounting	Directly flange mountable with coupling kit supplied
Material	Aluminum

### Dimensions



### Installation instruction



### Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit G2 (G1 1/2)	A50X	PL 18779

Dimensions in mm



## Air preparation units

*Series airfit A50  
G1 1/2, G2*

*Accessories*

**Mounting kit**



**Order No. PL18672**

**Coupling kit**



**Order No. PL18735**

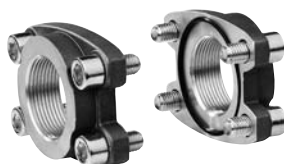
**Gauge**  
Ø 50, 0–10 bar, G1/4



**Order No.**  
**KG8012 (0–10 bar)**  
**KG8013 (0–16 bar)**

For more gauges  
see page 186, 187

**Connection flange -kit**



**Order No.**  
**PL 18660 (G2)**  
**PL 18662 (G1 1/2)**

**Differential pressure gauge**  
(mounting kit, brackets included)



**Order No.**  
**EL-20/25 PL 17653**  
**EL-40/50 PL 17652**

**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Drain valve (assembly kit)	114, 115	116	118
Drain valve G1/2, DV-1/2e	114, 115	116, 117	118
Drain valve G1/2, DV-1/2e2	114, 115	117	118
Float-type drain valve, electronically actuated, G3/4, DV-3/4e	114, 115	117	118

**Air preparation  
units**

*Condensate manage-  
ment airfit drain  
G1/2, G3/4*



## Air preparation units

*Condensate management airfit drain*  
G1/2, G3/4

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Drain valve DV-1/2i (DV1/4i)	Drain valve DV-1/2e	
System			Float controlled condensate drain valve (automatic)	Float controlled condensate drain valve (automatic)	
Port size			Assembly kit	G1/2	
Material					
– Float controller			Plastic (PP black)	Stainless steel	
– Housing			Plastic (PA)	Al	
– Sealings			Oil resistant rubber	Oil resistant rubber	
Condensate drainage			– During operation when reaching certain condensate level – During pressure relief – Manual	– During operation when reaching certain condensate level – Manual	
Installation			Vertical	Horizontal (see sketch)	
Mounting			In the bowl with a circlip or mounting nut M14x1	Double nipple	
Weight (mass)		kg	0.06	0.65	
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C	2	2	
		°C	70 (120 on request)	100	
Condensate temperature	T	°C	–	–	
Operating pressure range	$p_{min}$ $p_{max}$	bar bar	1.5 20 (12 for DV-1/4i)	0 20	
Performance characteristic for					
– Max. compressor capacity		m³/min	–	–	
– Max. dryer capacity		m³/min	–	–	
– Short-term peak condensate volume		l/h	–	–	
Electrical connection self adjusting		V DC V AC	– –	– –	
Power consumption		VA	–	–	
Degree of protection		IP	–	–	
Resistance-free contact		V AC/DC	–	–	
Electronic relay (opens at failure)		A	–	–	





## Air preparation units

*Condensate management airfit drain*  
G1/2, G3/4

*Characteristics*

<b>Drain valve DV-1/2e2</b>	<b>Float controlled drain valve, DV-3/4</b>
Float controlled condensate drain valve (fully automatic)	Electronically controlled condensate drain valve without air consumption
G1/2	G3/4 external thread or NPT 1/2
Plastic (PP black)	–
Aluminum, polycarbonate bowl	–
Oil resistant rubber	–
– During operation when reaching certain condensate level – During pressure relief – Manual	Level sensing, electronically controlled
Vertical (see sketch)	Vertical
Double nipple or direct	Direct
0.3	1.0
0	1
50 at 10 bar	60
–	max. 60
0	0.8
16	16
–	–
–	5
–	10
–	30 at 7 bar
–	24–230
–	80–230
–	5
–	65
–	max. 300
–	0.1



## Air preparation units

Condensate management airfit drain  
G1/2

### Dimensions

Drain valve  
DV-1/4i, DV-1/2i  
– Assembly kit

Float-controlled drain valve for automatic drainage of condensate from industrial filters used in compressed air technology.

For installation in all plastic and metal reservoirs. Fitted in the HOERBIGER A25 and A50 series.

### Delivery includes:

Drain valve, with o-ring and locking device if required

### Drain valve DV-1/2e

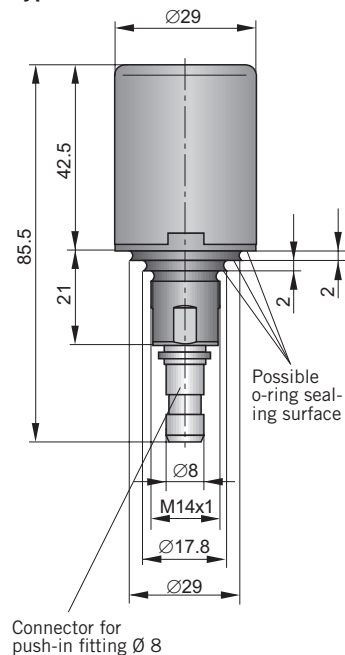
Float-controlled drain valve for automatic drainage of condensate from compressed air lines and compressors. Tackles highly polluted condensate without problems.

### Installation instruction:

Generally at the lowest point, where condensate and oil collect.

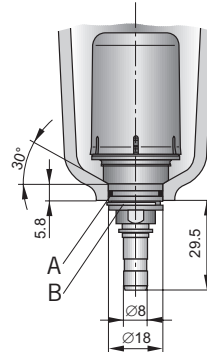


Type: DV-1/2i



Type: DV-1/2i

– for series airfit A25, A50

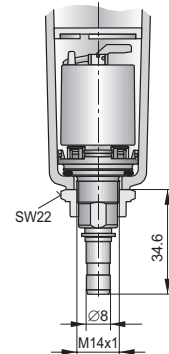


### Installation instruction DV-1/2i

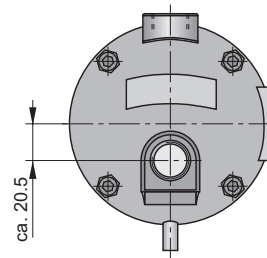
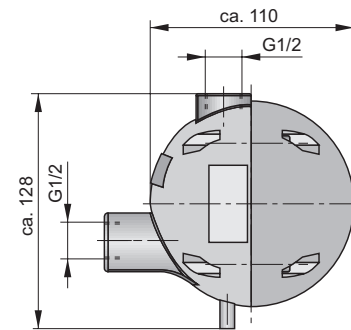
1. Lightly grease seal ring A before assembly.
2. Insert the drain valve into the bowl from the top.
3. Secure the drain valve outside the bowl with circlip B.

Type: DV-1/4i

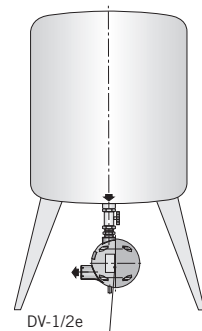
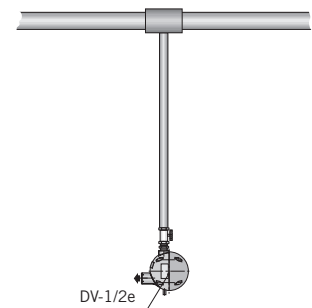
– for series airfit swing



Type: DV-1/2e



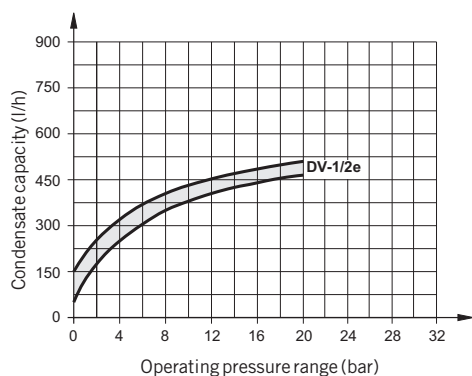
### Installation instruction Type: DV-1/2e



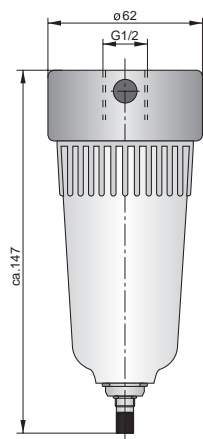
For order instructions see page 118, for characteristics see page 114, 115

Dimensions in mm

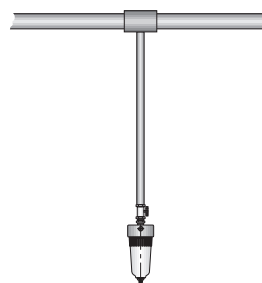
## Condensate capacity – Type: DV-1/2e



## Type: DV-1/2e2



## Installation instruction Type: DV-1/2e2



## Air preparation units

*Condensate management airfit drain G1/2*

### Dimensions

### Drain valve DV-1/2e2

Float-type drain valve for fully automatic drainage of condensate from compressed air lines – for external mounting

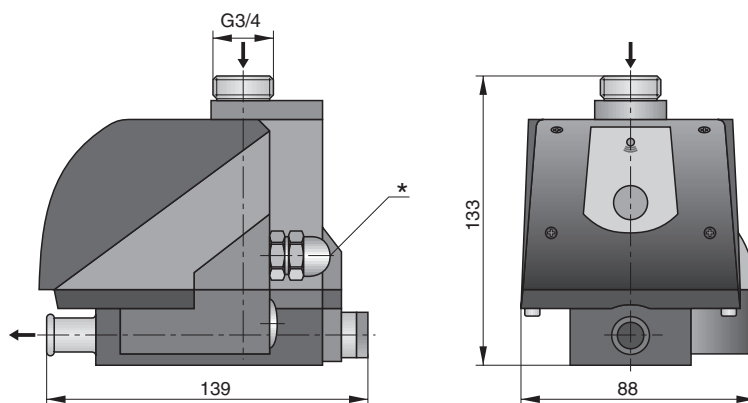
**Installation instruction:**  
Generally at the lowest point, where condensate and oil collect.

### Float controlled drain valve, electronically actuated DV-3/4

- For external application
- Level dependant control
- Universal voltage for international use
- Version for aggressive media

**Installation instruction:**  
Please note the instruction manual. Highly polluted condensate requires the use of a strainer (particle separation).

## Type: DV-3/4e



\* Electronic connection PG9

For order instructions see page 118, for characteristics see page 114, 115

Dimensions in mm




## Air preparation units

*Condensate management airfit drain  
G1/4, G1/2, G3/4*

*Order instructions*

### Order instructions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Drain valve, assembly kit, fully automatic condensate drainage			DV-1/4i	On request
Drain valve, assembly kit, fully automatic condensate drainage			DV-1/2i	PL 19560
Drain valve, fully automatic condensate drainage		G1/2	DV-1/2e	KG6099
Drain valve, fully automatic condensate drainage		G1/2	DV-1/2e2	PL 18040
Float controlled drain valve, electronically actuated		G3/4	DV3/4e	PBZ 5049-000



**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
airfit control Electronically controlled proportional pressure regulating valve G1/4, G3/8, Type SRE-..	120–125	126	128
airfit control Electronically controlled proportional pressure regulating valve G3/8, G1/2, Type CRE-..	120–125	126	129
airfit control Electronically controlled proportional pressure regulating valve G3/4, G1, Type A25RE-..	120–125	127	128
airfit control Electronically controlled proportional pressure regulating valve G1 1/2, G2, Type A50RE-..	120–125	127	129
tecno basic Electronically controlled proportional pressure regulating valve NW 2.5 and G1/8, Type PRE-.	132–137	139, 140	141
tecno plus Electronically controlled proportional pressure regulating valve NW 6 and G1/4, Type PRE-.2	132–137	142, 143	144
Accessories airfit control	–	130, 131	130, 131
Accessories tecno basic tecno plus	–	140, 143	141, 144

## Electronically controlled proportional pressure regulating valves

*Series airfit control  
G1/4 – G2*

*Series tecno basic  
NW 2.5, G1/8*

*Series tecno plus  
NW 6, G1/4*



## Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) and customized  
solutions on request



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description				
System			Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		
Type			SRE-1/4	SRE-3/8	CRE-3/8	CRE-1/2	
Material							
– Housing			Diecast zinc				
– Diaphragm			NBR				
– Standard sealings			NBR				
Port size			G1/4	G3/8	G3/8	G1/2	
Installation			In any position		In any position		
Weight (mass)		kg	0.6	0.6	0.95	0.95	
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	0 +50	0 +50	0 +50	0 +50	
Medium			Filtered, lubricated, or oil-free compressed air, inert gases				
Pneumatic characteristics							
Operating pressure range – inlet pressure <sup>1)</sup>	p <sub>1min</sub> p <sub>1max</sub>	bar bar	0 16	0 16	0 16	0 16	
Operating pressure range – outlet pressure	p <sub>2min</sub> p <sub>2max</sub>	bar bar	0 10	0 10	0 10	0 10	
Maximum flow <sup>2)</sup>	Q <sub>N</sub>	l/min m <sup>3</sup> /h	2200 132	2500 150	4500 270	6000 360	
Hysteresis <sup>3)</sup>	p <sub>2max</sub>	%	< 1	< 1	< 1	< 1	
Repeatability <sup>3)</sup>	p <sub>2max</sub>	%	< 0.5	< 0.5	< 0.5	< 0.5	
Sensitivity <sup>3)</sup>	p <sub>2max</sub>	%	< 0.5	< 0.5	< 0.5	< 0.5	
Linearity <sup>3)</sup>	p <sub>2 max</sub>	%	< 1	< 1	< 1	< 1	
Electrical characteristics							
Nominal voltage	U <sub>N</sub>	V DC	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	
Residual ripple		%	10	10	10	10	
Power consumption	I <sub>Bmax</sub>	A	0.15	0.15	0.15	0.15	
Set value input	U <sub>W</sub> I	V mA mA	0–10 0–20 4–20	0–10 0–20 4–20	0–10 0–20 4–20	0–10 0–20 4–20	
Input resistance	R <sub>E</sub>	kΩ	200	200	200	200	
Actual value output	U <sub>x</sub>	V	0–10	0–10	0–10	0–10	
Output current	I <sub>Amax</sub>	mA	20	20	20	20	
Degree of protection		IP	65 to DIN 40050, EN 60529		65 to DIN 40050, EN 60529		

<sup>1)</sup>  $p_1 \geq p_2 + 10\% p_2$

<sup>2)</sup> at  $p_1 = 10$  bar to  $p_2 = 6.3$  bar

<sup>3)</sup> see explanation on page 122

## Electronically controlled proportional pressure regulating valves

*Series airfit control  
G1/4 – G2*

*Characteristics*

Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		Diaphragm-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		
	A25RE-3/4	A25RE-1	A50RE-1 1/2	A50RE-2
	Diecast aluminum			
	NBR			
	NBR			
	G3/4	G1	G1 1/2	G2
	In any position	In any position	In any position	In any position
	1.2	1.2	4.1	4.1
	0 +50	0 +50	0 +50	0 +50
	Filtered, lubricated, or oil-free compressed air, inert gases			
	0 16	0 16	0 16	0 16
	0 10	0 10	0 10	0 10
	20000 1200	20000 1200	> 40000 > 2400	> 40000 > 2400
	< 1	< 1	< 1	< 1
	< 0.5	< 0.5	< 0.5	< 0.5
	< 0.5	< 0.5	< 0.5	< 0.5
	< 1	< 1	< 1	< 1
	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%
	10	10	10	10
	0.15	0.15	0.15	0.15
	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)
	243	243	243	243
	0–10	0–10	0–10	0–10
	10	10	10	10
	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529



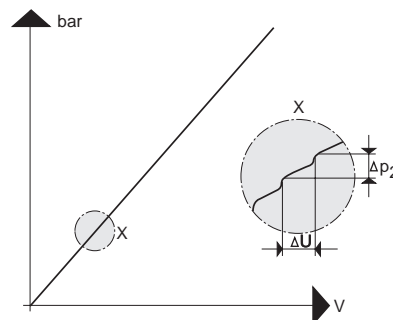
## Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

### Definitions

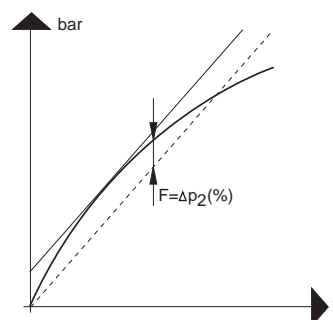
#### Sensitivity

The smallest deviation from set output pressure that leads to a change in actual output pressure is referred to as sensitivity and this is expressed as a percentage of maximum output pressure. Sensitivity of the XRE II valve is below 0.5%, which allows output pressure to be set very precisely.



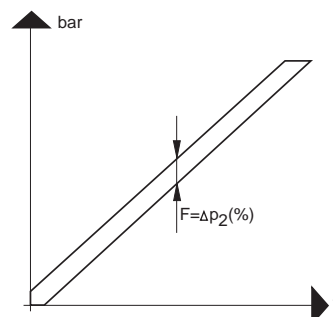
#### Linearity

The ideal curve showing output pressure in relation to electronic signal would be a straight (linear) line (see dotted line), to predict exactly which pressure can be expected at a given voltage. The deviation can be calculated from the maximal deviation from the straight line, in relation to the highest possible pressure.



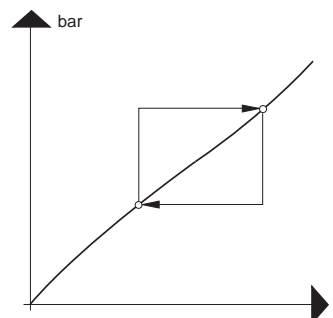
#### Hysteresis

The same set output pressure generates slightly different actual output pressures, depending on whether the previous setting was higher or lower. This difference, known as hysteresis, is caused by friction and temporary deformation of elastic components. The hysteresis of the SRE valve is below 0.1 bar.



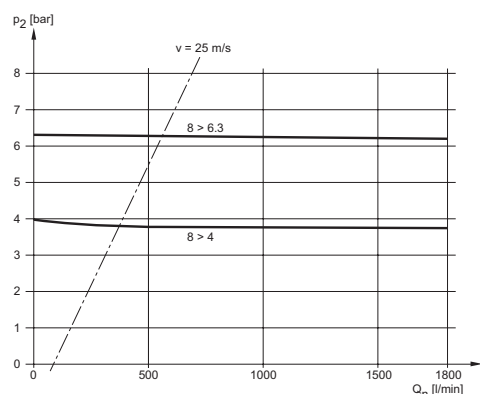
#### Repeatability

Control components for a given set value usually produce repeated actual values that differ less from each other than from the absolute set value, because the relatively large linearity deviation is excluded. Repeatability is improved if hysteresis is minimized.

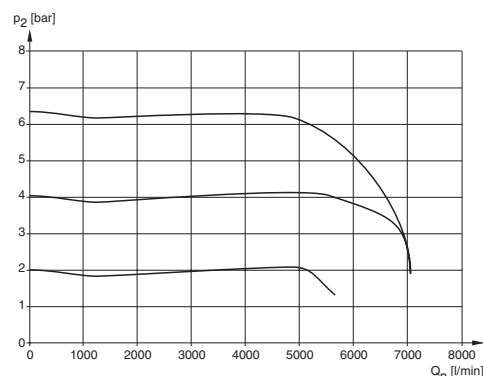




Output pressure as function of input voltage  
Type: SRE-1/4



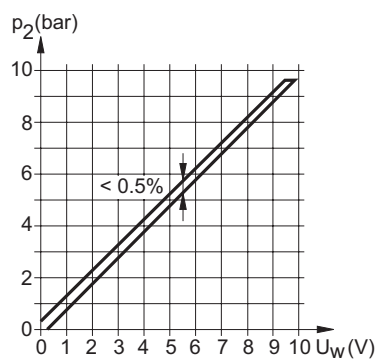
Type: CRE-1/2



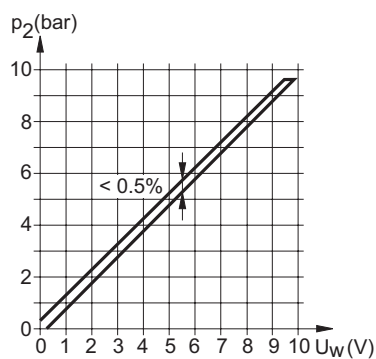
## Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

Output pressure as function of input voltage  
Type: SRE-1/4

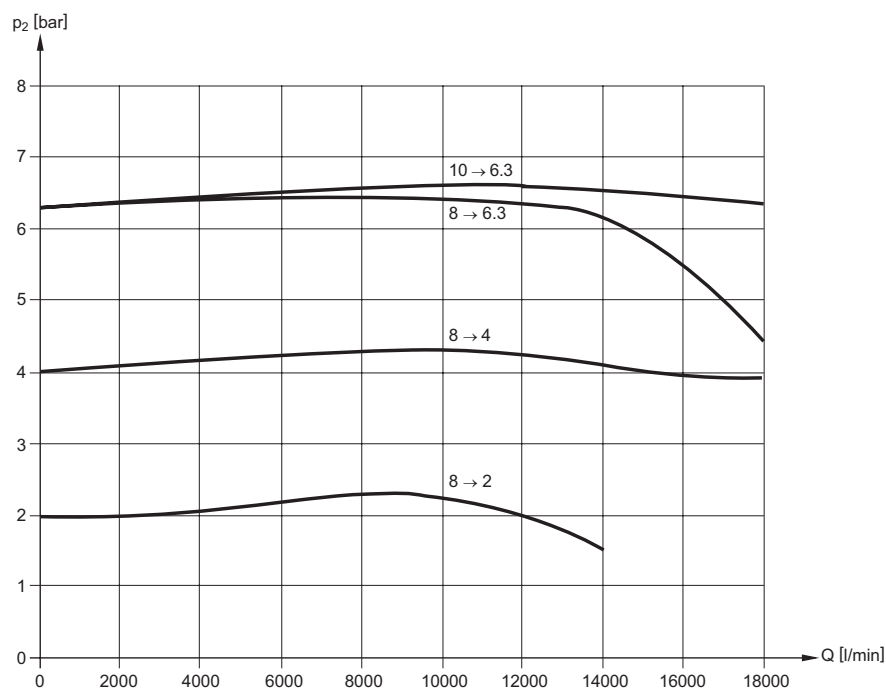


Output pressure as function of input voltage  
Type: CRE-1/2



Flow characteristics

Type: A25RE-1

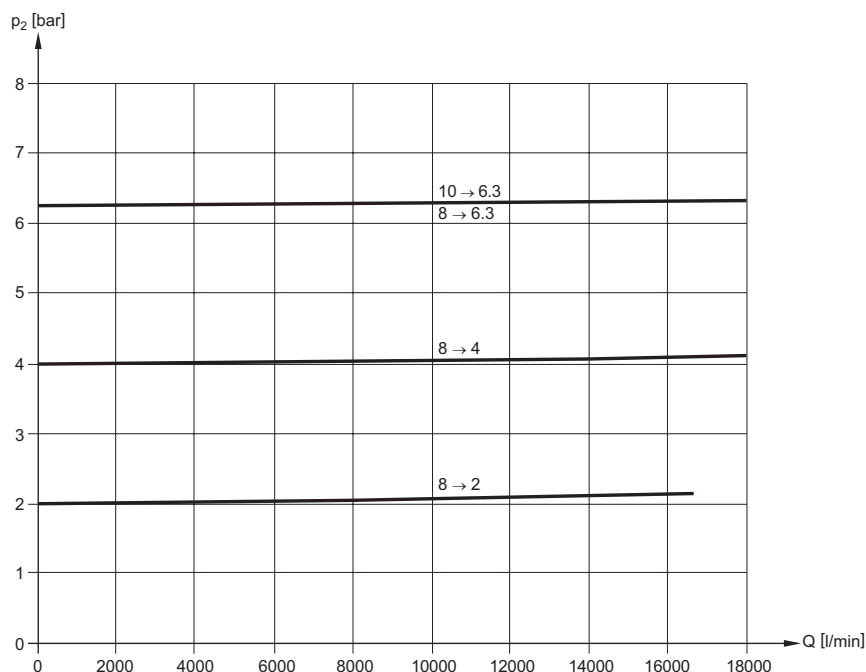


## Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

Flow characteristics

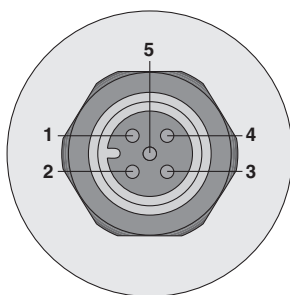
Type: A50RE-2



### Connection diagram

Type: SRE-..., CRE-..., A25RE-..., A50-...

Connector M12x1



#### Pin 1:

Power supply  
Plus +24 V DC  $\pm 10\%$   
0.15 A  
Residual ripple 10%

#### Pin 2:

Power supply 0 V  
Reference and mass capacity  
for set value and actual value

#### Pin 3:

Set value input  
0–10 V

#### Pin 4:

0 V target signal  
(connected on board  
with pin 2 as standard)

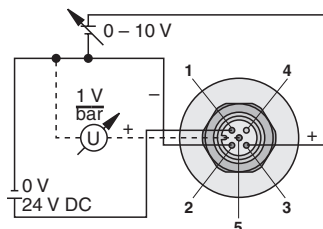
#### Pin 5:

Analog actual value output  
0–10 V  
Tolerance  $\pm 0.15$  V

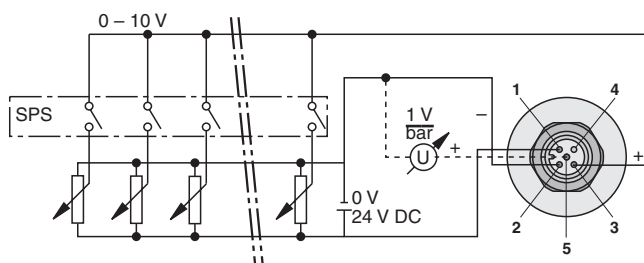


### Control options—Type: SRE-..., CRE-...

Analog voltage

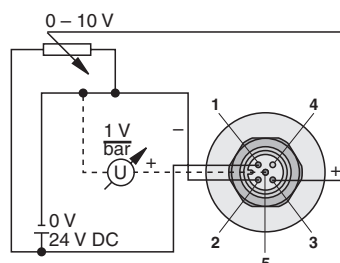


PLC in connection with several potentiometers



The total resistance of the potentiometer series should not be less than 500  $\Omega$

With a single potentiometer



The resistance of the potentiometer should range between 500  $\Omega$  and 100 k $\Omega$

## Electronically controlled proportional pressure regulating valves

*Series airfit control  
G1/4 – G2*

*Characteristics  
Connection diagrams*

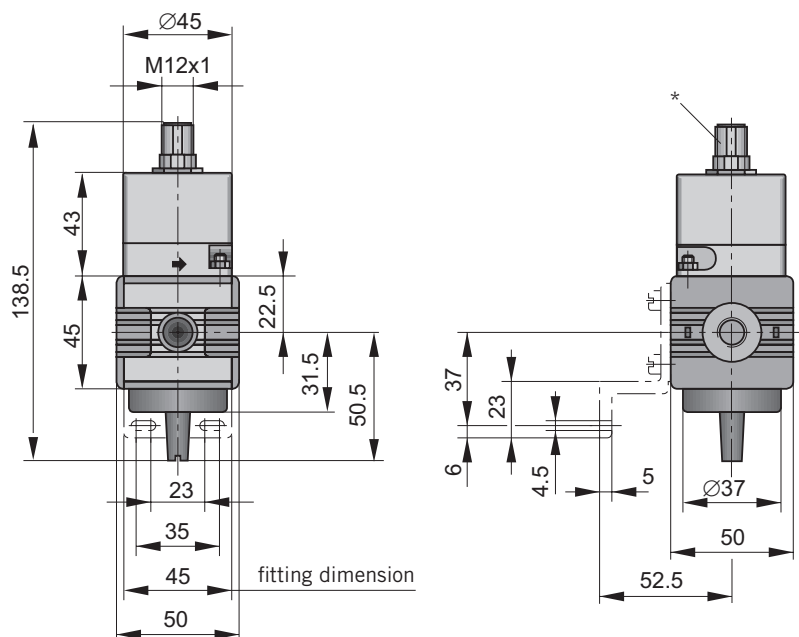


# Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

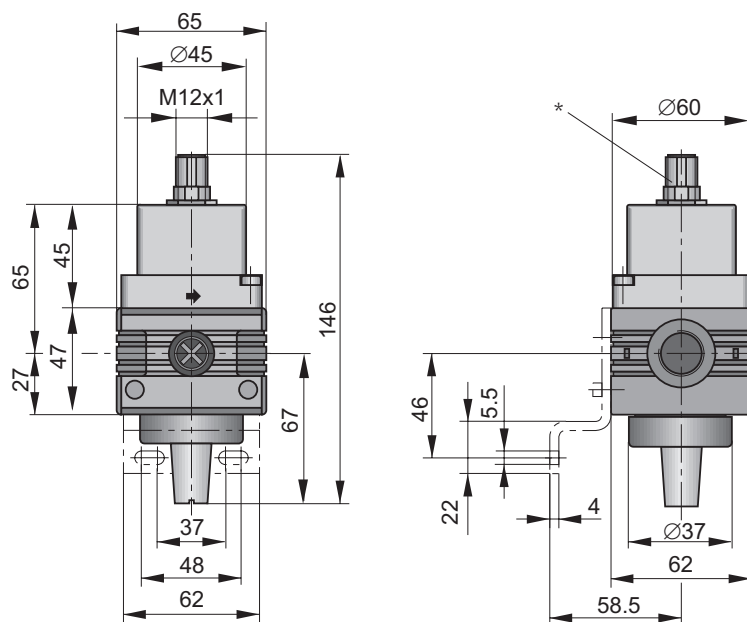
Dimensions

Type: SRE-1/4, -3/8



\* Connection for 5-pin plug M12x1

Type: CRE-3/8, -1/2



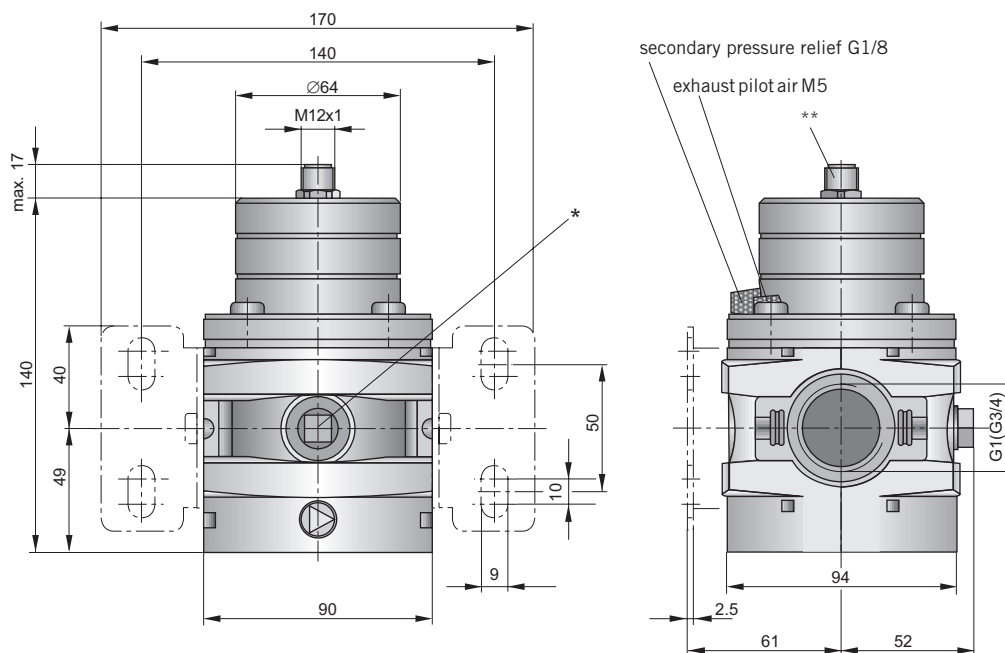
\* Connection for 5-pin plug M12x1



For order instructions see page 130, for characteristics see page 120–125,  
for accessories see page 131

Dimensions in mm

Type: A25RE-3/4, -1



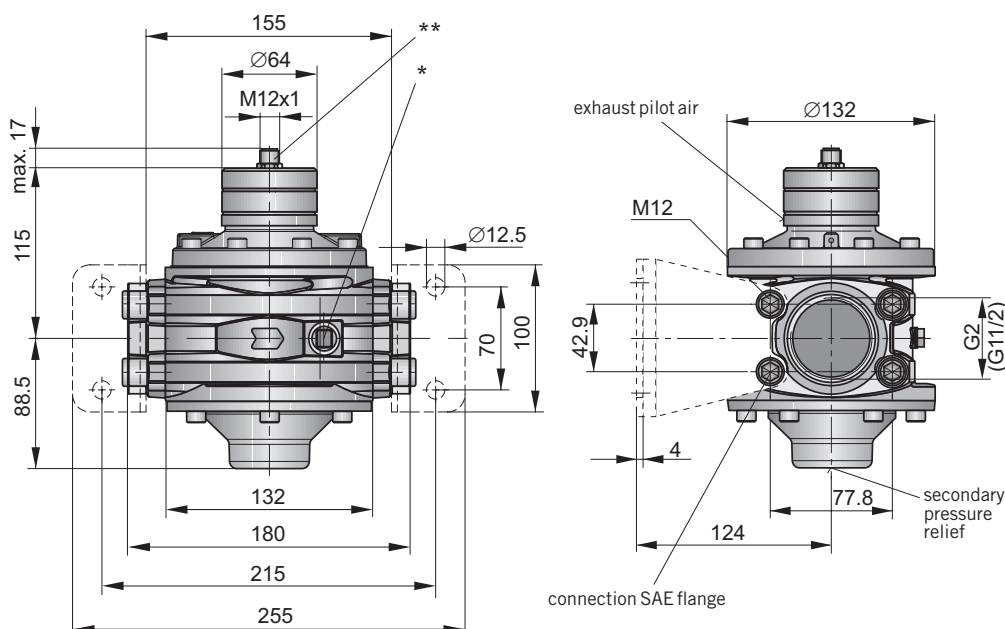
- \* Two opposite gauge ports G1/4, plug screw mounted  
 \*\* Connection for 5-pin plug M12x1

## Electronically controlled proportional pressure regulating valves

Series airfit control  
 G1/4 – G2

Dimensions

Type: A50RE-11/2, -2



- \* Two opposite gauge ports G1/4, plug screw mounted  
 \*\* Connection for 5-pin plug M12x1

For order instructions see page 130, for characteristics see page 120–125, for accessories see page 131

Dimensions in mm

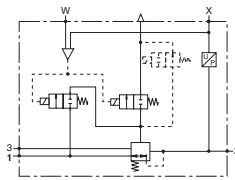


## Electronically controlled proportional pressure regulating valves

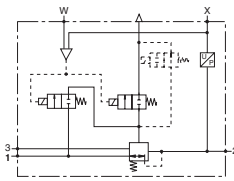
Series *airfit control*  
G1/4 – G2

Order instructions

### airfit control G1/4, G3/8

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G1/4	SRE-U-1/4 NG	PB 59849-10000N-XXX
	10		G3/8	SRE-U-3/8 NG	PB 59949-10000N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G1/4	SRE-I-1/4 NG	PB 59849-10100N-XXX
	10		G3/8	SRE-I-3/8 NG	PB 59949-10100N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G1/4	SRE-I-1/4 NG	PB 59849-10200N-XXX
	10		G3/8	SRE-I-3/8 NG	PB 59949-10200N-XXX
Version for set value 0–10 V, NO (normally open)	10		G1/4	SRE-U-1/4 NO	PB 59849-10010N-XXX
	10		G3/8	SRE-U-3/8 NO	PB 59949-10010N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G1/4	SRE-I-1/4 NO	PB 59849-10110N-XXX
	10		G3/8	SRE-I-3/8 NO	PB 59949-10110N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G1/4	SRE-I-1/4 NO	PB 59849-10210N-XXX
	10		G3/8	SRE-I-3/8 NO	PB 59949-10210N-XXX

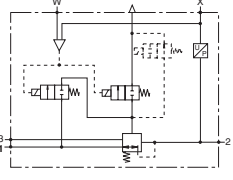
### airfit control G3/4, G1

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G3/4	A25RE-U-3/4-NG	PB 64349-10000N-XXX
	10		G1	A25RE-U-1-NG	PB 64449-10000N-XXX
Versions for set value 0–20 mA and 4–20 mA			G3/4, G1	On request	On request
Versions for NO (normally open) functions			G3/4, G1	On request	On request

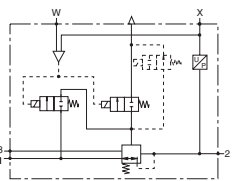


For configurable order code of proportional pressure regulating valves see page 130

### airfit control G3/8, G1/2

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G3/8	CRE-U-3/8 NG	PB 60149-10000N-XXX
	10		G1/2	CRE-U-1/2 NG	PB 60249-10000N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G3/8	CRE-I-3/8 NG	PB 60149-10100N-XXX
	10		G1/2	CRE-I-1/2 NG	PB 60249-10100N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G3/8	CRE-I-3/8 NG	PB 60149-10200N-XXX
	10		G1/2	CRE-I-1/2 NG	PB 60249-10200N-XXX
Version for set value 0–10 V, NO (normally open)	10		G3/8	CRE-U-3/8 NO	PB 60149-10010N-XXX
	10		G1/2	CRE-U-1/2 NO	PB 60249-10010N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G3/8	CRE-I-3/8 NO	PB 60149-10110N-XXX
	10		G1/2	CRE-I-1/2 NO	PB 60249-10110N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G3/8	CRE-I-3/8 NO	PB 60149-10210N-XXX
	10		G1/2	CRE-I-1/2 NO	PB 60249-10210N-XXX

### airfit control G11/2, G2

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G11/2	A50RE-U-11/2-NG	PB 60549-10000N-XXX
	10		G2	A50RE-U-2-NG	PB 60649-10000N-XXX
Versions for set value 0–20 mA and 4–20 mA			G11/2, G2	On request	On request
Versions for NO (normally open) functions			G11/2, G2	On request	On request

### Accessories

Description	For series	Type	Order No.
Mounting kit	airfit swing	SRE	PL16965
Coupling kit	airfit swing	SRE	PL16959
Mounting kit	airfit comfort	CRE	PL17518
Coupling kit	airfit comfort	CRE	PL17608
Mounting kit	airfit A25	A25RE	PL18988
Coupling kit	airfit A25	A25RE	PL16987
Mounting kit	airfit A50	A50RE	PL18672
Coupling kit	airfit A50	A50RE	PL18735
Connection flange G11/2 (kit)	airfit A50	A50RE	PL18660
Connection flange G2 (kit)	airfit A50	A50RE	PL18662

For configurable order code of proportional pressure regulating valves see page 130



# Electronically controlled proportional pressure regulating valves

Series airfit control  
G1/4 – G2

Order instructions

## Configurable electronically proportional pressure regulating valve airfit control

Order No.	PB	598	49	–	01	0	0	0	N	–	XXX	
-----------	----	-----	----	---	----	---	---	---	---	---	-----	--

Series
598 SRE-1/4
599 SRE-3/8
601 CRE-3/8
602 CRE-1/2
643 A25RE-3/4
644 A25RE-1
605 A50RE-11/2
606 A50RE-2

Outlet pressure range
01 0–1 bar
02 0–2 bar
03 0–3 bar
04 0–4 bar
05 0–5 bar
06 0–6 bar
07 0–7 bar
08 0–8 bar
09 0–9 bar
10 0–10 bar
XX Special pressure range

Set value input
0 0–10 V
1 4–20 mA
2 0–20 mA
X Special set value input

Version
0 NC (normally closed)
1 NO (normally open)

3-digit special number
XXX Standard design or as plain text e.g. special connector, special resistance, special setting areas, accessories fitted etc.

Sealing material
N NBR (standard)
V Viton (e.g. for oxygen)
X Special material

Actual output
0 0–10 V
1 0–1 V
2 0–2 V
3 0–3 V
4 0–4 V
5 0–5 V
6 0–6 V
7 0–7 V
8 0–8 V
9 0–9 V
X Special actual output





Mounting kit  
for Type: SRE-..



Order No. PL16965

Mounting kit  
for Type: CRE-..



Order No. PL17518

Mounting kit  
for Type: A25RE-..



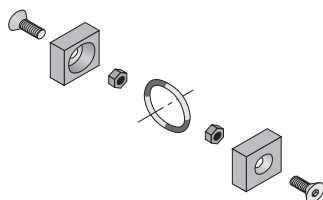
Order No. PL18988

## Electronically controlled proportional pressure regulating valves

*Series airfit control  
G1/4 – G2*

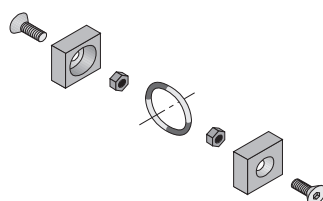
*Accessories  
– Mounting kit  
– Coupling kit*

Coupling kit  
for Type: SRE-..



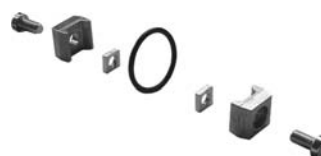
Order No. PL16959

Coupling kit  
for Type: CRE-..



Order No. PL17608

Coupling kit  
for Type: A25RE-..



Order No. PL18987

Mounting kit  
for Type: A50RE-..



Order No. PL18672

Coupling kit  
for Type: A50RE-..



Order No. PL18735

# Electronically controlled proportional pressure regulating valves

with  
PIEZO control

Series *tecno basic*  
G1/8, NW 2.5

Series *tecno plus*  
G1/4, NW 6

## Characteristics

- <sup>1)</sup> Other pressure ranges on request.
- <sup>2)</sup> At  $p_1 = 10$  bar and  $p_2 = 6.3$  bar,  $\Delta p = 1$  bar.
- <sup>3)</sup> At ambient temperature 20°C.
- <sup>4)</sup> Relative to  $p_{2max}$ .
- <sup>5)</sup> At  $p_1$  max.
- <sup>6)</sup> 2-wire technology, i.e. power supply and set value via the same cable.
- <sup>7)</sup> Higher voltage will damage the valve.
- <sup>8)</sup> Flange plates with screw thread, see accessories.
- <sup>9)</sup> Output is switching "ON" when output pressure is equivalent  $\pm$  tolerances to set value, and "OFF" when the output pressure is outside this limit.
- <sup>10)</sup> With connector and exhaust ported, booster (3) and pilot (y)
- <sup>11)</sup> During connection with protected cable and plug. Screen only presented on main unit.
- <sup>12)</sup> Plus taken output current of digital output pressure reached



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description		
System			Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control		
Type			tecno basic PRE-U, PRE-I	tecno basic PRE-U, PRE-I	
Version <sup>1)</sup>			0–8 bar	0–2 bar	
Port size			G1/8	G1/8	
Mounting			Flange <sup>8)</sup>	Flange <sup>8)</sup>	
Nominal size	NW	mm	2.5	2.5	
Installation			In any position	In any position	
Weight (mass)		kg	0.101 without base plate 0.155 with base plate	0.101 without base plate 0.155 with base plate	
Medium and ambient temperature range	T <sub>min</sub>	°C	0	0	
	T <sub>max</sub>	°C	+50	+50	
Storage temperature	T <sub>min</sub>	°C	-20	-20	
	T <sub>max</sub>	°C	+60	+60	
Medium			Filtered, dry, lubricated <sup>(1)</sup> or oil-free compressed air 30µm (recommended 5 µm) dried to ISO8573-1, Kl. 3		
Lubrication			Oil-free or max. 30 mg/m³ mineral oil Type VG 32 to ISO 3448		
Flow direction			On: 1 → 2 Off: 2 → 3	On: 1 → 2 Off: 2 → 3	
Material			Aluminum, brass, spring steel, plastic, elastomer		
Pneumatic characteristics					
Nominal pressure	p <sub>n</sub>	bar	6.3	6.3	
Pressure range, inlet	p <sub>1min</sub>	bar	1.5	1.5	
	p <sub>1max</sub>	bar	10	6	
Pressure range, outlet <sup>1)</sup>	p <sub>2min</sub>	bar	0	0	
	p <sub>2max</sub>	bar	8	2	
Maximum flow rate <sup>2)</sup>	Q <sub>N</sub>	l/min m³/h	350 <sup>2)</sup> 21	200 <sup>2)</sup> 12	
Hysteresis <sup>4)</sup>	p <sub>2max</sub>	%	< 0.2	< 0.2	
Repeatability <sup>4)</sup>	p <sub>2max</sub>	%	< 0.2	< 0.2	
Responsiveness <sup>4)</sup>	p <sub>2max</sub>	%	< 0.1	< 0.1	
Linearität <sup>4)</sup>	p <sub>2 max</sub>	%	≤ 0.6	≤ 0.5	
Own air consumption <sup>5)</sup>		NI/min	< 0.5	< 0.5	
Electrical characteristics – Type PRE-U					
Nominal voltage	U <sub>N</sub>	V DC	24 ± 10%	24 ± 10%	
Nominal power	P <sub>N</sub>	W	0.4	0.4	
Residual ripple	U <sub>N</sub>	%	10	10	
Current consumption	I <sub>Bmax</sub>	A	15	15	
Set value input	U <sub>W</sub>	V	0–10	0–10	
Input resistance	R <sub>E</sub>	kΩ	66	66	
Scale	W/p <sub>2</sub>	V/bar	1	5	

for further characteristics see page 135–136

## Electronically controlled proportional pressure regulating valves

with  
*PIEZO control*

*Series tecno basic  
G1/8, NW 2.5*

*Series tecno plus  
G1/4, NW 6*

*Characteristics*

Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control				
	tecno basic PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I
	0–0.2 bar	0–10 bar	0–6 bar	0–2 bar
	G1/8	G1/4	G1/4	G1/4
	Flange <sup>8)</sup>	Flange <sup>8)</sup>	Flange <sup>8)</sup>	Flange <sup>8)</sup>
	2.5	6	6	6
	In any position	In any position	In any position	In any position
	0.101 without base plate 0.155 with base plate	0.360 without base plate 0.430 with base plate	0.360 without base plate 0.430 with base plate	0.360 without base plate 0.430 with base plate
	0 +50	0 +50	0 +50	0 +50
	-20 +60	-20 +60	-20 +60	-20 +60
	Filtered, dry, lubricated <sup>1)</sup> or oil-free compressed air 30µm (recommended 5 µm) dried to ISO8573-1, Kl. 3 other neutral gases on request			
	Oil-free or max. 30 mg/m <sup>3</sup> mineral oil Type VG 32 to ISO 3448			
	On: 1 → 2 Off: 2 → 3	On: 1 → 2 Off: 2 → 3	On: 1 → 2 Off: 2 → 3	On: 1 → 2 Off: 2 → 3
	Aluminum, brass, spring steel, plastic, elastomer			
	6.3	6.3	6.3	6.3
	0 2.5	1.5 12	1.5 10	1.5 7
	0 0.2	0 10	0 6	0 2
	100 <sup>2)</sup> 6	1600 <sup>2)</sup>	1600 <sup>2)</sup>	1100 <sup>2)</sup>
	< 0.5	< 0.2	< 0.2	< 0.2
	< 0.5	< 0.2	< 0.2	< 0.2
	< 0.5	< 0.2	< 0.2	< 0.2
	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
	< 1.0	< 1.5	< 1.5	< 1.5
	24 ± 10%	24 ± 10%	24 ± 10%	24 ± 10%
	0.4	0.8	0.8	0.8
	10	10	10	10
	15	30	30	30
	0–10	10	10	10
	66	> 55	> 55	> 55
	50	1	1.667	5



## Electronically controlled proportional pressure regulating valves

with  
PIEZO control

Series tecno basic  
G1/8, NW 2.5

Series tecno plus  
G1/4, NW 6

### Characteristics

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description		
System			Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control		
Type			tecno basic PRE-U, PRE-I	tecno basic PRE-U, PRE-I	
Electrical characteristics – Type PRE-I					
Power supply <sup>6)</sup>	I <sub>B</sub>	mA	4	4	
Set value input	W	mA	4–20	4–20	
Input resistance	R <sub>E</sub>	kΩ	≤ 550	≤ 550	
Scale	W/p <sub>2</sub>	V/bar	2	8	
Input voltage max. <sup>7)</sup>	U <sub>Wmax</sub>	V	12.5	12.5	
General electrical characteristics					
Actual value output			Optional	Optional	
Output voltage <sup>13)</sup>	U <sub>x</sub>	V	p <sub>2</sub> 0 bar = 0 p <sub>2 max</sub> = 10	p <sub>2</sub> 0 bar = 0 p <sub>2 max</sub> = 10	
Output current max.	I <sub>xmax</sub>	mA	1 (short circuit proof)	1 (short circuit proof)	
Accuracy	p <sub>2max</sub>	%	–	–	
Cable connector			3 PIN connector, M8 or 4 PIN connector, M8		
EMC (electromagnetic compatibility)			Shielded connecting cables must be used <sup>11)</sup>		
Resistance to interferences			To EN 61000-6-2	To EN 61000-6-2	
Emissions			To EN 61000-6-4	To EN 61000-6-4	
Degree of protection	IP		30 DIN EN 60529	30 DIN EN 60529	
Reaction to power failure			Port 2 exhaust	Port 2 exhaust	
Digital output pressure reached <sup>9)</sup>					
Output voltage	U <sub>Out</sub>	VDC			
Output current	I <sub>Out</sub>	mA			
Tolerance	p <sub>2max</sub>	%			

<sup>1)</sup> Other pressure ranges on request.

<sup>2)</sup> At p<sub>1</sub> = 10 bar and p<sub>2</sub> = 6.3 bar, Δp=1 bar.

<sup>3)</sup> At ambient temperature 20°C.

<sup>4)</sup> Relative to p<sub>2max</sub>.

<sup>5)</sup> At p<sub>1</sub> max.

<sup>6)</sup> 2-wire technology, i.e. power supply and set value via the same cable.

<sup>7)</sup> Higher voltage will damage the valve.

<sup>8)</sup> Flange plates with screw thread, see accessories.

<sup>9)</sup> Output is switching "ON" when output pressure is equivalent ± tolerances to set value, and "OFF" when the output pressure is outside this limit.

<sup>10)</sup> With connector and exhaust ported, booster (3) and pilot (y)

<sup>11)</sup> During connection with protected cable and plug.

Screen only presented on main unit.

<sup>12)</sup> Plus taken output current of digital output pressure reached

<sup>13)</sup> Only type PRE-U



## Electronically controlled proportional pressure regulating valves

with  
PIEZO control

Series tecno basic  
G1/8, NW 2.5

Series tecno plus  
G1/4, NW 6

Characteristics

Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control				
	tecno basic PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I
	4	–	–	–
	4–20	0 (4–20)	0 (4–20)	0 (4–20)
	≤ 550	500	500	500
	80	2	2667	8
	12.5			
	Optional	–	–	–
	p <sub>2</sub> 0 bar = 0 p <sub>2 max</sub> = 10	0–10	0–10	0–10
	1 (short circuit proof)	1 (short circuit proof)	1 (short circuit proof)	1 (short circuit proof)
	–	< 1	< 1	< 1
	5 PIN connector M12x1.5 Shielded connecting cables must be used			
	To EN 61000-6-2	To EN 61000-6-2	To EN 61000-6-2	To EN 61000-6-2
	To EN 61000-6-4	To EN 61000-6-4	To EN 61000-6-4	To EN 61000-6-4
	30 DIN EN 60529	65 <sup>10)</sup> DIN EN 60529	65 <sup>10)</sup> DIN EN 60529	65 <sup>10)</sup> DIN EN 60529
	Port 2 exhaust	Port 2 exhaust	Port 2 exhaust	Port 2 exhaust
	OFF = 0    ON = UN – 0.7V			
		≤ 200 <sup>12)</sup>		
		± 2		



# Electronically controlled proportional pressure regulating valves

with  
PIEZO control

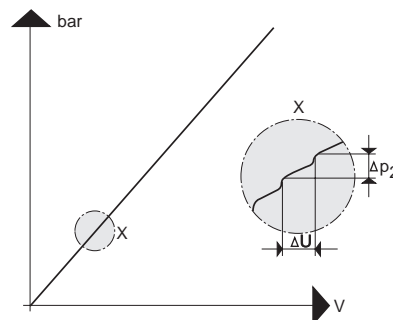
Series tecno basic  
G1/8, NW 2.5

Series tecno plus  
G1/4, NW 6

Characteristics

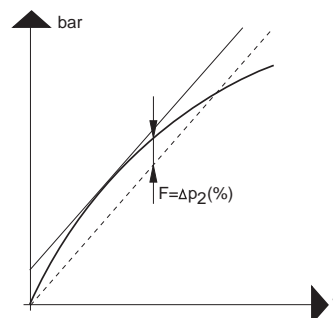
## Sensitivity

The smallest change in the electronic input signal that leads to a change in actual output pressure is referred to as sensitivity. This is expressed as a percentage of maximum output pressure. For the tecno, this value is  $< 0.1\%$  to  $< 0.5\%$  depending on the version.



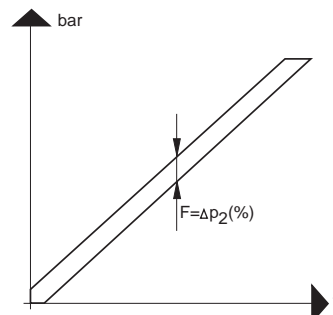
## Linearity

The ideal curve showing output pressure in relation to electronic signal would be a straight line. Linearity is the maximum deviation from the straight line, expressed as a percentage of maximum output pressure.



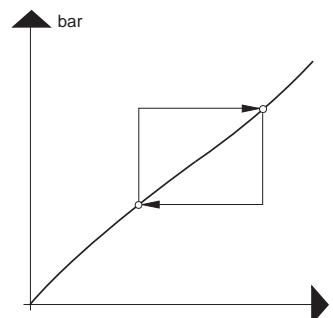
## Hysteresis

The same electronic signal generates slightly different actual output pressures, depending on whether the previous signal was higher or lower. This difference, known as hysteresis, is caused by friction and temporary deformation of elastic components. The hysteresis of the electronically operated pressure regulating valve AIRFIT tecno from HOERBIGER is between  $< 0.2\%$  and  $< 0.5\%$  of the output pressure.



## Repeatability

Control components for a given set value usually produce repeated actual values that differ less from each other than from the absolute set value, because the relatively large linearity deviation is excluded.



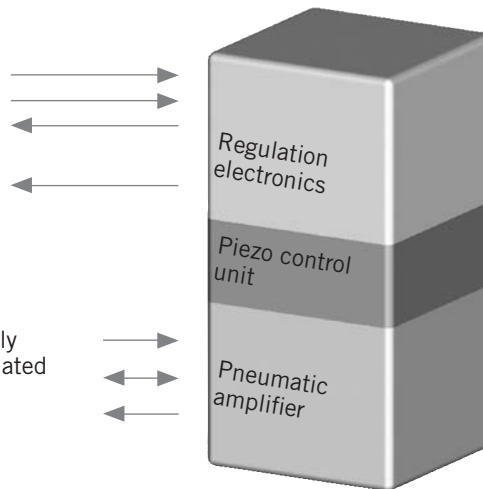
### Design and Function

Proportional valves from the tecno series are piezo-controlled pressure regulating valves with electronic pressure regulation. They offer optimum dynamics at the lowest possible power consumption. The main valve ensures high aeration and ventilation output. The pressure sensor measures the current output pressure. An integrated electronic controller compares the sensor signal with the electrical setpoint and regulates the output pressure precisely to the predefined setpoint.

### Diagram

Supply  
Setpoint  
Actual value  
"Pressure achieved"  
digital output

1 Pressure supply  
2 Pressure-regulated output  
3 Outlet air



## Electronically controlled proportional pressure regulating valves

with  
*PIEZO control*

*Series tecno basic*  
G1/8, NW 2.5

*Series tecno plus*  
G1/4, NW 6

*Design and function*



# Electronically controlled proportional pressure regulating valves

with  
PIEZO control

Series tecno basic  
G1/8, NW 2.5

Characteristics

Connection diagrams

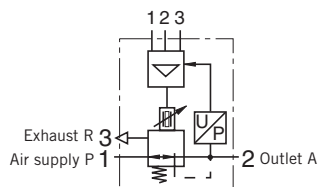
## Versions:

- Voltage controlled (Type PRE-U)
- Current controlled (Type PRE-I)
- 3 pressure ranges
- With actual value output

Electronically controlled pressure regulating valve with PIEZO pilot control and ACTUAL VALUE feedback. An integrated potentiometer ensures that the device can be set to best meet the requirements of any given application. Remote control possible.



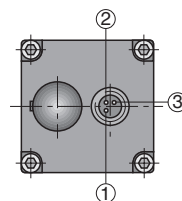
Symbol  
3 PIN version



## Color code

- 1 = blue
- 2 = black
- 3 = brown

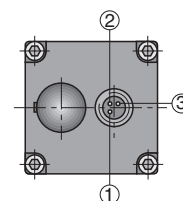
Connection diagram 1



## Voltage controlled 0–10 V, Type PRE-U

- 1 = power supply 24 V DC/15 mA
- 2 = set value 0–10 V
- 3 = GND set value and power supply

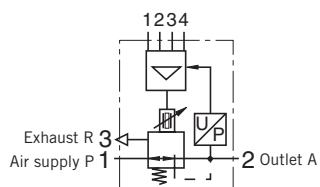
Connection diagram 2



## Current controlled 4–20 mA, Type PRE-I

- (2-wire technology)
- 1, 2 = set value 4–20 mA, +
- 3 = set value GND

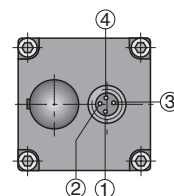
Symbol  
4 PIN version



## Color code

- 1 = blue
- 2 = white
- 3 = brown
- 4 = black

Connection diagram 3



## Voltage controlled 0–10 V, Type PRE-U

- with actual output
- 1 = power supply 24 V DC
- 2 = set value 0–10 V
- 3 = GND set value and power supply
- 4 = actual value output 0–10 V

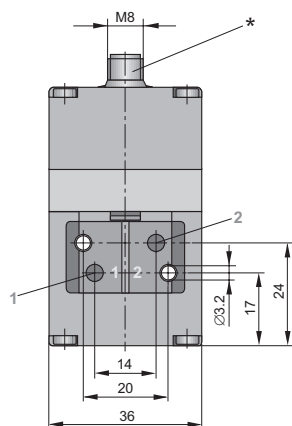
For order instructions see page 141, for characteristics see page 132–138, for accessories see page 140, 141

Dimensions in mm

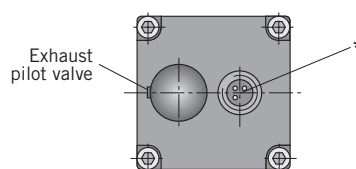
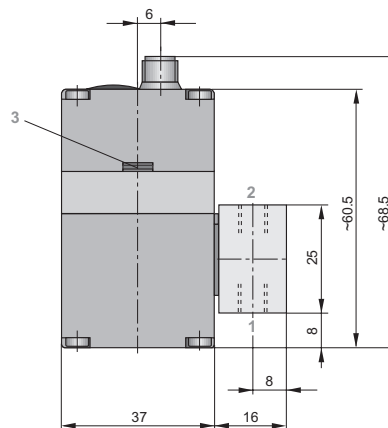
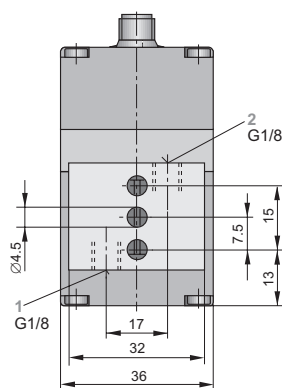


## Dimensions

without base plate



with single base plate



\* Connection for 3-pin plug M8 (KC3104, KC3106)  
Connection for 4-pin plug M8 (KY000575, KY000576)

# Electronically controlled proportional pressure regulating valves

with  
PIEZO control

Series *tecno basic*  
G1/8, NW 2.5

### Dimensions

**Versions:**

- Voltage controlled (Type PRE-U)
- Current controlled (Type PRE-I)
- 3 pressure ranges
- With actual value output

Electronically controlled pressure regulating valve with PIEZO pilot control and ACTUAL VALUE feedback. An integrated potentiometer ensures that the device can be set to best meet the requirements of any given application. Remote control possible.



For order instructions see page 141, for characteristics see page 132–138,

Dimensions in mm

# Electronically controlled proportional pressure regulating valves

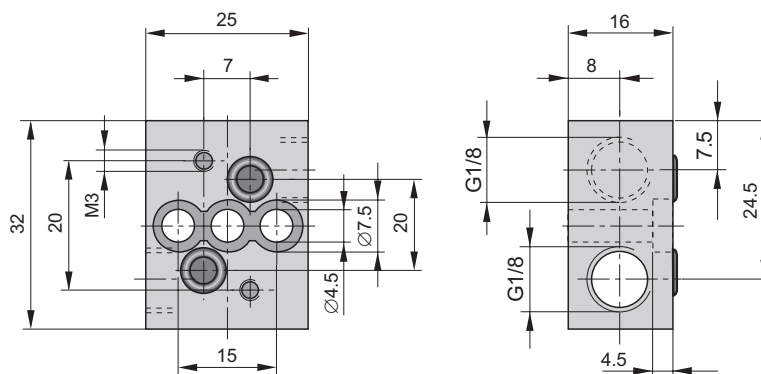
with  
PIEZO control

Series *tecno basic*  
G1/8, NW 2.5

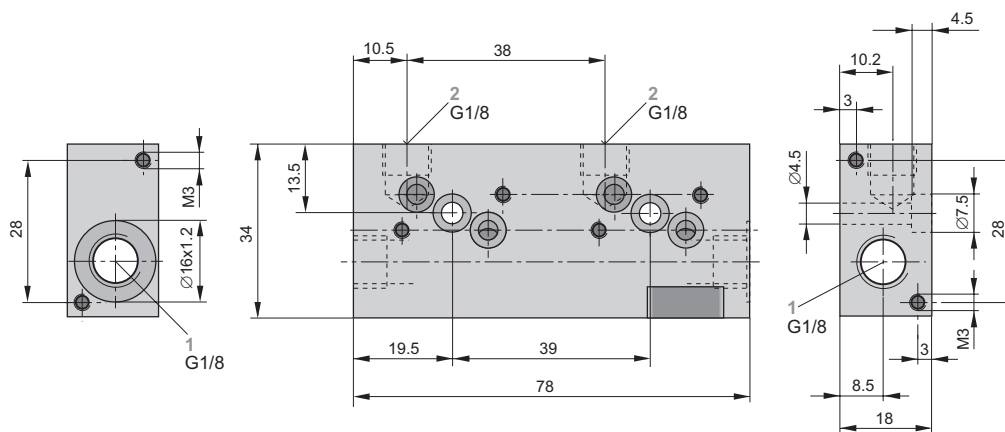
Base plates

Dimensions

Single base plate



2-fold base plate, for serial connection



For order instructions see page 141, for characteristics see page 132–138,  
for accessories see page 140, 141

Dimensions in mm

**Configurable, electronically controlled proportional pressure regulating valve – tecno basic**

Order No.	PS	1	2	0	0		-		-	0		
<div><div><div>Version (set value type) with 3 PIN connector</div><div>00 Voltage</div><div>01 Current 4–20 mA</div></div><div><div>Version with 4 PIN connector</div><div>06 Voltage + actual value output</div></div><div><div>Pressure range</div><div>002 0.2 bar</div><div>020 2 bar</div><div>080 8 bar</div></div><div><div>Type variation</div><div>0 Standard</div></div><div><div>Flange</div><div>0 Without flange</div><div>5 Sidewise G1/8</div></div><div><div>Connection cable</div><div>0 Without cable</div><div>1 Cable, straight 3 PIN</div><div>2 Cable, elbow 3 PIN</div><div>3 Cable, straight 4 PIN</div><div>4 Cable, elbow 4 PIN</div></div></div>												









## Electronically controlled proportional pressure regulating valves

with  
*PIEZO control*

*Series tecno basic  
G1/8, NW 2.5*

*Order instructions*

**Accessories**

Description	Figure	Port size	Order No.
Single base plate		G1/8	PS11112-A-01
2-fold base plate kit, complete, for serial connection		G1/8	PS12407-A
Mounting kit for DIN rail mounting, 35 mm, EN 60715:2001			PS12368-A
Cover plate, complete			PS11160-A
Cable set, straight (5 m) 3 PIN version			KC3104
Cable set, elbow (5 m) 3 PIN version			KC3106
Cable set, straight (5 m) 4 PIN version			KY000575
Cable set, elbow (5 m) 4 PIN version			KY000576



# Electronically controlled proportional pressure regulating valves

with  
PIEZO control

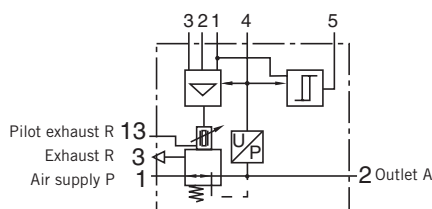
Series tecno plus  
G1/4, NW 6

### Dimensions

### Versions:

- Voltage controlled (Type PRE-U)
- Current controlled (Type PRE-I)
- 3 pressure ranges
- With actual value output
- With EMC mass

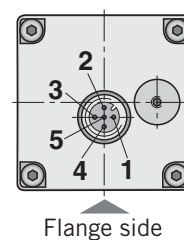
## Symbol



### Color code

- 1 = brown  
2 = white  
3 = blue  
4 = black  
5 = gray

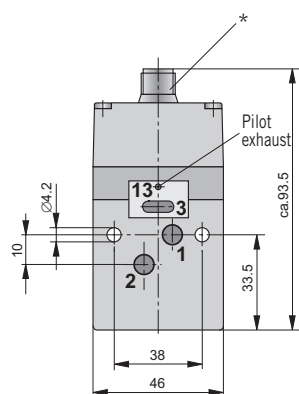
### Connection diagram



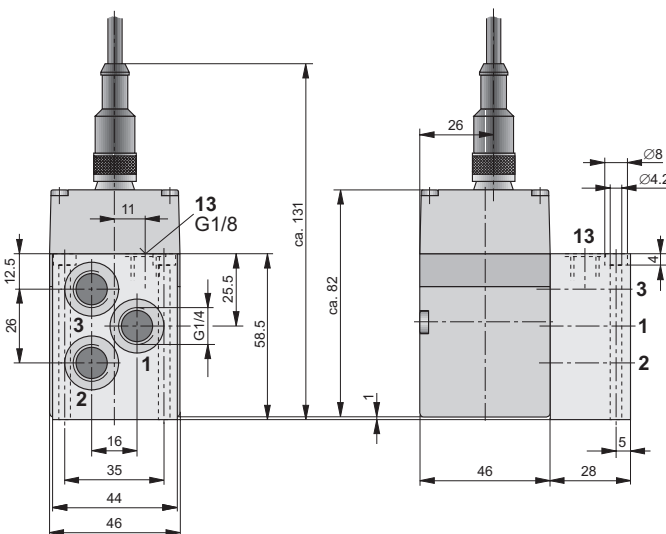
- 1 = power supply 24 V DC  
2 = set value input  
3 = mass GND  
4 = analog output 0–10 V  
5 = digital output 0/24 V

**Version with 5 PIN connector M12 x 1, straight**

without base plate



with single base plate



\* Connection for 5-pin plug M12 x 1 (PS12315-A)



For order instructions see page 144, for characteristics see page 132–138,  
for accessories see page 143, 144

Dimensions in mm



# Electronically controlled proportional pressure regulating valves

with  
PIEZO control





Series *tecno plus*  
G1/4, NW 6

Order instructions

## Configurable, electronically controlled proportional pressure regulating valve – tecno plus

Order No.	PS	1	2	0	1		-		-	0		
Version						Flange						
00 Voltage						0 Without flange						
01 Current 4–20 mA						1 Straight G1/4						
						3 Sidewise G1/4						
Pressure range						Connection cable						
020 2 bar						0 Without cable						
060 6 bar						1 Cable, straight						
100 10 bar						2 Cable, elbow						
Type variation												
0 Standard												

## Accessories

Description	Figure	Port size	Order No.
Cable 5 m, connector M12 x 1, straight			PS12315-A
Cable 5 m, connector M12 x 1, elbow			PS12316-A
Cable 5 m, connector M12 x 1, elbow, with LED			PS12317-A
Single base plate, with through connections, straight		G1/4	PS12300-A-01
Single base plate, with connections, sidewise		G1/4	PS12301-A-01



**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Membrane dryers fitting the airfit comfort series	146–150	151–153	154

## Membrane dryers

*Series airfit dry  
G1/2*

– *with/without  
patented purge  
air regulation*



## Membrane dryers

Series airfit dry  
G1/2

– with/without  
patented purge  
air regulation

### Characteristics

Special solutions  
(e.g. temperature, pressure,  
medium ...) on request

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description	
System			Drying by highly selective, water-permeable membrane (hollow fibers) based on partial pressure difference between inside and outside of membrane. With pipe for return flow; with/without patented purge air regulation	
Type			CDM10-1/2-R CDM10-1/2-CR	CDM15-1/2-R CDM15-1/2-CR
Material				
– Housing			Diecast zinc	
– Pipe for membrane bundle and return flow			Aluminum	
– Standard sealings			NBR	
Port size			G 1/2	G 1/2
Installation			In any position	In any position
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C	+2 +60	+2 +60
Medium			Filtered air <sup>3)</sup>	Filtered air <sup>3)</sup>
Weight (mass)		kg	3.3 Type CR: 3.6	3.3 Type CR: 3.6
Pneumatic characteristics				
Operating pressure range	$p_{min}$ $p_{max}$	bar	5 16	5 16
Max. flow rate at compressed air inlet <sup>1)</sup>	$Q_{inlet/max}$	l/min m³/h	560 33	Type CR: 560 33
Pressure dewpoint reduction <sup>1)</sup>	$\Delta t_{pd}$	°C	20	20
Purge air consumption		%	ca. 10 (Type CR only by flow rate)	
Pressure drop	$\Delta p$	bar	0.02–0.05 Type CR: 0.15	

For optimum product selection please contact our sales engineer.

<sup>1)</sup> Inlet conditions according to DIN ISO 7183:  $p_1 = 7$  bar,  $t_1 = 35^\circ\text{C}$ ,  $t_{pd1} = 35^\circ\text{C}$ .

<sup>2)</sup> See also the flow rate diagrams on the next page.

<sup>3)</sup> According to ISO 8573-1, quality classes 1-1, see assembly instruction below.

### Rough guide to choice of membrane dryers

#### Formula symbols

$Q_{corr.}$  = Corrected inlet flow rate

$Q_{inlet}$  = Inlet flow rate

$f_p$  = Conversion factor

#### Formula for calculation of corrected inlet flow rate

$$Q_{corr.} = \frac{Q_{inlet}}{f_p}$$

#### Conversion factor for calculation of corrected flow rate

Operating pressure range p [bar]	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor $f_p$	0.57	0.78	1.0	1.21	1.42	1.64	1.85	2.06	2.28	2.49	2.70	2.92

Example of calculation:

Flow rate: 60 m³/h

Pressure dewpoint reduction: 20 K

Operating pressure: 10 bar

$$Q_{corr.} = \frac{Q_{inlet}}{f_p} = \frac{60}{1.64} = 36.59 \text{ m}^3/\text{h}$$





## Membrane dryers

*Series airfit dry  
G1/2*

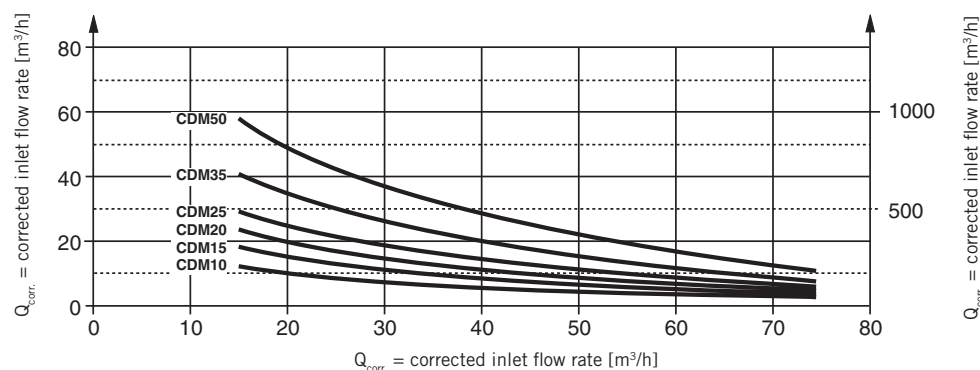
– *with/without  
patented purge  
air regulation*

*Characteristics*

	Drying by highly selective, water-permeable membrane (hollow fibers) based on partial pressure difference between inside and outside of membrane. Without pipe for return flow (= 2nd membrane level), with/without patented purge air regulation			
	CDM20-1/2-R CDM20-1/2-CR	CDM25-1/2-R CDM25-1/2-CR	CDM35-1/2-S CDM35-1/2-CS	CDM50-1/2-S CDM50-1/2-CS
Diecast zinc				
Aluminum				
NBR				
G 1/2	G 1/2	G 1/2	G 1/2	
In any position	In any position	In any position	In any position	
+2 +60	+2 +60	+2 +60	+2 +60	
Filtered air <sup>3)</sup>	Filtered air <sup>3)</sup>	Filtered air <sup>3)</sup>	Filtered air <sup>3)</sup>	
3.3 Type CR: 3.6	3.3 Type CR: 3.6	4.2 Type CS: 5.0	4.2 Type CS: 5.0	
5 16	5 16	5 16	5 16	
1120 Type CR: 1100 67 66	1400 Type CR: 1400 84 84	1960 Type CR: 2000 117 120	2800 Type CR: 2800 168 168	
20	20	20	20	
	ca. 10 Type CR/CS only by flow rate			
	0.02–0.05 Type CR: 0.15		0.06 Type CS: 0.30	0.12 Type CS: 0.40

**The calculated values shown on the selection diagram are a rough guide to the choice of membrane dryers. The exact choice should, however, be based on the specific data sheet.**

**Selection diagram for ORIGA membrane dryers from HOERBIGER**  
– fitting airfit comfort series



Based on the calculated flow rate, the diagram shows that a CDM35 or CDM50 Type membrane dryer can be used. The exact choice should, however, be based on the specific data sheet.



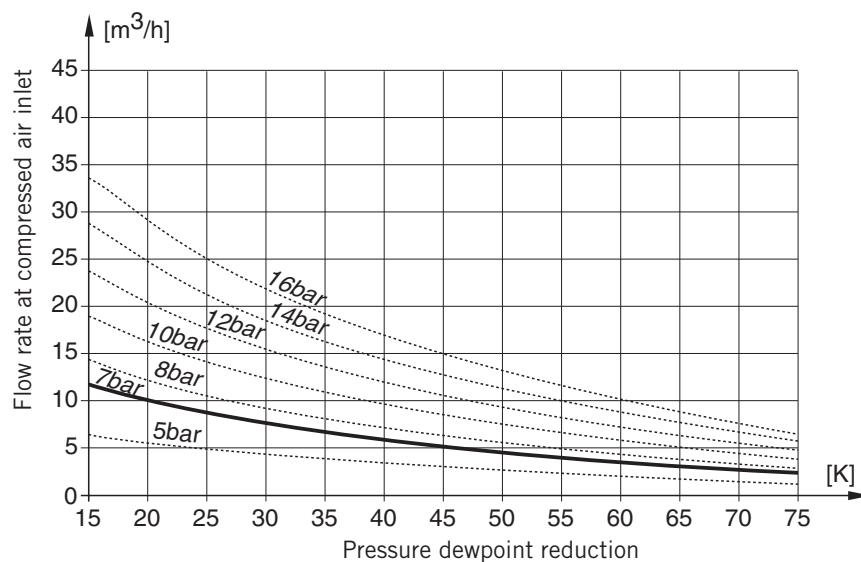
## Membrane dryers

Series airfit dry  
G1/2

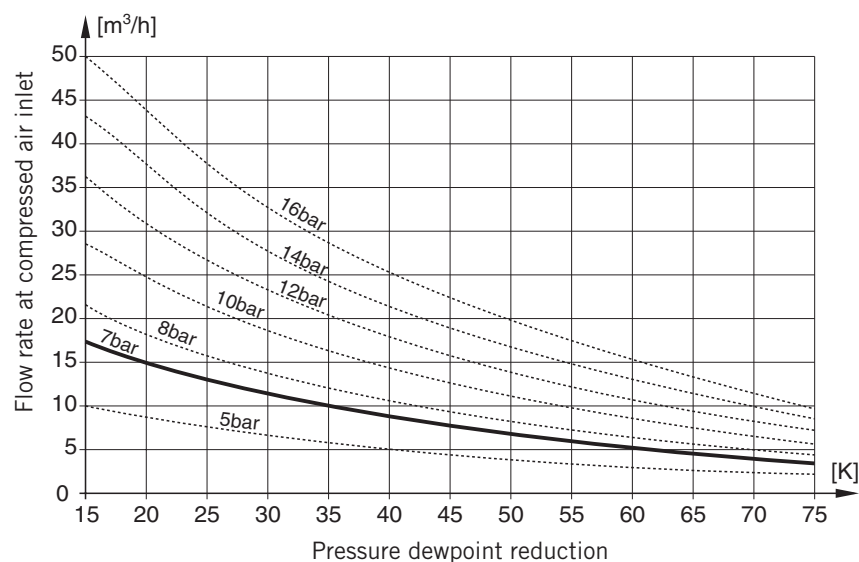
– with/without  
patented purge  
air regulation

Flow rate in relation  
to pressure dewpoint  
reduction and inlet  
pressure

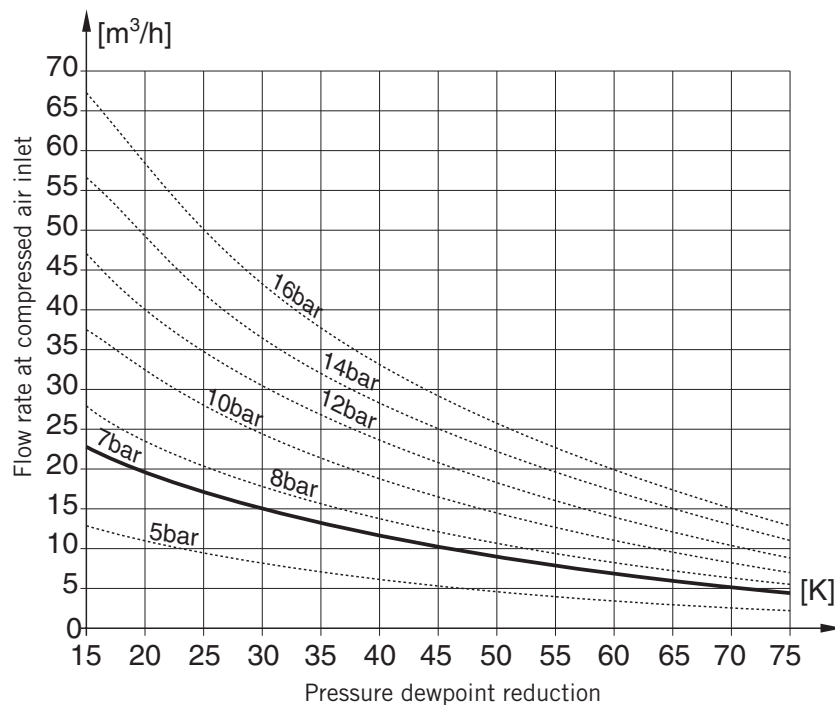
Type: CDM10-1/2-R, CDM10-1/2-CR



Type: CDM15-1/2-R, CDM15-1/2-CR



Type: CDM20-1/2-R, CDM20-1/2-CR



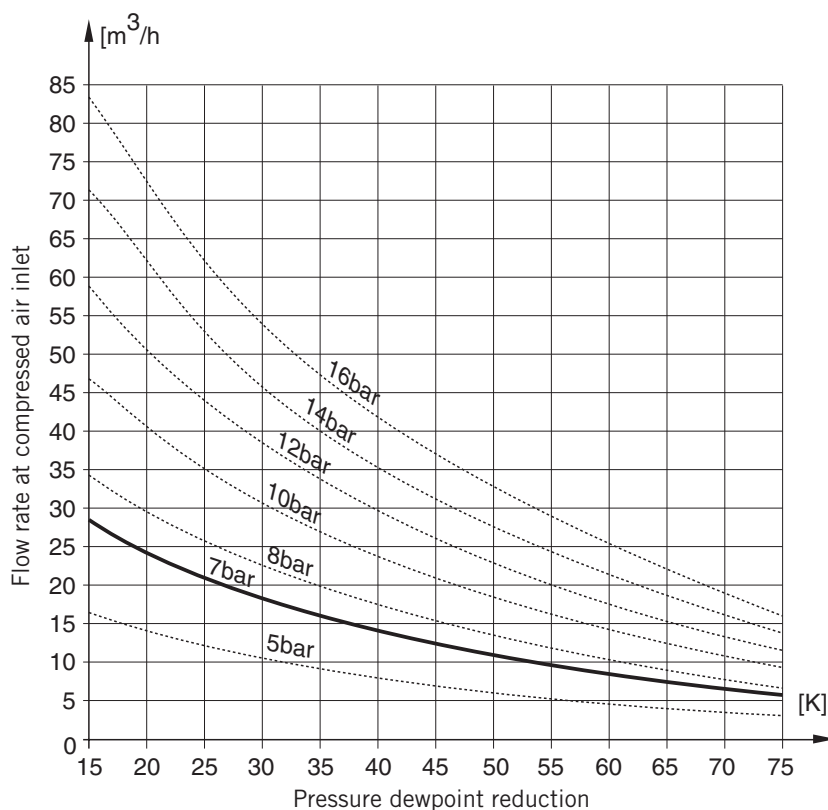
## Membrane dryers

Series airfit dry  
G1/2

– with/without  
patented purge  
air regulation

Flow rate in relation  
to pressure dewpoint  
reduction and inlet  
pressure

Type: CDM25-1/2-R, CDM25-1/2-CR



## Membrane dryers

Series airfit dry  
G1/2

– with/without  
patented purge  
air regulation

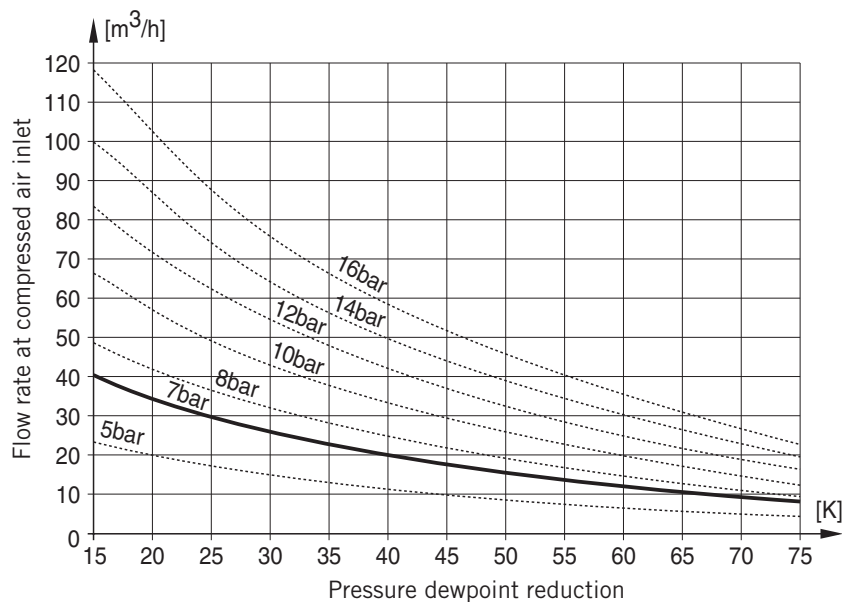
Flow rate in relation  
to pressure dewpoint  
reduction and inlet  
pressure

**Installation instruction**  
(recommended assembly  
order)

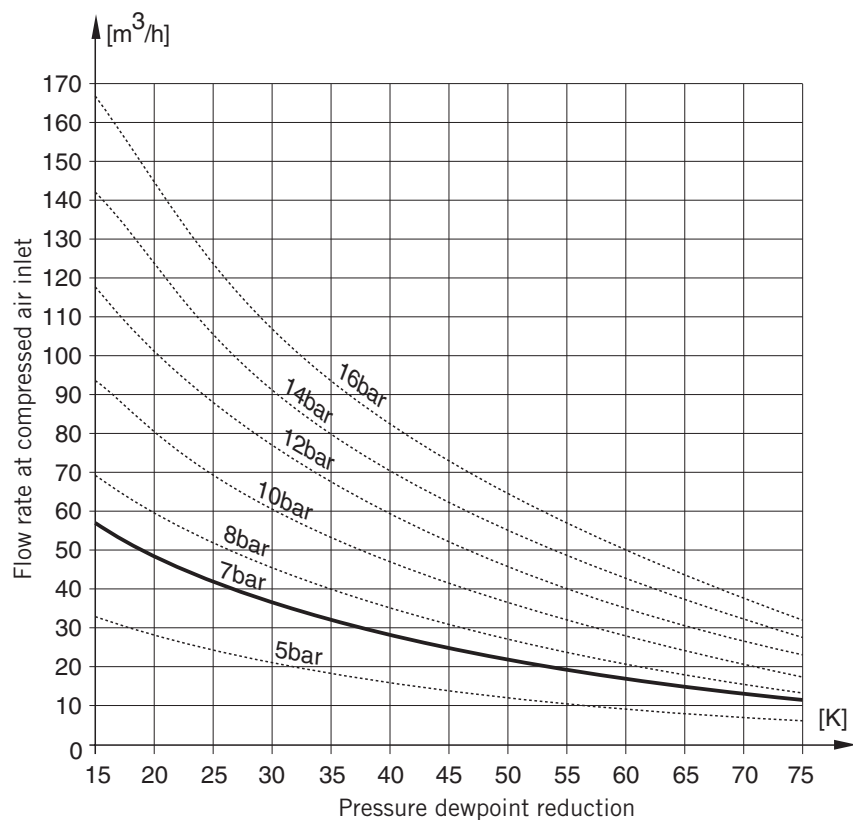
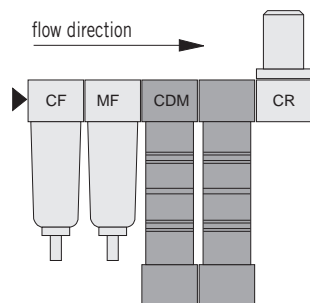
Type: CDM...-1/2-R/CR

Type: CDM...-1/2-S/CS

Type: CDM35-1/2-R, CDM35-1/2-CR



Type: CDM50-1/2-R, CDM50-1/2-CR



Type: CDM10/15/20/25-1/2-R

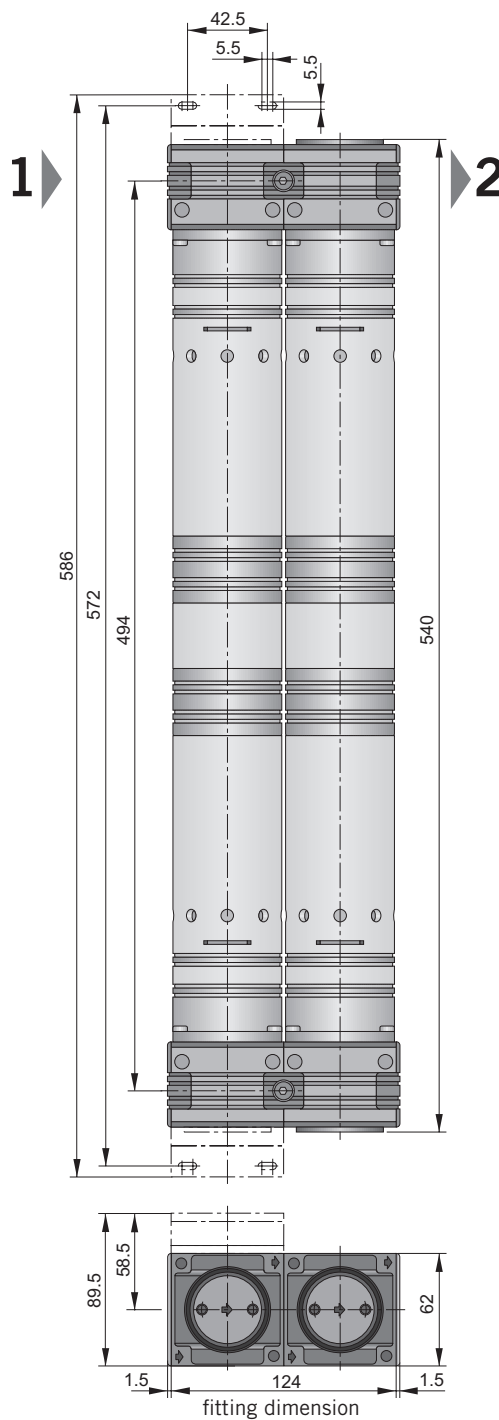
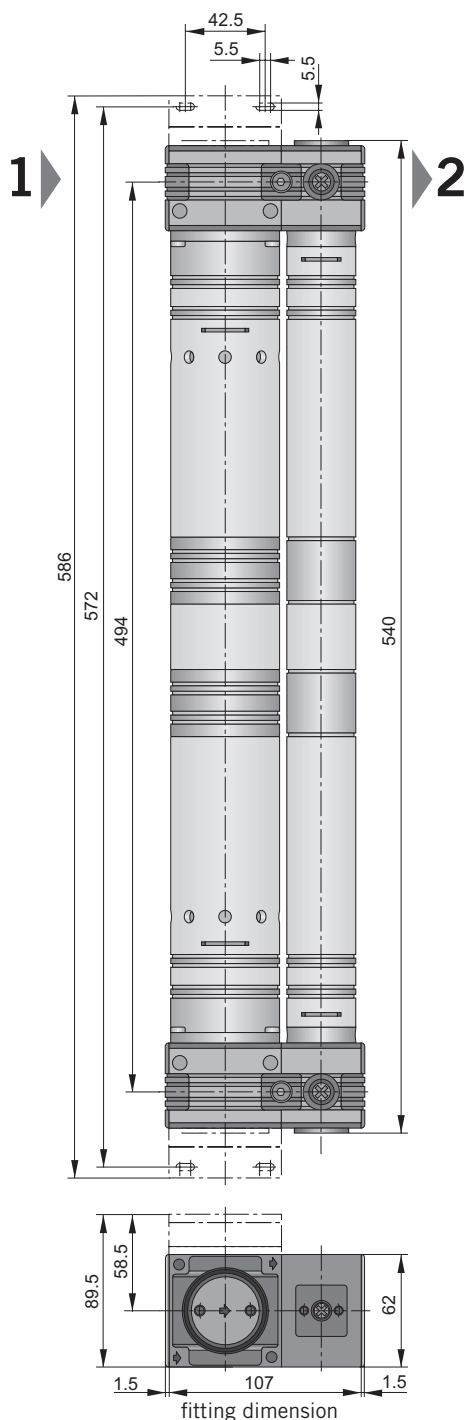
Type: CDM35/50-1/2-S

## Membrane dryers

Series airfit dry  
G1/2

### Dimensions

- Versions:**
- Fitting the airfit comfort series
  - With/without patented purge air regulation
  - Compact
  - Immediate dry air delivery
  - No electric power supply required
  - Minimal purge air consumption
  - Low pressure drop
  - No change in air composition



1 = P-inlet  
2 = P-outlet

For order instructions see page 154, for characteristics see page 146–150

Dimensions in mm

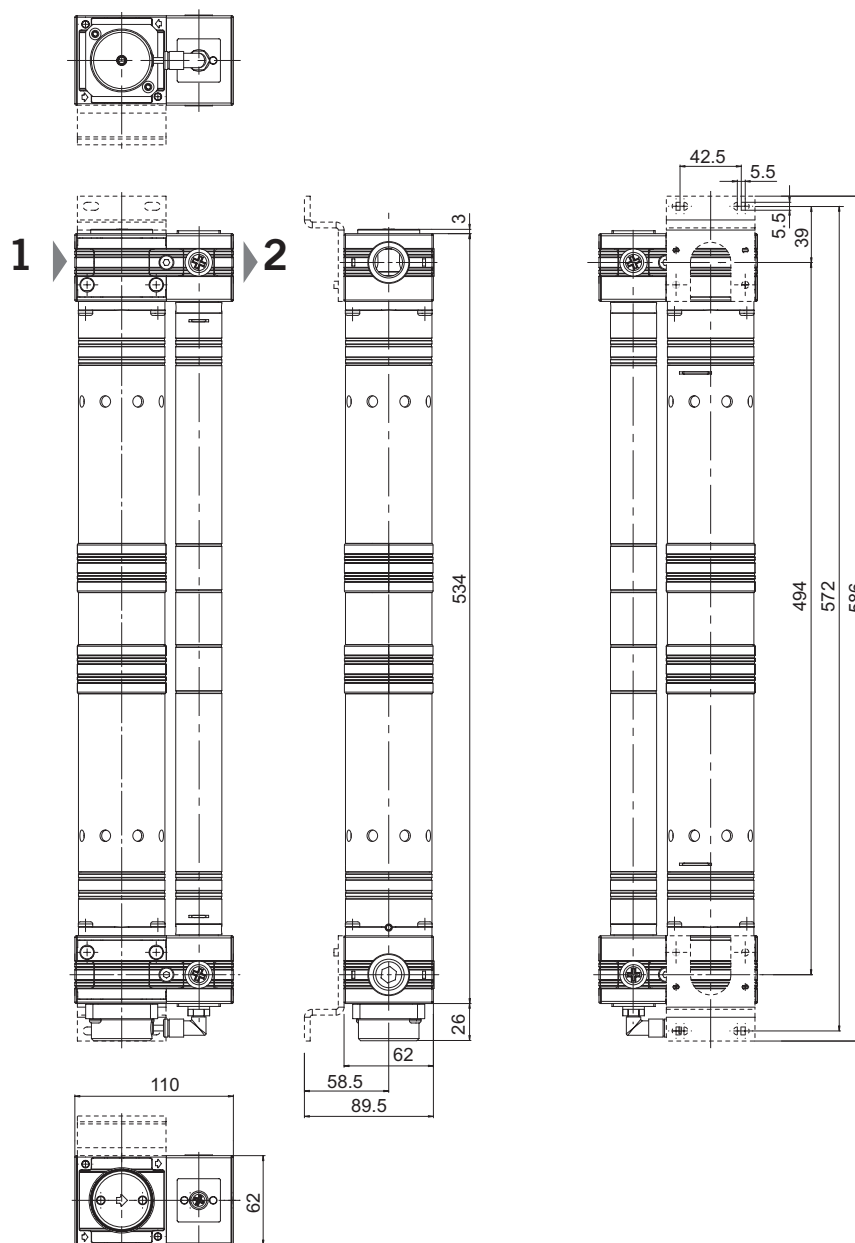


# Membrane dryers

Series airfit dry  
G1/2

Dimensions

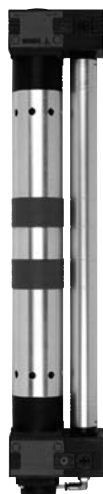
Type: CDM10/15/20/25-1/2-CR



1 = P-inlet  
2 = P-outlet

For order instructions see page 154, for characteristics see page 146–150

Dimensions in mm

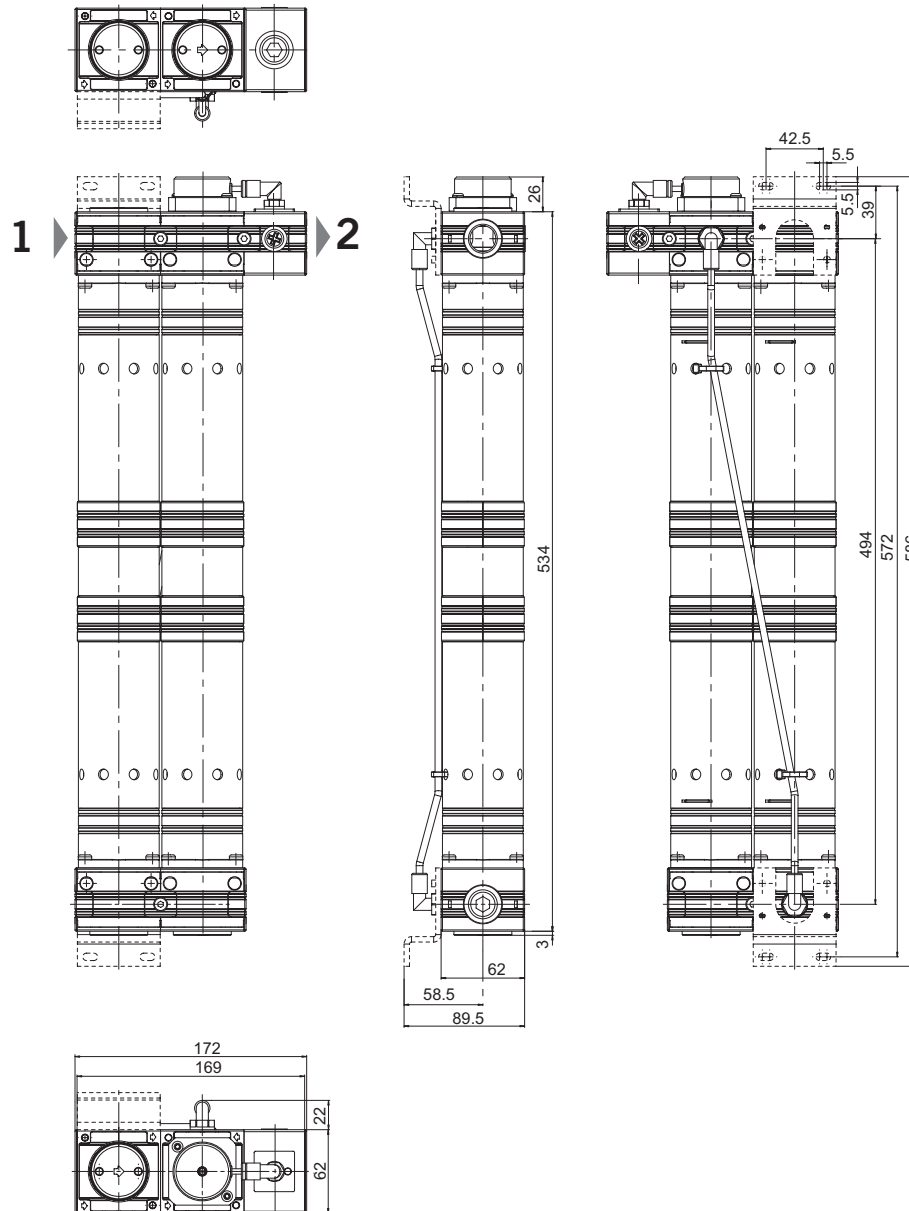


Type: CDM35/50-1/2-CS

## Membrane dryers

Series airfit dry  
G1/2

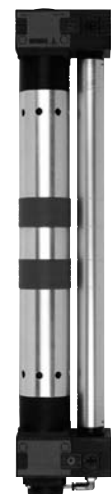
Dimensions



1 = P-inlet  
2 = P-outlet

For order instructions see page 154, for characteristics see page 146–150

Dimensions in mm





## Membrane dryers

*Series airfit dry  
G1/2*

*Order instructions*

### Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Membrane dryer		G1/2	CDM10-1/2-R	PB 54349-020
		G1/2	CDM15-1/2-R	PB 54349-021
		G1/2	CDM20-1/2-R	PB 54349-022
		G1/2	CDM25-1/2-R	PB 54349-023
		G1/2	CDM35-1/2-S	PB 54349-030
		G1/2	CDM50-1/2-S	PB 54349-033
Membrane dryer with patented purge air regulation		G1/2	CDM10-1/2-CR	PB 54349-040
		G1/2	CDM15-1/2-CR	PB 54349-041
		G1/2	CDM20-1/2-CR	PB 54349-042
		G1/2	CDM25-1/2-CR	PB 54349-043
		G1/2	CDM35-1/2-CS	PB 54349-050
		G1/2	CDM50-1/2-CS	PB 54349-053

### Accessories

Description	For Type	Order No.
Mounting kit *	Standard	PL17518
Coupling kit		PL17608

\* 2 kits per mounting recommended

For more information see page 67





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Filter-water-separator Pressure range up to max. 30 bar	156–159	160	155, 156
Pressure regulating valve Pressure range up to max. 40 bar	156–159	161	155, 156
Low-pressure regulating valve	156–159	162	155, 156
Pressure regulating valve -40 to +80°C	156–159	161	155, 156
Pressure regulating valve -40 to +80°C	156–159	161	155, 156
Filter-regulator -40 to +80°C	156–159	160	155, 156
Pressure regulating valve Brass version For panel mounting	156–159	163	155, 156
Pressure regulating valve (water regulator)	156–159	163	155, 156
Pressure regulating valve for weight compensation	156–159	162	155, 156
Precision pressure regulating valve	156–159	164	155, 156
Filter-regulator for small capacity compres- sors (for direct mounting onto compressor's receiver)	156–159	164	155, 156

**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	$p_{1 min}$ $p_{1 max}$	bar bar	0 16	0 16	0 16	0 30	
Operating pressure range – outlet pressure	$p_{2 min}$ $p_{2 max}$	bar bar	0.5 8	0.5 8	0.5 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 bar	0.5 0.4	0.5 0.4	0.9 0.7	– –	
Maximum flow <sup>1)</sup>	$Q_{max}$	l/min m <sup>3</sup> /h	2280 137	2850 171	5700 342	1440 <sup>3)</sup> 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	$p_1 = G3/8 \text{ A}$ $p_2 = G1/4$	G1/4	G1/4	G1/4
–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	30	–	–	–
–	–	–	–	–	–	–	–	–	Permanent	–	–	–
In any position	In-line mounting, panel mounting $\varnothing$ to DIN 43696 (30.3 $^{+0.2}_{-0}$ mm)		In-line mounting, wall mounting with bracket, panel mounting $\varnothing$ to DIN 43696 (30.3 $^{+0.2}_{-0}$ 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  $\varnothing$  jet.

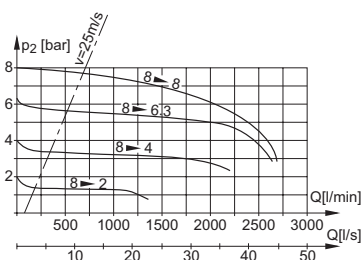
<sup>4)</sup> Corresponds to 25 m/s with NW8 mm bore.

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

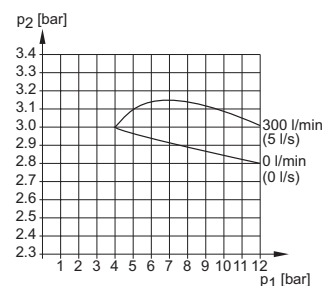
## Special units

### Flow characteristics

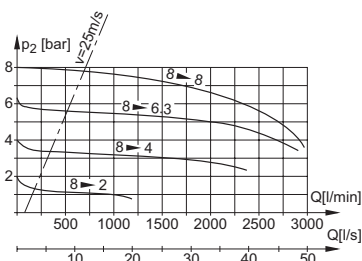
Filter-regulator – Type: SK-1/4-5D  
(-40°C to +80°C)



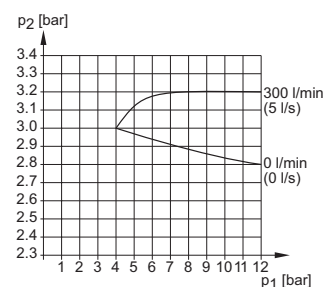
Outlet pressure variation with  
fluctuating inlet pressure



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

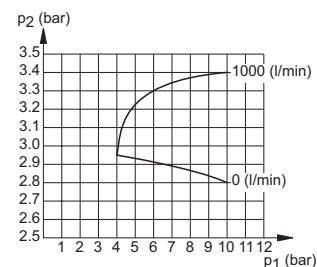
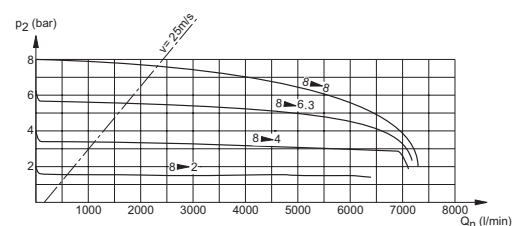


Outlet pressure variation with  
fluctuating inlet pressure

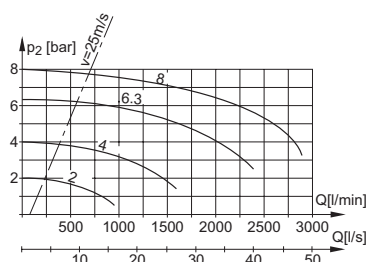


Pressure regulating valve – Type: CR-1/2 -SO  
(-40°C bis +80°C)

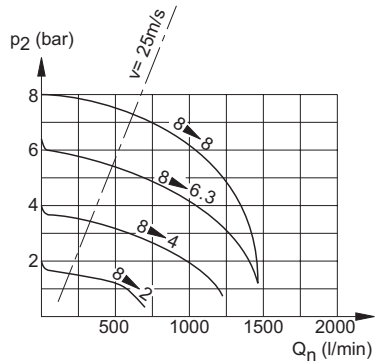
Outlet pressure variation with  
fluctuating inlet pressure



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



## Pressure regulating valve – Type: MRS-08

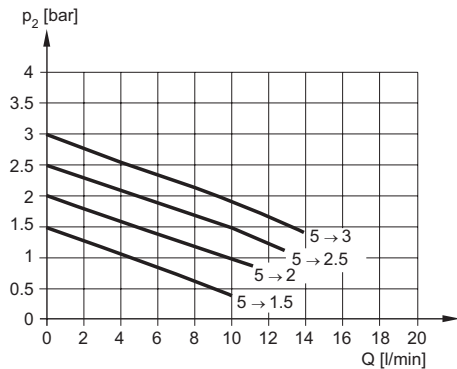


**HOERBIGER**

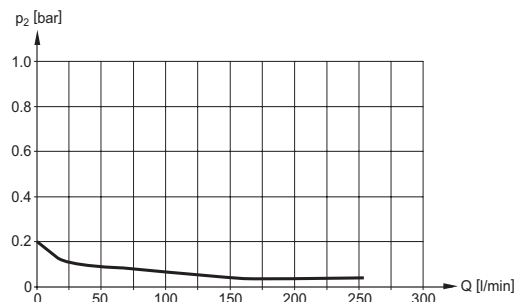
## Special units

### Flow characteristics

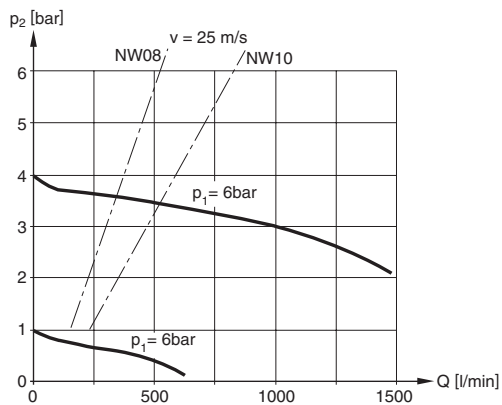
## Pressure regulating valve for use with water Type: WRP-06, WRP-08



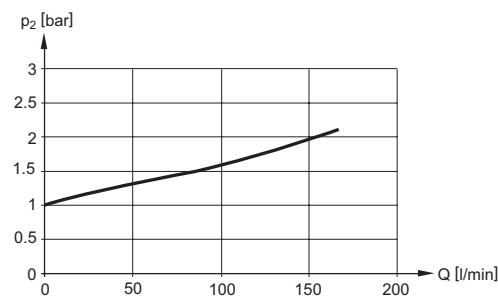
## Low-pressure regulating valve Type: MRP-06-SO, MRP-08-SO



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

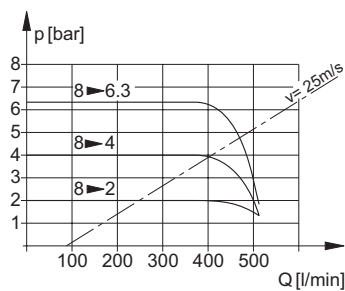


## Exhaust flow (from 2→3)

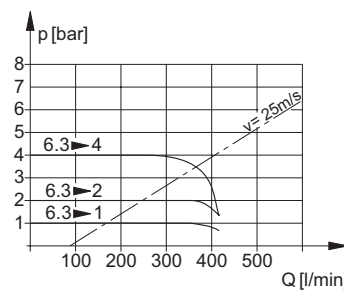


## Precision pressure regulating valve

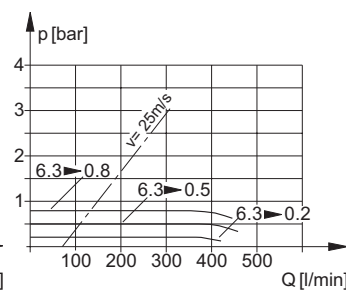
### Type: XRP-08-8 p2 = 0.5–8 bar



### Type: XRP-08-4 p2 = 0.1–4 bar



### Type: XRP-08-08 p2 = 0.02–0.8 bar



## Special units

### Dimensions

#### Filter-regulator

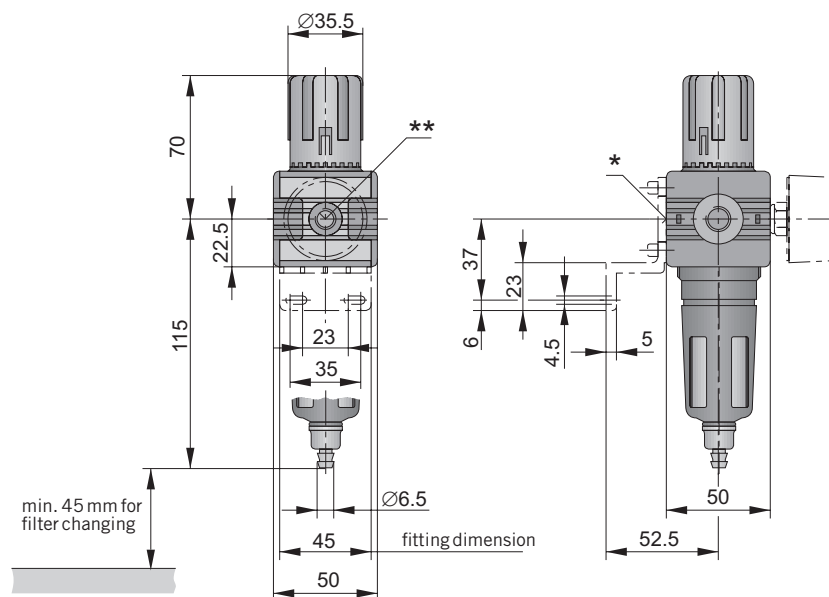
#### Series airfit swing G1/4

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)



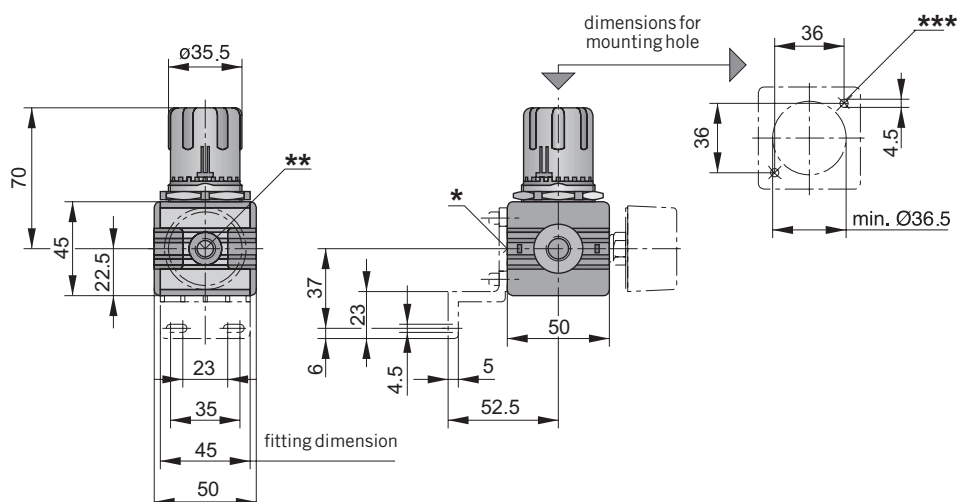
\* On delivery the plug screw is not assembled.

\*\* 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

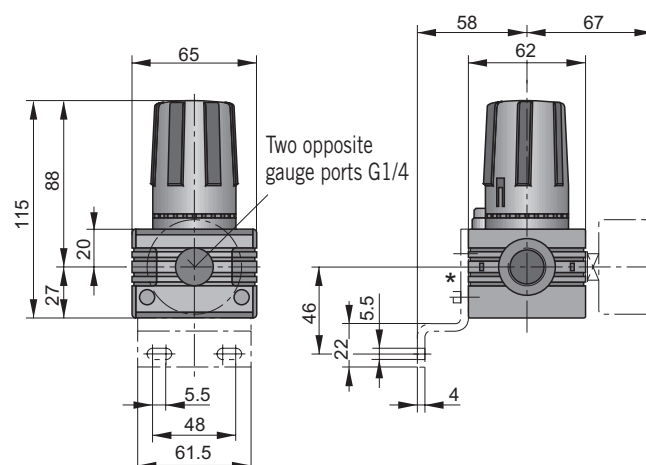
\*\*\* For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm



For order instructions see page 164, for characteristics see page 156–159,  
for accessories see page 165

Dimensions in mm

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



\* On delivery the plug screw is not assembled.

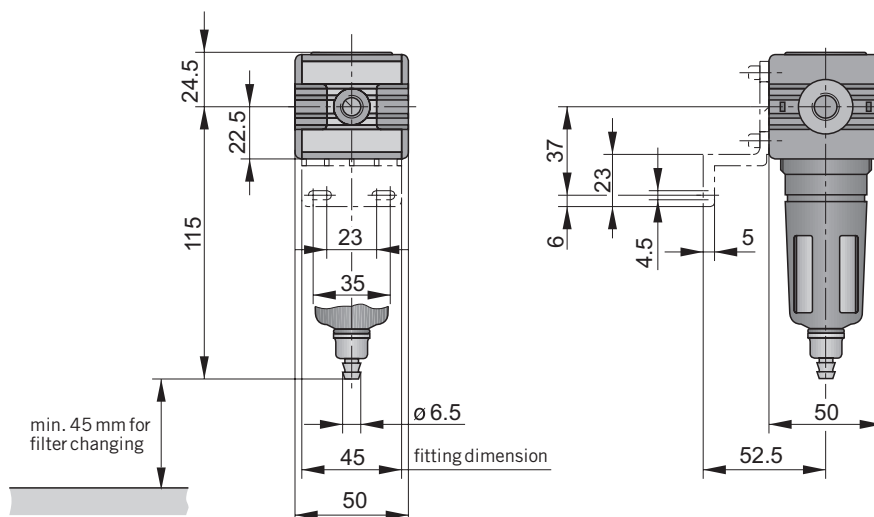
## Special units

### Dimensions

### Pressure regulating valve

### Series airfit comfort G1/2

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



### Filter-water-separator

### Series airfit swing G1/4

Quick, easy filter change with Quick-Snap system

For order instructions see page 164, for characteristics see page 156–159, for accessories see page 165

Dimensions in mm



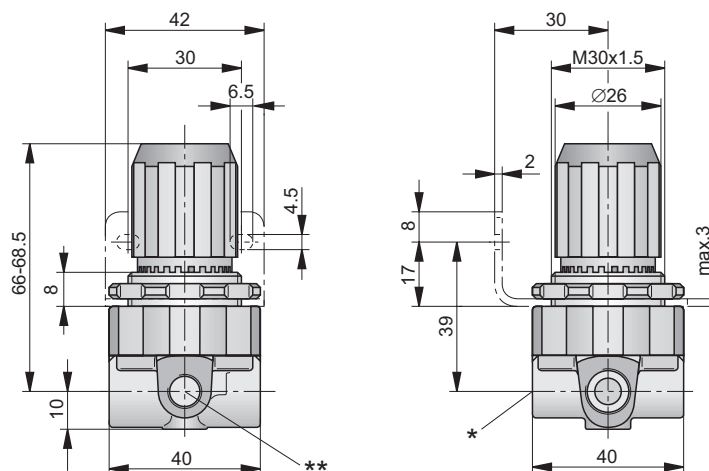
## Special units

### 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

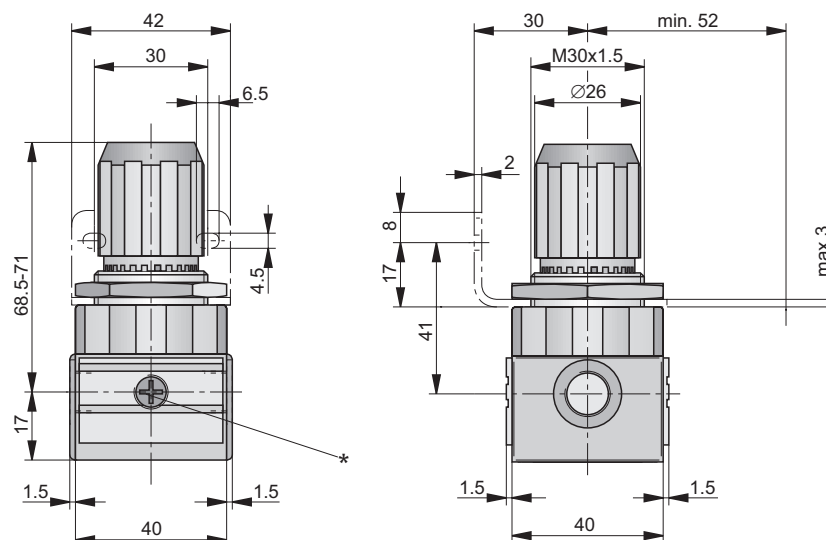
### For use with water and drinking water

#### 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.

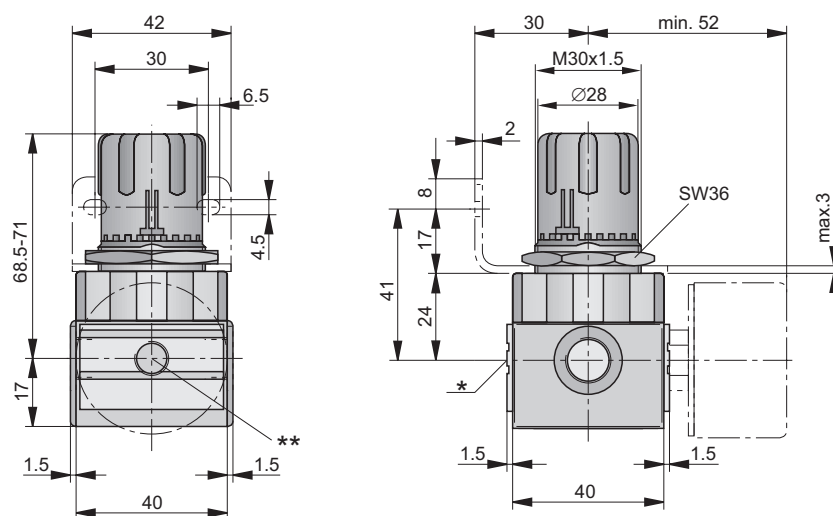


For order instructions see page 164, for characteristics see page 156–159, for accessories see page 165

Dimensions in mm

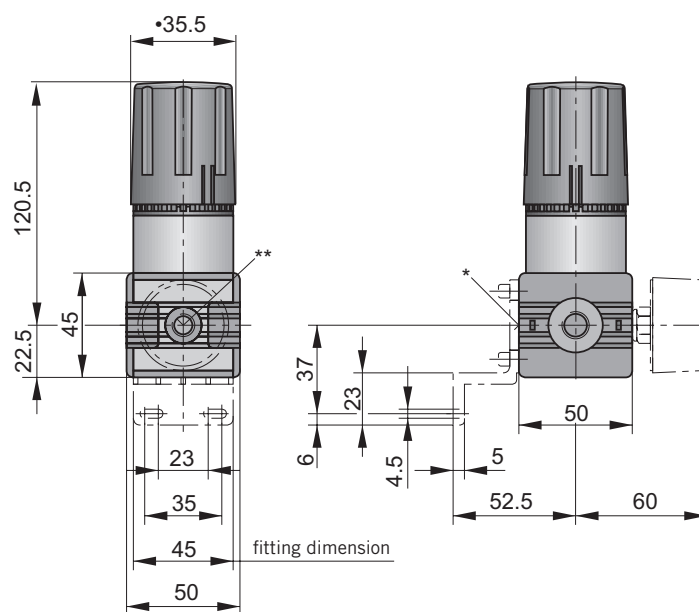


# Low-pressure regulating valve – Type: MRP-06-SO, MRP-08-SO



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

# 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 164, for characteristics see page 156–159, for accessories see page 165

Dimensions in mm

## Special units

Dimensions

Pressure regulating valve

Series airfit light  
G1/8, G1/4

Pressure regulating valve

Series airfit swing  
G1/4, G3/8



## Special units

### Dimensions

### Filter-regulator

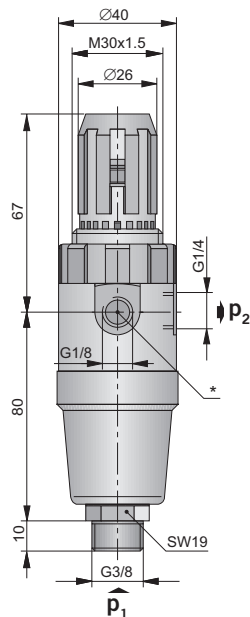
#### Series airfit

G3/8 external thread

G1/4 internal thread

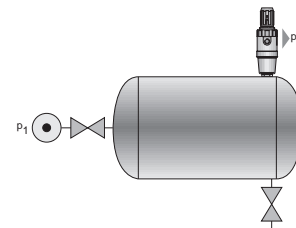
- Robust filter-regulator for direct mounting onto compressor's receiver.

### Filter-regulator – Type: MFRS-08



\* Gauge port G1/8

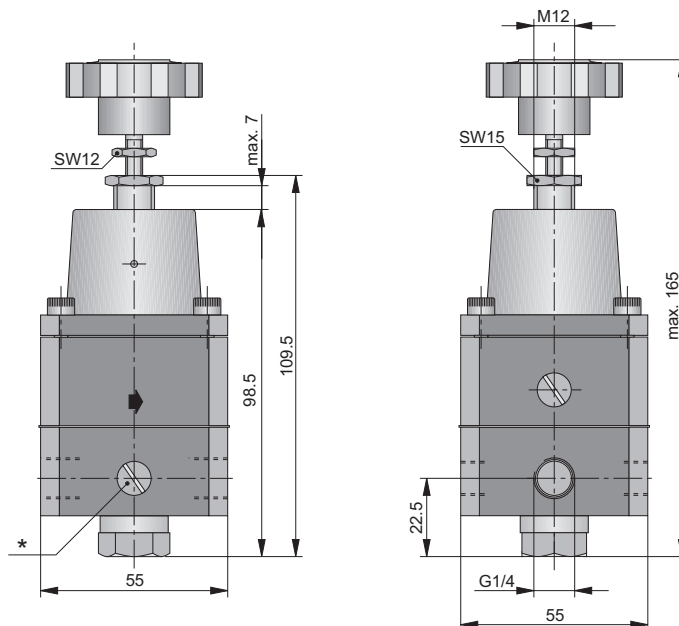
### Installation instruction



### 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.




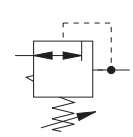
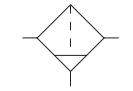
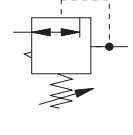

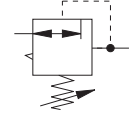
For order instructions see page 164, for characteristics see page 156–159, for accessories see page 165

Dimensions in mm

## Special units

*Order instructions*

### 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 63–67





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Single-point injection lubricator combination, type LUBI, with an internal pressurized oil supply to the integrated flow sensor for ease of installation in pipelines.	168, 169, 172	173	177
Single-point injection lubricator combination, type LUBE, with compressed oil inlet at lubricator element; for direct installation in pipelines	168, 169, 172	173	177
Single-point injection lubricator combination, type LB, with oil feed via external pneumatic signal	168, 169	174	177
Three-point injection lubricator combination, type LB, oil feed via external pneumatic signal	168, 169	174	177
Three-point injection lubricator combination, type LB, with separate oil feed via three external pneumatic signals	168, 169,	174	177
Single-point injection lubricator element, type L10i, Single-point injection lubricator element, type L10i, with internal pressurized oil supply to the integrated flow sensor; without reservoir	170, 171	175	177
Single-point injection lubricator element, type L10e, with external compressed oil outlet; without reservoir	170, 171	175	177
Single-point injection lubricator element, type L, with air inlet at the top and bottom; without reservoir	170, 171	176	177
Three-point injection lubricator element, type L, with air inlet at the top and bottom for group activation (all three compressed oil outlets feed simultaneously when an air pulse is generated)	170, 171	176	177
Three-point injection lubricator element, type L, with three lateral air supply points (only the appropriate compressed oil outlet feeds when an air pulse is generated)	170, 171	176	177
Single-point injection lubricator element, type LUI, with internal compressed oil outlet in fitted converter; for direct installation in pipelines; without reservoir	168, 169	175	177
Accessories, converter, oil reservoir, intersection elements, injection inlets, oil reservoir, atomizer	172, 178–182	178–182	183

## Injection lubricator system

*Series oilfit  
G1/4 to G1*

*– Injection lubricator elements and combinations for individual and group activation*



# Injection lubricator system

Series oilfit  
G1/4 to G1

– Injection lubricator elements and combinations for individual and group activation

## Characteristics



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Injection lubricator combinations				
System			Single-point injection lubricator. Automatic oil feed when connected pneumatic tool is switched on.				
Type			LUBI				
Material							
– Housing			Diecast aluminum				
– Reservoir			Polyester resin (PETP)				
– Actuating plunger			Polyamide transparent				
– Oil connection			Brass				
– Sealings			NBR				
Port size			G1/4	G3/8	G1/2	G3/4	G1
Port size control air			–	–	–	–	–
Port size lubricant							
– Inlet			– (Oil reservoir)				
– Outlet			Coupling for tube Ø 2.5/1.5, coaxially in airline				
Mounting			2 M6 screws are included in delivery				
Installation			Horizontal, reservoir on top				
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	°C °C	-20 +50				
Control medium			Filtered compressed air				
Lubricant			Mineral oil to DIN 1524 and DIN 51525				
Viscosity		mm <sup>2</sup> /s	20–765				
Weight (mass)		kg	0.65	0.65	0.65	0.75	0.80
Operating pressure range of air	p <sub>min</sub> p <sub>max</sub>	bar bar	3 10				
Operating pressure range of lubricant			Inlet: without pressure from fitted reservoir (gravity feed) Outlet: 0–250 bar depending on operating pressure and oil injection conditions				
Recommended flow <sup>1)</sup>	Q <sub>n</sub>	l/min m <sup>3</sup> /h	550 33	850 51	1900 114	3500 210	5000 300
Own air usage <sup>2)</sup>	Q <sub>n</sub>	m <sup>3</sup> /h	0.36				
Minimum flow at 6 bar	Q <sub>min</sub>	m <sup>3</sup> /h	9				
Reservoir capacity			250				
Oil feed per stroke			3–30 adjustable, factory adjustment 30 mm <sup>3</sup> /stroke				
Optional extension kits			Up to max. 10 lubrication points by fitting of elements L11, L31, or L33				

<sup>1)</sup> at 6 bar and 25 m/s

<sup>2)</sup> at 6 bar and Ø 0.3 mm and  $Q_n > Q_{min}$  (i.e. only when there is flow)

Single-point injection lubricator. Automatic oil feed when connected pneumatic tool is switched on.						Single-point lubricator with 1 control air inlet, oil feed actuated by external pneumatic signal.		Three-point lubricator with 1 control air inlet (combined actuation), oil feed actuated by external pneumatic signal.		Three-point lubricator with 3 separate control air inlets (individual actuation), oil feed actuated by three external pneumatic signals.		Single-point injection lubricator with integrated flow sensor, automatic oil feed when connected pneumatic tool is switched on.				
LUBE						LB11		LB31		LB33		LUI				
Diecast aluminum						Diecast zinc						Diecast aluminum				
Polyester resin (PETP)						Polyester resin (PETP)						Polyester resin (PETP)				
Polyamide, transparent						Polyamide, transparent						Polyamide, transparent				
Brass						Brass						Brass				
NBR						NBR						NBR				
G1/4	G3/8	G1/2	G3/4	G1		–		–		–		G1/4	G3/8	G1/2	G3/4	G1
–	–	–	–	–		G1/8		G1/8		G1/8		–	–	–	–	–
– (Oil reservoir)						– (Oil reservoir)		– (Oil reservoir)		– (Oil reservoir)		G1/8				
M6 x 0.75						M6 x 0.75		M6 x 0.75		M6 x 0.75		Coupling for tube Ø 2 .5/1.5, coaxially in airline				
In-line mounting (2 M6 screws are included in delivery)						In-line mounting (2 M6 screws are included in delivery)						In-line mounting (2 M6 screws are included in delivery)				
Horizontal, reservoir on top						Horizontal, reservoir on top						Horizontal (flow direction of air flow sensor)				
-20 +50						-20 +50						-20 +50				
Filtered compressed air						Filtered compressed air						Filtered compressed air				
Mineral oil to DIN 1524 and DIN 51525						Mineral oil to DIN 1524 and DIN 51525						Mineral oil to DIN 1524 and DIN 51525				
20–765						20–765						20–765				
0.65	0.65	0.65	0.75	0.80		0.45		0.65		0.65		0.45	0.45	0.45	0.50	0.50
3						3						3				
10						10						10				
Inlet: without pressure from fitted reservoir (gravity feed) Outlet: 0–250 bar depending on operating pressure and oil injection conditions						Inlet: without pressure from fitted reservoir (gravity feed) Outlet: 0–250 bar depending on operating pressure and oil injection conditions						Inlet: without pressure from fitted reservoir (gravity feed) Outlet: 0–250 bar depending on operating pressure and oil injection conditions				
550	850	1900	3500	5000		–		–		–		550	850	1900	3500	5000
33	51	114	210	300								33	51	114	210	300
0.36						–						0.36				
9						–		–		–		9				
250						250						250				
3–30 adjustable, factory adjustment 30 mm <sup>3</sup> /stroke						3–30 adjustable, factory adjustment 30 mm <sup>3</sup> /stroke		30 mm <sup>3</sup> /stroke				3–30 adjustable, factory adjustment 30 mm <sup>3</sup> /stroke				
Up to max. 10 lubrication points by fitting of elements L11, L31, or L33						Up to max. 10 lubrication points by fitting of elements L11, L31, or L33						Up to max. 10 lubrication points by fitting of elements L11, L31, or L33				

## Injection lubricator system

Series oilfit  
G1/4 to G1

– Injection lubricator elements and combinations for individual and group activation

### Characteristics



Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Injection lubricator elements	
System			Single-point injection lubricator element with internal pressure oil outlet into the flow sensor	Single-point injection lubricator element with external pressure supply, oil feed actuated by flow sensor signal, for installation with a flow sensor
Type			L10 i	L10 e
Material				
– Housing			Diecast aluminum	
– Reservoir			Polyester resin (PETP)	
– Actuating plunger			Polyamide, transparent	
– Oil connection			Brass	
– Sealings			NBR	
Port size			–	–
Port size control air			–	–
Port size lubricant				
– Inlet			G1/8	G1/8
– Outlet			Into the flow sensor	M6 x 0.75
Mounting			2 M6 screws, with coupling kit either directly on oil reservoir or on other lubricator elements	
Installation			Horizontal (oil channel S → S) see drawing	
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C °C	-20 +80	-20 +80
Control medium			Filtered compressed air	Filtered compressed air
Lubricant			Mineral oil to DIN 1524 and DIN 51525	
Viscosity		mm <sup>2</sup> /s	20–765	20–765
Weight (mass)		kg	0.25	0.25
Operating pressure range of air	$p_{min}$ $p_{max}$	bar bar	3 10	3 10
Operating pressure range of lubricant			Inlet: gravity feed or pressure feed (max. 3 bar) Outlet: 0–250 bar depending on operating pressure and oil injection conditions	
Recommended flow <sup>1)</sup>	$Q_n$	l/min m <sup>3</sup> /h	–	–
Own air usage <sup>2)</sup>	$Q_n$	m <sup>3</sup> /h	–	–
Minimum flow at 6 bar	$Q_{min}$	m <sup>3</sup> /h	–	–
Reservoir capacity		cm <sup>3</sup>	–	–
Oil feed per stroke		mm <sup>3</sup>	3–30 adjustable factory adjustment 30 mm <sup>3</sup> /stroke	

<sup>1)</sup> at 6 bar and 25 m/s

<sup>2)</sup> at 6 bar and Ø 0.3 mm and  $Q_n > Q_{min}$  (i.e. only when there is flow)



	Single-point injection lubricator element with air connection on top and bottom side. Oil feed through external pneumatic signal	Three-point injection lubricator element with air connection on top and bottom side for combined actuation (air signal simultaneously actuates all three pressure oil outlets)	Three-point injection lubricator element with air connection on top and bottom side for combined actuation, with three lateral air connections (each air signal actuates only its corresponding pressure oil outlet)	Flow sensor for converting air flow into a digital air signal – to injection lubricator elements L10i and L10e				
	L11	L31	L33	U-08	U-10	U-15	U-20	U-25
	Diecast aluminum							
	Polyester resin (PETP)							
	Polyamide, transparent							
	Brass							
	NBR							
	–	–	–					
	G1/8	G1/8	G1/8	G1/4	G3/8	G1/2	G3/4	G1
	G1/8	G1/8	G1/8	–				
	M6 x 0.75	M6 x 0.75	M6 x 0.75	Tube nipple for tube Ø 2.5/1.5, coaxially in airline				
	2 M6 screws, with coupling kit either directly on oil reservoir or on other lubricator elements	2 M6 screws, with coupling kit either directly on oil reservoir or on other lubricator elements	2 M6 screws, with coupling kit either directly on oil reservoir or on other lubricator elements	In-line mounting, to element L10i and L10e (2 M6 screws included in delivery)				
	Horizontal (oil channel S → S) see drawing	Horizontal (oil channel S → S) see drawing	Horizontal (oil channel S → S) see drawing	Horizontal				
	-20 +80	-20 +80	-20 +80	-20 +80				
	Filtered compressed air	Filtered compressed air	Filtered compressed air	Filtered compressed air				
	Mineral oil to DIN 1524 and DIN 51525	Mineral oil to DIN 1524 and DIN 51525	Mineral oil to DIN 1524 and DIN 51525	–				
	20–765	20–765	20–765	–				
	0.40	0.40	0.40	0.20	0.20	0.20	0.25	0.30
	3 10	3 10	3 10	3 10				
	Inlet: gravity feed or pressure feed (max. 3 bar) Outlet: 0–250 bar depending on operating pressure and oil injection conditions			–				
	–	–	–	550 33	850 51	1900 114	3500 210	5000 300
	–	–	–	0.36				
	–	–	–	9				
	–	–	–	–				
	3–30 adjustable factory adjustment 30 mm³/stroke	3–30 adjustable factory adjustment 30 mm³/stroke	3–30 adjustable factory adjustment 30 mm³/stroke	–				

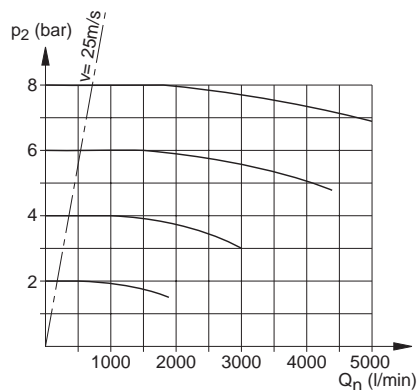
# Injection lubricator system

Series oilfit

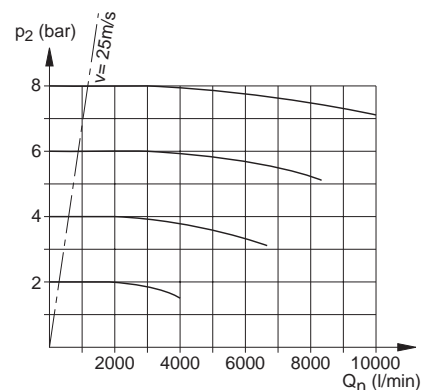
Flow characteristics

Air flow sensor and injection lubricator combination with air flow sensor  
Type: LUBI, LUBE, LUI- U

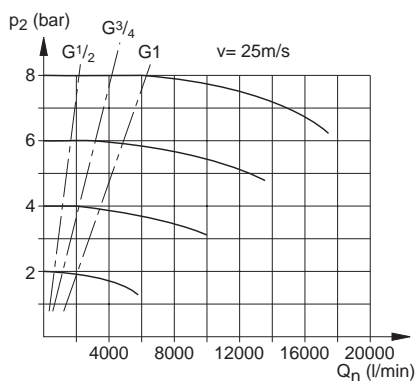
Port size G1/4



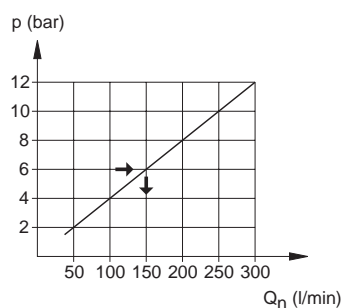
Port size G3/8



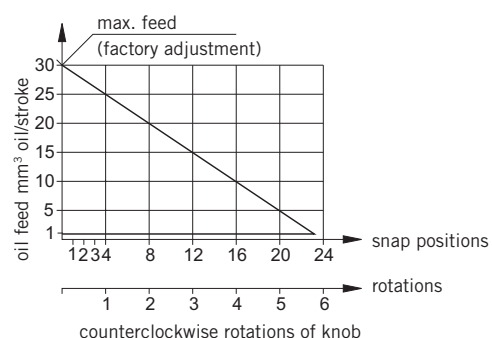
Port size G1/2, G3/4, G1



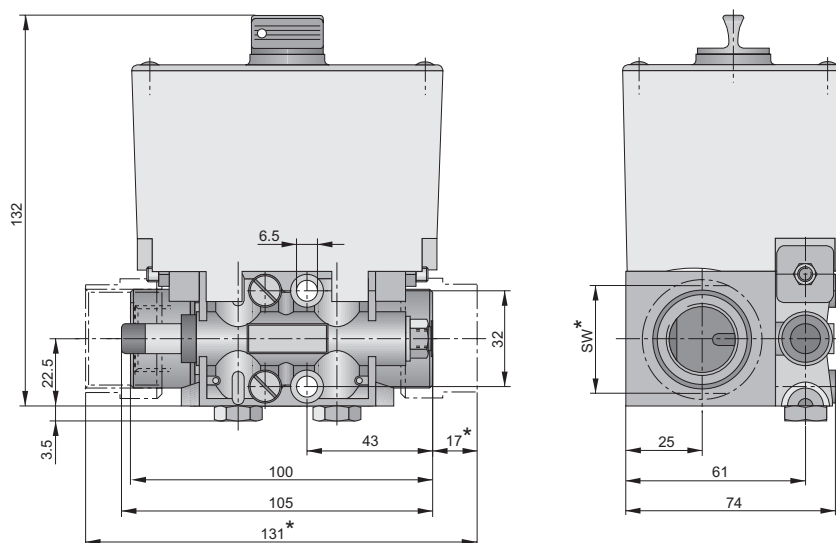
Minimum flow



Adjustment of oil feed



Type: LUBI-08, 10, 15, 20, 25



\* Only for LUBI-20 SW=36  
LUBI-25 SW=41

## Injection lubricator system

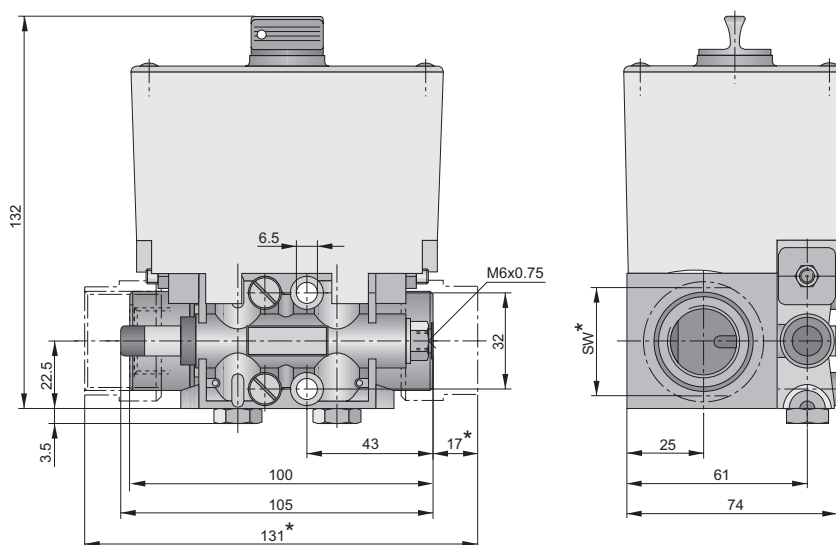
*Series oilfit*

### Dimensions

**Injection lubricator combination**  
**Type: LUBI-..**

This combination, comprising an oil reservoir, flow sensor and single-point lubricator element, is used to lubricate individually operated compressed air tools. The pressure oil connection is inside the air outlet port of the air flow sensor.

Type: LUBE-08, 10, 15, 20, 25



\* Only for LUBE-20 SW=36  
LUBE-25 SW=41

**Injection lubricator combination**  
**Type: LUBE-..**

This combination, comprising an oil reservoir, flow sensor and single-point lubricator element, is used to lubricate individually operated compressed air tools. The pressure oil connection is outside of the flow sensor, directly on the outlet of the lubricator element.

For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm



## Injection lubricator system

*Series oilfit*

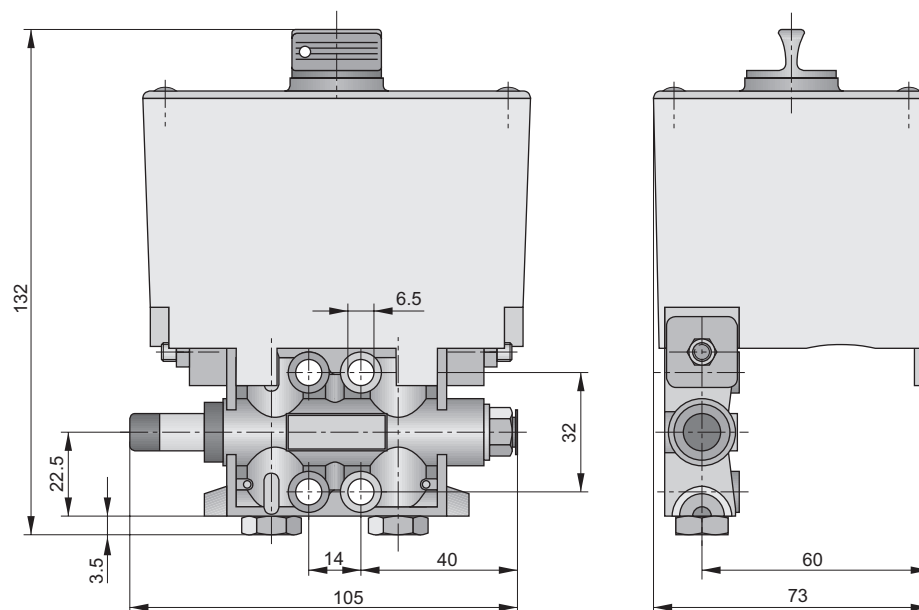
*Dimensions*

### Injection lubricator combination

**Type: LB11**

This combination, comprising an oil reservoir and single-point lubricator element, is used to lubricate compressed air cylinders, synchronized feed devices or compressed air tools.

**Type: LB11**

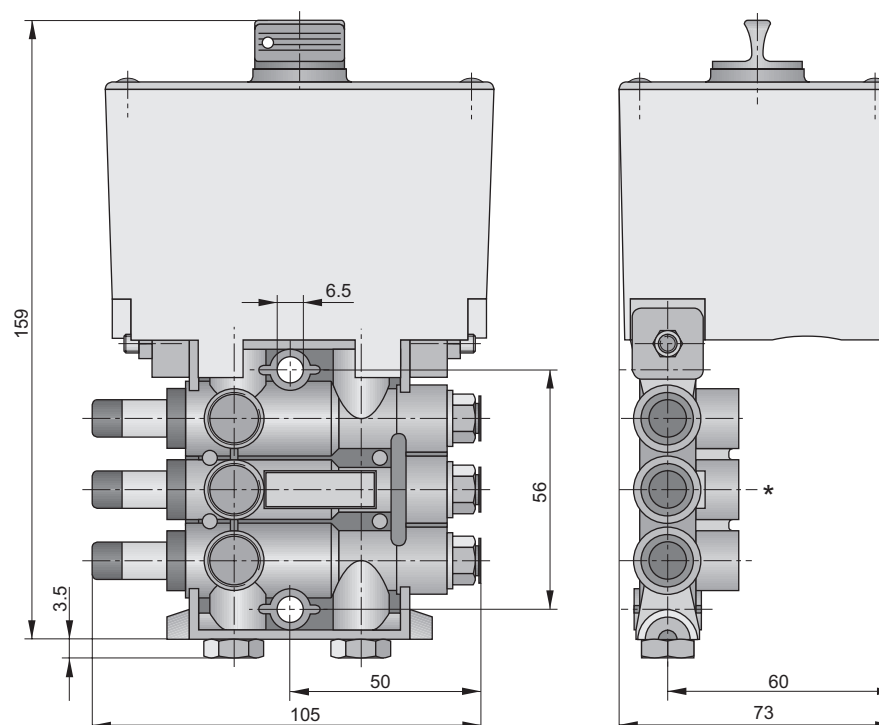


### Injection lubricator combination

**Type: LB31, LB33**

This combination, comprising an oil reservoir and three-point lubricator element (LB 31 for group activation and LB33 for individual activation), is used to lubricate compressed air cylinders, synchronized feed devices or compressed air tools.

**Type: LB31, LB33**



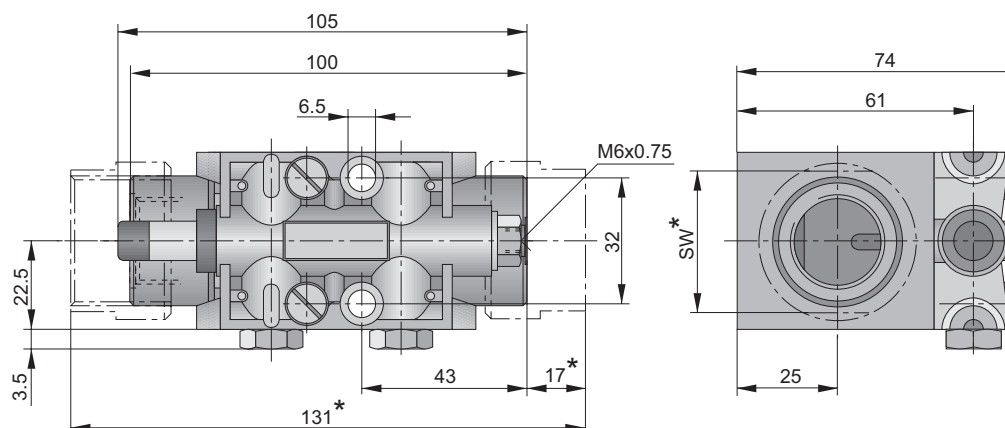
\* 3 lateral connections G1/8 only with type LB33

For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm



Type: LUI-08, 10, 15, 20, 25



\* Only for LUI-20 SW=36  
LUI-25 SW=41

## Injection lubricator system

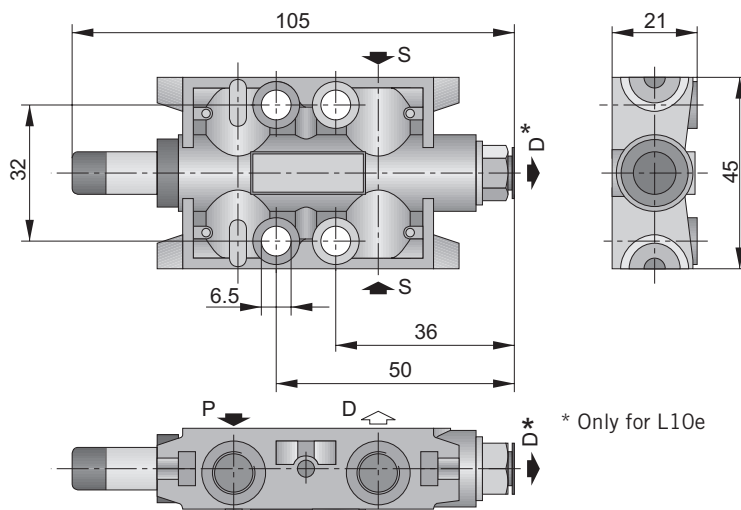
Series oilfit

### Dimensions

Injection lubricator  
combination type: LUI

This combination, comprising a single-point lubricator element and flow sensor, without oil reservoir, is used to lubricate compressed air cylinders, synchronized feed devices or compressed air tools. The pressurized oil supply is located within the air outlet of the flow sensor.

Type: L10i, L10e



\* Only for L10e

D = pressure oil line  
S = suction line (from oil reservoir)  
P = pilot air (from air flow sensor)

For order instructions see page 183, for characteristics see page 168–172,  
for accessories see page 178–183

Dimensions in mm



# Injection lubricator system

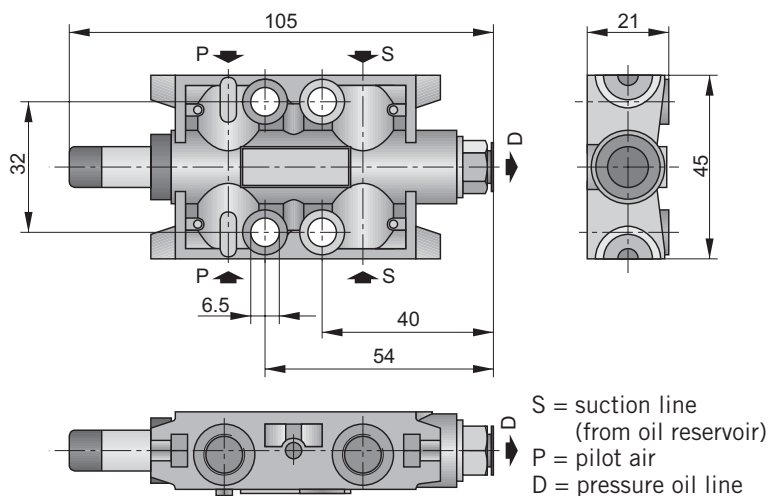
Series oilfit

Dimensions

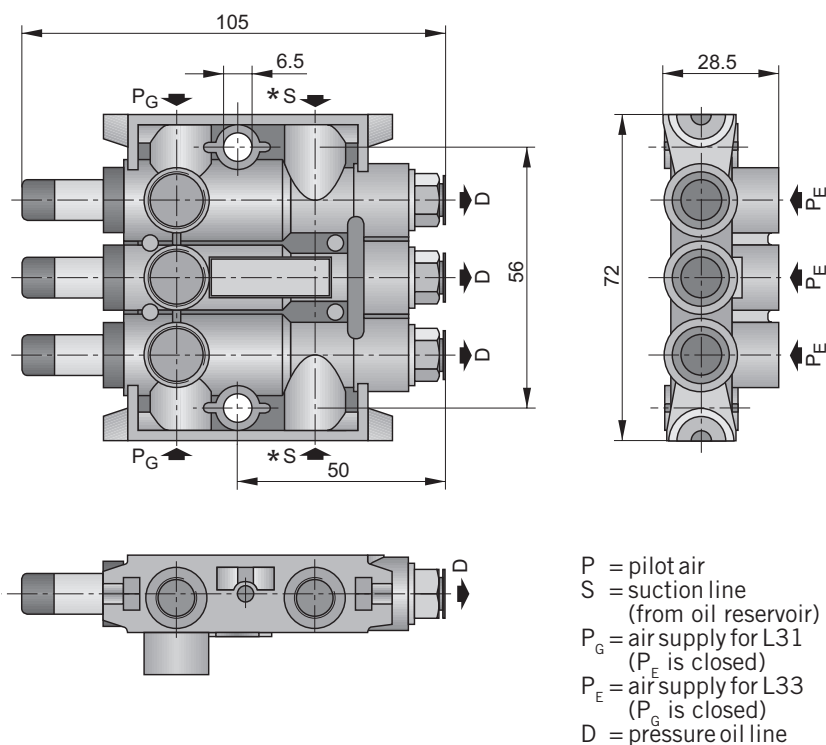
**Injection lubricator elements**  
Type: L11, L31, L33

Lubricator elements for flanging to the reservoir or for extending a lubricator combination

Type: L11



Type: L31, L33



\* Oil return line may be required



For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm

**Standard versions**

Description	Port size	Order instruction	
		Type	Order No.
Injection lubricator combinations with oil reservoir	G1/4	LUBI-08	PB 13449-005
	G3/8	LUBI-10	PB 13549-005
	G1/2	LUBI-15	PB 13649-005
	G3/4	LUBI-20	PB 13749-005
	G1	LUBI-25	PB 13849-005
	G1/4	LUBE-08	PB 13449-007
	G3/8	LUBE-10	PB 13549-007
	G1/2	LUBE-15	PB 13649-007
	G3/4	LUBE-20	PB 13749-007
	G1	LUBE-25	PB 13849-007
		LB11	PB 13049-000
		LB31	PB 13149-000
		LB33	PB 13249-000
Injection lubricator elements	G1/4	LUI-08	PB 13449-001
	G3/8	LUI-10	PB 13549-001
	G1/2	LUI-15	PB 13649-001
	G3/4	LUI-20	PB 13749-001
	G1	LUI-25	PB 13849-001
		L10i	KY 2030
		L10e	KY 2031
		L11	KY 2033
		L31	KY 2032
		L33	KY 2034

For accessories see page 178–183

## Injection lubricator system

*Series oilfit*

*Order instructions*



# Injection lubricator system

Series oilfit

Accessories

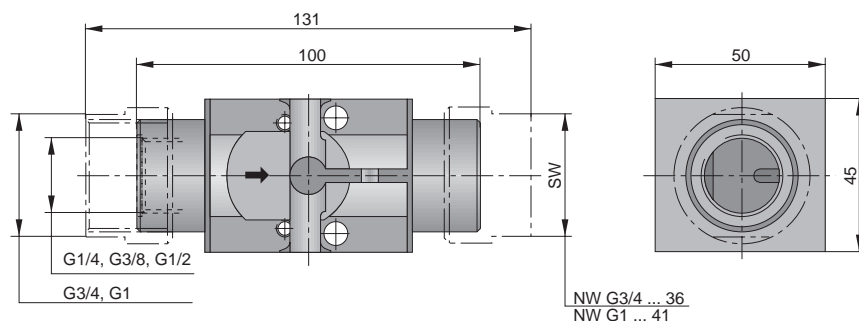
Dimensions

## Air flow sensor

The airflow sensor converts air flow into a digital air signal.

## Air flow sensor Type: U-08, 10, 15, 20, 25

For injection lubricator elements Type L10i and L10e



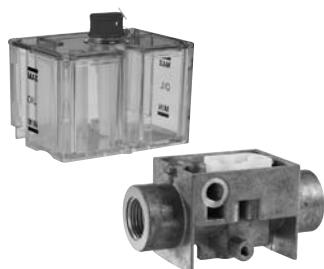
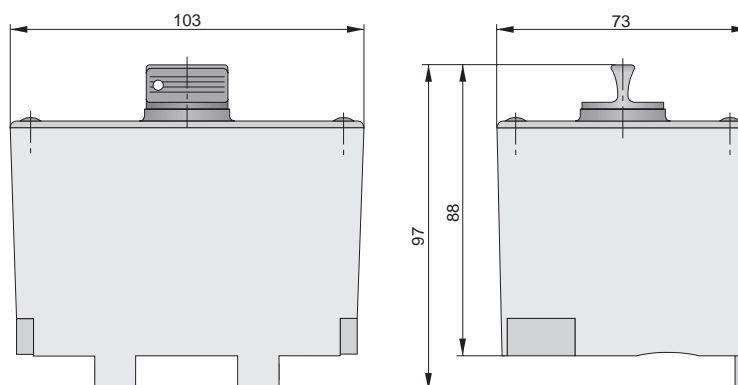
## Oil reservoir

The reservoir provides oil supply for one or more lubricator elements.

## Characteristics – Oil reservoir

Type	Bi
Port size	Without thread, Directly flange mountable to lubricator element
Installation	Vertical, filling plug on top (see drawing)
Mounting	With coupling kit to lubricator element
Oil capacity	250 cm <sup>3</sup>
Oil supply	Without pressure (gravity feed)
Material	Polyester resin (PETP)

## Oil reservoir Type: Bi

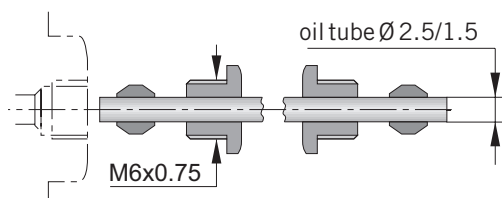


For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

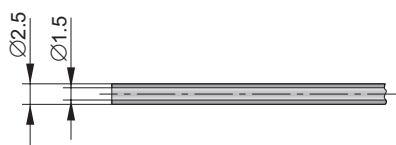
Dimensions in mm



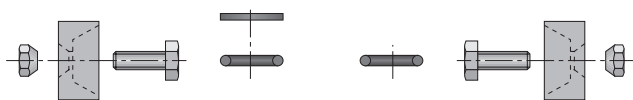
## Connection kit, 12 parts – Type: A



## Oil tube – Type: S



## Coupling kit – Type: K



## Special oil for lubricators, VG32 to ISO 3448



## Order No. KY8786

For more information see page 191

# Injection lubricator system

*Series oilfit*

*Accessories*

*Dimensions*

## Connection kit 12 parts

The connection kit consisting of 12 parts (for 3 pressure oil lines) is used for connecting pressure oil tubes with the lubricator element and the discharge element.

## Oil tube

Connects the lubricator element with the oil discharge element on the unit to be lubricated (tool, cylinder). Material: polyamide (PA) supplied in lengths of 10 m, prefilled with oil and ends plugged.

## Coupling kit

The coupling kit is used for assembling all the components of the system.

For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm

## Injection lubricator system

Series oilfit

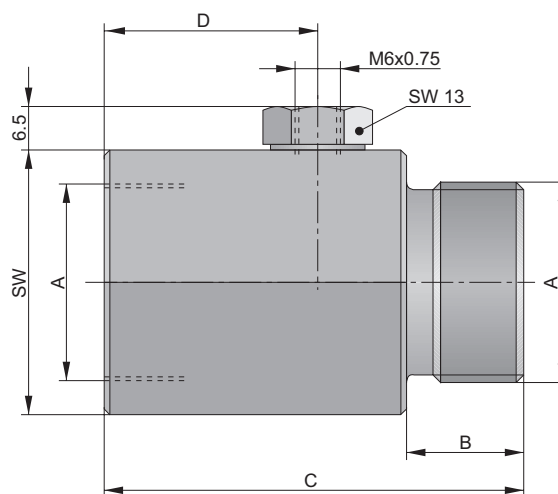
Accessories

Dimensions

### Air connection with oil injector

The air connection with oil injector connects the pressure oil line to the air line of a pneumatic unit (e.g. screws directly into a cylinder port).

### Air connection with oil injector – Type: E-06, E-08



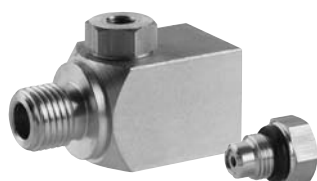
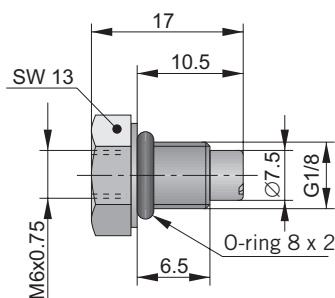
Dimension table

Type	A	B	C	D	SW
E-06	G1/8	8	35	17	22
E-08	G1/4	12	45	22	22

### Oil injector, single

Oil injector with check valve for pressure oil line.

### Oil injector, single – Type: E<sub>0</sub>



For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm

### Characteristics – Atomizer

Adjustment of oil feed	With setting screw in the back of the housing
Oil connection	G1/8 for discharge element E <sub>0</sub>
Air connection	G1/8
Spray angle	Conical

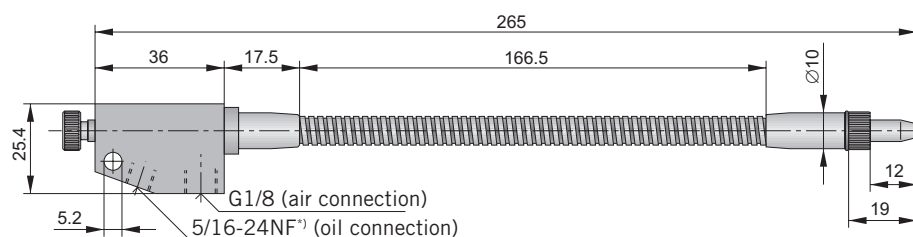
## Injection lubricator system

*Series oilfit*

*Accessories*

*Dimensions*

### Flexible atomizer – Type: B-101



\*) Adapter 5/16-24 NF to G1/8 Type: B-6056 (see order instructions)

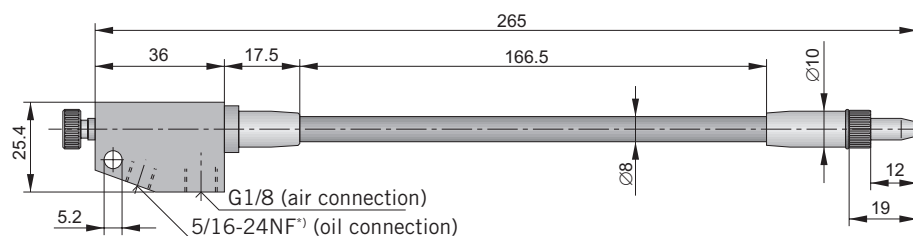
### Atomizer

Adjustable atomizer for all kinds of spraying operations (continuous jet).

### Versions:

- Flexible atomizer
- Rigid atomizer

### Rigid atomizer – Type: B-102



\*) Adapter 5/16-24 NF to G1/8 Type: B-6056 (see order instructions)

### Oil injector, single

Oil injector with check valve for pressure oil line.

For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm



## Injection lubricator system

*Series oilfit*

*Accessories*

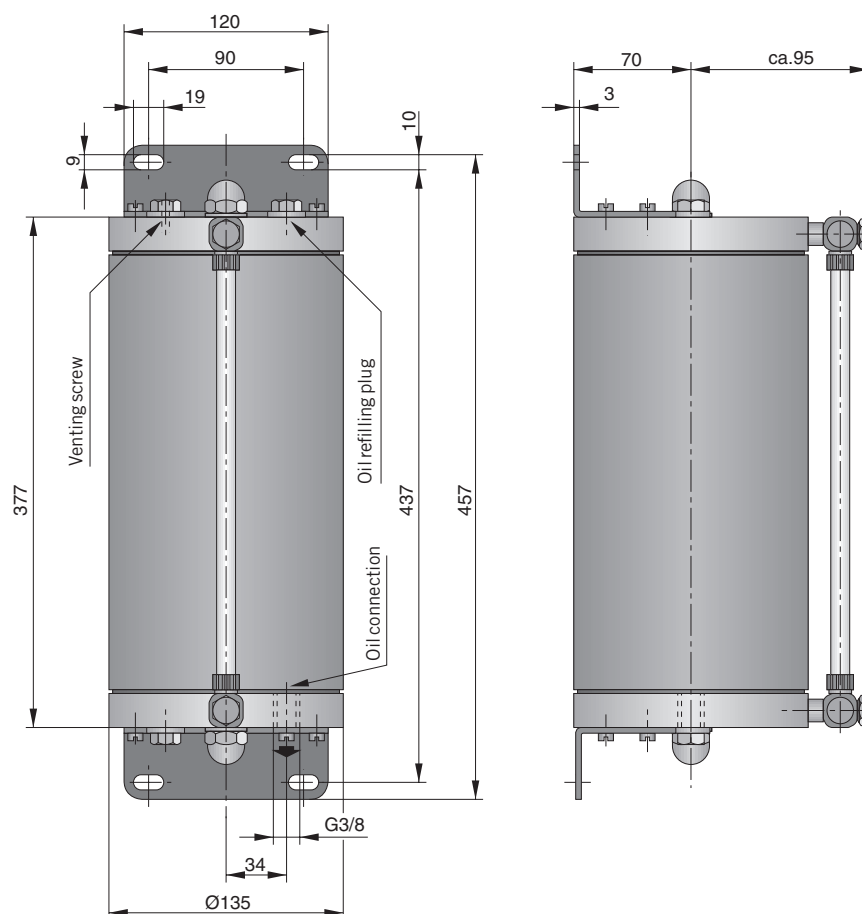
*Dimensions*

### Oil reservoir with sight glass Capacity: 4 l

The oil reservoir supplies one or more injection lubricators.

Characteristics	Symbol	Unit	Description
Type			B-04
System			Oil reservoir for gravity feed of one or more injection lubricators
Connection			Thread
Port size			Inlet: M16 x 1.5 Outlet: G3/8
Installation			Vertical (see drawing)
Mounting			4 M8 screw, mounting brackets are included in delivery
Oil capacity		cm <sup>3</sup>	4000
Oil supply			Unpressurized
Weight (mass)		kg	4.50

### Oil reservoir, unpressurized - Type: B-04



For order instructions see page 183, for characteristics see page 168–172,  
for accessories see page 178–183

Dimensions in mm

**Accessories**

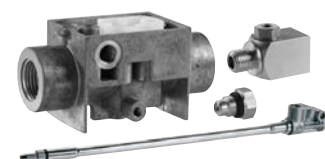
Description	Port size	Order instructions	
		Type	Order No.
Converter	G1/4	U-08	PL08144
	G3/8	U-10	PL08109
	G1/2	U-15	PL08110
	G3/4	U-20	PL08111
	G1	U-25	PL08112
Coupling kit (9-part)		K	PL08066
Connection kit (12-part)		A	PL08185
Oil tube, prefilled with oil, length 10 m		S	PL08187-10
Air connection with oil injector	G1/8	E-06	PL08100
Air connection with oil injector	G1/4	E-08	PL08101
Oil reservoir, flangeable to lubricator element		Bi	PL08108
Special oil for oil mist lubricators see page 191			KY8786
Oil injector	G1/8	E <sub>0</sub>	PL08091
Flexible atomizer	G1/8	B-101	KY9919
Rigid atomizer	G1/8	B-102	KY8783
Oil reservoir, 4l		B-04	PL15534
Adapter 5/16-24NF	G1/8	B-6056	KX6026

## Injection lubricator system

*Series oilfit*

*Order instructions*

*Accessories*





**Overview**

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Gauges	–	186, 187	186, 187
Exhaust filter-silencer	188	189	189
Pressure relief valves	190	190	190
Special oil for oil mist lubricators	191	–	191

**Air preparation accessories**

- *Gauges*
- *Exhaust filter-silencer*
- *Pressure relief valves*
- *Special oil*



## Air preparation accessories

Gauges  
 Ø 40, 50, 63 mm  
 to DIN 16005  
 Class 1.6

– with center rear connection  
 (standard)

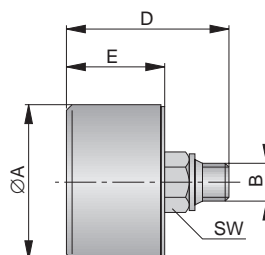
Dimensions,  
 Order instructions

**Material:**  
 Housing – black polymer  
 Face – acrylic glass

**Scale:**  
 Double scale in bar/psi

**Delivery includes:**  
 1 gauge  
 1 sealing ring

Gauge, center rear connection



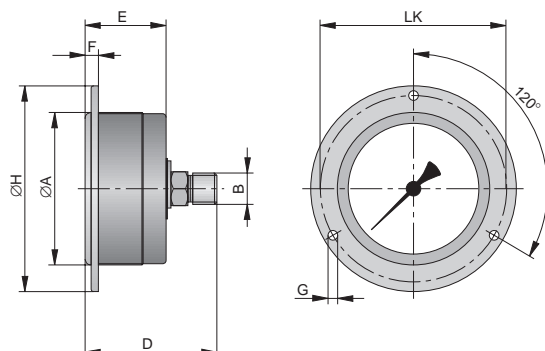
Order instructions, dial range and dimension table

Order instruction Type	Order No.	Dial range (bar)	Dimensions				
			ØA	B	D	E	SW
111.12.40.1.6	KZ 8894	0–1.6	41	G1/8	44	26	14
111.12.40.2.5	KZ 8810	0–2.5	41	G1/8	44	26	14
111.12.40.04	KZ 8811	0–4	41	G1/8	44	26	14
111.12.40.06	KZ 8812	0–6	41	G1/8	44	26	14
111.12.40.10	KZ 8813	0–10	41	G1/8	44	26	14
111.12.40.16	KZ 8814	0–16	41	G1/8	44	26	14
111.12.50.10	KZ 8815	0–10	49	G1/8	48	27	14
111.12.50.16	KZ 8816	0–16	49	G1/8	48	27	14
111.12.50.10	KG 8012	0–10	49	G1/4	48	27	14
111.12.50.16	KG 8013	0–16	49	G1/4	48	27	14
Version for use in EX areas (metal housing, glass face)							
111.12.40.10	KZ 8454	0–10	41	G1/8	44	26	14
111.12.50.10	KG 8025	0–10	49	G1/4	48	27	14



Dimensions in mm



**Gauge with front ring for panel mounting, center rear connection**

**Order instructions, dial range and dimension table**

Order instruction		Dial range (bar)	Dimensions								
Type	Order No.		ØA	B	D	E	F <sub>max.</sub>	ØG	ØH	ØLK	SW
111.16.40.10	KZ8822	0-10	40	G1/8	45	27	7	3.6	61	51	14
111.16.50.10	KZ8823	0-10	50	G1/8	48	27	7	3.6	71	60	14

**Air preparation accessories**

Gauges  
 Ø 40, 50, 63 mm  
 to DIN 16005  
 Class 2.5

- with center rear connection
- front ring for panel mounting

*Dimensions,  
 Order instructions*

**Material:**  
 Housing – black polymer  
 Face – acrylic glass

**Scale:**  
 Double scale in bar/psi

**Delivery includes:**  
 1 gauge with front ring  
 1 Sealing ring

Dimensions in mm

## Air preparation accessories

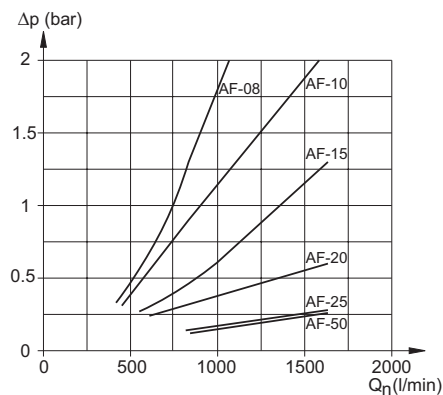
Exhaust filter  
(silencer)  
Series AF  
G1/4 – G2

### Characteristics

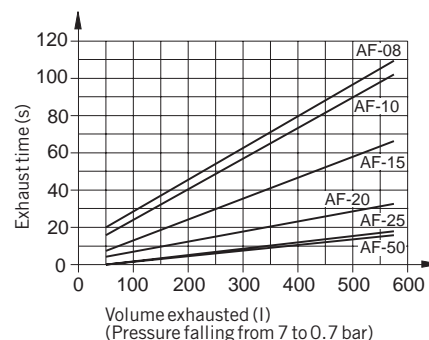
Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description
System			3-stage coalescence filter
Type			AF-08 AF-10 AF-15 AF-20 AF-25 AF-32 AF-50
Port size			G1/4 G3/8 G1/2 G3/4 G1 G1 1/4 G2
Installation			Vertical, bowl at the bottom
Medium and ambient temperatures	$T_{min}$ $T_{max}$	°C °C	+1.5 +60
Condensate drainage			Manual
Weight (mass)		kg	0.3 0.3 0.6 0.6 1.1 1.1 1.17
Pneumatic characteristics			
Operating pressure range	$p_{min}$ $p_{max}$	bar bar	0 10
Pressure drop	$\Delta p$	bar	See diagram
Degree of filtration	$\eta$	%	99.999 solid particles and vapors (oil, water) >0.1 micron
Residual oil content		mg/m <sup>3</sup>	0.01
Silencing compared with open exhaust		dB	20 20 20 25 35 35 35
Exhaust capacity		l/s	See diagram

Pressure drop

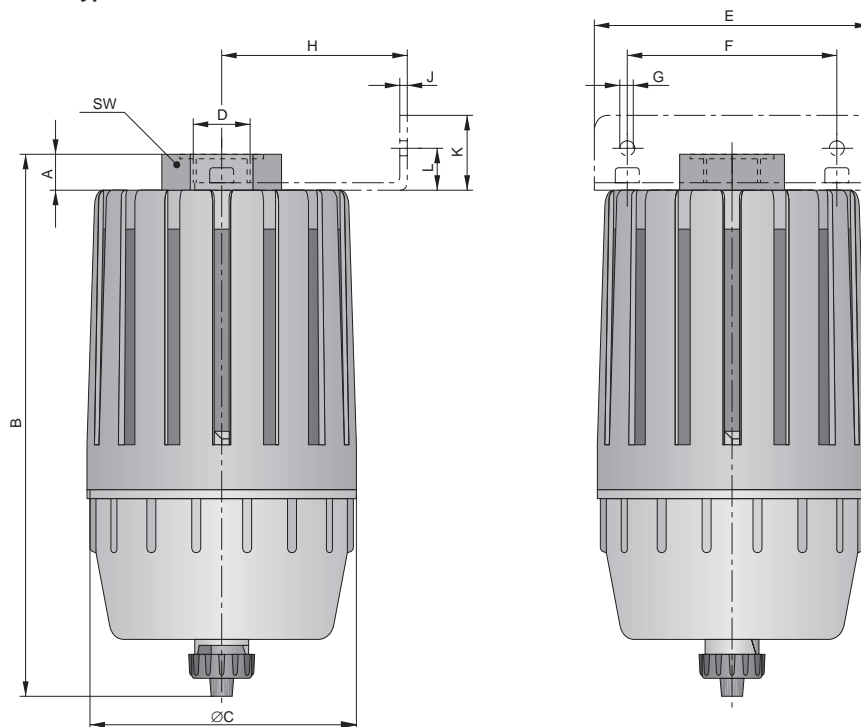


Exhaust capacity



Dimensions in mm

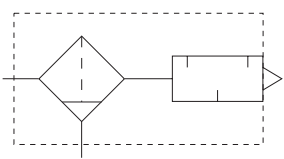
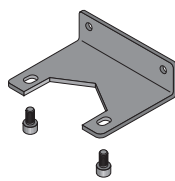
## Exhaust filter – Type: AF-..



Dimension table

Type	A	B	C	D	E	F	G	H	J	K	L	SW
AF-08	6	130	77	G1/4	64	45	5.8	50	2.5	11	3	26
AF-10	6	130	77	G3/8	64	45	5.8	50	2.5	11	3	26
AF-15	12	180	90	G1/2	81	56.5	5.5	52	1.5	25	13	41
AF-20	12	180	90	G3/4	81	56.5	5.5	52	1.5	25	13	41
AF-25	15	254	110	G1	93	70	5.5	62	1.5	25	13	50
AF-32	30	270	110	G1 1/4	93	70	5.5	62	1.5	25	13	55
AF-50	73	311	110	G2	93	70	5.5	62	1.5	25	13	55

## Order instructions

Description	Symbol	Port size	Order instructions	
			Type	Order No.
Exhaust filter		G1/4	AF-08	PB 35149-000
		G3/8	AF-10	PB 35249-000
		G1/2	AF-15	PB 35349-000
		G3/4	AF-20	PB 35449-000
		G1	AF-25	PB 35549-000
		G1 1/4	AF-32	PB 36949-000
		G2	AF-50	PB 35049-000
Mounting kit (bracket and screws)		To G1/4, G3/8	AF-08/10	KG6045
		To G1/2, G3/4	AF-15/20	KX9132
		To G1 – G2	AF-25/32/50	KX9133

## Air preparation accessories

Exhaust filter  
(silencer)  
Series AF  
G1/4 – G2

Dimensions  
Order instructions

### Exhaust filter

Exhaust filter-silencers clean the exhaust air of pneumatic equipment and reduce the exhaust noise created by sudden expansion.

- Very high oil filtration
- High exhaust capacity
- Low pressure drop
- Very good silencing



## Air preparation accessories

*Pressure relief valve  
Series USV  
G1/8, G1/4*

### Pressure relief valve

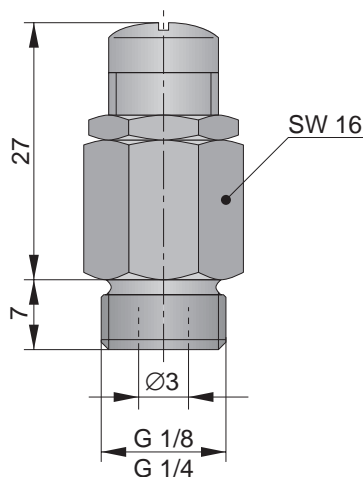
With adjustable opening pressure.

### Opening pressure range:

1–4 bar  
3–7 bar

Characteristics	Symbol	Unit	Description
System			Spring loaded poppet valve with adjustable opening pressure
Type			USV-1/8      USV-1/4
Port size			G1/8      G1/4
Installation			In any position
Temperature	$T_{min}$ $T_{max}$	°C °C	0 +90
Medium			Compressed air
Opening pressure		Bar	1–4 or 3–7 (adjustable)
Material			Brass, NBR

### Pressure relief valve – Type: USV-..



### Order instructions

Description	Port size	Order instructions Type	Order No.
Pressure relief valve Opening pressure 1–4 bar	G1/8	USV-1/8	KY 4093
Pressure relief valve Opening pressure 3–7 bar	G1/8	USV-1/8	KY 4065
Pressure relief valve Opening pressure 1–4 bar	G1/4	USV-1/4	KY 4094
Pressure relief valve Opening pressure 3–7 bar	G1/4	USV-1/4	KY 4066



Dimensions in mm

## Air preparation accessories

*Special oil for oil mist lubricator*

**Viscosity VG32**

Characteristics	Description
Use	For all HOERBIGER lubricator systems Specially tried and tested for compatibility with valve and cylinder seals as well as polycarbonate plastic bowls.
Viscosity	Viscosity class VG 32 in line with ISO 3448 5°C 250 mm <sup>2</sup> /s (cst) 20°C 100 mm <sup>2</sup> /s (cst) 40°C 32 mm <sup>2</sup> /s (cst) When using below freezing point (0°C) it is necessary to consult us.
Contents	1 liter

**Order No: KY8766**







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