

Air preparation units ...

ORIGA – simply the first



Information on application

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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.

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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

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- 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. Parker 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.
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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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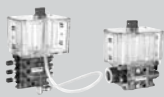

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	Start valve	–	–	21–41	43–67	–	91–112
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Explosion protection versions

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.parkeroriga.com)

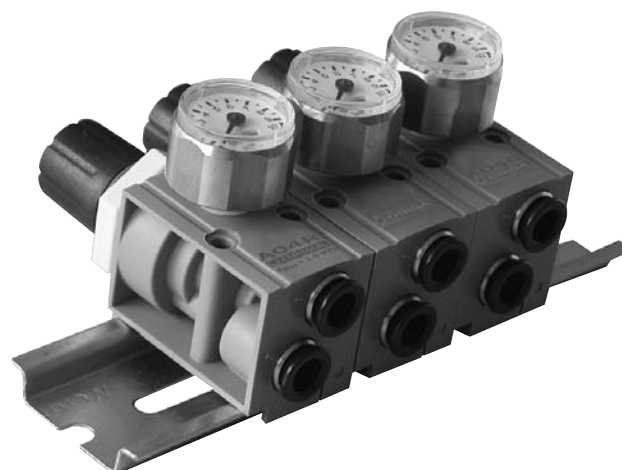
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Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
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Pressure regulating valve

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

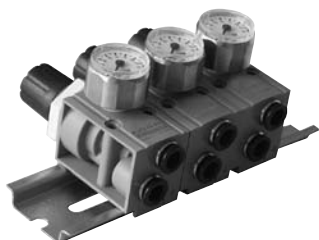
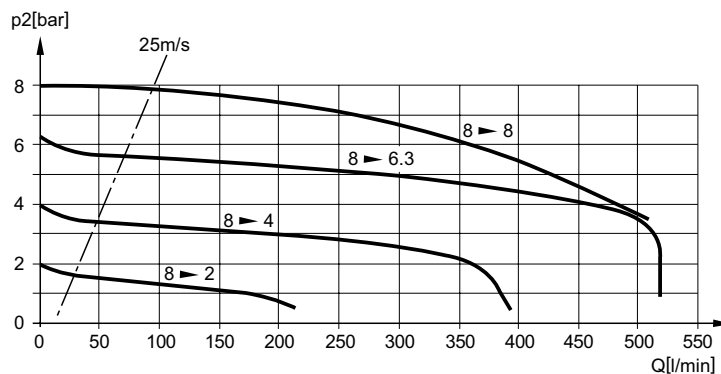
Pressure regulating valve with push-in connections
– for panel mounting
– for rail mounting to EN06175

Pressures quoted as gauge pressure

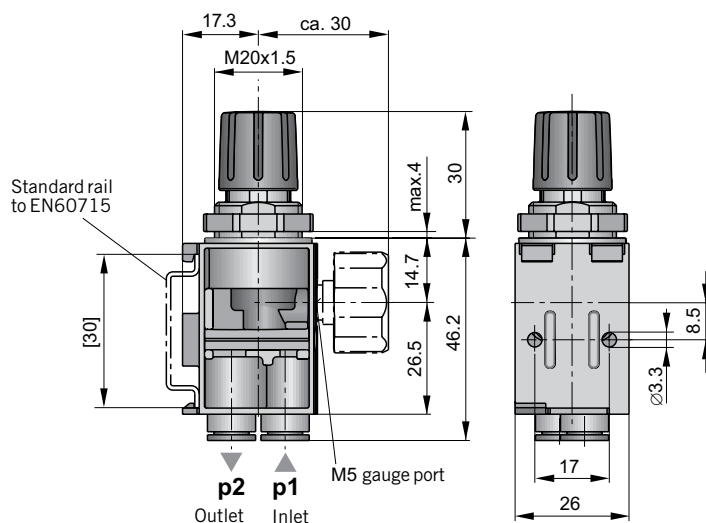
Characteristics	Symbol	Unit	Description	
System			Piston-type pressure regulating valve (spring loaded) with secondary pressure relief	
Type			A04R-Q4	A04R-Q6
Port size (tube diameter)		mm	OD 4	OD 6
Installation			In any position	
Medium and ambient temperatures	T _{min}	°C	0	
	T _{max}	°C	+50	
Weight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

¹⁾ at $p_1 = 10$ bar and $p_2 = 6.3$ bar, $Dp = 1$ bar

Flow characteristics – Type: A04R-Q6



Dimensions (mm)



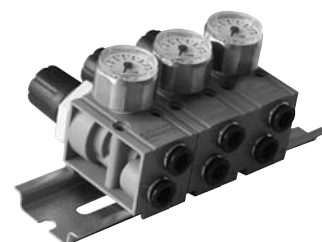
Order instructions

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-N000
Basic model with push-in connections		6/4	A04R-Q6	PB64249-N000

Accessories

Description	Order No.
Gauge, Ø 23, 0–10 bar, M5	KG8012-00
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

Description	Page		
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Activated carbon filter	8–11	15	16, 17
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Air preparation units

Series airfit light
NPT 1/8, 1/4



Air preparation units

Series airfit light
NPT 1/8, 1/4

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)			NPT 1/4	NPT 1/8	NPT 1/4
Max. condensate capacity		cm ³	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 ³	35	35	
Oil refilling			Manual	Manual	
Installation			Vertical, bowl at the bottom		
Medium and ambient temperatures	T _{min} T _{max}	°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 _{1 min} p _{1 max}	bar	0 10	0 10	
Operating pressure range – outlet pressure	p _{2 min/max}	bar	0.5 to 8	0.5 to 8	
Smallest pressure difference	p ₁ –p ₂				
Hysteresis p ₁ =10/p ₂ =0 p ₁ =10/p ₂ =8					
Maximum flow ¹⁾	Q _{max}	l/min m ³ /h	440 27	400 24	580 35
Degree of moisture separation at recommended flow ²⁾	h	%	> 90	> 90	
Residual oil amount		mg/m ³	–	–	

¹⁾ at p₁=10 bar and p₂= 6.3 bar, Dp = 1 bar

²⁾ at 6.3 bar and 25 m/s

*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm²/s at 40°C)
or Parker ORIGA special oil, Order No.: KY 8766 (see page 191)



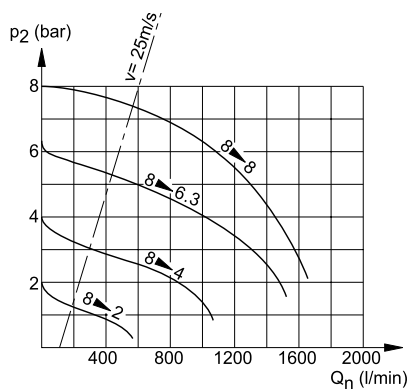
	Filter-regulator		Filter-water-separator		Pressure regulating valve		Oil mist lubricator		Submicrofilter		Activated carbon filter	
	Cyclone system with filter element, combined with piston-type pressure regulating valve (spring loaded) with secondary pressure relief, locating ring, handwheel lockable		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	
	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4
	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

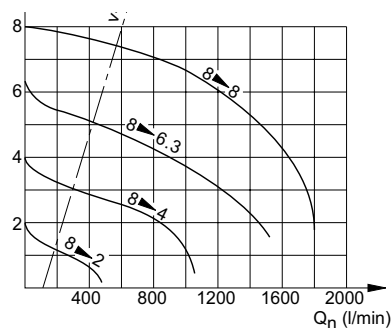
Series airfit light
NPT 1/8, 1/4

Flow characteristics

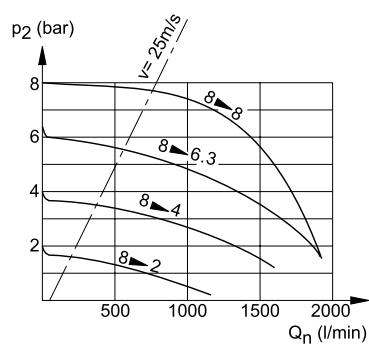
Air preparation units, three-piece, two-piece
Type: MFRLS-08



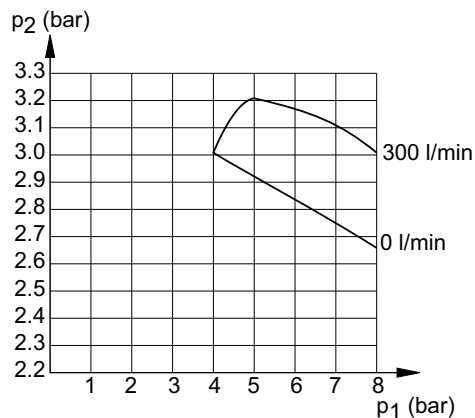
Type: MKLS-08



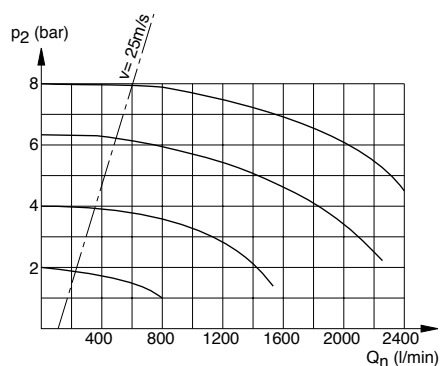
Filter-regulator
Type: MKS-08



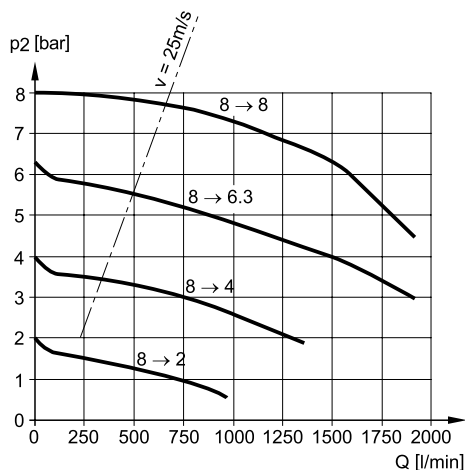
Outlet pressure variation with fluctuation inlet pressure
Type: MKS-08



Filter-water-separator
Type: MFS-08



Pressure regulating valve Type: MRP-08

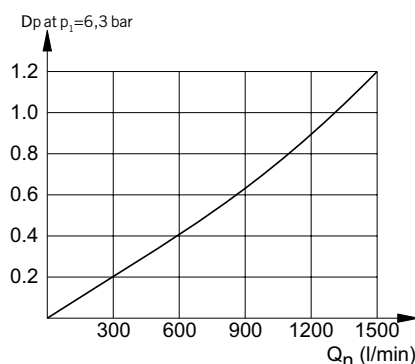


Air preparation units

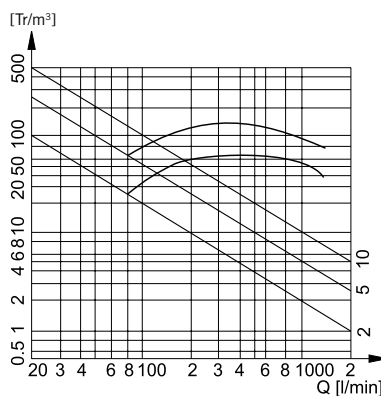
Series airfit light
NPT 1/8, 1/4

Flow characteristics

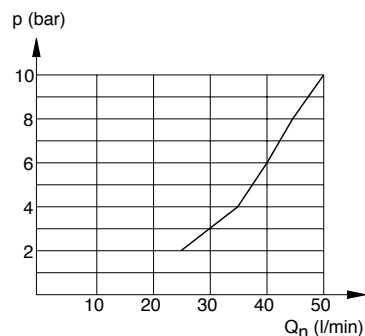
Oil mist lubricator Type: MLS-08



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
NPT 1/8, 1/4

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

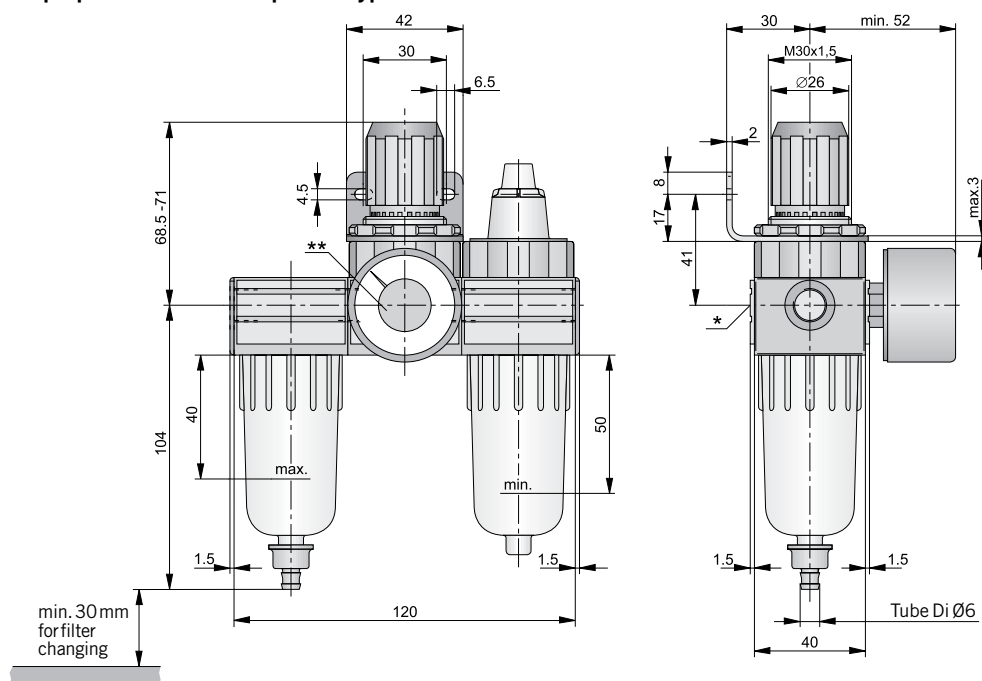
Filter-regulator:

Mounting ring included

Pressure regulating valve:

Mounting ring included

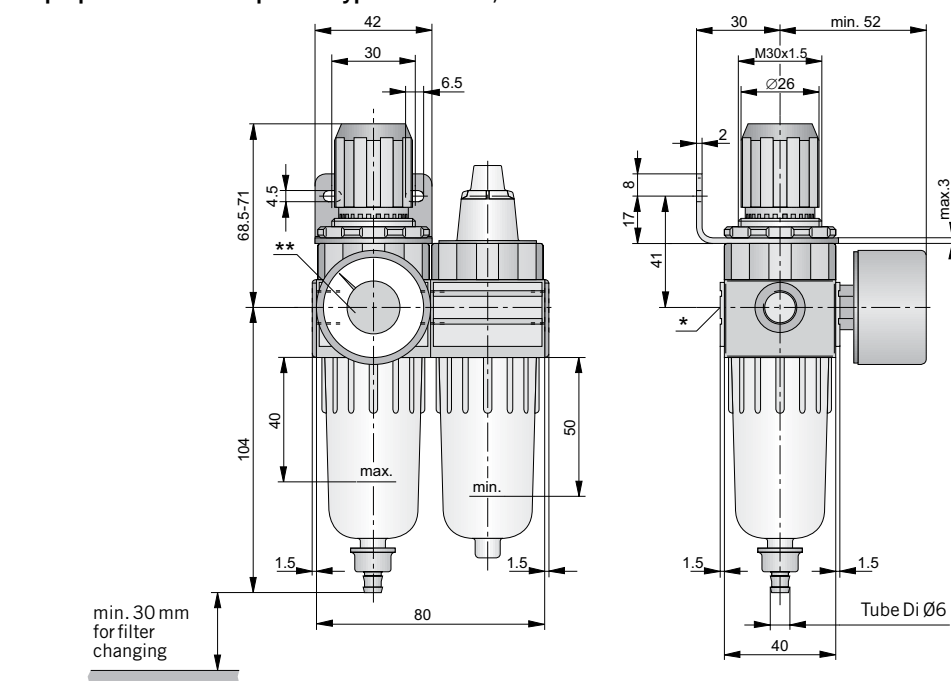
Air preparation unit three-piece – Type: MFRLS-08



* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/8

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



* On delivery the plug screw is not assembled.

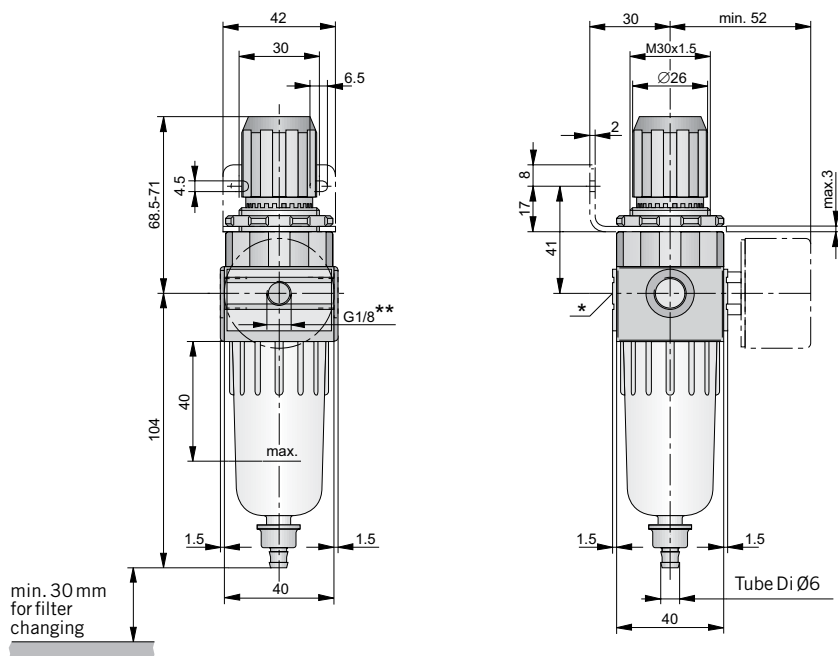
** Two opposite gauge ports NPT 1/8

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

Dimensions in mm

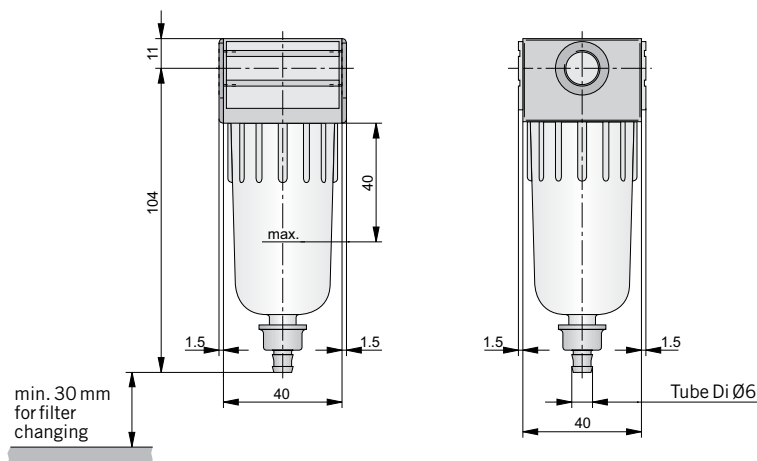


Filter-regulator – Type: MKS-06, -08



- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8

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



Air preparation units

Series airfit light
NPT 1/8, 1/4

Dimensions

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

Dimensions in mm

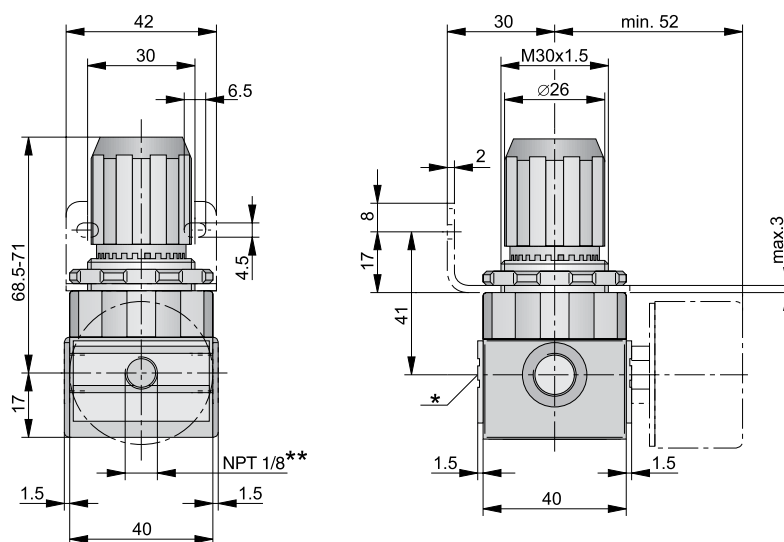


Air preparation units

Series airfit light
NPT 1/8, 1/4

Dimensions

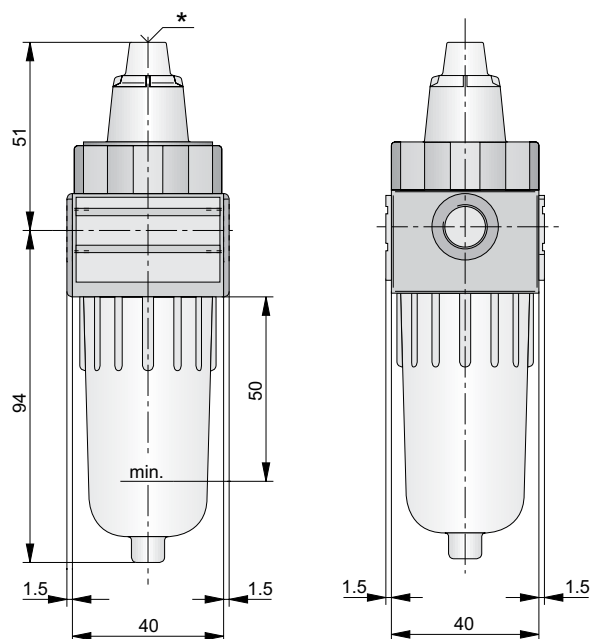
Pressure regulator – Type: MRP-06, -08



* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/8

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

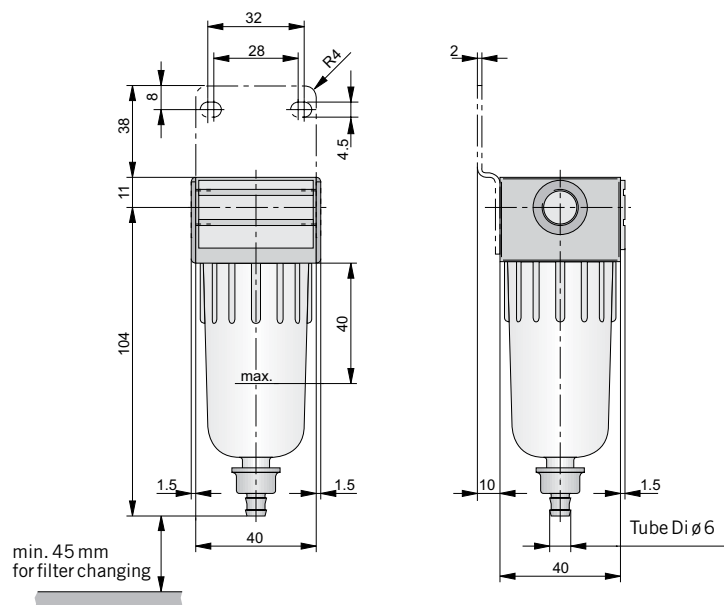
Submicrofilter – Type: MF-06, -08
Activated carbon filter – Type: MC-06, -08

Air preparation units

Series airfit micro
NPT 1/8, 1/4

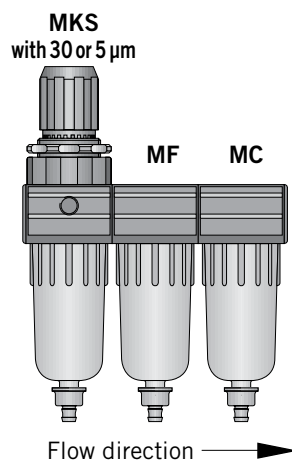
Dimensions

– for series airfit light



Installation procedure

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



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
NPT 1/8, 1/4

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Air preparation unit three-piece				
– basic model		NPT 1/4	MFRLS-08	PB 40949-N100
– with filter element 5 µm		NPT 1/4	MFRLS-08-5	PB 40949-N110
– with semi-automatic drainage		NPT 1/4	MFRLS-08-H	PB 40949-N104
Air preparation unit two-piece				
– basic model		NPT 1/8	MKLS-06	PB 40449-N100
– basic model		NPT 1/4	MKLS-08	PB 40549-N100
– with filter element 5 µm		NPT 1/8	MKLS-06-5	PB 40449-N109
– with filter element 5 µm		NPT 1/4	MKLS-08-5	PB 40549-N109
– with semi-automatic drainage		NPT 1/8	MKLS-06-H	PB 40449-N104
– with semi-automatic drainage		NPT 1/4	MKLS-08-H	PB 40549-N104
Filter-regulator				
– basic model		NPT 1/8	MKS-06	PB 40049-N100
– basic model		NPT 1/4	MKS-08	PB 40149-N100
– with filter element 5 µm		NPT 1/8	MKS-06-5	PB 40049-N116
– with filter element 5 µm		NPT 1/4	MKS-08-5	PB 40149-N116
– with semi-automatic drainage		NPT 1/8	MKS-06-H	PB 40049-N101
– with semi-automatic drainage		NPT 1/4	MKS-08-H	PB 40149-N101
Filter-water-separator				
– basic model		NPT 1/8	MFS-06	PB 40649-N100
– basic model		NPT 1/4	MFS-08	PB 40749-N100
– with filter element 5 µm		NPT 1/8	MFS-06-5	PB 40649-N116
– with filter element 5 µm		NPT 1/4	MFS-08-5	PB 40749-N116
– with semi-automatic drainage		NPT 1/8	MFS-06-H	PB 40649-N101
– with semi-automatic drainage		NPT 1/4	MFS-08-H	PB 40749-N101
Pressure regulating valve				
– basic model with p ₁ -flow compensation		NPT 1/8	MRP-06	PB 21749-N800
– basic model with p ₁ -flow compensation		NPT 1/4	MRP-08	PB 21649-N800



Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Oil mist lubricator

– basic model		NPT 1/8	MLS-06	PB 40249-N100
– basic model		NPT 1/4	MLS-08	PB 40349-N100

Submicrofilter

– basic model		NPT 1/8	MF 007-1/8	PB 37349-N000
– basic model		NPT 1/4	MF 007-1/4	PB 37449-N000

Activated carbon filter

– basic model		NPT 1/8	MC 007-1/8	PB 37849-N000
– basic model		NPT 1/4	MC 007-1/4	PB 37949-N000

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, NPT 1/8*	MKS, MRP	KZ8813
Coupling kit		PL16030
Porting block NPTF		PL17766
Bowl guard kit		PL18344
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
NPT 1/8, 1/4*

Order instructions



Air preparation units

Series airfit light
NPT 1/8, 1/4

Accessories – Porting block

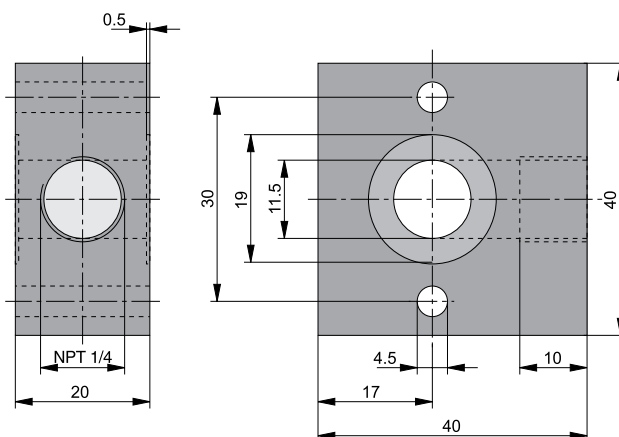
To provide unlubricated air,
e.g. for air gun

Delivery includes:

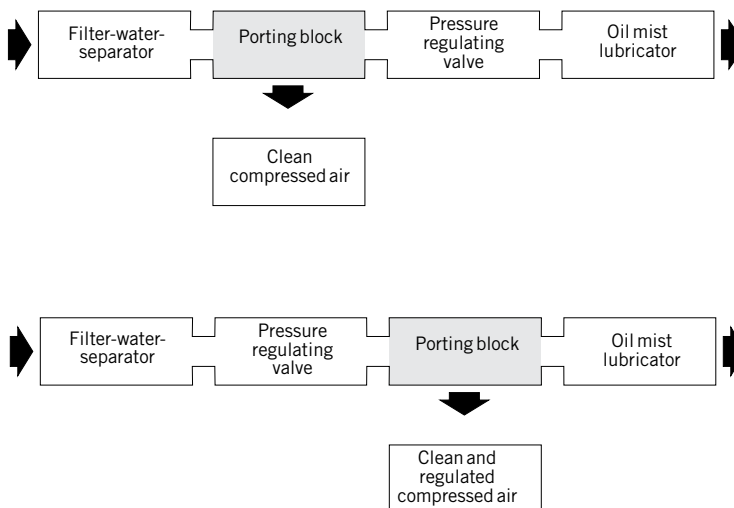
- Porting block
- 2 sealing rings
- 2 mounting screws

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

Dimensions



Installation Instructions

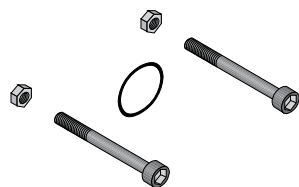


Order instructions – Accessories

Description	Order No.
Porting block kit 1/4 -NPT	PL17766

Dimensions in mm

Coupling kit



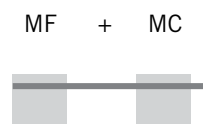
Order No. PL16030

Coupling kit



Order No. PL16755

Coupling kit



Order No. PL16669

Air preparation units

*Series airfit light
NPT 1/8, 1/4*

Accessories

- *Coupling kits*
- *Mounting brackets*
- *Gauges*

Mounting bracket



Order No. PL15531

Gauge Ø 40, 0–10 bar, NPT 1/8



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
NPT 1/4, 3/8*



Air preparation units

Series airfit swing
NPT 1/4, 3/8

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)			NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	
Max. condensate capacity		cm ³	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 ³	45		45		
Oil refilling			Manual – also during operation				
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom		
Medium and ambient temperatures		T _{min} T _{max} °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 _{1 min} p _{1 max} bar bar	0 16		0 16		
Operating pressure range – outlet pressure		p _{2 min/max} bar	0.5 to 8 on request 0.5 to 4 ³⁾ on request 0.5 to 15 ³⁾		0.5 to 8 on request 0.5 to 4 ³⁾ on request 0.5 to 15 ³⁾		
Min. pressure difference		p ₁ –p ₂					
Hysteresis p ₁ =10/p ₂ =0 p ₁ =10/p ₂ =8							
Maximum flow ¹⁾		Q _{max} l/min m ³ /h	825 50	790 47	890 53	790 47	
Degree of moisture separation at recommended flow		h %	> 95	> 90	> 95	> 90	



¹⁾ at p₁ = 10 bar and p₂ = 6.3 bar, Dp = 1 bar

²⁾ at 6 bar and 25 m/s flow velocity

³⁾ By the use of special springs, the outlet pressure can be precisely regulated in the specified p₂ range

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

*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm²/s at 40°C) or Parker ORIGA 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 ⁴⁾
	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								
	NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	NPT 1/4
	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 ³⁾ On request 0.5 to 15 ³⁾						0.5 to 8 On request 0.5 to 4 ³⁾ On request 0.5 to 15 ³⁾		–
	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
NPT 1/4, 3/8

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 flow.		
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)			NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	
Max. condensate capacity		cm ³					
Condensate drainage							
Oil/air ratio			Constant oil drip rate independent of air flow		–		
Max. oil capacity		cm ³	45		–		
Oil refilling			Manual		–		
Installation			Vertical		In any position – direct assembly to air preparation units series airfit swing		
Medium and ambient temperatures		T _{min} T _{max} °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 _{1 min} p _{1 max} bar bar	0 16		2 16		
Maximum flow ¹⁾		Q _{max} l/min m ³ /h	1830 110	1880 113	1500 90	1600 96	
Best, recommended operating range for the oil mist lubricator		Q _n m ³ /h	0.2–30	0.2–54	–		
Degree of filtration at recommended flow ²⁾		h %	–		–		
Residual oil amount		mg/m ³	–		–		

¹⁾ at p₁ = 10 bar and p₂ = 6.3 bar, Dp = 1 bar,
start-stop valve and 3/2 Way shut-off valve: at p₁ = 6.3 bar, Dp = 1 bar

²⁾ at 6 bar and 25 m/s flow velocity

*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm²/s at 40°C)
or Parker ORIGA special oil, Order No.: KY 8766 (see page 191)



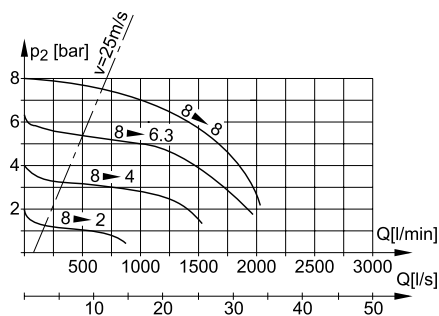
Stop valve		Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
3/2 Way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 Way valve (spool type), direct assembly to any unit from the airfit swing series, with coupling kit PL16959	
SDR-1/4P (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							
NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8	NPT 1/4	NPT 3/8
		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/m ³		0.003 ‰ in combination MF		–	

Air preparation units

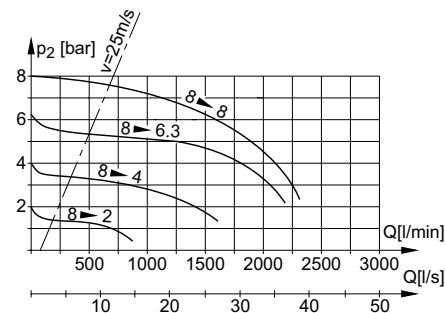
Series airfit swing
NPT 1/4, 3/8

Flow characteristics

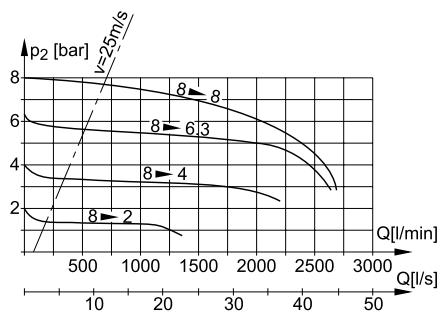
Air preparation unit three-piece/two-piece
Type: SFRL-1/4



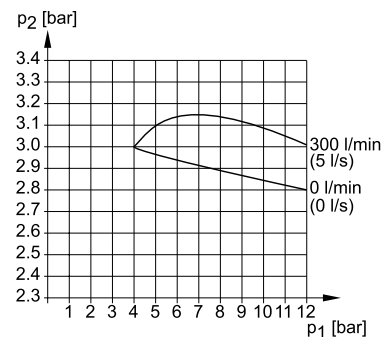
Type: SKL-1/4



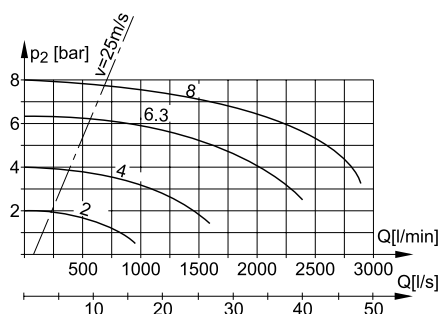
Filter-regulator
Type: SK-1/4



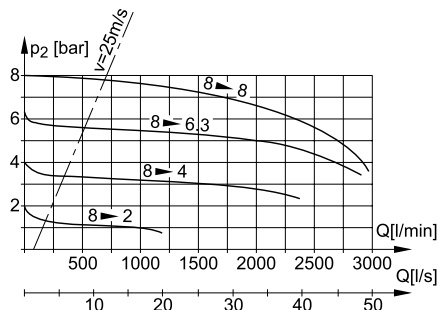
Outlet pressure variation with fluctuation
inlet pressure
Type: SK-1/4



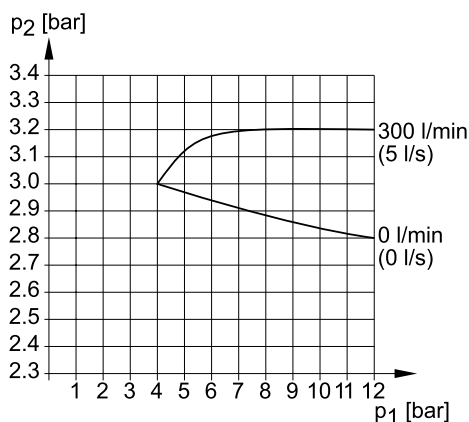
Filter-water-separator
Type: SF-1/4



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

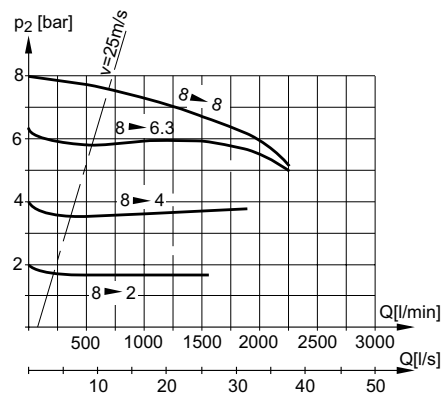


Air preparation units

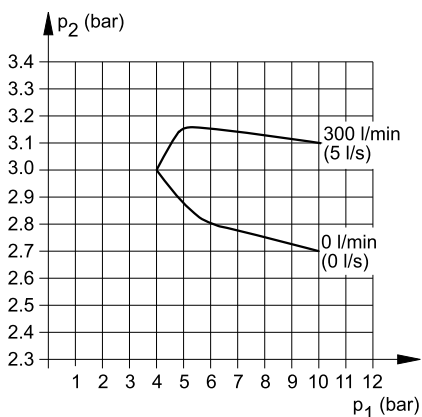
Series airfit swing
NPT 1/4, 3/8

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

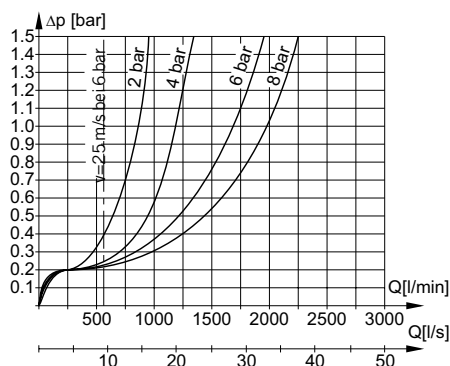


Air preparation units

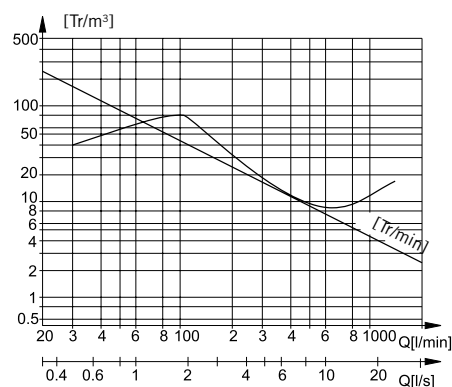
Series airfit swing
NPT 1/4, 3/8

Flow characteristics

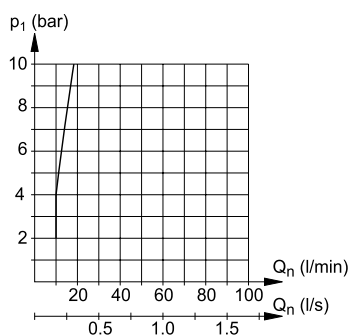
Oil mist lubricator
Type: SL-08



Oil/air ratio
Type: SL-08



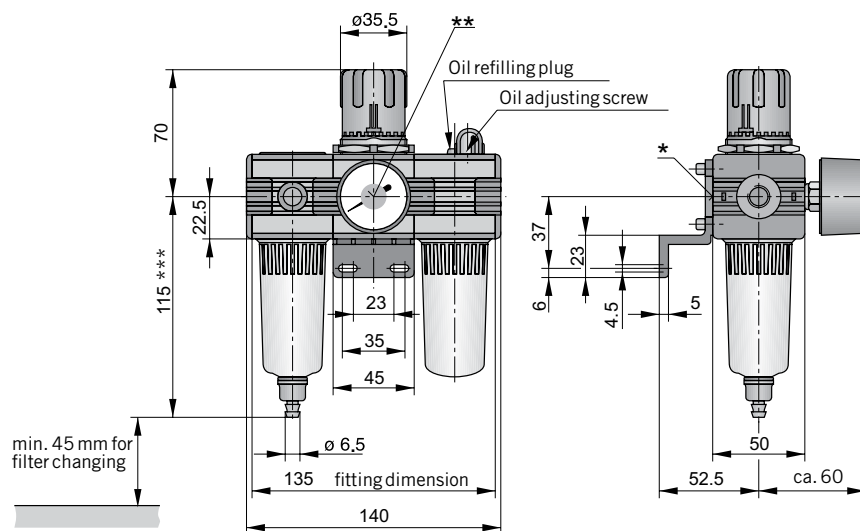
Min. operating conditions
Type: SL-08



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

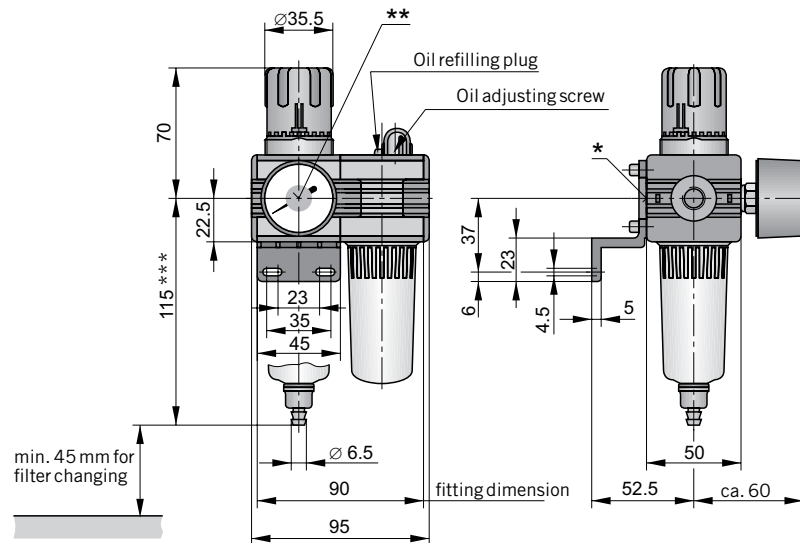
Dimensions in mm

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



- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8
- *** 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 NPT 1/8
- *** 130 mm on version with automatic drainage

Air preparation units

Series airfit swing
NPT 1/4, 3/8

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:

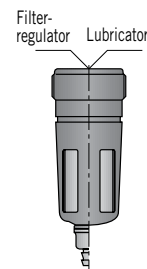
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Air preparation unit two-piece:

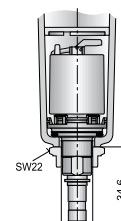
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

Filter-regulator

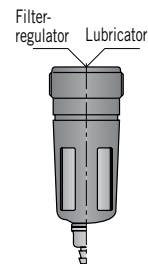
Pressure regulating valve:
Mounting ring included



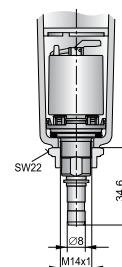
Version-E



Version-A



Version-E



Version-A



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

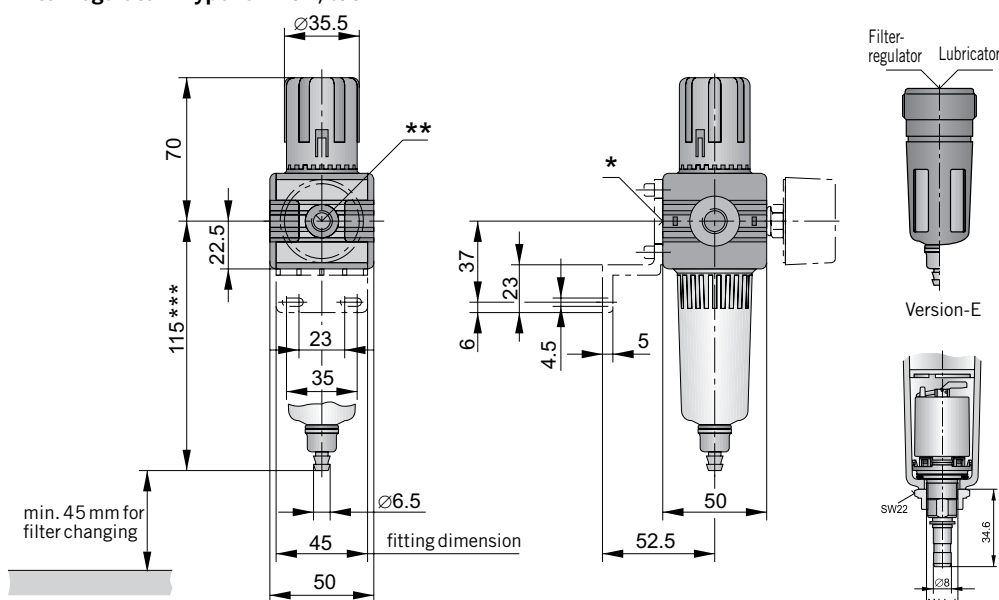
Dimensions in mm

Air preparation units

Series airfit swing
NPT 1/4, 3/8

Dimensions

Filter-regulator – Type: SK-1/4, 3/8

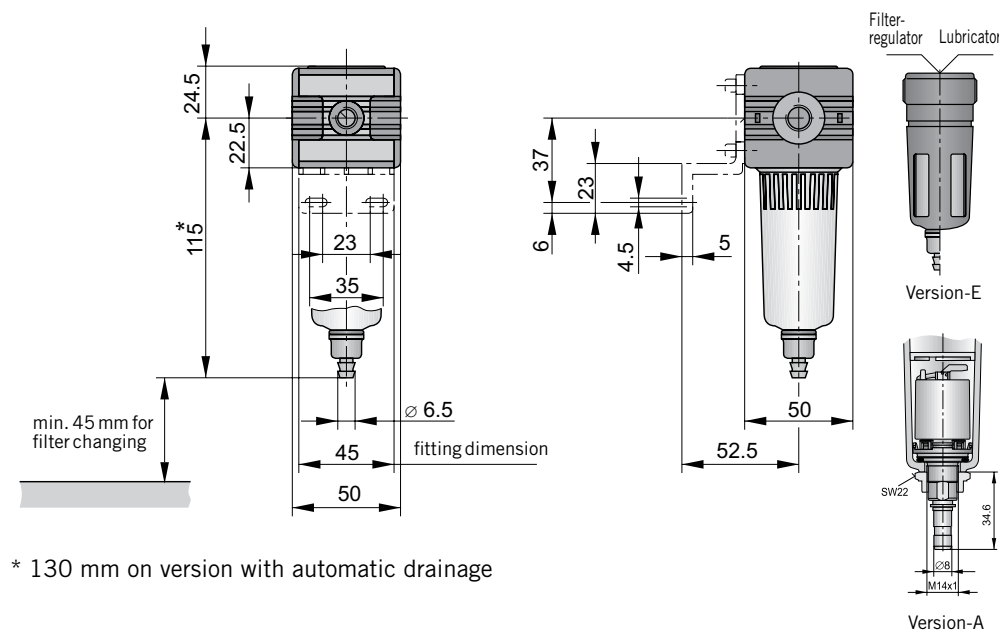


- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8
- *** 130 mm on version with automatic drainage

* 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

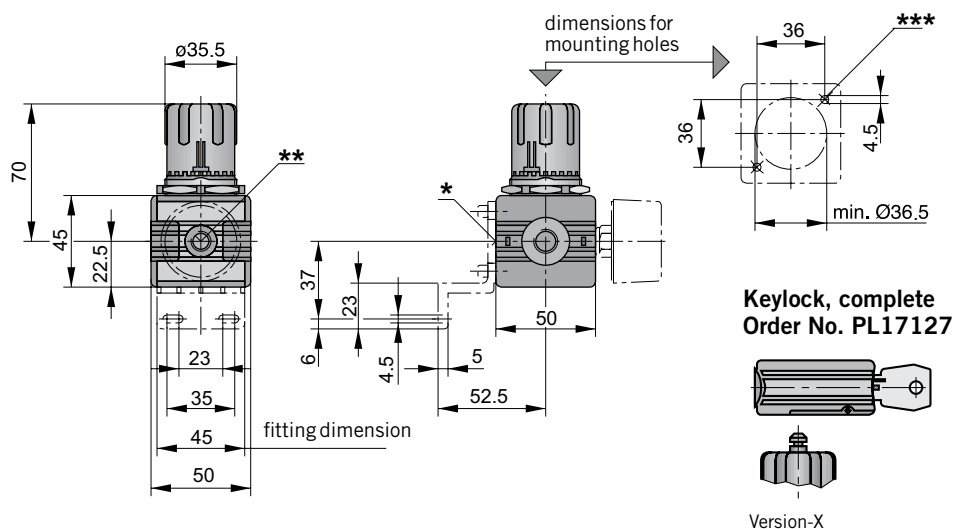
Dimensions in mm

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

Air preparation units

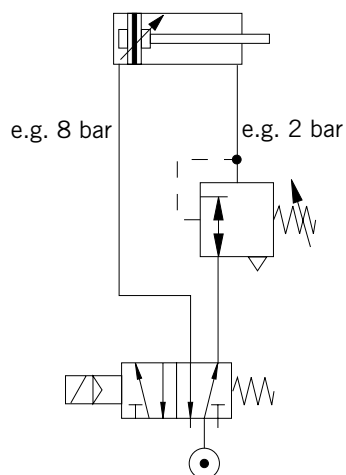
Series airfit swing
NPT 1/4, 3/8

Dimensions



- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8
- *** 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-N030



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

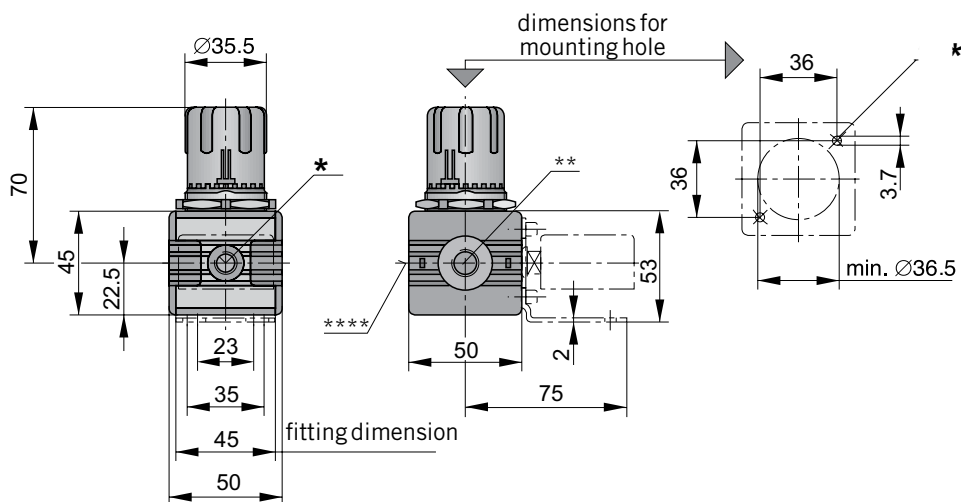


Air preparation units

Series airfit swing
NPT 1/4, 3/8

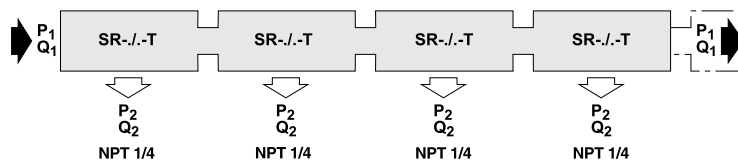
Dimensions

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



- * Gauge ports NPT 1/8
- ** With through p_1 supply port NPT 1/4, 3/8
- *** For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm
- **** p_2 port NPT 1/4

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

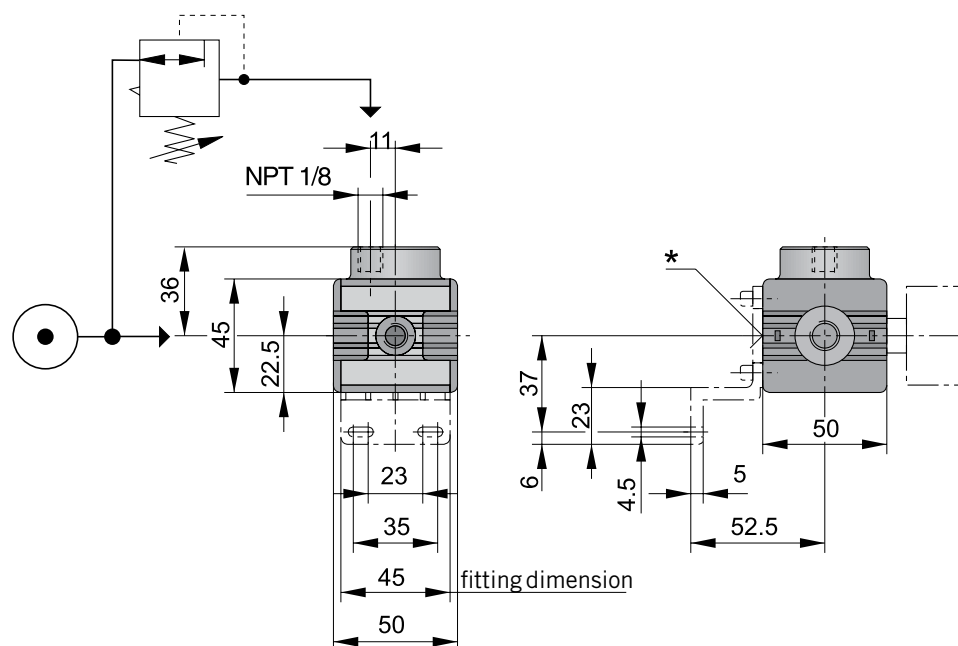
Pressure regulating valve, pilot operated – Type: SRV-1/4

– Recommended pilot pressure regulating valve, series airfit light, Type: MRP-1/8, PB21749-N800

Air preparation units

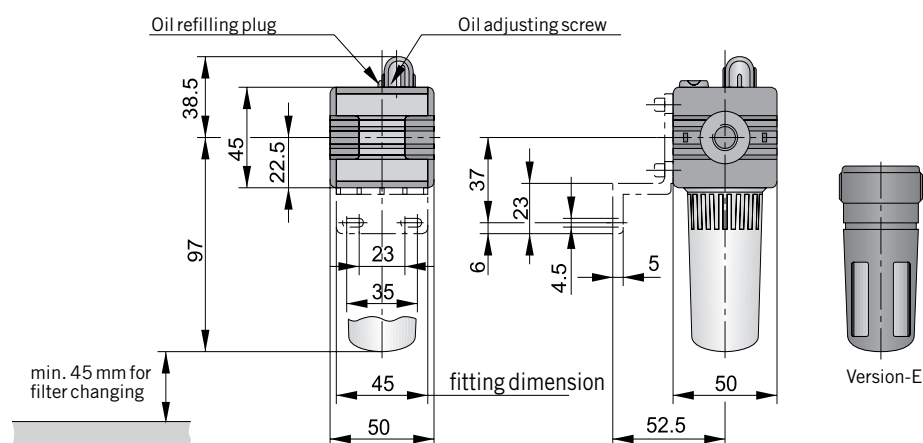
Series airfit swing
NPT 1/4, 3/8

Dimensions



* Two opposite gauge ports NPT 1/8 – 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
NPT 1/4, 3/8

Dimensions

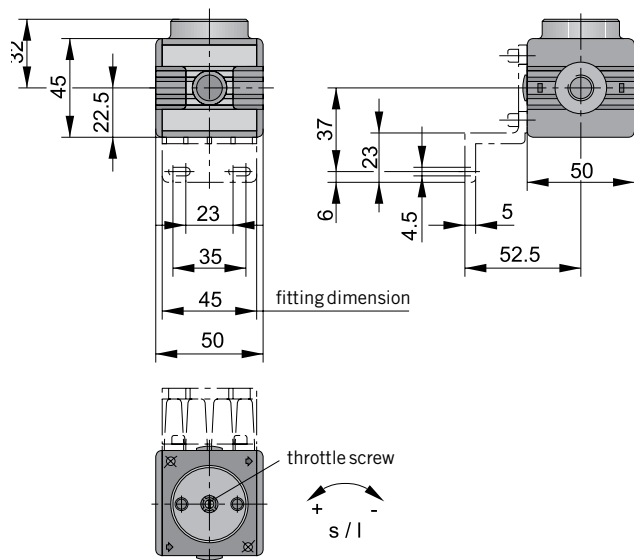
Features:

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.

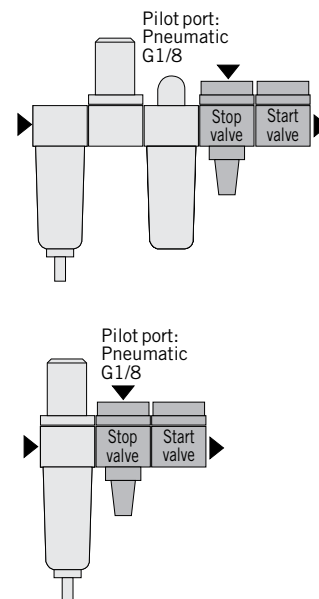
Note:

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

Start valve – Type: SDA-1/4, 3/8

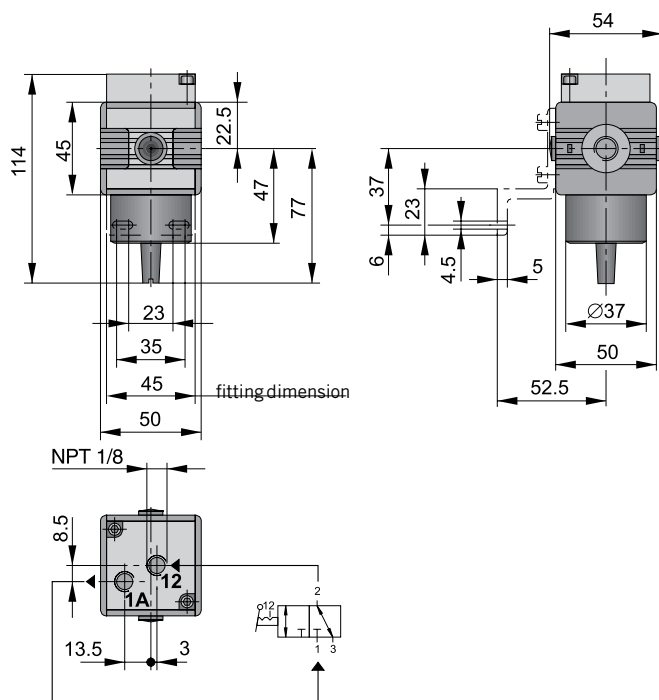


Installation instructions for start-stop valve



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:

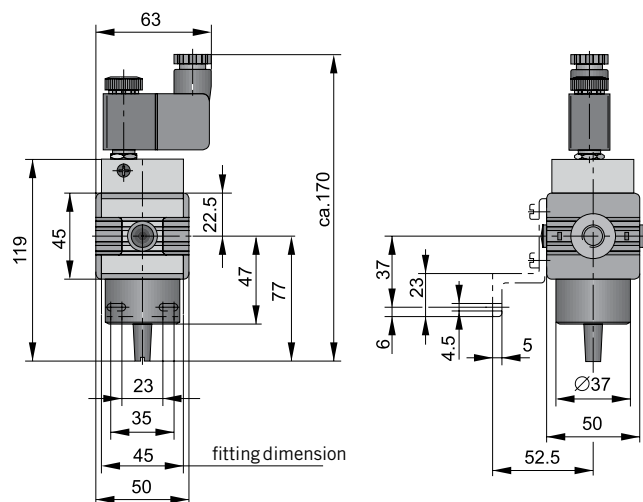
This calculation assumes short connections with NW 8 mm tubing directly after the SDR stop valve.



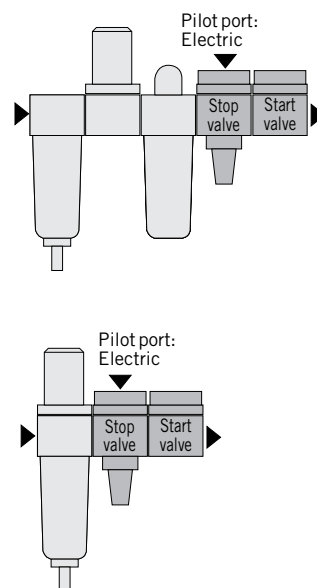
For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

Dimensions in mm

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



Installation instructions



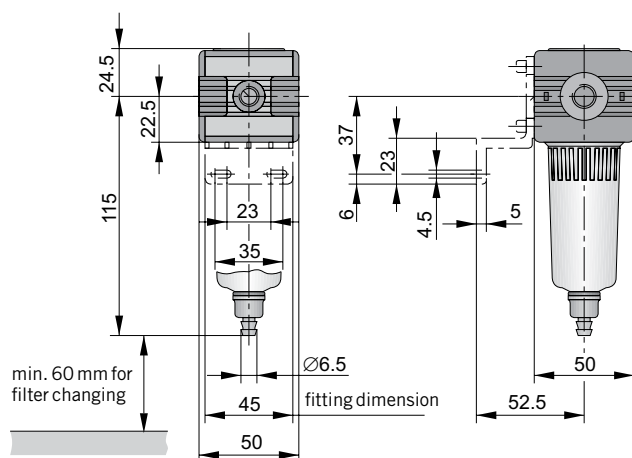
Air preparation units

*Series airfit swing
NPT 1/4, 3/8*

Dimensions

Submicrofilter – Type: MF012-1/4, 3/8

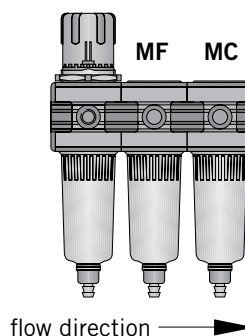
Activated carbon filter – Type: MC012-1/4, 3/8



Installation procedure

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

SK
with 30 or 5 µm



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

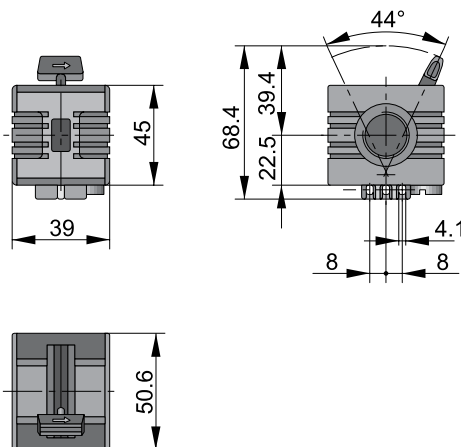
3/2 Way shut-off valve
Type: SDV-1/4-XS, -3/8-XS

Series airfit swing
NPT 1/4, 3/8

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

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.


Air preparation unit three-piece

Basic version		NPT 1/4	SFRL-1/4	PB 48149-N000
		NPT 3/8	SFRL-3/8	PB 48249-N000
with semi-automatic drainage		NPT 1/4	SFRL-1/4-H	PB 48149-N001
		NPT 3/8	SFRL-3/8-H	PB 48249-N001
with automatic drainage		NPT 1/4	SFRL-1/4-A	PB 48149-N002
		NPT 3/8	SFRL-3/8-A	PB 48249-N002

Air preparation unit two-piece

Basic version		NPT 1/4	SKL-1/4	PB 48449-N000
		NPT 3/8	SKL-3/8	PB 48549-N000
with semi-automatic drainage		NPT 1/4	SKL-1/4-H	PB 48449-N001
		NPT 3/8	SKL-3/8-H	PB 48549-N001
with automatic drainage		NPT 1/4	SKL-1/4-A	PB 48449-N002
		NPT 3/8	SKL-3/8-A	PB 48549-N002
with metal bowl (sight glass) ¹⁾		NPT 1/4	SKL-1/4-E	PB 48449-N004
		NPT 3/8	SKL-3/8-E	PB 48549-N004

Filter-regulator

Basic version		NPT 1/4	SK-1/4	PB 45749-N000
		NPT 3/8	SK-3/8	PB 45849-N000
with filter element 5 µm		NPT 1/4	SK-1/4-5	PB 45749-N016
		NPT 3/8	SK-3/8-5	PB 45849-N016
with semi-automatic drainage		NPT 1/4	SK-1/4-H	PB 45749-N001
		NPT 3/8	SK-3/8-H	PB 45849-N001
with automatic drainage		NPT 1/4	SK-1/4-A	PB 45749-N002
		NPT 3/8	SK-3/8-A	PB 45849-N002
with metal bowl (sight glass) ¹⁾		NPT 1/4	SK-1/4-E	PB 45749-N004
		NPT 3/8	SK-3/8-E	PB 45849-N004

Filter-water-separator

Basic version		NPT 1/4	SF-1/4	PB 45149-N000
		NPT 3/8	SF-3/8	PB 45249-N000
with filter element 5 µm		NPT 1/4	SF-1/4-5	PB 45149-N016
		NPT 3/8	SF-3/8-5	PB 45249-N016
with filter element 1 µm (dust filter)		NPT 1/4	SFD-1/4-1	PB 45149-N070
		NPT 3/8	SFD-3/8-1	PB 45249-N070
with semi-automatic drainage		NPT 1/4	SF-1/4-H	PB 45149-N001
		NPT 3/8	SF-3/8-H	PB 45249-N001
with automatic drainage		NPT 1/4	SF-1/4-A	PB 45149-N002
		NPT 3/8	SF-3/8-A	PB 45249-N002
with metal bowl (sight glass) ¹⁾		NPT 1/4	SF-1/4-E	PB 45149-N004
		NPT 3/8	SF-3/8-E	PB 45249-N004

Air preparation units

Series airfit swing
NPT 1/4, 3/8

Order instructions

¹⁾ Versions with metal bowl and automatic drainage on request



Air preparation units

Series airfit swing
NPT 1/4, 3/8

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Pressure regulating valve

<ul style="list-style-type: none"> – Basic version – with adapter for keylock – Special pressure regulating valve for high relief capacity – Pressure regulating valve with through p_1 supply port – Pressure regulating valve with through p_1 supply port – Pressure regulating valve, pilot operated 		NPT 1/4	SR-1/4	PB 45449-N000
		NPT 3/8	SR-3/8	PB 45549-N000
		NPT 1/4	SR-1/4-X	PB 45449-N006
		NPT 3/8	SR-3/8-X	PB 45549-N006
		NPT 1/4	SR-1/4SO	PB 45449-N030
		p_1 -NPT 1/4, through p_2 -NPT 1/4, Output	SR-1/4-T-1/4	PB 45449-N100
		p_1 -NPT 3/8, through p_2 -NPT 1/4, Output	SR-3/8-T-1/4	PB 45549-N100
		NPT 1/4	SRV-1/4	PB 45449-N070

Oil mist lubricator

<ul style="list-style-type: none"> – Basic version – with metal bowl (sight glass) 		NPT 1/4	SL-1/4	PB 46149-N000
		NPT 3/8	SL-3/8	PB 46249-N000
		NPT 1/4	SL-1/4-E	PB 46149-N004
		NPT 3/8	SL-3/8-E	PB 46249-N004

Start valve

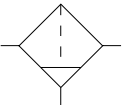
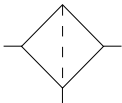
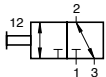
– Start valve		NPT 1/4	SDA-1/4	PB 47149-N100
		NPT 3/8	SDA-3/8	PB 47249-N100

Stop valve

– pneumatically actuated		NPT 1/4	SDR-1/4 P	PB 47149-N200
		NPT 3/8	SDR-3/8 P	PB 47249-N200
– electrically actuated 24 V DC		NPT 1/4	SDR-1/4 E	PB 47149-N201
		NPT 3/8	SDR-3/8 E	PB 47249-N201
– electrically actuated 230 V/50 Hz		NPT 1/4	SDR-1/4 E	PB 47149-N204
		NPT 3/8	SDR-3/8 E	PB 47249-N204



Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Submicrofilter				
– Basic version		NPT 1/4	MF 012-1/4	PB 49149-N000
		NPT 3/8	MF 012-3/8	PB 49249-N000
– with metal bowl (sight glass)		NPT 1/4	MF 012-1/4-E	PB 49149-N004
		NPT 3/8	MF 012-3/8-E	PB 49249-N004
Activated carbon filter				
– Basic version		NPT 1/4	MC 012-1/4	PB 49449-N000
		NPT 3/8	MC 012-3/8	PB 49549-N000
– with metal bowl (sight glass)		NPT 1/4	MC 012-1/4-E	PB 49449-N004
		NPT 3/8	MC 012-3/8-E	PB 49549-N004
3/2 Way shut-off valve				
– 3/2 Way shut-off valve		NPT 1/4	SDV-1/4-XS	PB 46749-N101
– 3/2 Way shut-off valve		NPT 3/8	SDV-3/8-XS	PB 46849-N101

Accessories

Description	For type	Order No.
Mounting kit	Standard	PL16965
Mounting kit	SR...T	PL18519
Gauge Ø 40, 0–10 bar, NPT 1/8*	SK, SR, SR-T	KZ28813
Coupling kit		PL16959
Porting block kit 3 x NPT 1/8, 1 x NPT 1/4 (coupling kit included)		PL17628
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
NPT 1/4, 3/8

Order instructions



Air preparation units

Series *airfit swing*
NPT 1/4, 3/8

Accessories

– *Porting block kit*

To provide unlubricated air
e.g. for air gun

Versions:

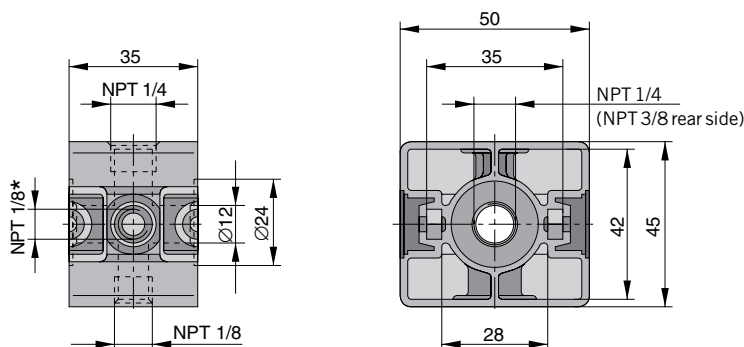
- Standard
- For pressure switch mounting

Delivery includes:

- 1 porting block
- 1 coupling kit
- Plug screws

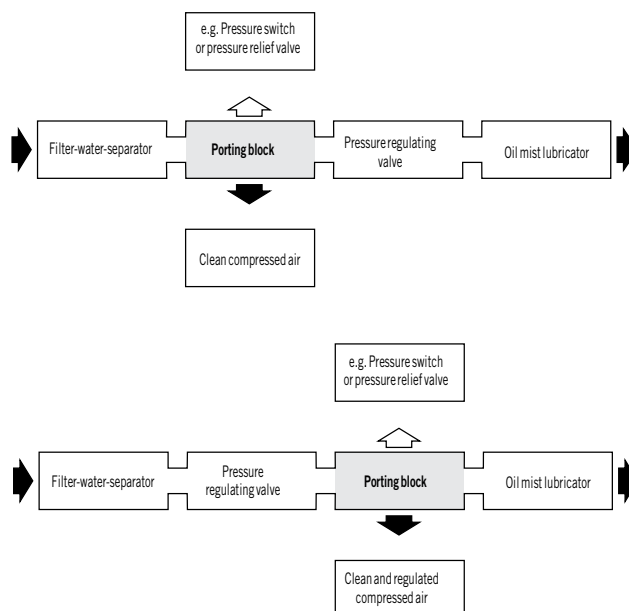
Characteristics	Description
Installation	Between 2 units of the airfit swing series
Mounting	Directly flange mountable with coupling kit supplied
Material	Zinc diecasting, black finish

Dimensions



* NPT 1/8 thread on both sides

Installation instructions



Order instructions

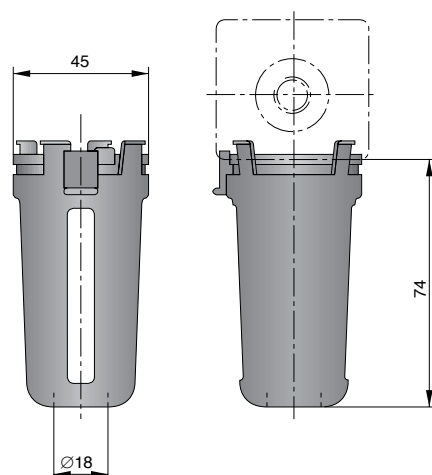
Description	Order instruction Type	Order No.
Porting block kit – standard NPT 1/4	SX	PL17268
Porting block kit – for standard NPT 3/8	SXH	PL17745

Dimensions in mm

Bowl guard kit

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

Dimensions



Order instructions

Port size	Order No.
NPT 1/4, 3/8	PL 16970-00

Air preparation units

Series airfit swing
NPT 1/4, 3/8

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:

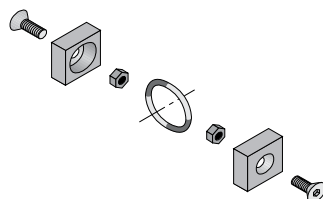
1 bowl guard
(with snap mounting)

Mounting kit



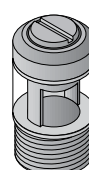
Order No. PL16965

Coupling kit



Order No. PL16959

Solvent resistant sight glass



Order No. PL07233

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



Order No. PL17127

Dimensions in mm

Gauge Ø40, 0–10 bar, NPT 1/8



Order No. KZ8813

Accessories

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



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
NPT 3/8, 1/2*



Air preparation units

Series *airfit comfort*
NPT 3/8, 1/2

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)			NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	
Max. condensate capacity		cm ³	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 ³	112		112		
Oil refilling			Manual - also during operation				
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom		
Medium and ambient temperatures		T ^{min} T ^{max} °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 _{1 min} p _{1 max} bar bar	0 16		0 16		
Operating pressure range – outlet pressure		p _{2 min/max} bar	0.5 to 8 On request 0.5 to 4 ³⁾ On request 0.5 to 15 ³⁾		0.5 to 8 On request 0.5 to 4 ³⁾ On request 0.5 to 15 ³⁾		
Min. pressure difference		p ₁ –p ₂	0.2		0.2		
Hysteresis p ₁ =10/p ₂ =0 p ₁ =10/p ₂ =8			0.9 0.7		0.9 0.7		
Maximum flow ¹⁾		Q _{max} l/min m ³ /h	1900 114	2000 120	1900 114	1950 117	
Degree of moisture separation at recommended flow ²⁾		h %	95		95		

¹⁾ at $p_1 = 10$ bar and $p_2 = 6.3$ bar, $Dp = 1$ bar

²⁾ at 6 bar and 25 m/s flow velocity

³⁾ By the use of special springs, the outlet pressure can be precisely regulated in the specified p_2 range

⁴⁾ 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 ⁴⁾	
	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									
	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2
	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 ³⁾ On request 0.5 to 15 ³⁾		–		–		0.5 to 8 On request 0.5 to 4 ³⁾ On request 0.5 to 15 ³⁾		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					

*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm²/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*
NPT 3/8, 1/2

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)			NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2		
Max. condensate capacity		cm ³	–		–			
Pore size of filter element			–					–
Condensate drainage			Constant oil drip rate independent of air flow		–			
Oil/air ratio		cm ³	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 _{min} T _{max}	°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 _{1 min} p _{1 max}	bar bar	0 16		2 16			
Maximum flow ¹⁾	Q _{max}	l/min m ³ /h	5000 300	5300 318	3500 210	3700 222		
Recommended	Q _n	l/min m ³ /h	33–833 2–50	33–2000 2–120	–			
Degree of filtration at recommended flow ²⁾	h	%	–		–			
Residual oil amount		mg/m ³	–		–			

¹⁾ at p₁ = 10 bar, Dp = 1 bar

²⁾ at 6 bar and 25 m/s flow velocity

*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm²/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.
Parker ORIGA Origa compressed air oil KY8766 (see page 191)



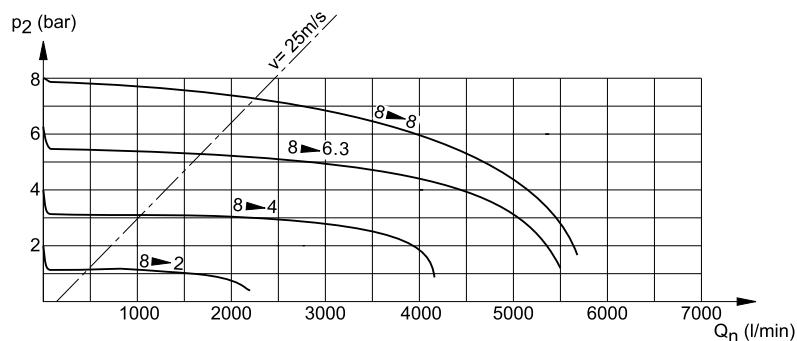
	Stop valve		Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
	3/2 Way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 Way valve (spool type), direct assembly to any unit from the airfit comfort series, with coupling kit PL17608	
	CDR-3/8P (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							
	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2	NPT 3/8	NPT 1/2
	–		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

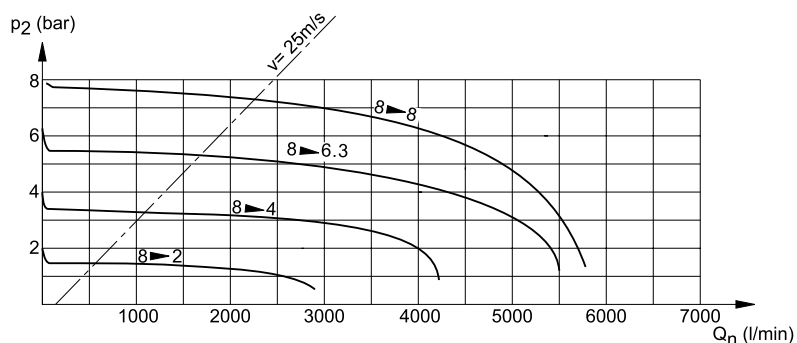
Air preparation unit three-piece
Type: CFRL-1/2

Series airfit comfort
NPT 3/8, 1/2

Flow characteristics

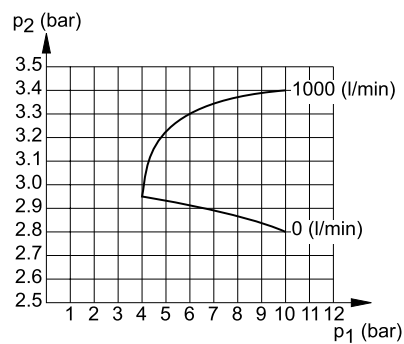
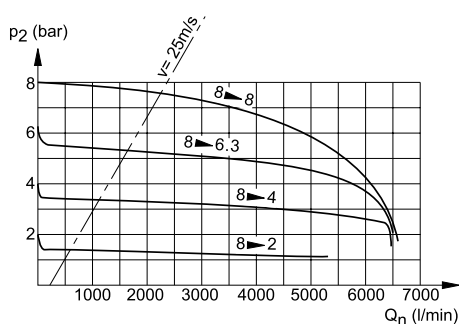


Air preparation unit two-piece
Type: CKL-1/2

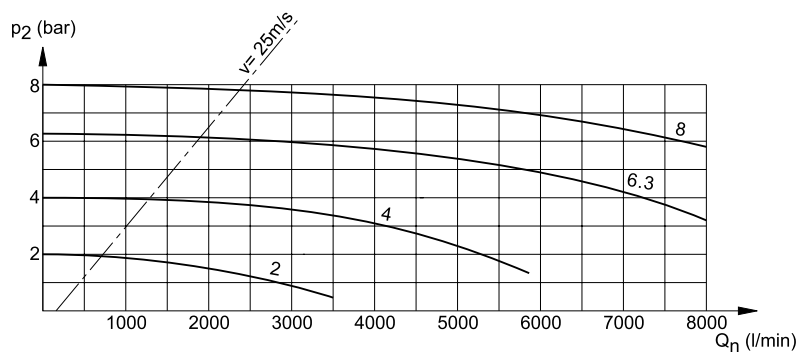


Filter-regulator
Type: CK-1/2

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



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

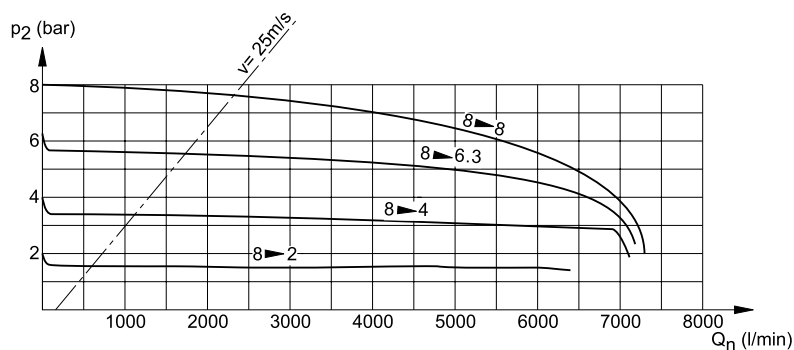


Air preparation units

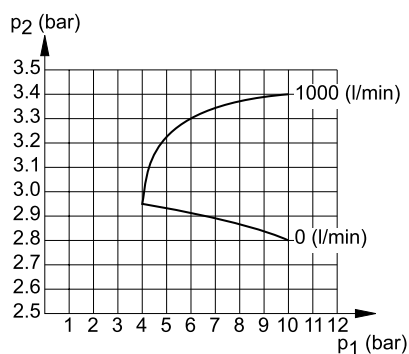
Series airfit comfort
NPT 3/8, 1/2

Flow characteristics

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

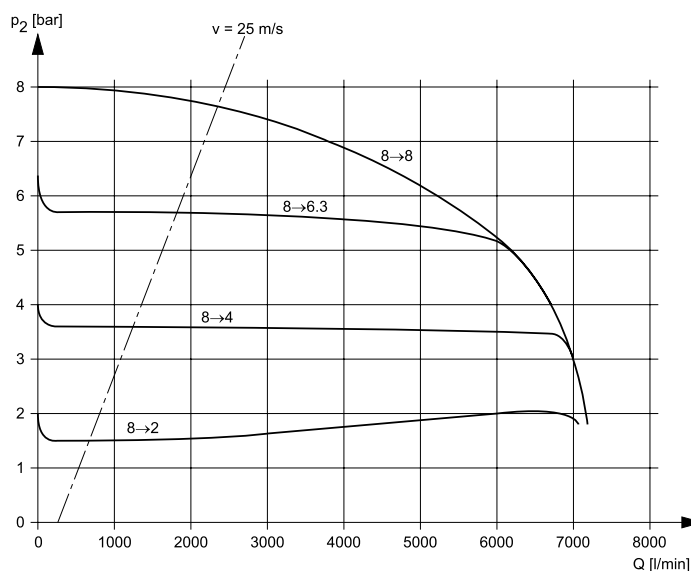


Air preparation units

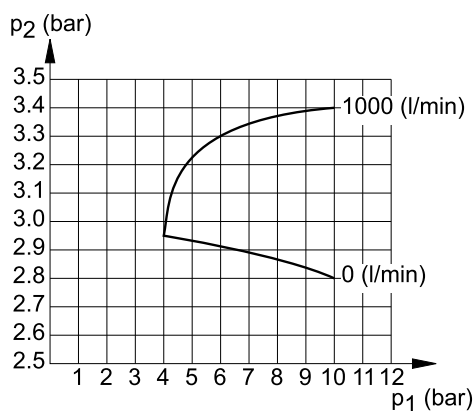
Pressure regulating valve, pilot operated
Type: CRV-1/2

Series airfit comfort
NPT 3/8, 1/2

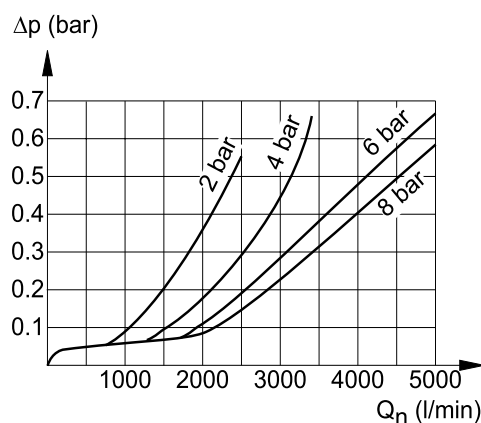
Flow characteristics



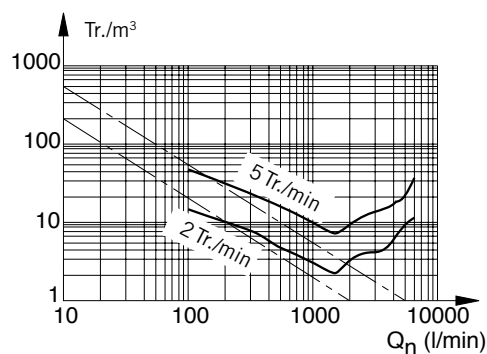
Outlet pressure variation with fluctuation inlet pressure
Type: CRV-1/2



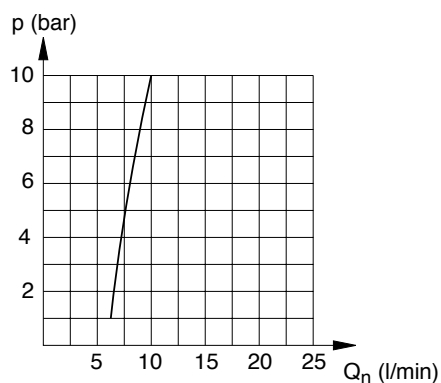
Oil mist lubricator
Type: SL-1/2



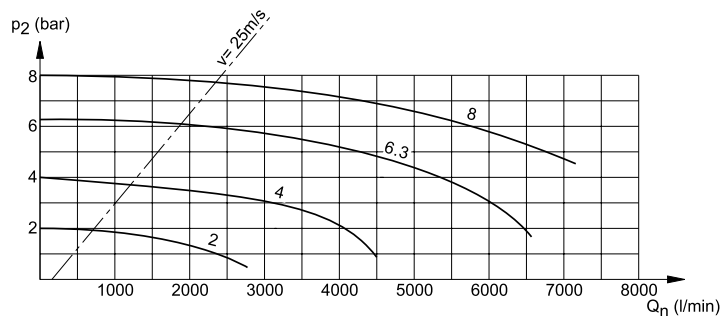
Oil/air ratio
Type: SL-1/2



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
NPT 3/8, 1/2

Flow characteristics



Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Dimensions

Features:

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

Delivery includes:

Air preparation unit three-piece:

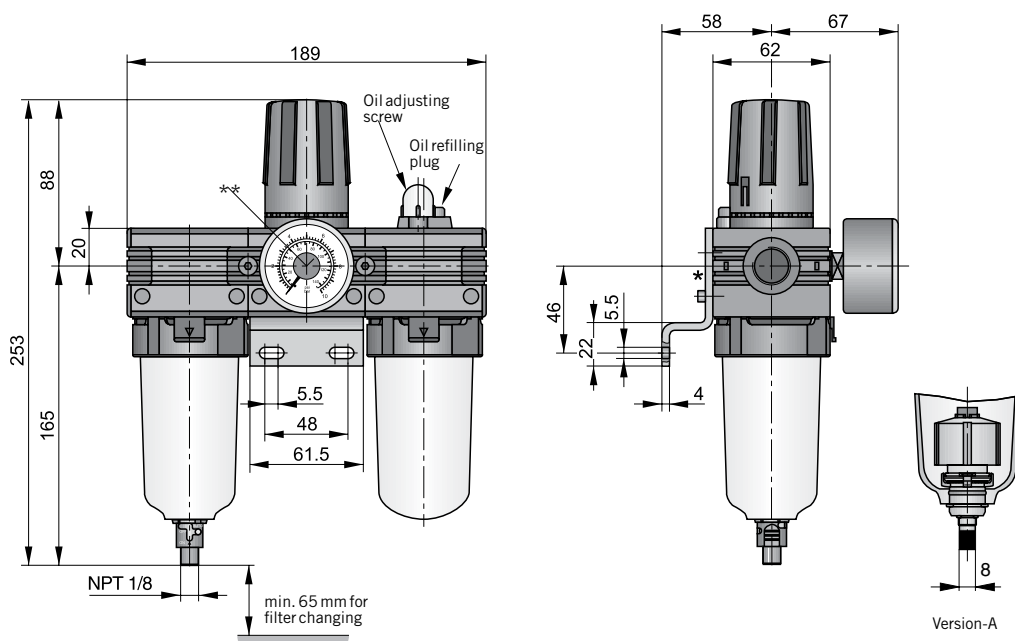
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket

Air preparation unit
two-piece:

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



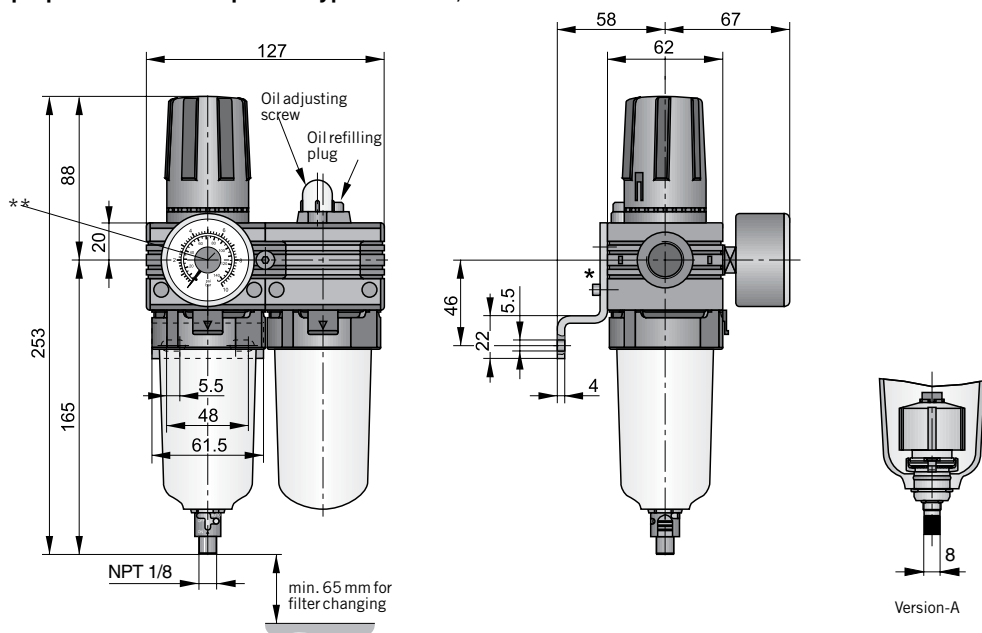
Air preparation unit three-piece – Type: CFRL-3/8, -1/2



* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/4"

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



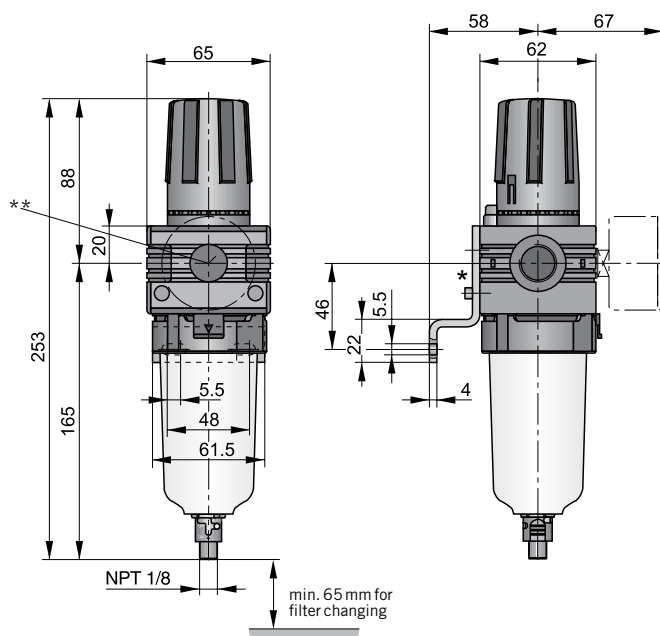
* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/4"

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

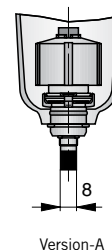
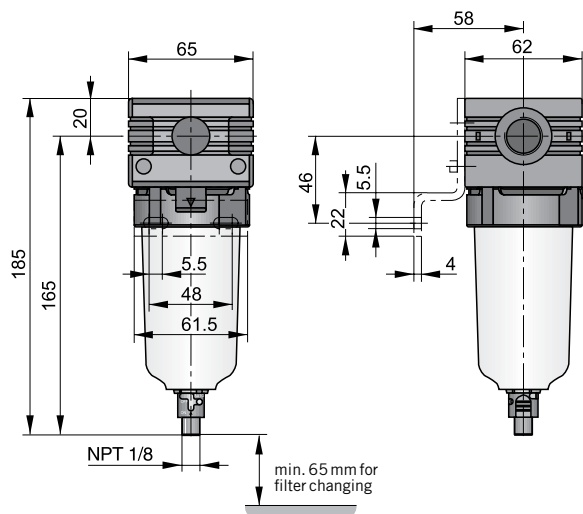
Dimensions in mm

Filter-regulator – Type: CK-3/8, -1/2

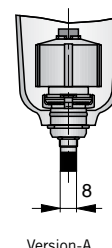


- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/4

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



Version-A



Version-A

Air preparation units

Series airfit comfort
NPT 3/8, 1/2

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

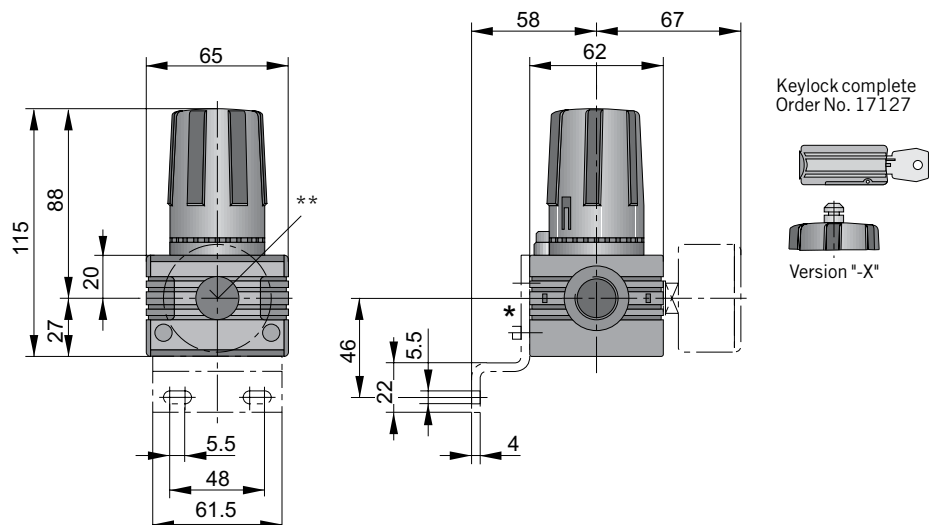
Dimensions in mm

Air preparation units

Series airfit comfort
NPT 3/8, 1/2

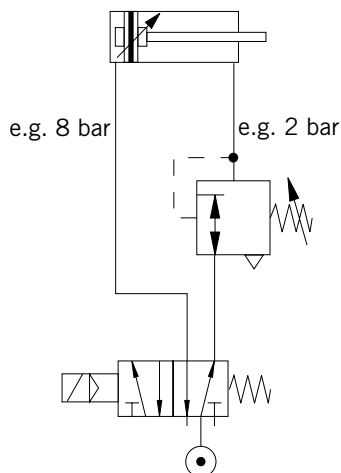
Dimensions

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 NPT 1/4

Installation instructions for special pressure regulating valve, for high relief capacity
Type: CR-1/2SO, PB 55649-N023



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

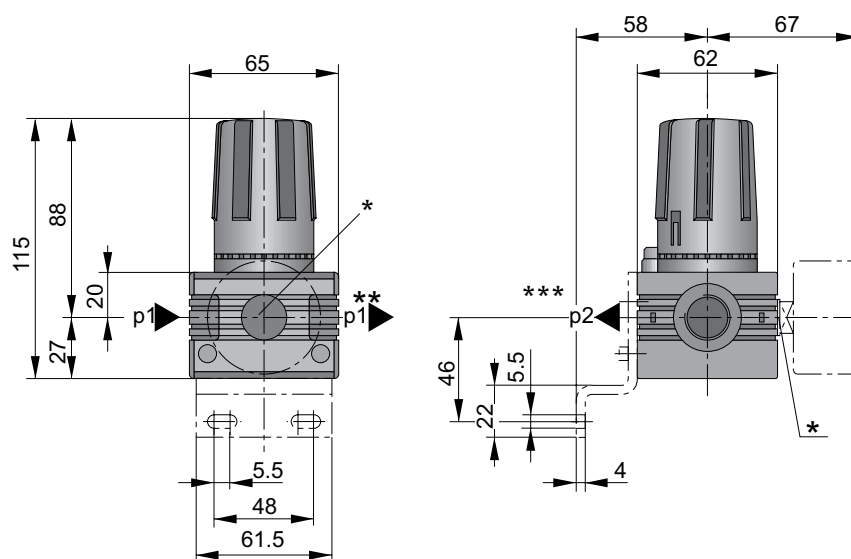
Dimensions in mm

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

Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Dimensions

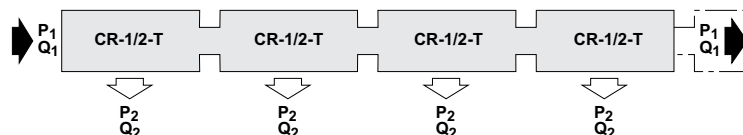


* Gauge ports NPT 1/4

** With through p_1 supply port NPT 1/2

*** p_2 port NPT 3/8, 1/2

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



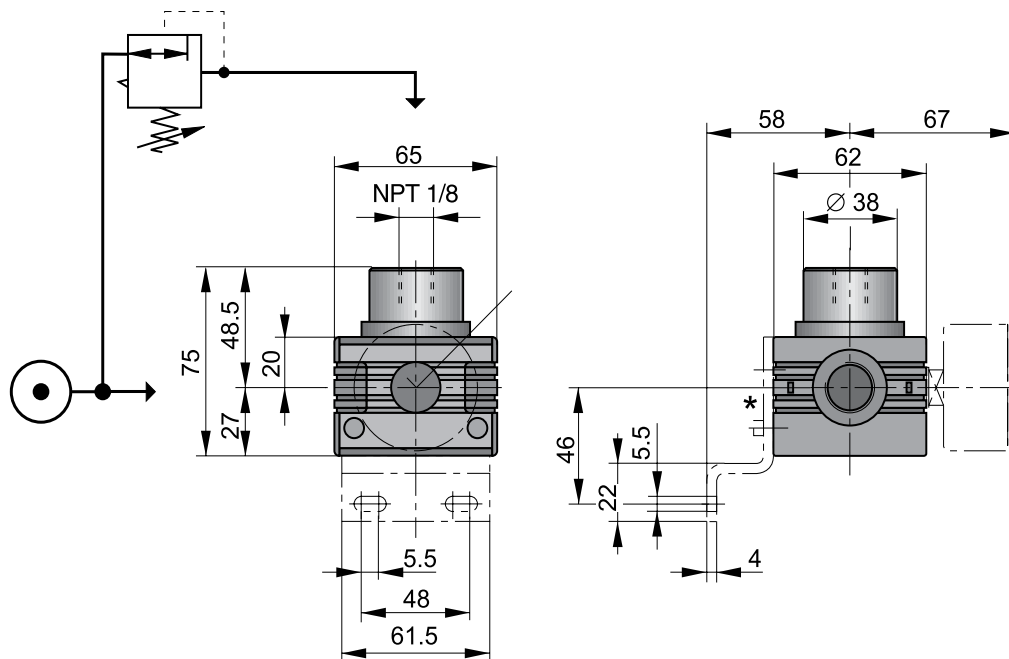
Air preparation units

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

– Recommended pilot pressure regulating valve, series airfit swing, Type: SR-1/4, PB45449-N000

Series airfit comfort
NPT 3/8, 1/2

Dimensions



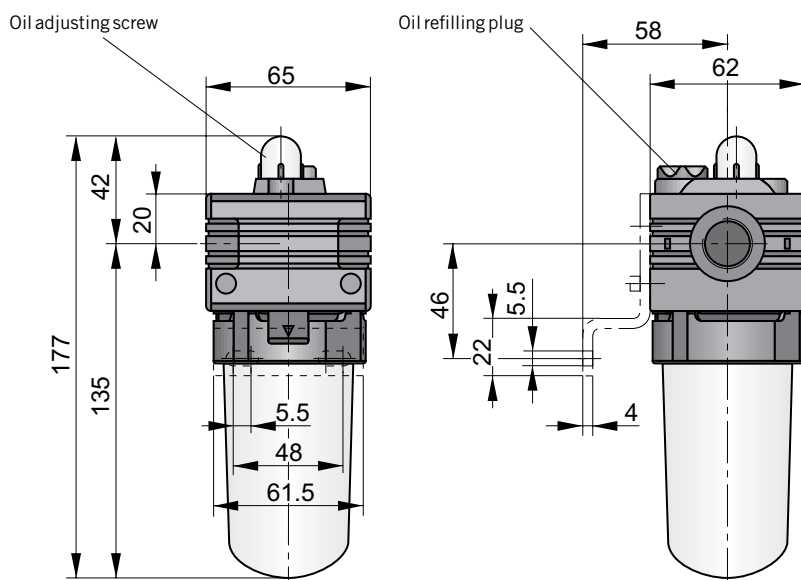
* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/4"

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

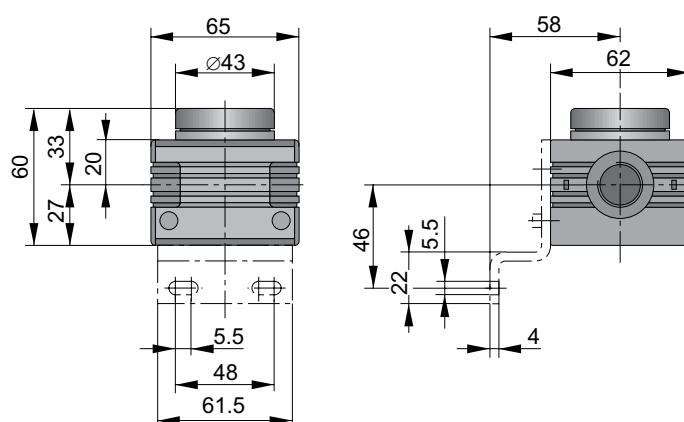


Air preparation units

Series airfit comfort
NPT 3/8, 1/2

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

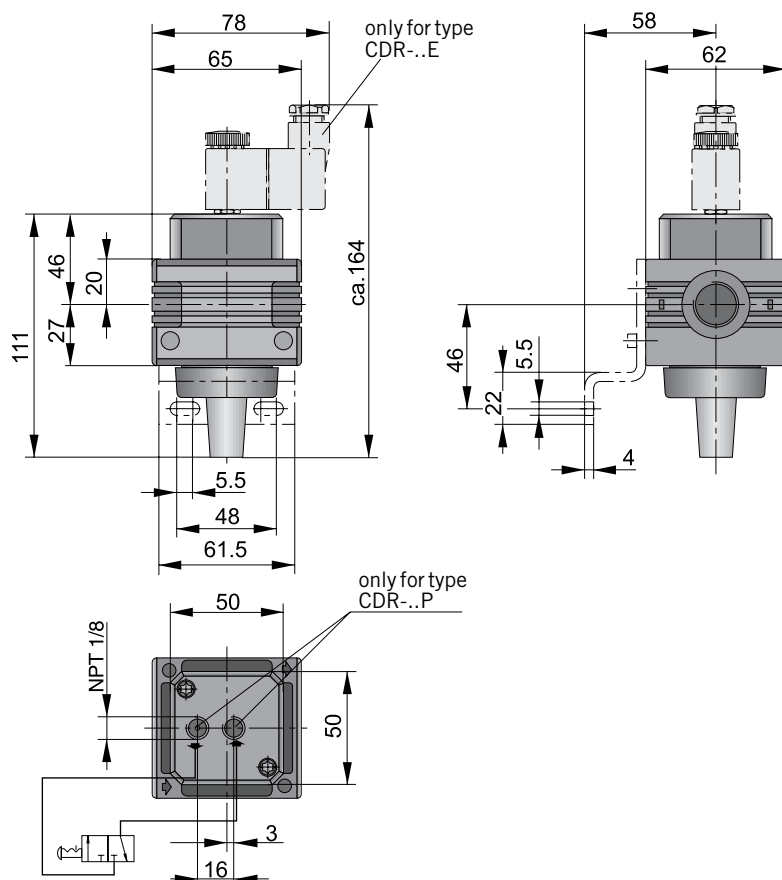
Stop valve
Type: CDR-3/8P, -1/2P (pneumatically actuated)
Type: CDR-3/8E, -1/2E (electrically actuated)

Series airfit comfort
NPT 3/8, 1/2

Dimensions

Features:

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

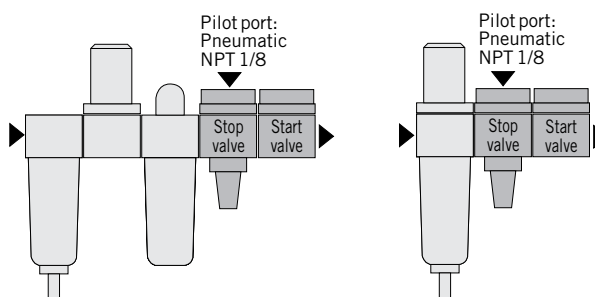


Venting time (s) in relation to volume

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

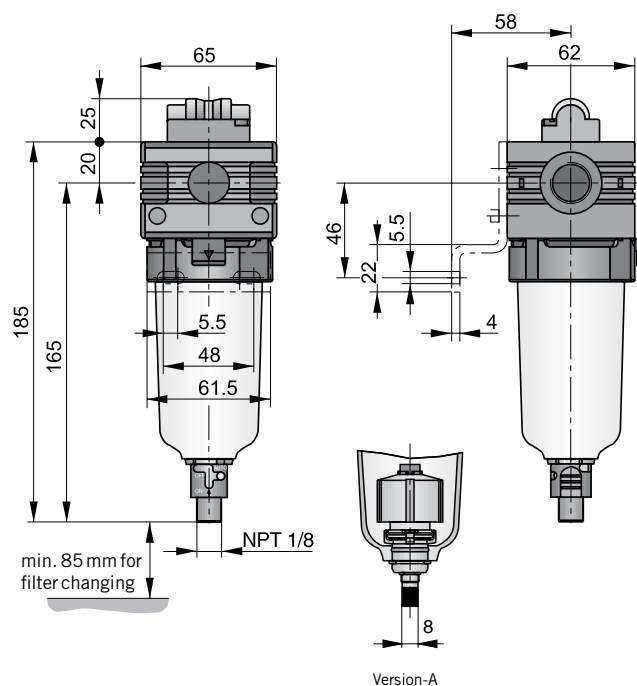
Installation instructions



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

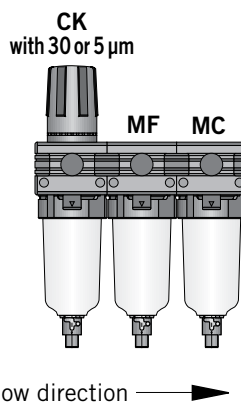
Dimensions in mm

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.



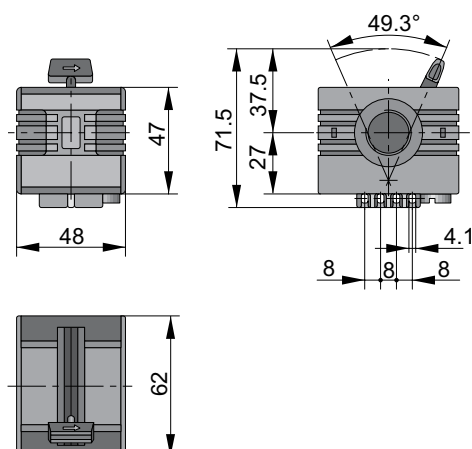
Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Dimensions

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
NPT 3/8, 1/2

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		NPT 3/8	CFRL-3/8	PB 58249-N000
		NPT 1/2	CFRL-1/2	PB 58349-N000
– with automatic drainage		NPT 3/8	CFRL-3/8-A	PB 58249-N002
		NPT 1/2	CFRL-1/2-A	PB 58349-N002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		NPT 3/8	CFRL-3/8-E	PB 58249-N004
		NPT 1/2	CFRL-1/2-E	PB 58349-N004
– with metal bowl (sight glass) and automatic drainage		NPT 3/8	CFRL-3/8-AE	PB 58249-N006
		NPT 1/2	CFRL-1/2-AE	PB 58349-N006

Air preparation unit two-piece

– Basic version with combined manual and semi-automatic drainage		NPT 3/8	CKL-3/8	PB 58549-N000
		NPT 1/2	CKL-1/2	PB 58649-N000
– with automatic drainage		NPT 3/8	CKL-3/8-A	PB 58549-N002
		NPT 1/2	CKL-1/2-A	PB 58649-N002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		NPT 3/8	CKL-3/8-E	PB 58549-N004
		NPT 1/2	CKL-1/2-E	PB 58649-N004
– with metal bowl (sight glass) and automatic drainage		NPT 3/8	CKL-3/8-AE	PB 58549-N006
		NPT 1/2	CKL-1/2-AE	PB 58649-N006

Filter-regulator

– Basic version (30 µm) with combined manual and semi-automatic drainage		NPT 3/8	CK-3/8	PB 55849-N000
		NPT 1/2	CK-1/2	PB 55949-N000
– with filter element 5 µm, with combined manual and semi-automatic drainage		NPT 3/8	CK-3/8-5	PB 55849-N016
		NPT 1/2	CK-1/2-5	PB 55949-N016
– with automatic drainage		NPT 3/8	CK-3/8-A	PB 55849-N002
		NPT 1/2	CK-1/2-A	PB 55949-N002
– with metal bowl (sight glass), with combined manual and semi-automatic drainage		NPT 3/8	CK-3/8-E	PB 55849-N004
		NPT 1/2	CK-1/2-E	PB 55949-N004
– with metal bowl (sight glass) and automatic drainage		NPT 3/8	CK-3/8-AE	PB 55849-N006
		NPT 1/2	CK-1/2-AE	PB 55949-N006



Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Filter-water-separator

<ul style="list-style-type: none"> – Basic version (30 µm) with combined manual and semi-automatic drainage – with filter element 5 µm with combined manual and semi-automatic drainage – with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage – with automatic drainage – with metal bowl (sight glass) with combined manual and semi-automatic drainage – with metal bowl (sight glass) and automatic drainage 		NPT 3/8	CF-3/8	PB 55249-N000
		NPT 1/2	CF-1/2	PB 55349-N000
		NPT 3/8	CF-3/8-5	PB 55249-N016
		NPT 1/2	CF-1/2-5	PB 55349-N016
		NPT 3/8	CFD-3/8-1	PB 55249-N070
		NPT 1/2	CFD-1/2-1	PB 55349-N070
		NPT 3/8	CF-3/8-A	PB 55249-N002
		NPT 1/2	CF-1/2-A	PB 55349-N002
		NPT 3/8	CF-3/8-E	PB 55249-N004
		NPT 1/2	CF-1/2-E	PB 55349-N004
		NPT 3/8	CF-3/8-AE	PB 55249-N006
		NPT 1/2	CF-1/2-AE	PB 55349-N006

Pressure regulating valve

<ul style="list-style-type: none"> – Basic version – with adapter for keylock – Special pressure regulating valve for high relief capacity – Pressure regulating valve with through p_1 supply port – Pressure regulating valve with through p_1 supply port – Pressure regulating valve, pilot operated – Pressure regulating valve, pilot operated, actuation without own air consumption – for actuation by an electronic regulator, see page 119 		NPT 3/8	CR-3/8	PB 55549-N000
		NPT 1/2	CR-1/2	PB 55649-N000
		NPT 3/8	CR-3/8-X	PB 55549-N006
		NPT 1/2	CR-1/2-X	PB 55649-N006
		NPT 1/2	CR-1/2SO	PB 55649-N023
		p_1 -NPT 1/2, through p_2 -NPT 3/8, Output	CR-1/2-T 3/8	PB 55649-N101
		p_1 -NPT 1/2, through p_2 -NPT 1/2, Output	CR-1/2-T 1/2	PB 55649-N100
		NPT 3/8	CRV-3/8	PB 55549-N075
		NPT 1/2	CRV-1/2	PB 55649-N075
		NPT 3/8	CRV-3/8-SO	PB 55549-N077
		NPT 1/2	CRV-1/2-SO	PB 55649-N077

Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Order instructions



Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Oil mist lubricator

<ul style="list-style-type: none"> – Basic version – with metal bowl (sight glass) 		NPT 3/8	CL-3/8	PB 56249-N000
		NPT 1/2	CL-1/2	PB 56349-N000
		NPT 3/8	CL-3/8-E	PB 56249-N004
		NPT 1/2	CL-1/2-E	PB 56349-N004

Start valve

– Start valve		NPT 3/8	CDA-3/8	PB 57249-N100
		NPT 1/2	CDA-1/2	PB 57349-N100

Stop valve

– pneumatically actuated		NPT 3/8	CDR-3/8 P	PB 57249-N200
		NPT 1/2	CDR-1/2 P	PB 57349-N200
– electrically actuated 24 V DC		NPT 3/8	CDR-3/8 E	PB 57249-N201
		NPT 1/2	CDR-1/2 E	PB 57349-N201
– electrically actuated 230 V/50 Hz		NPT 3/8	CDR-3/8 E	PB 57249-N204
		NPT 1/2	CDR-1/2 E	PB 57349-N204

Submicrofilter

<ul style="list-style-type: none"> – Basic version, standard with service life indicator, with combined manual and semi-automatic drainage – additionally with automatic drainage – additionally with metal bowl (sight glass) and automatic drainage 		NPT 3/8	MF 036-3/8-V	PB 59249-N010
		NPT 1/2	MF 036-1/2-V	PB 59349-N010
		NPT 3/8	MF 036-3/8-AV	PB 59249-N012
		NPT 1/2	MF 036-1/2-AV	PB 59349-N012
		NPT 3/8	MF 036-3/8-EAV	PB 59249-N016
		NPT 1/2	MF 036-1/2-EAV	PB 59349-N016

Activated carbon filter

<ul style="list-style-type: none"> – Basic version, with combined manual and semi-automatic drainage – with metal bowl (sight glass), 		NPT 3/8	MC 036-3/8	PB 59549-N000
		NPT 1/2	MC 036-1/2	PB 59649-N000
		NPT 3/8	MC 036-3/8-E	PB 59549-N004
		NPT 1/2	MC 036-1/2-E	PB 59649-N004

3/2 Way shut-off valve

– 3/2 Way shut-off valve		NPT 3/8	CDV-3/8-XS	PB 56849-N000
		NPT 1/2	CDV-1/2-XS	PB 56949-N000



Accessories

Description	For type	Order No.
Mounting kit	Standard	PL17518
Gauge Ø 50, 0–10 bar, NPT 1/4*	CK, CR, CR-T	KG8012-00
Coupling kit		PL17608
Porting block kit NPT 1/8		PL17731
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 ₁ /p ₂ NPT 3/4		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
NPT 3/8, 1/2*

Order instructions



Air preparation units

Series airfit comfort
NPT 3/8, 1/2

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

Accessories

– Porting block kit

To provide unlubricated air
e.g. for air gun

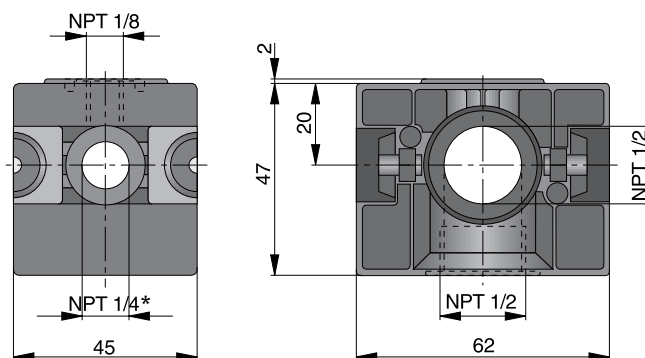
Versions:

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

Delivery includes:

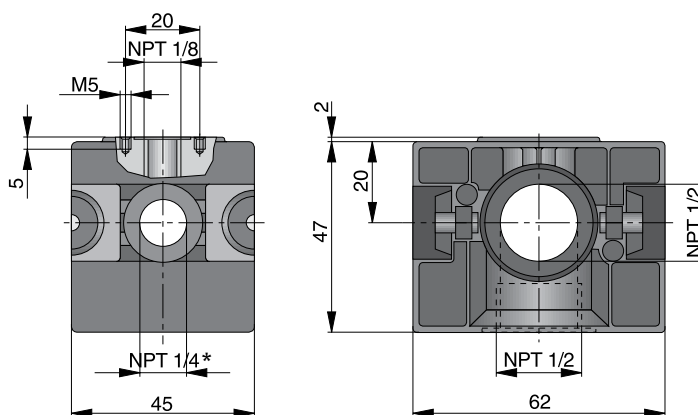
- 1 porting block
- 1 coupling kit
- Plug screws

Standard version



* NPT 1/4 thread on both sides

Version – for mounting pressure switch

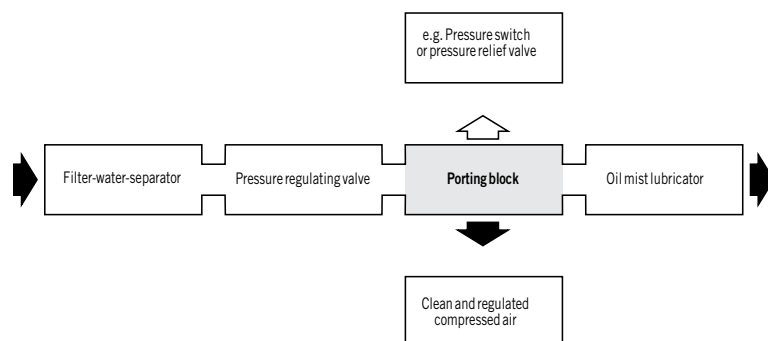
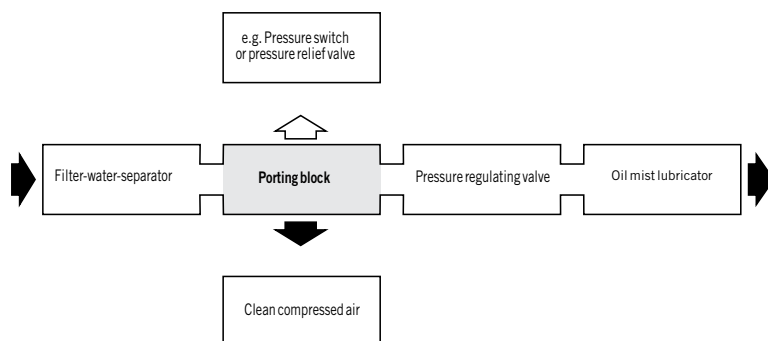


* NPT 1/4 thread on both sides



Dimensions in mm

Installation instructions



Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Accessories
– Porting block kit

Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit – standard NPT 1/2	CX-1/2	PL 17731
Porting block kit – for standard NPT 3/8	CXH	PL 17746

Dimensions in mm



Air preparation units

Series airfit comfort
NPT 3/8, 1/2

Accessories
– Bowl guard kit

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

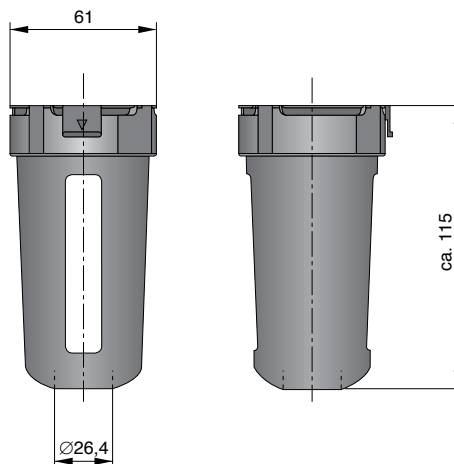
Assembly instructions:

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.
NPT 3/8, 1/2	PL 17680



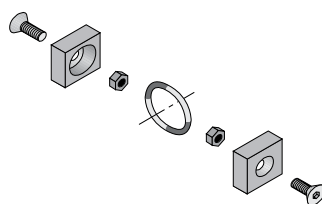
Dimensions in mm

Mounting kit



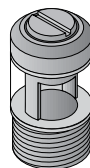
Order No. PL17518

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, NPT 1/4



Order No. KG8012-00

Air preparation units

Series airfit comfort
NPT 3/8, 1/2

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
NPT 3/4, 1*



Air preparation units

Series airfit A25
NPT 3/4, 1

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)			NPT 3/4	NPT 1	NPT 3/4	NPT 1	
Max. condensate capacity		cm ³	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 ³	500		500		
Oil refilling			Manual – also during operation				
Installation			Vertical, bowl at the bottom		Vertical, bowl at the bottom		
Medium and ambient temperatures		T _{min} T _{max} °C °C	-10 ²⁾ +50 (+60 to 12.5 bar)		-10 ²⁾ +50 (+60 to 12.5 bar)		
Weight (mass)		kg	3.3		2.8		
Pneumatic characteristics							
Operating pressure range – inlet pressure		p _{1 min} p _{1 max} bar bar	0 17.5		0 17.5		
Operating pressure range – outlet pressure		p _{2 min/max} 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 ¹⁾		Q _{max} l/min m ³ /h	7900 474	12580 755	8600 528	14650 879	
Degree of moisture separation at recommended flow		h %	See diagram		See diagram		

¹⁾ at p₁ = 10 bar and p₂ = 6.3 bar, Dp = 1 bar

²⁾ for dry compressed air, ice formation must be avoided

³⁾ at p₁ = 8 bar and Dp = 1 bar

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

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

*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm²/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.

Parker 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 ⁴⁾	
	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									
	NPT 3/4	NPT 1	NPT 3/4	NPT 1	NPT 3/4	NPT 1	NPT 3/4	NPT 1	NPT 3/4	NPT 1
	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 ²⁾ +50 (+60 to 12.5 bar)		-10 ²⁾ +50 (+60 to 12.5 bar)		-10 ²⁾ +50 (+60 to 12.5 bar)		-10 ²⁾ +60		-10 ²⁾ +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 ³⁾ 624	11400 ³⁾ 684	10400 ³⁾ 624	11400 ³⁾ 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
NPT 3/4, 1

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)			NPT 3/4	NPT 1	NPT 3/4	NPT 1	
Max. condensate capacity		cm ³	–		–		
Condensate drainage			–		–		
Oil/air ratio			Constant oil drip rate independent of air flow		–		
Max. oil capacity		cm ³	500		–		
Oil refilling			Manual – also during operation		–		
Installation			Vertical, bowl at the bottom		In any position		
Medium and ambient temperatures		T _{min} °C T _{max}	-10 ²⁾ +50 (+60 to 12.5 bar)		-10 ²⁾ +50 (+60 to 12.5 bar)		
Weight (mass)		kg	0.8		1.6		
Pneumatic characteristics							
Operating pressure range – inlet pressure		p _{1 min} p _{1 max} bar bar	0 17.5		2 17.5 (16 to A25DS-..E)		
Maximum flow ¹⁾		Q _{max} l/min m ³ /h	16000 960	17700 1062	10500 630	12000 720	
Degree of moisture separation at recommended flow ²⁾		h %	–		–		
Residual oil amount		mg/m ³					

¹⁾ at p₁ = 6.3 bar, Dp = 1 bar

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

*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm²/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.
Parker ORIGA Origa compressed air oil KY8766 (see page 191)



Air preparation units

Series airfit A25
NPT 3/4, 1

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					
	NPT 3/4	NPT 1	NPT 3/4	NPT 1	NPT 3/4	NPT 1
	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 ²⁾ +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/m³		0.003 ‰ in combination MF			

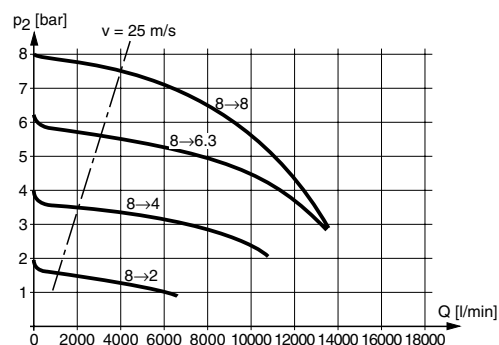


Air preparation units

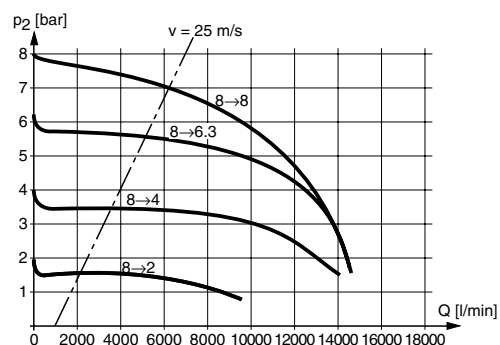
Series airfit A25
NPT 3/4, 1

Flow characteristics

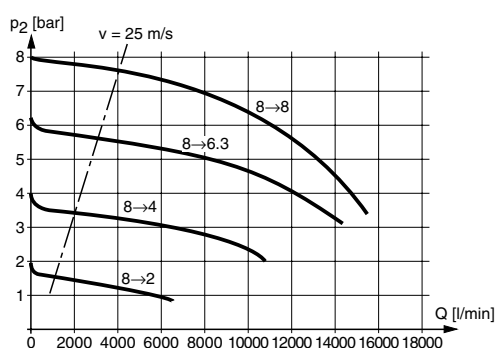
Air preparation unit three-piece
Type: A25FRL-3/4-EMW



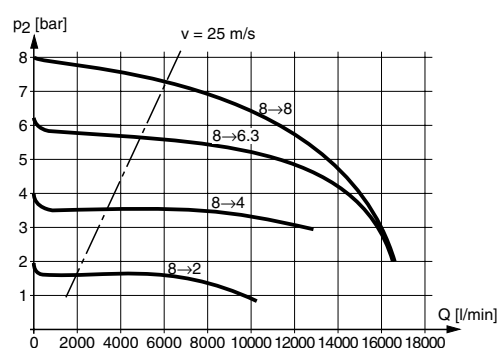
Type: A25FRL-1-EMW



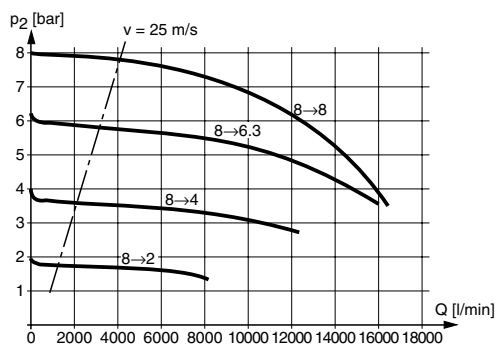
Air preparation unit two-piece
Type: A25KL-3/4-EMW



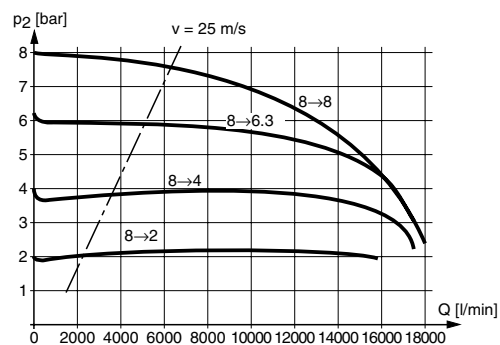
Type: A25KL-1-EMW



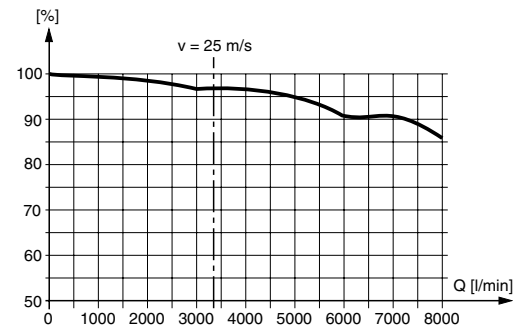
Filter-regulator
Type: A25K-3/4-E



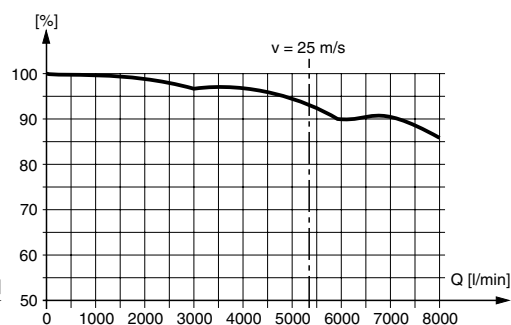
Type: A25K-1-E



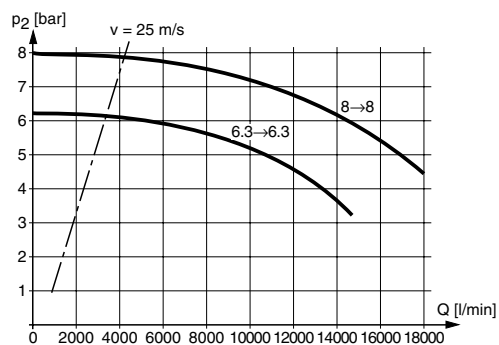
Degree of filtration
Type: A25K-3/4-E



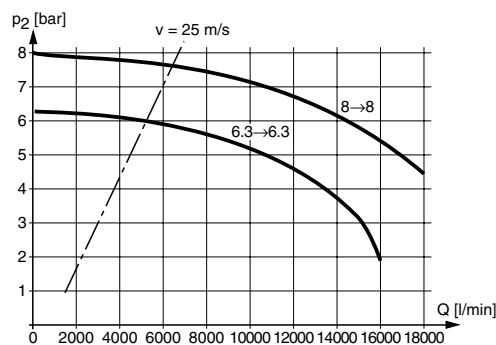
Type: A25K-1-E



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



Type: A25F-1-E

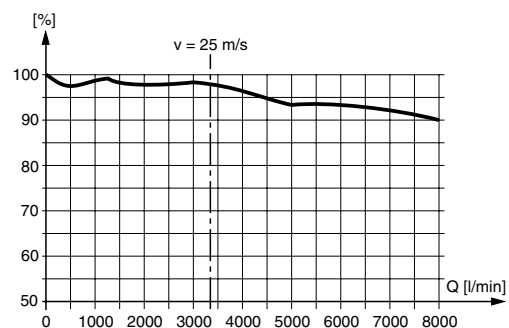


Air preparation units

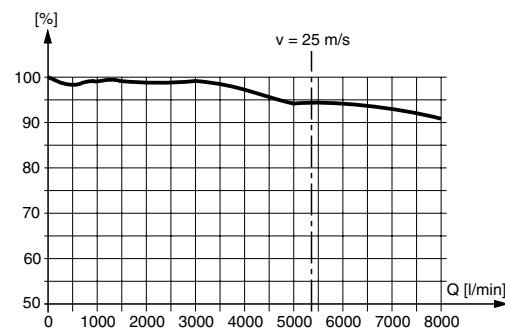
Series airfit A25
NPT 3/4, 1

Flow characteristics

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



Type: A25F-1-E

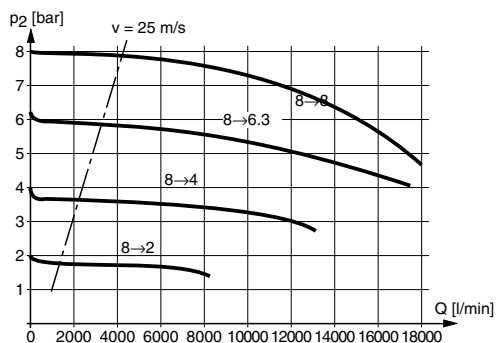


Air preparation units

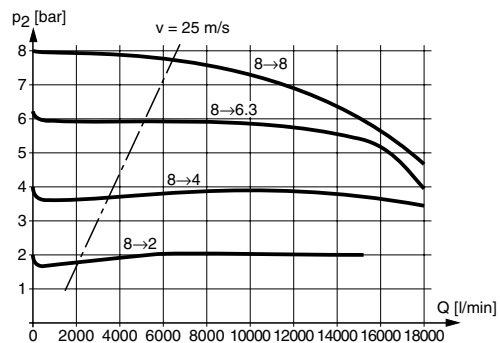
Series airfit A25
NPT 3/4, 1

Flow characteristics

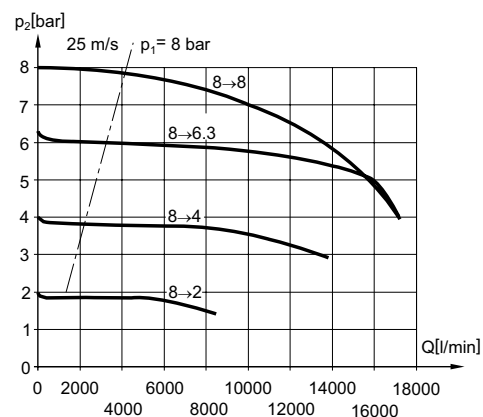
Pressure regulating valve
Type: A25R-3/4



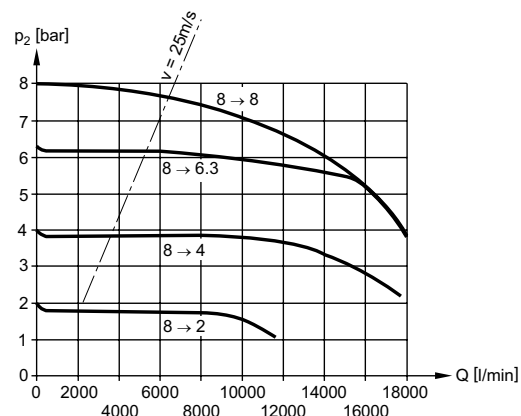
Type: A25R-1



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

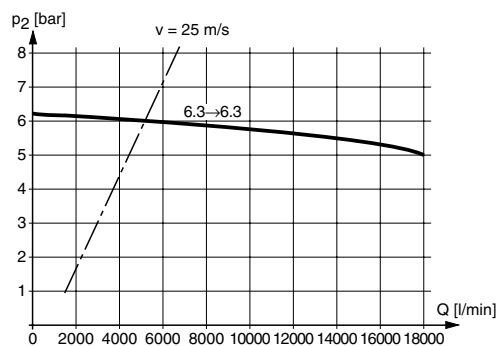


Type: A25RV-1

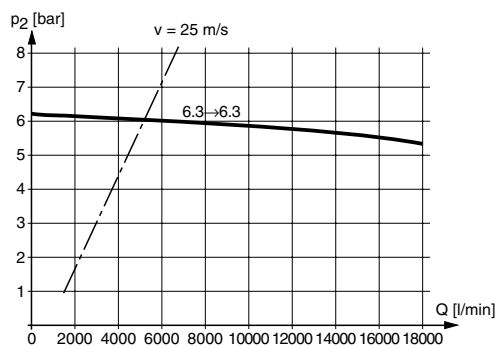


Oil mist lubricator

Type: A25L-3/4-E



Type: A25L-1-E



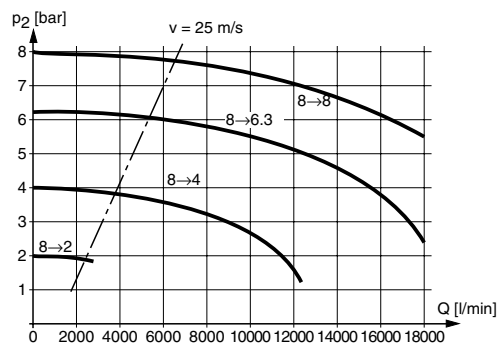
Air preparation units

Series airfit A25
NPT 3/4, 1

Flow characteristics

Start-stop valve

Type: A25DS-3/4, A25DS-1



Air preparation units

Series airfit A25
NPT 3/4, 1

Dimensions

Delivery includes:

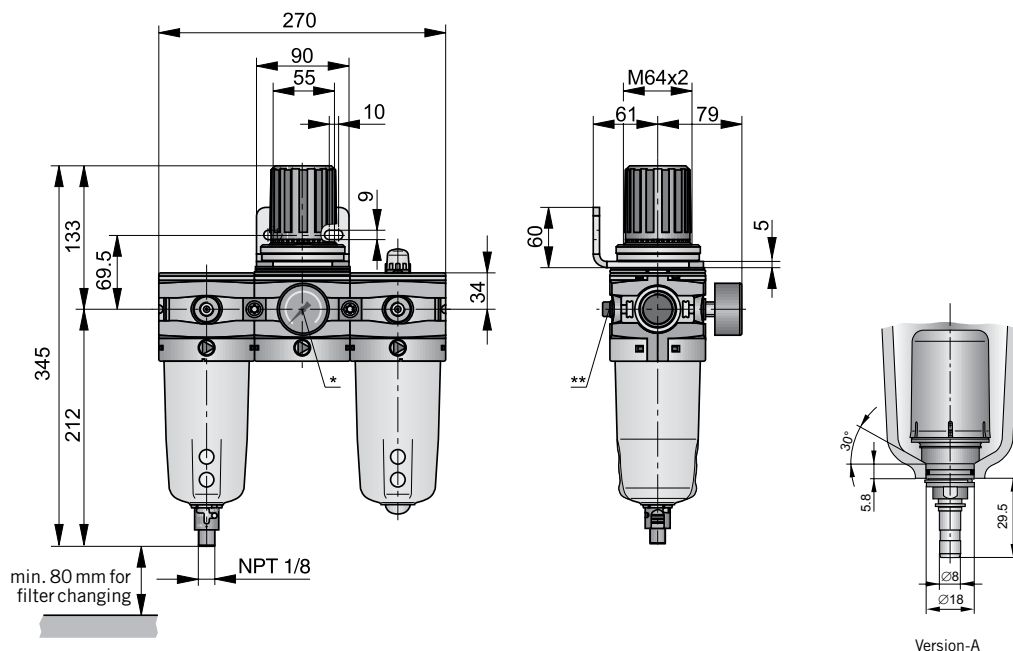
Air preparation unit three-piece:

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

Air preparation unit two-piece:

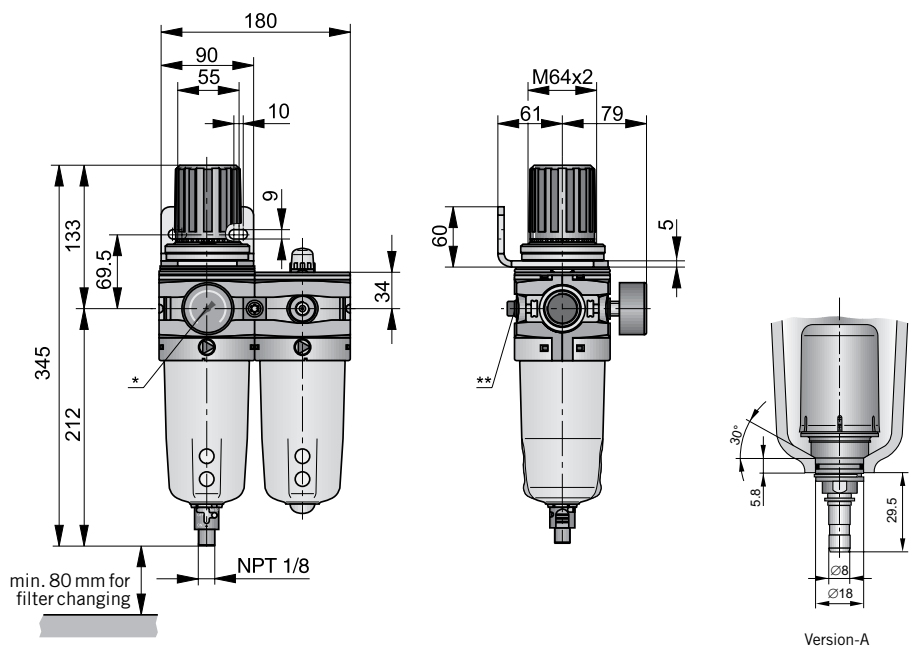
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

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



- * Two opposite gauge ports NPT 1/4
- ** On delivery the plug screw is not assembled.

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



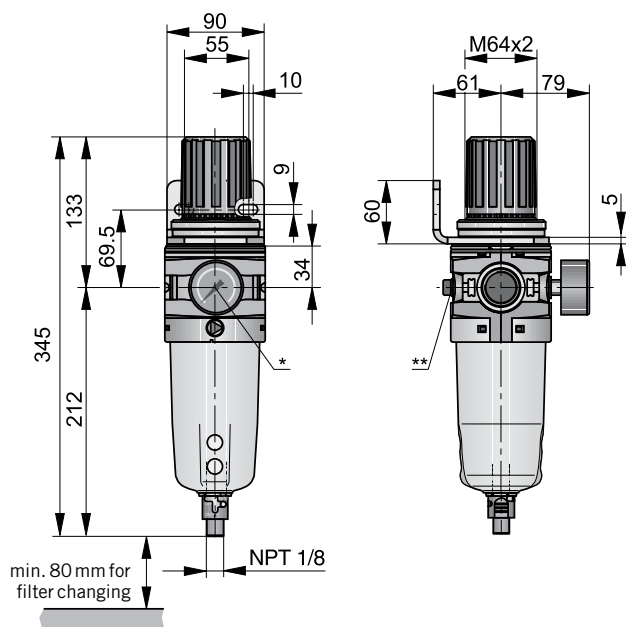
- * Two opposite gauge ports NPT 1/4
- ** On delivery the plug screw is not assembled.

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

Dimensions in mm

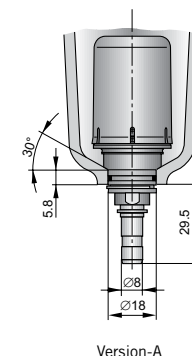
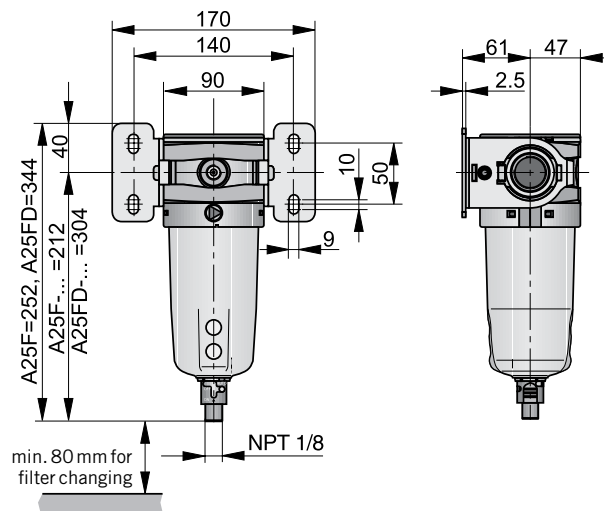


Filter-regulator – Type: A25K-3/4, -1



- * Two opposite gauge ports NPT 1/4
- ** On delivery the plug screw is not assembled.

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



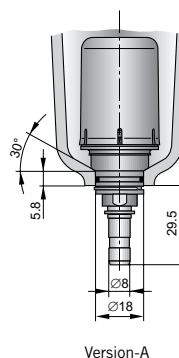
Version-A

Air preparation units

Series airfit A25
NPT 3/4, 1

Dimensions

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



Version-A



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

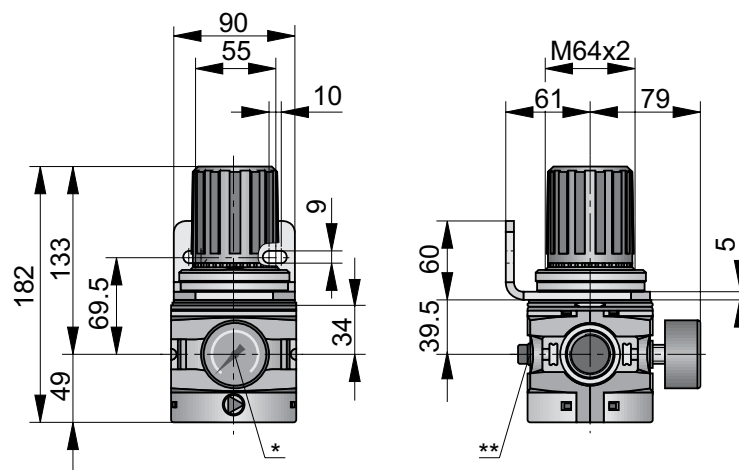
Dimensions in mm

Air preparation units

Series airfit A25
NPT 3/4, 1

Dimensions

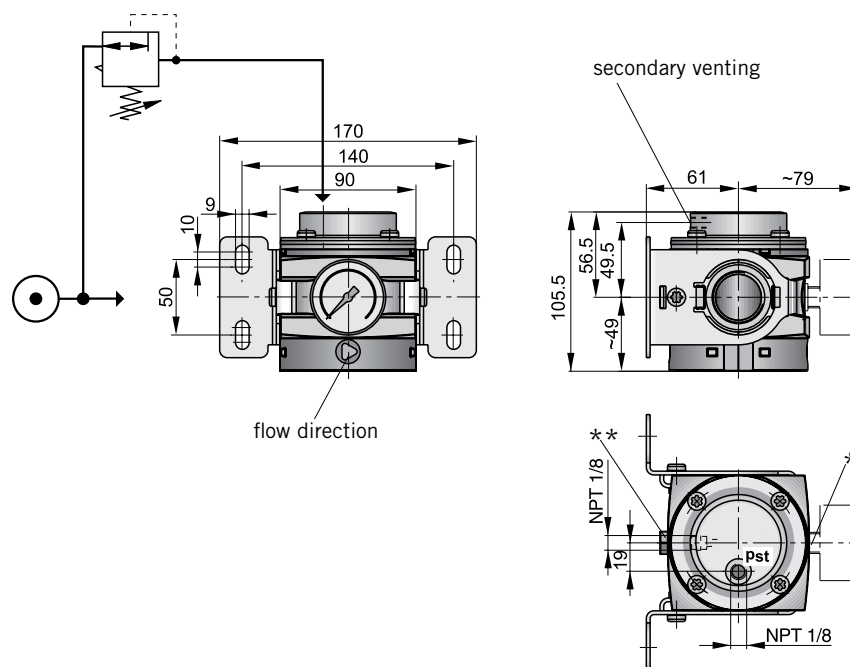
Pressure regulating valve – Type: A25R-3/4, -1



- * Two opposite gauge ports NPT 1/4
- ** 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



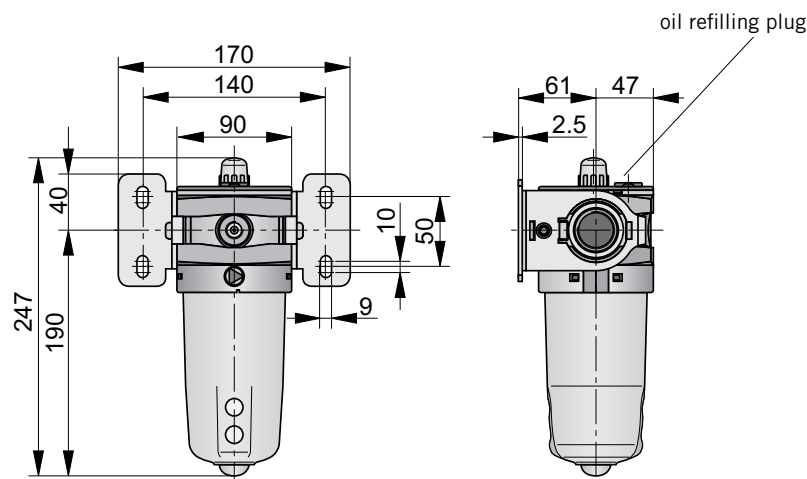
- * Two opposite gauge ports NPT 1/4
- ** On delivery the plug screw is not assembled.



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

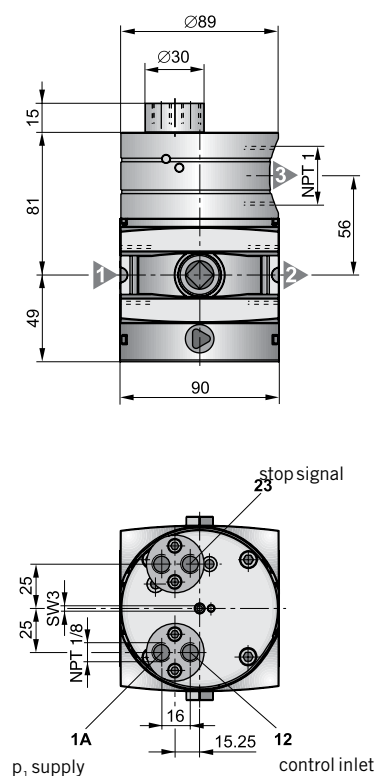


Air preparation units

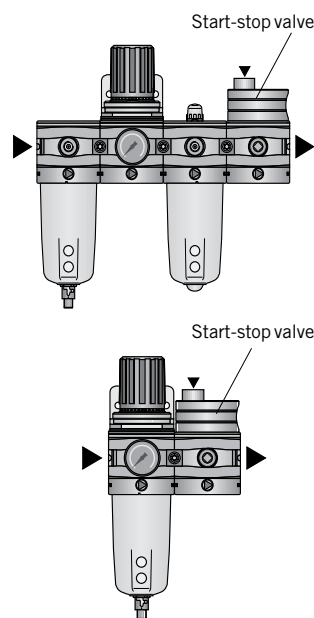
Series airfit A25
NPT 3/4, 1

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

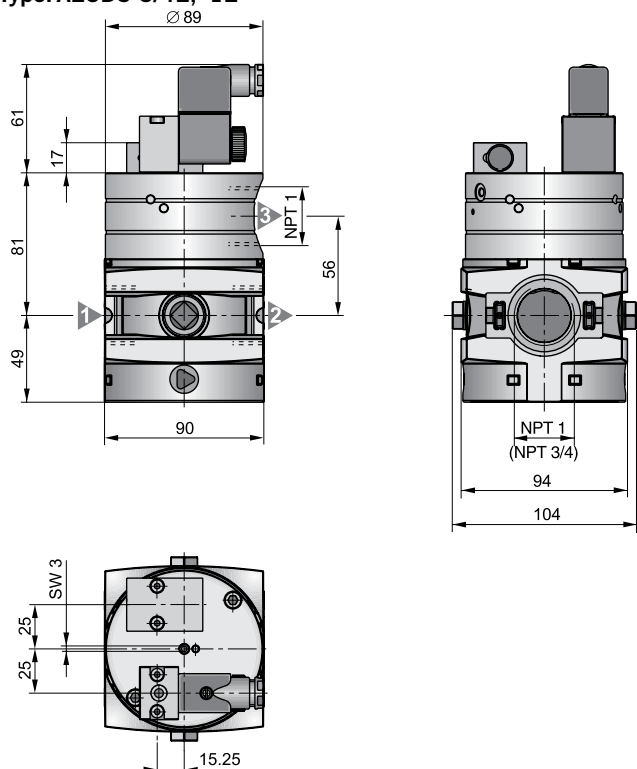


Air preparation units

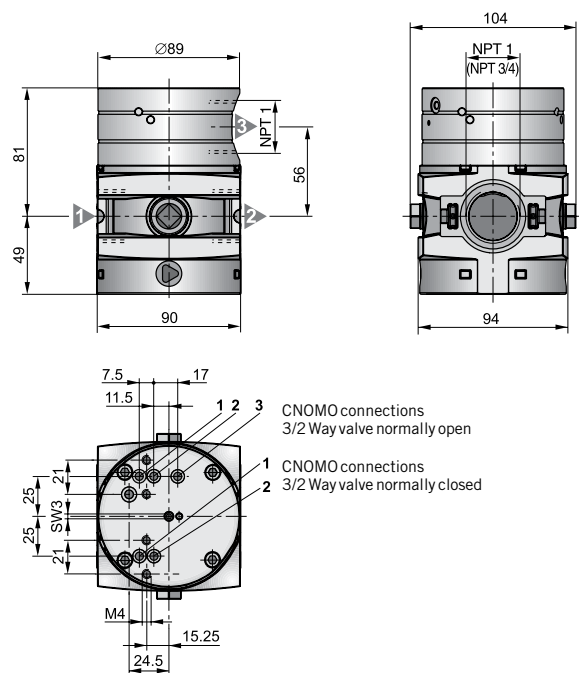
Series airfit A25
NPT 3/4, 1

Dimensions

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



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

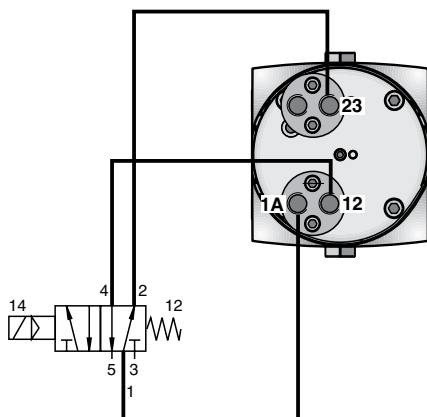


For order instructions see page 85–87, for characteristics see page 70–77,
for accessories see page 88, 89

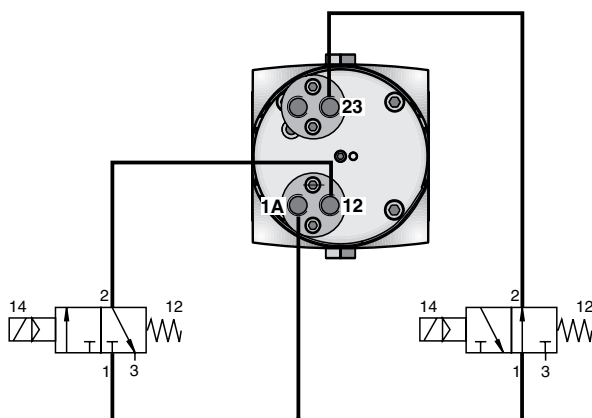
Dimensions in mm

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
NPT 3/4, 1

Control types

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

Dimensions in mm

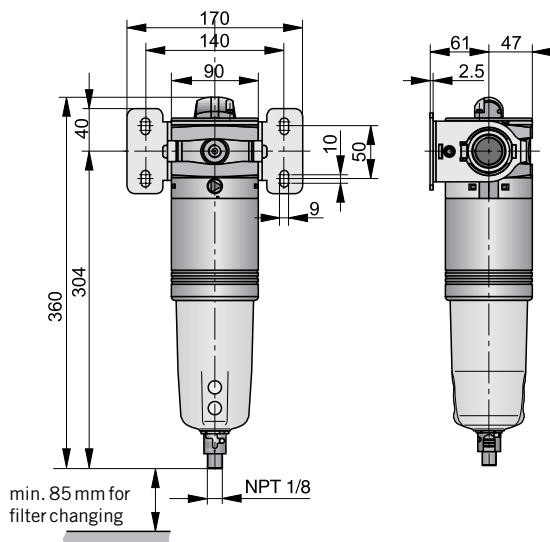


Air preparation units

Series airfit A25
NPT 3/4, 1

Dimensions

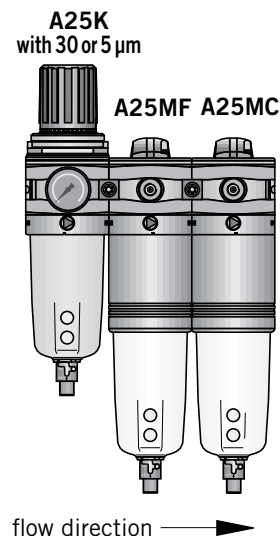
Submicrofilter – Type: A25MF230-3/4, -1
Activated carbon filter – Type: A25MC230-3/4, -1



Note:
Activated carbon filter A25MC230-E without contamination indicator

Installation instruction

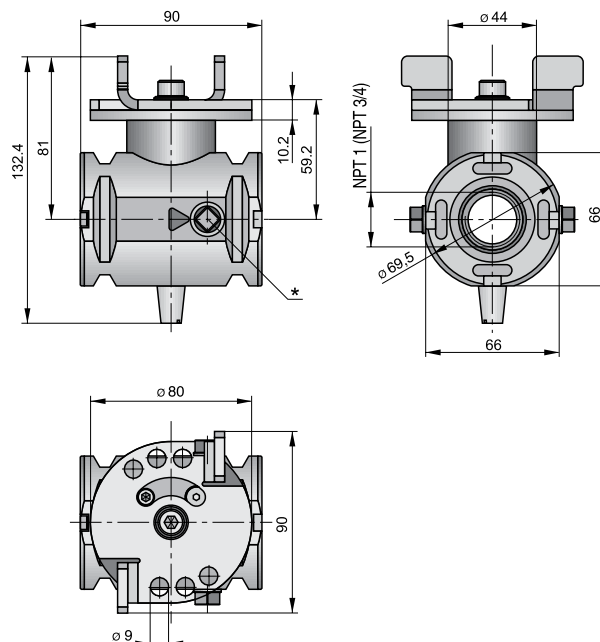
To increase the life span of the filter elements, we recommend the following order.



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 NPT 1/8 on request

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




Dimensions in mm


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		NPT 3/4	A25FRL-3/4-EMW	PB 63449-N000
		NPT 1	A25FRL-1-EMW	PB 63549-N000
– with automatic drainage		NPT 3/4	A25FRL-3/4-AEMW	PB 63449-N005
		NPT 1	A25FRL-1-AEMW	PB 63549-N005


Air preparation unit two-piece

– Basic version with combined manual and semi-automatic drainage		NPT 3/4	A25KL-3/4-EMW	PB 63649-N000
		NPT 1	A25KL-1-EMW	PB 63749-N000
– with automatic drainage		NPT 3/4	A25KL-3/4-AEMW	PB 63649-N005
		NPT 1	A25KL-1-AEMW	PB 63749-N005

Filter-regulator

– Basic version with combined manual and semi-automatic drainage		NPT 3/4	A25K-3/4-E	PB 62249-N000
		NPT 1	A25K-1-E	PB 62349-N000
– with filter element 5 µm, with combined manual and semi-automatic drainage		NPT 3/4	A25K-3/4-5E	PB 62249-N016
		NPT 1	A25K-1-5E	PB 62349-N016
– with automatic drainage		NPT 3/4	A25K-3/4-AE	PB 62249-N002
		NPT 1	A25K-1-AE	PB 62349-N002
– with adapter for keylock		NPT 3/4	A25K-3/4-EX	PB 62249-N010
		NPT 1	A25K-1-EX	PB 62349-N010

Filter-water-separator

– Basic version with combined manual and semi-automatic drainage		NPT 3/4	A25F-3/4-E	PB 61649-N000
		NPT 1	A25F-1-E	PB 61749-N000
– with filter element 5 µm with combined manual and semi-automatic drainage		NPT 3/4	A25F-3/4-5E	PB 61649-N016
		NPT 1	A25F-1-5E	PB 61749-N016
– with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage		NPT 3/4	A25FD-3/4-E	PB 61649-N070
		NPT 1	A25FD-1-E	PB 61749-N070
– with automatic drainage		NPT 3/4	A25F-3/4-AE	PB 61649-N002
		NPT 1	A25F-1-AE	PB 61749-N002

Air preparation units

Series airfit A25
NPT 3/4, 1

Order instructions



Air preparation units

Series airfit A25
NPT 3/4, 1

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Pressure regulating valve

<ul style="list-style-type: none"> – Basic version – with adapter for keylock – Pressure regulating valve, pilot operated 		NPT 3/4	A25R-3/4	PB 61849-N000
		NPT 1	A25R-1	PB 61949-N000
		NPT 3/4	A25R-3/4-X	PB 61849-N006
		NPT 1	A25R-1-X	PB 61949-N006
		NPT 3/4	A25RV-3/4	PB 61849-N070
		NPT 1	A25RV-1	PB 61949-N070

Oil mist lubricator

– Basic version		NPT 3/4	A25L-3/4-E	PB 62049-N000
		NPT 1	A25L-1-E	PB 62149-N000

Start-stop valve

– pneumatically actuated		NPT 3/4	A25DS-3/4-P	PB 63049-N000
		NPT 1	A25DS-1-P	PB 63149-N000
– electrically actuated 230 V/50 Hz		NPT 3/4	A25DS-3/4-E	PB 63049-N004
		NPT 1	A25DS-1-E	PB 63149-N004
– electrically actuated 24 V DC		NPT 3/4	A25DS-3/4-E	PB 63049-N001
		NPT 1	A25DS-1-E	PB 63149-N001
– electrically actuated with CNOMO connections		NPT 3/4	A25DS-3/4-C	PB 63049-N010
		NPT 1	A25DS-1-C	PB 63149-N010

Submicrofilter

– Basic version, with combined manual and semi-automatic drainage		NPT 3/4	A25MF230-3/4-EV	PB 62549-N010
		NPT 1	A25MF230-1-EV	PB 62649-N010
– additionally with automatic drainage		NPT 3/4	A25MF230-3/4-AEV	PB 62549-N012
		NPT 1	A25MF230-1-AEV	PB 62649-N012

Activated carbon filter

– Basic version, with combined manual and semi-automatic drainage		NPT 3/4	A25MC230-3/4-E	PB 62849-N000
		NPT 1	A25MC230-1-E	PB 62949-N000

3/2 Way shut-off valve

– 3/2 Way shut-off valve		NPT 3/4	A25DV-3/4	PB 63249-N000
		NPT 1	A25DV-1	PB 63349-N000



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	PL 15717
Adapter plates-kit p ₁ /p ₂ , NPT 1 1/4		PL 19199
Adapter plates-kit p ₁ /p ₂ , NPT 1 1/2		PL 19200
Special oil for oil mist lubricators 1 l (see page 191)		KY 8766

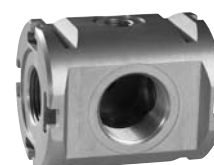
* for more gauges see page 186, 187

For more information see accessories page 88, 89

Air preparation units

*Series airfit A25
NPT 3/4, 1*

Order instructions



Air preparation units

Series airfit A25
NPT 3/4, 1

Accessories
– Porting block kit

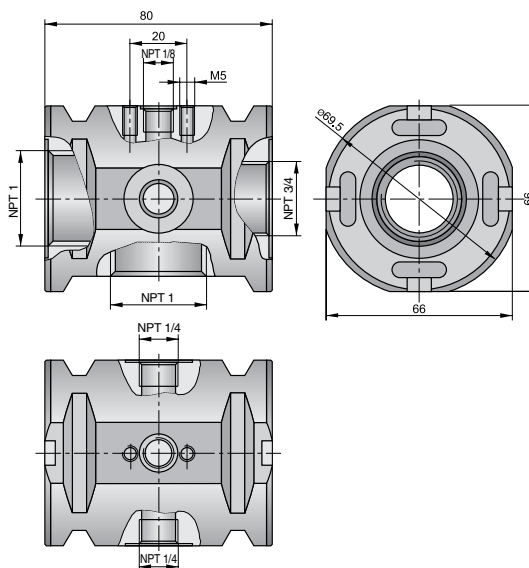
To provide unlubricated air
e.g. for air gun. With pressure
switch connections

Delivery includes:

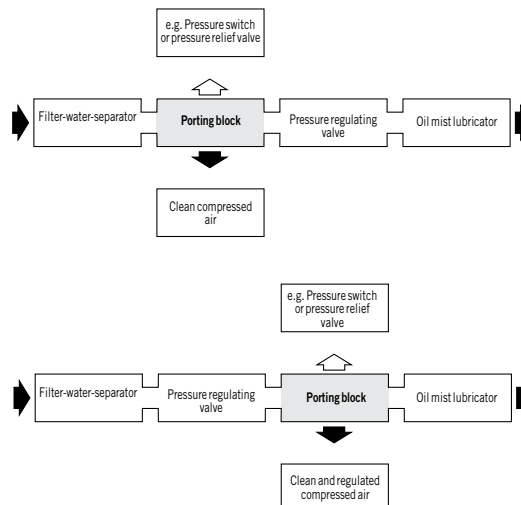
- 1 porting block
- 1 coupling kit
- 3 plug screws

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



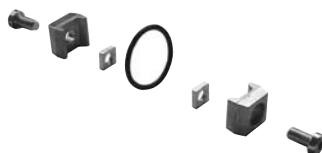
Dimensions in mm

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
NPT 3/4, 1*

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
NPT 1 1/2, 2



Air preparation units

Series airfit A50
NPT 11/2, 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	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			NPT 11/2, 2	NPT 11/2, 2	
Flange connection			SAE flange	SAE flange	
Max. condensate capacity		cm ³	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 ³	–	–	
Oil refilling			–	–	
Size of micro-mist particles		µm	–	–	
Installation			Vertical, bowl at the bottom		
Medium and ambient temperatures	T _{min} T _{max}	°C °C	0	Further temperatures on request	
Weight (mass)		kg	6.3	6.4	
Pneumatic characteristics					
Operating pressure range – inlet pressure	p _{1 min} p _{1 max}	bar bar	0 17.5	0 17.5	
Operating pressure range – outlet pressure	p _{2 min/max}	bar			
Differential pressure range	p _{min} p _{max}	bar bar	–	–	
Maximum flow	Q _{max}	l/min m ³ /h	> 40000 ²⁾ > 2400	> 40000 ²⁾ > 2400	
Degree of moisture separation at recommended flow	h	%	> 90	Only solid particles > 99% related to 1 µm	

¹⁾ at p₁ = 10 bar and p₂ = 6.3 bar, Dp = 1 bar

²⁾ at p₁ = 6 bar and Dp = 1 bar

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

*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm²/s at 40°C) or Parker ORIGA 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 ³⁾	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					
	NPT 11/2, 2	NPT 11/2, 2	NPT 1	NPT 2	NPT 11/2	NPT 2
	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 _{st} > 10	–	–		
	–	–	0.2	0.2	–	–
			0.8	1.0		
	> 40000	> 40000	> 20000	> 40000	> 40000 ²⁾	> 40000 ²⁾
	> 2400	> 2400	> 1200	> 2400	> 2400	> 2400
	–	–	–	–	–	–

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

Air preparation units

Series airfit A50
NPT 11/2, 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	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			NPT 11/2	NPT 2	
Flange connection			SAE flange		
Max. condensate capacity		cm ³	–		
Pore size of filter element		µm	–	–	
Condensate drainage			–	–	
Installation			In any position		
Medium and ambient temperatures	T _{min} T _{max}	°C °C	0 +60	Further temperatures on request	
Weight (mass)		kg	3.4		
Pneumatic characteristics					
Operating pressure range – inlet pressure	p _{1 min}	bar	2		
	p _{1 max}	bar	17.5		
Maximum flow ¹⁾	Q _{max}	l/min m ³ /h	> 40000 > 2400		
Degree of moisture separation at recommended flow	h	%	–	–	
Residual oil amount		mg/m ³	–	–	

¹⁾ at p₁ = 6 bar and Dp = 1 bar



Air preparation units

Series airfit A50

NPT 11/2, 2

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					
NPT 11/2	NPT 2	NPT 11/2	NPT 2	NPT 11/2	NPT 2
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		0		0	
17.5		17.5		17.5	
> 40000		10000 (recommended at 6 bar)		10000 (recommended at 6 bar)	
> 2400					
–		Over 99.99999% related to 0.01 µm		Over 99.99999% related to 0.01 µm	
–		< 0.01 input conc. 3 mg/m ³		0.003‰ in combination A50MF	



Air preparation units

Filter-water-separator, dust filter

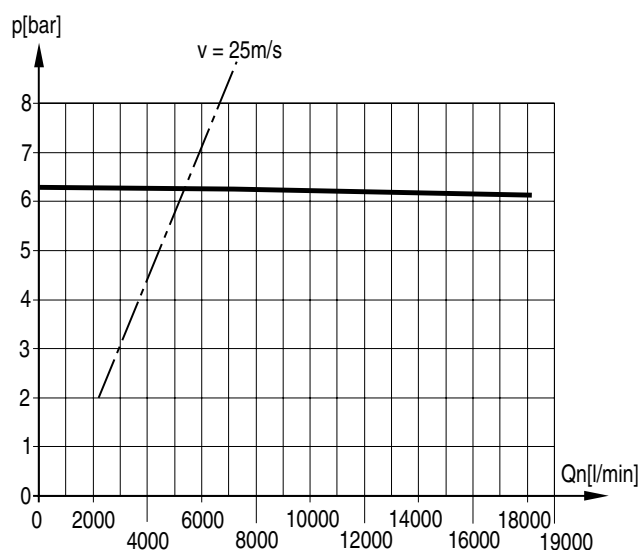
Type: A50F-11/2, -2

Type: A50FD-11/2, -2

Series airfit A50

NPT 11/2, 2

Flow characteristics

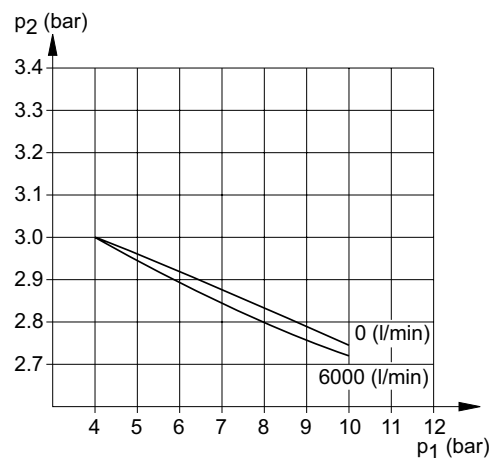
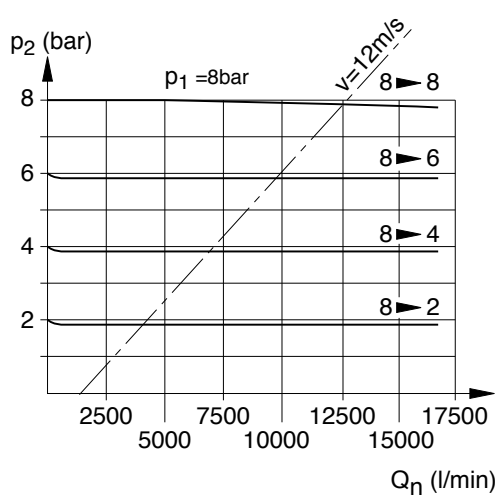


Pressure regulating valve – pilot operated

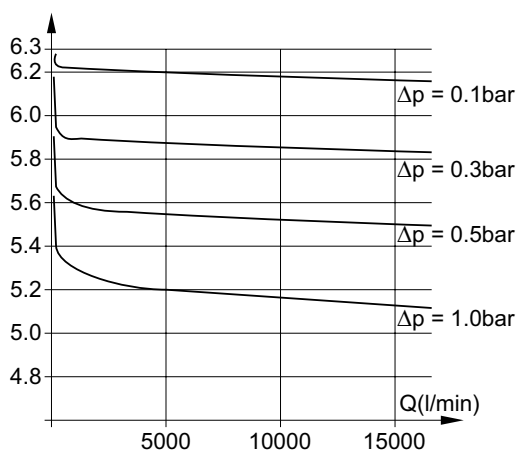
Type: A50R-11/2, -2

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
NPT 11/2, 2

Flow characteristics



Air preparation units

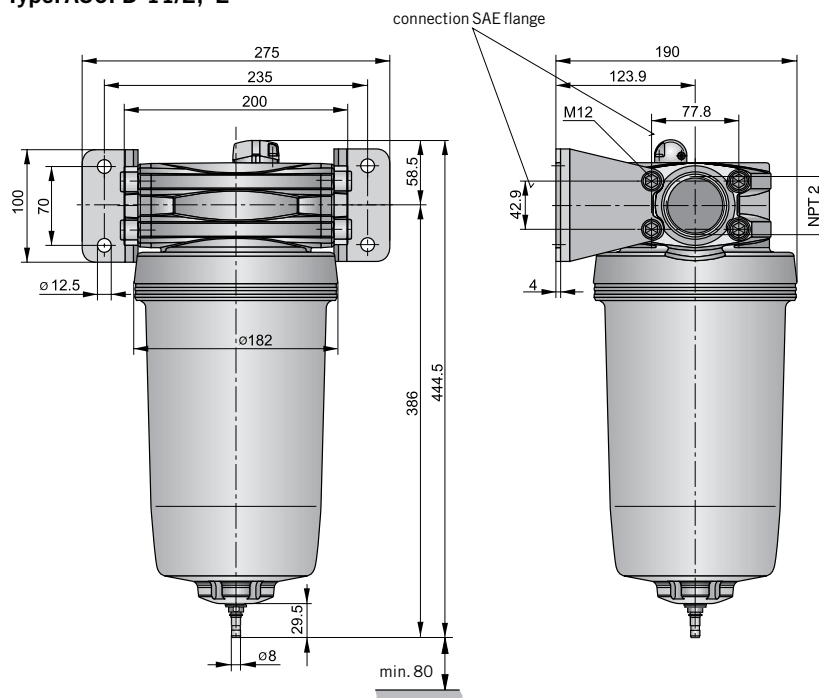
Series airfit A50
NPT 11/2, 2
– with/without thread
flanges

Dimensions

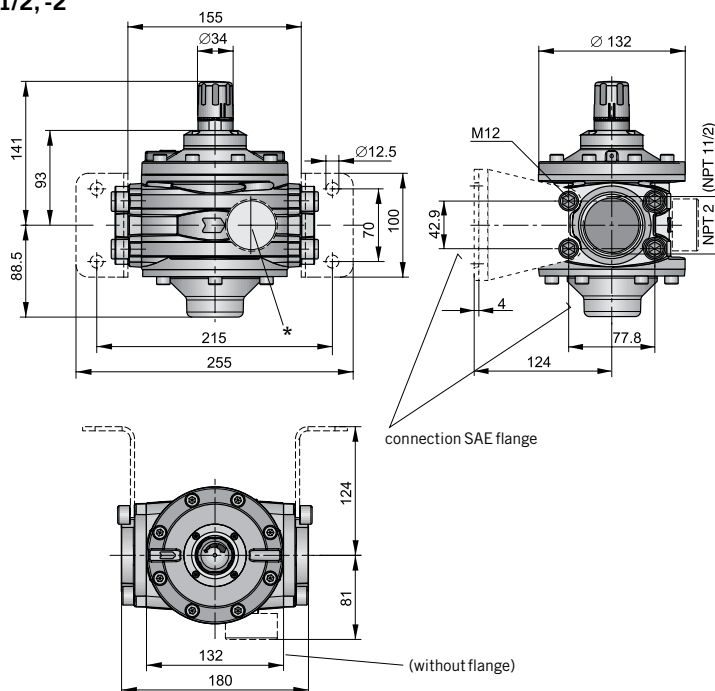
Delivery includes:

- 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 NPT 1/4

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

Dimensions in mm

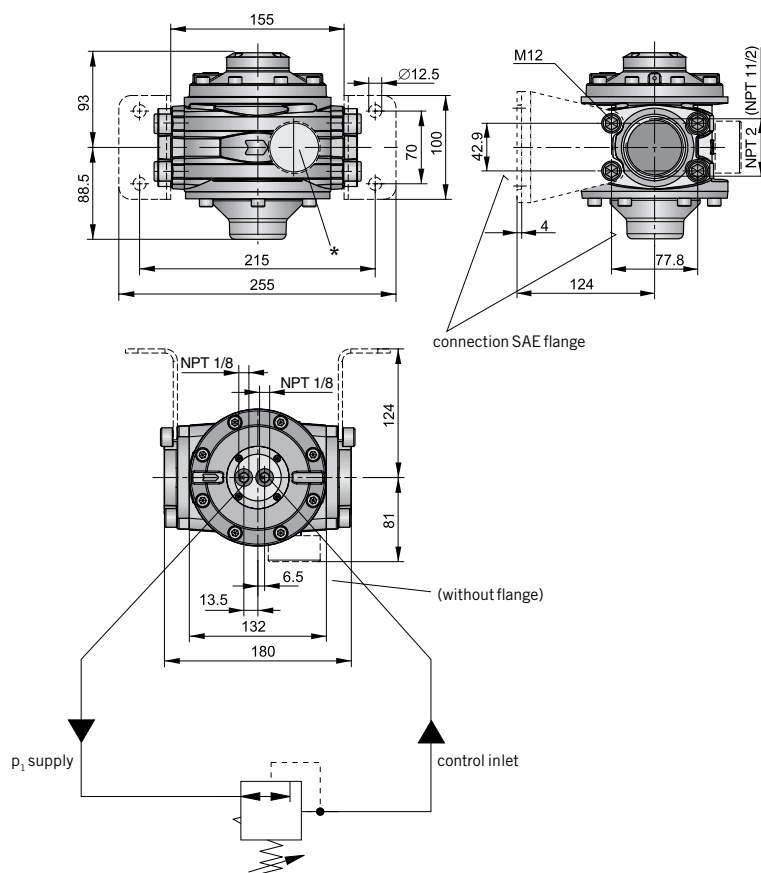
Pressure regulating valve, pilot operated – Type: A50RV-11/2, -2

– Recommended pilot regulating valve, series airfit swing, Type: SR-1/4, PB45449-N058

Air preparation units

*Series airfit A50
NPT 11/2, 2
– with/without thread
flanges*

Dimensions



On delivery the plug screw is not assembled.
* Two opposite gauge ports NPT 1/4

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
NPT 11/2, 2
– with/without thread
flanges

Dimensions

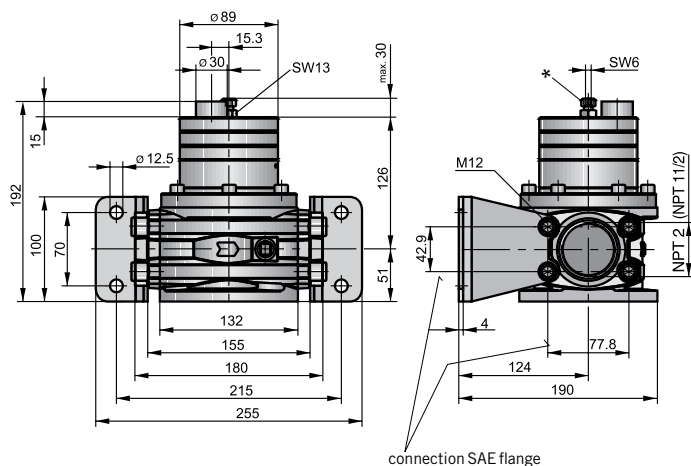
Start valve

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

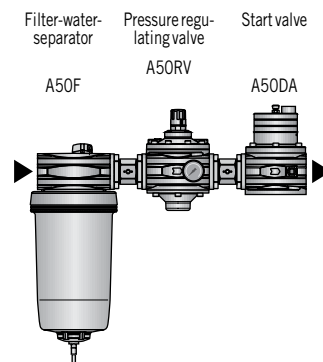
The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the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

Start valve – Typ: A50DA-1 1/2, -2

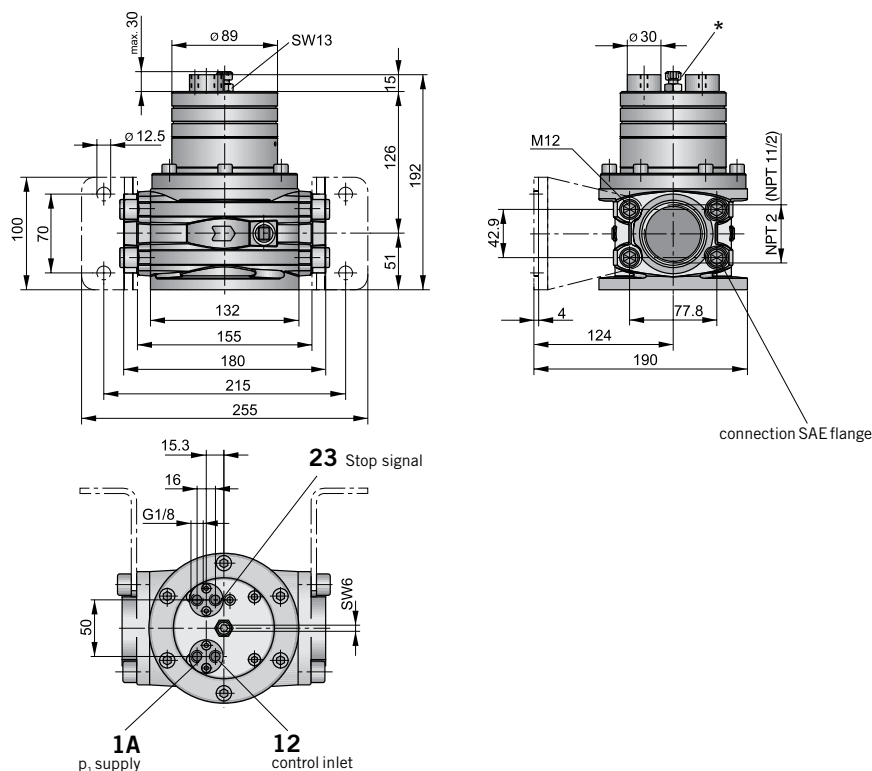


* Adjusting screw for start time selection (socket head screw SW 6)

Installation instruction for start valve



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

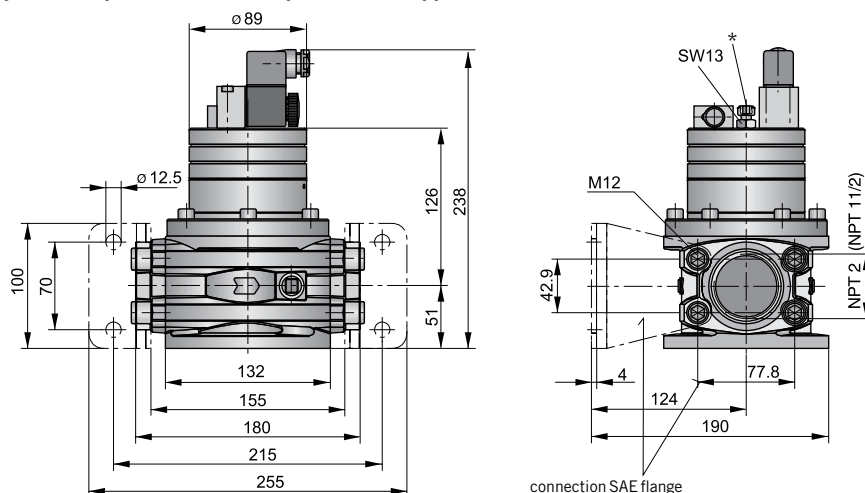


* Adjusting screw for start time selection (socket head screw SW 6)

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



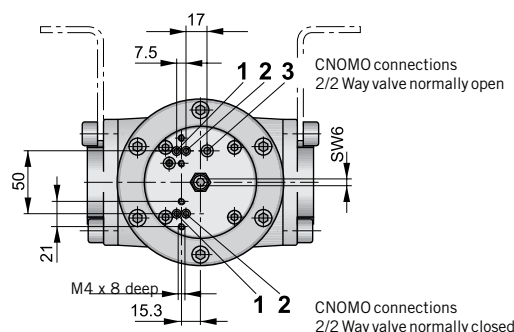
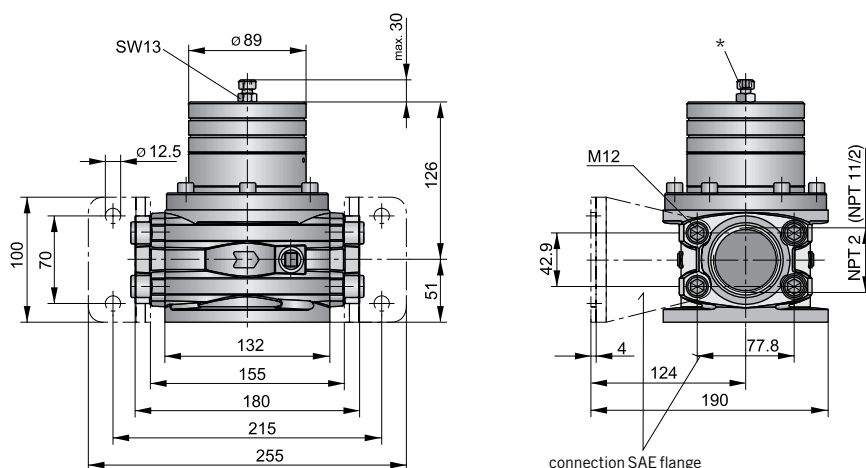
* Adjusting screw for start time selection (socket head screw SW 6)

Air preparation units

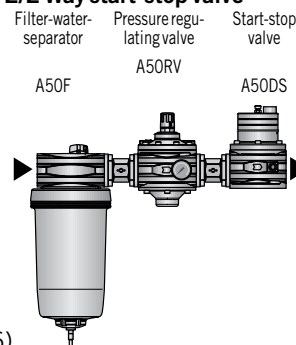
Series airfit A50
NPT 11/2, NPT 2
– with/without thread
flanges

Dimensions

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



Installation instruction for 2/2 Way start-stop valve



* 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

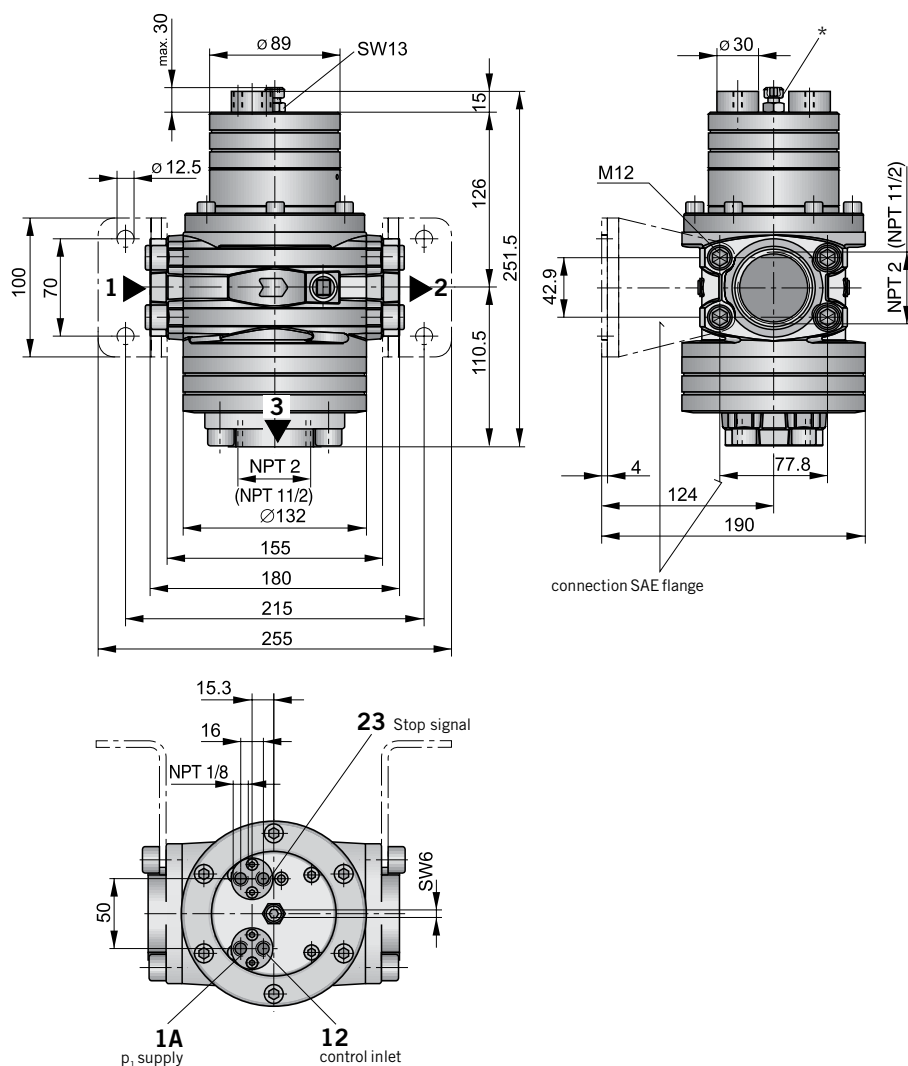
Series airfit A50
NPT 11/2, 2
– with/without thread
flanges

Dimensions

3/2 Way start-stop valve

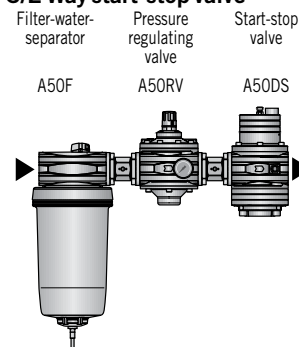
The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the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

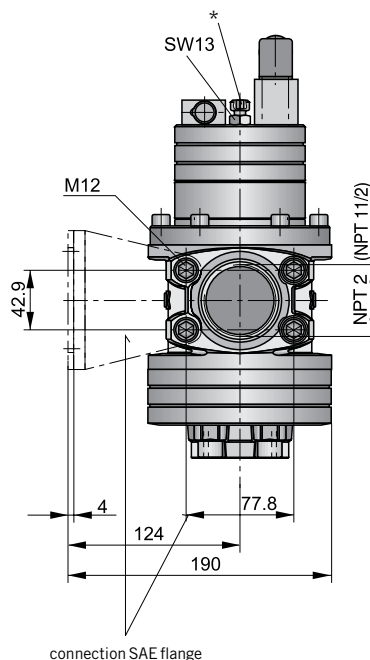
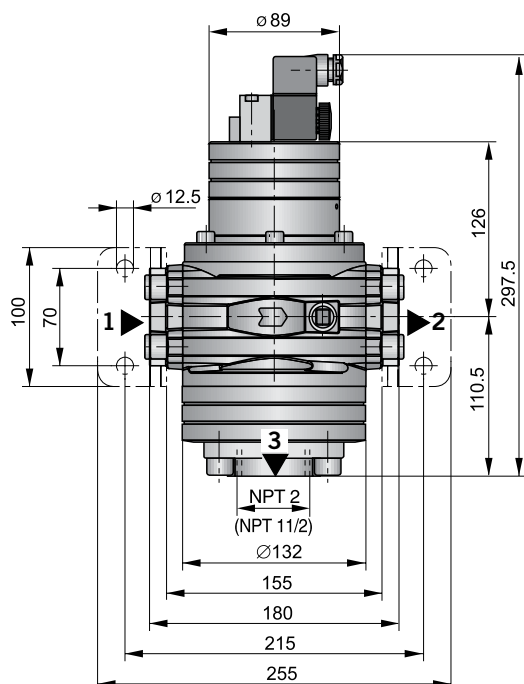
Installation instruction for 3/2 Way start-stop valve



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-11/2, -2



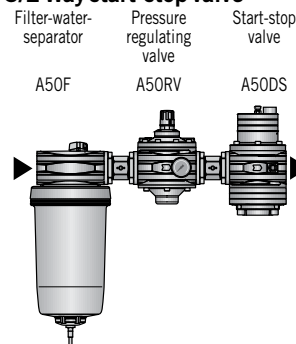
Air preparation units

Series airfit A50
NPT 11/2, 2
– with/without thread
flanges

Dimensions

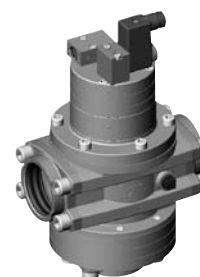
* Adjusting screw for start time selection
(socket head screw SW 6)

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

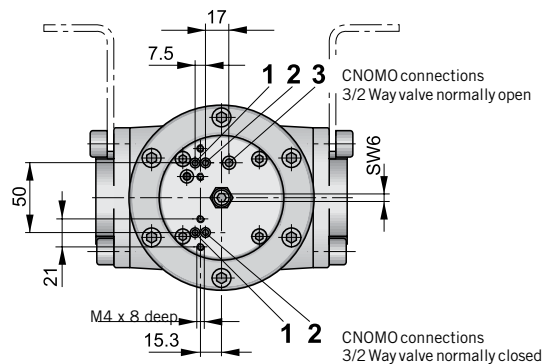
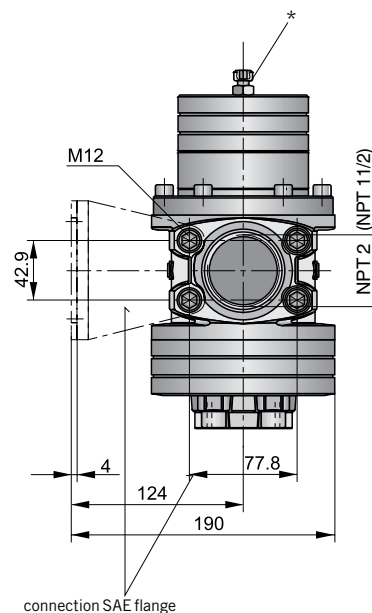
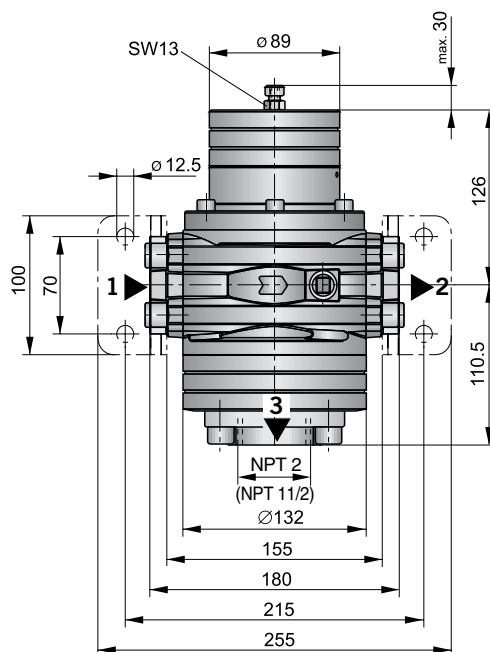


Air preparation units

Series airfit A50
NPT 11/2, 2
– with/without thread
flanges

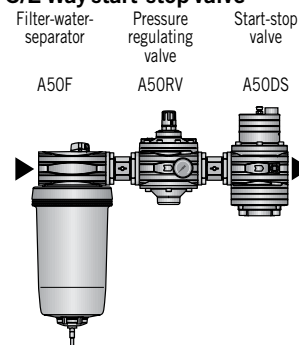
Dimensions

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

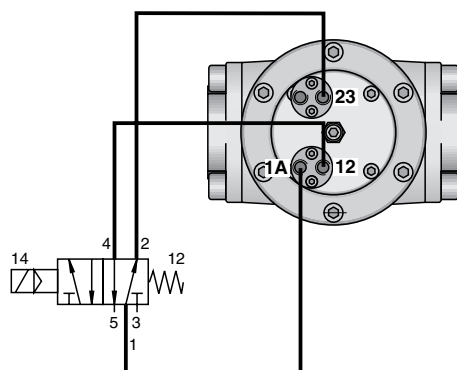


For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

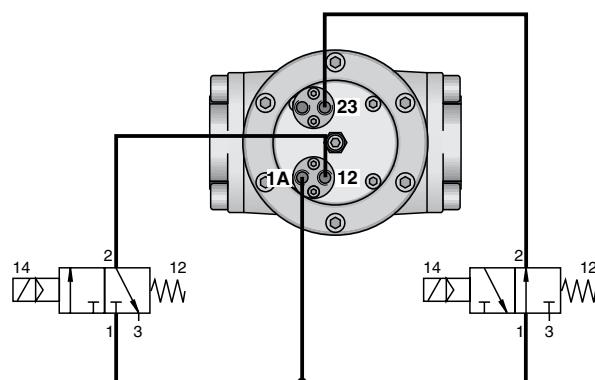
Dimensions in mm

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
NPT 1 1/2, 2
– with/without thread
flanges

Control types



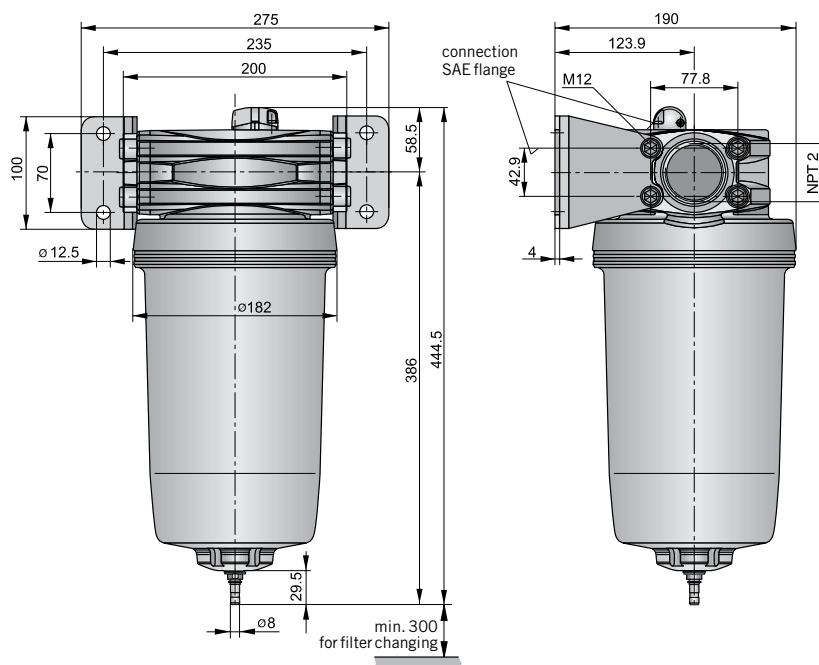
For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

Dimensions in mm

Air preparation units

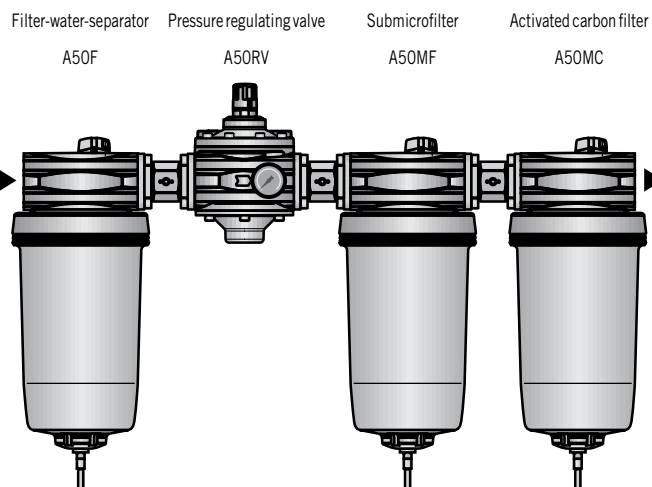
Series airfit A50
NPT 11/2, 2
– with/without thread
flanges

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



Installation instruction

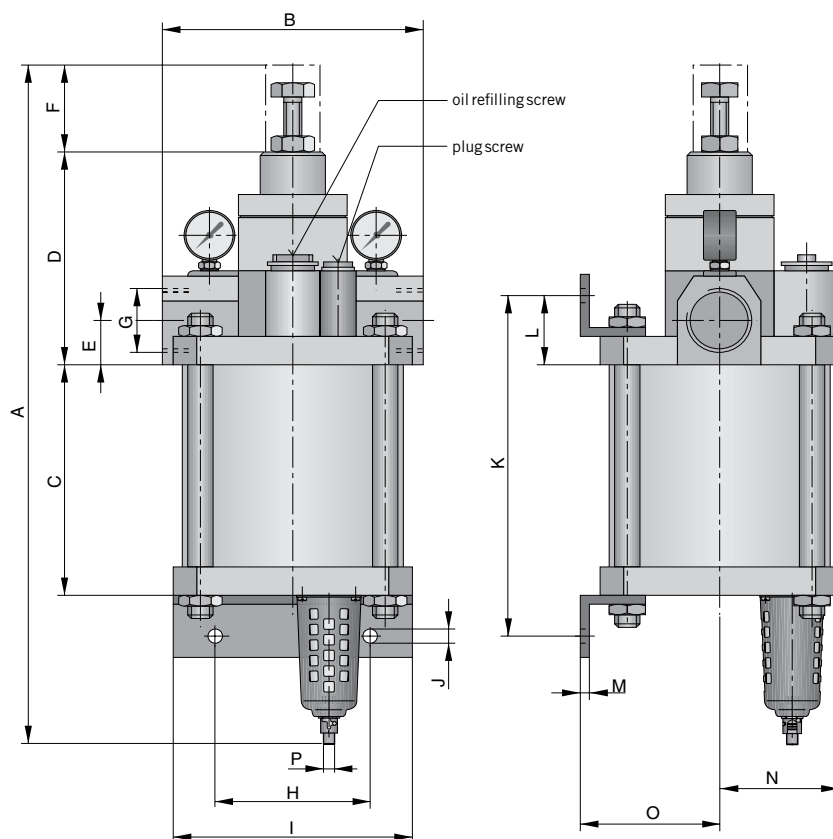
To increase the life span of the filter elements, we recommend the following order.



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



Air preparation units

*Series airfit A50
NPT 11/2, 2
– with/without thread
flanges*

Dimensions

Central air line lubricator

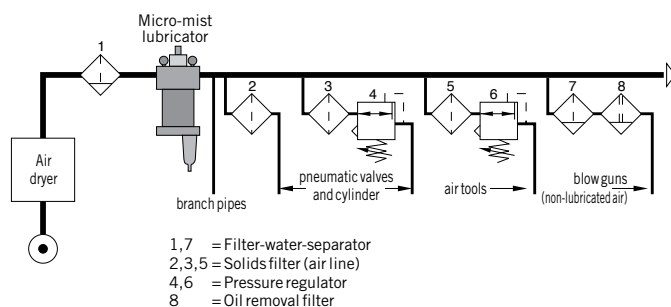
Micro-mist lubricator with oil-feed adjustment depending on differential pressure.
Comprising:
lubricator unit, 2 gauges,
and mounting bracket

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

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

NPT 1 1/2, 2

– with/without thread flanges

Order instructions

Standard versions

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

Filter-water-separator

– Basic version		For SAE flange	A50F-ADV	PB60949-N000
– Basic version with filter element 5 µm		For SAE flange	A50F-5ADV	PB 60949-N016
– Basic version with connection flange*		NPT 1 1/2	A50F-1 1/2-ADV	PB 60849-N050
– Basic version with connection flange*		NPT 2	A50F-2-ADV	PB 60949-N050
– Version with connection flange* (with filter element 5 µm)		NPT 1 1/2	A50F-1 1/2-5ADV	PB 60849-N066
– Version with connection flange* (with filter element 5 µm)		NPT 2	A50F-2-5ADV	PB 60949-N066
– Dust filter basic version (with filter element 1 µm)		For SAE flange	A50FD-DV	PB 60949-N120
– Dust filter with connection flange* (with filter element 1 µm)		NPT 1 1/2	A50FD-1 1/2-DV	PB 60849-N170
– Dust filter with connection flange* (with filter element 1 µm)		NPT 2	A50FD-2-DV	PB 60949-N170

Pressure regulating valve

– Basic version with integrated pilot pressure regulating valve		For SAE flange	A50R	PB60649-N021
– Basic version pilot operated (without pilot regulator)		For SAE flange	A50RV	PB60649-N000
– Version with connection flange* with integrated pilot pressure regulating valve		NPT 1 1/2	A50R-1 1/2	PB60549-N070
– Version with connection flange* with integrated pilot pressure regulating valve		NPT 2	A50R-2	PB60649-N070
– Version with connection flange* pilot operated (without pilot regulator)		NPT 1 1/2	A50RV-1 1/2	PB60549-N050
– Version with connection flange* pilot operated (without pilot regulator)		NPT 2	A50RV-2	PB60649-N050

* Connection flanges are not supplied assembled



Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

Start valve

– Start valve without connection flange		For SAE flange	A50DA	PB 60649-N100
– Start valve with connection flange*		NPT 1 1/2	A50DA-1 1/2	PB 60549-N150
		NPT 2	A50DA-2	PB 60649-N150

2/2 Way start-stop valve

– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-N200
– pneumatically actuated with connection flange*		NPT 1 1/2	A50DS-1 1/2-P	PB 60549-N250
		NPT 2	A50DS-2-P	PB 60649-N250
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-N204
with connection flange*		NPT 1 1/2	A50DS-1 1/2-E	PB 60549-N254
		NPT 2	A50DS-2-E	PB 60649-N254
– electrically actuated 24V DC		For SAE flange	A50DS-E	PB 60649-N201
with connection flange*		NPT 1 1/2	A50DS-1 1/2-E	PB 60549-N251
		NPT 2	A50DS-2-E	PB 60649-N251
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-N210
with connection flange*		NPT 1 1/2	A50DS-1 1/2-C	PB 60549-N260
		NPT 2	A50DS-2-C	PB 60649-N260

3/2 Way start-stop valve

– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-N220
– pneumatically actuated with connection flange*		NPT 1 1/2	A50DS-1 1/2-P	PB 60549-N270
		NPT 2	A50DS-2-P	PB 60649-N270
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-N224
with connection flange*		NPT 1 1/2	A50DS-1 1/2-E	PB 60549-N274
		NPT 2	A50DS-2-E	PB 60649-N274

For more types see page 110

Air preparation units

Series airfit A50

NPT 1 1/2, 2

– with/without thread flanges

Order instructions

* Connection flanges are not supplied assembled



Air preparation units

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

Order instructions

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-N221
– electrically actuated 24V DC with connection flange*		NPT 1 1/2	A50DS-1 1/2-E	PB 60549-N271
		NPT 2	A50DS-2-E	PB 60649-N271
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-N230
		NPT 1 1/2	A50DS-1 1/2-C	PB 60549-N280
with connection flange*		NPT 2	A50DS-2-C	PB 60649-N280

Submicrofilter

– with automatic drainage		For SAE flange	A50MF1080-ADV	PB 61249-N000
– with automatic drainage with connection flange*		NPT 1 1/2	A50MF1080-11/2-ADV	PB 61149-N050
		NPT 2	A50MF1080-2-ADV	PB 61249-N050

Activated carbon filter

– Basic version		For SAE flange	A50MC1080-DV	PB 61549-N000
– Basic version with connection flange*		NPT 1 1/2	A50MC1080-11/2-DV	PB 61449-N050
		NPT 2	A50MC1080-2-DV	PB 61549-N050

Central air line lubricator

– Basic version with aluminum tube with electrical oil level control	NPT 1	EL-25	PB 15749-N020
	NPT 2	EL-50	PB 15549-N020
	NPT 2	EL-50-E	PB 15549-N026

Accessories

Description	For type	Order No.
Mounting kit (2 brackets + 4 screws)		PL18672
Gauge, Ø 50 mm, 0–16 bar, NPT 1/4 *		KG8013
Coupling kit		PL18735
Connection flange (kit) NPT 1 1/2		PL18660
Connection flange (kit) NPT 2		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



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

Air preparation units

Series airfit A50
NPT 1 1/2, 2

Accessories
– Porting block kit

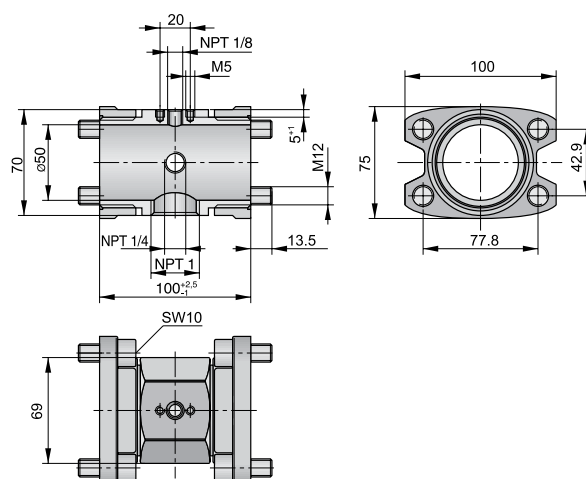
To provide unlubricated air
e.g. for air gun.

For pressure switch mounting
as standard

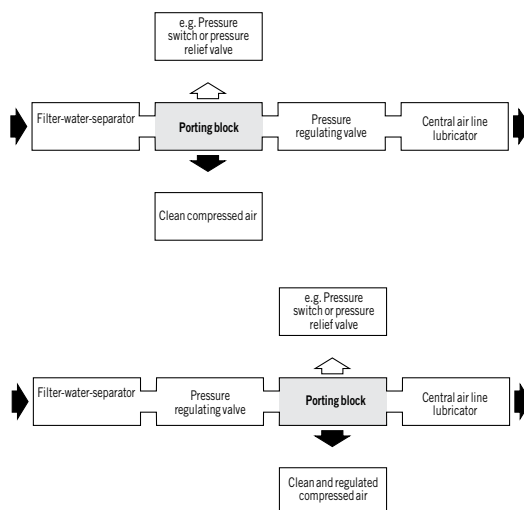
Delivery includes:

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

Dimensions



Installation instruction



Order instructions

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

Dimensions in mm



Air preparation units

*Series airfit A50
NPT 1 1/2, 2*

Accessories

Mounting kit



Order No. PL18672

Coupling kit



Order No. PL18735

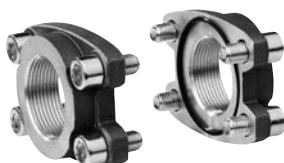
Gauge
Ø 50, 0–10 bar, G1/4



Order No.
KG8012-00 (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 NPT 1/2, DV-1/2e	114, 115	116, 117	118
Drain valve NPT 1/2, 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 management
airfit drain
NPT 1/2, 3/4*



Air preparation units

Condensate management airfit drain
NPT 1/2, 3/4

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	NPT 1/2	
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 °C	2 70 (120 on request)	2 100	
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		m ³ /min	–	–	
– Max. dryer capacity		m ³ /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
NPT 1/2, 3/4*

Characteristics

Drain valve DV-1/2e2	Float controlled drain valve, DV-3/4
Float controlled condensate drain valve (fully automatic)	Electronically controlled condensate drain valve without air consumption
NPT 1/2	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
NPT 1/2*

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 Parker ORIGA A25 and A50 series.

Delivery includes:

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

Drain valve DV-1/2e

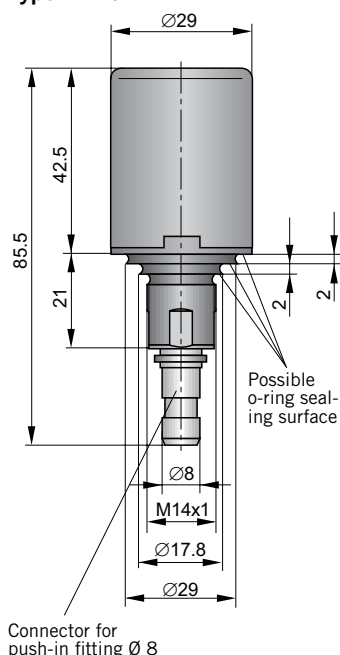
Float-controlled drain valve for automatic drainage of condensate from compressed air lines and compressors. Tackles highly polluted condensate without problems.

Installation instruction:

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

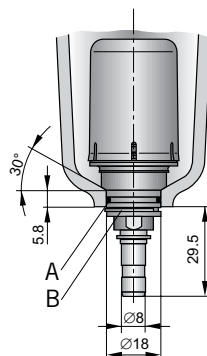


Type: DV-1/2i



Type: DV-1/2i

– for series airfit A25, A50

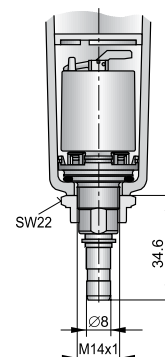


Installation instruction DV-1/2i

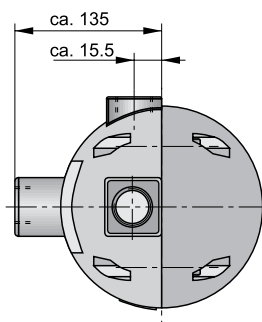
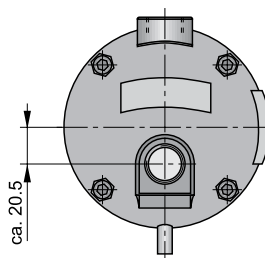
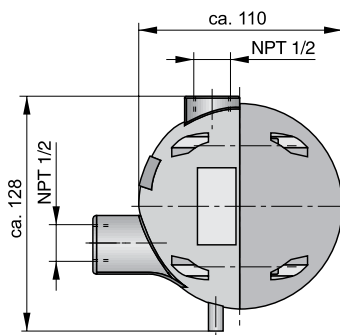
1. Lightly grease seal ring A before assembly.
2. Insert the drain valve into the bowl from the top.
3. Secure the drain valve outside the bowl with circlip B.

Type: DV-1/4i

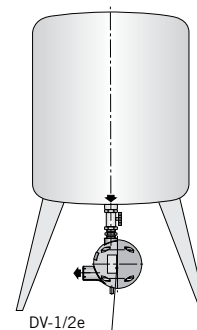
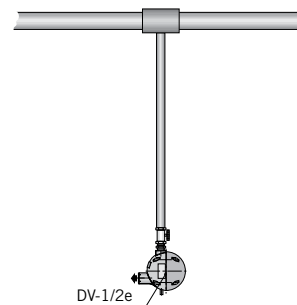
– for series airfit swing



Type: DV-1/2e



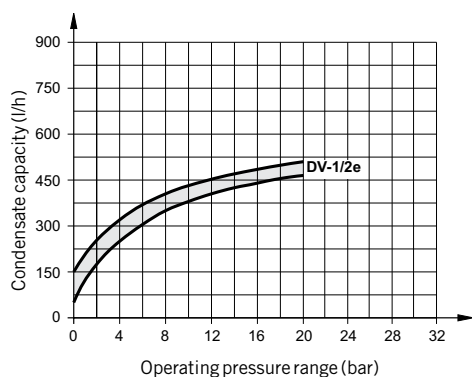
Installation instruction Type: DV-1/2e



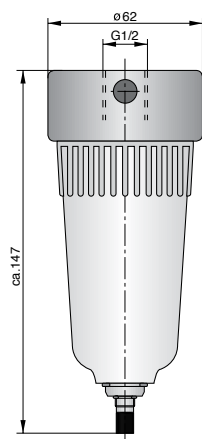
For order instructions see page 118, for characteristics see page 114, 115

Dimensions in mm

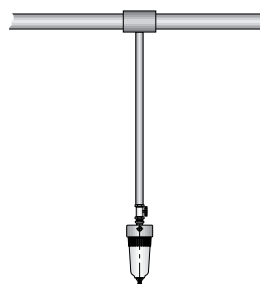
Condensate capacity – Type: DV-1/2e



Type: DV-1/2e2



Installation instruction Type: DV-1/2e2



Air preparation units

*Condensate management airfit drain
NPT 1/2*

Dimensions

Drain valve DV-1/2e2

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

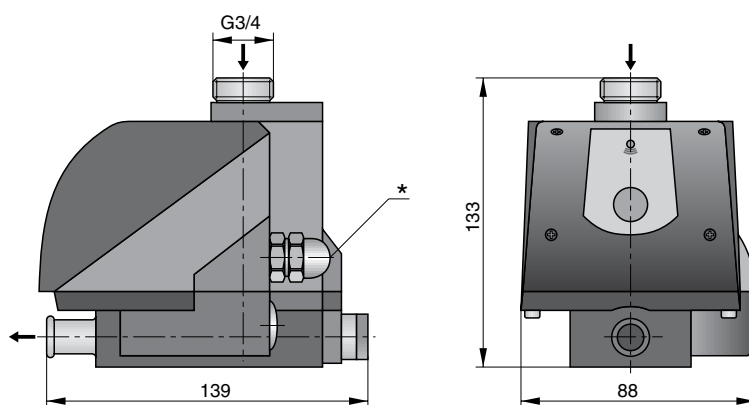
Installation instruction:
Generally at the lowest point, where condensate and oil collect.

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
NPT 1/4, 1/2, 3/4

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		NPT 1/2	DV-1/2e	KG6099
Drain valve, fully automatic condensate drainage		NPT 1/2	DV-1/2e2	PL 18040
Float controlled drain valve, electronically actuated		NPT 3/4	DV3/4e	PBZ 5049-N000



Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
airfit control Electronically controlled proportional pressure regulating valve NPT 1/4, 3/8, Type SRE-..	120–125	126	128
airfit control Electronically controlled proportional pressure regulating valve NPT 3/8, 1/2, Type CRE-..	120–125	126	129
airfit control Electronically controlled proportional pressure regulating valve NPT 3/4, 1, Type A25RE-..	120–125	127	128
airfit control Electronically controlled proportional pressure regulating valve NPT 1 1/2, 2, Type A50RE-..	120–125	127	129
tecno basic Electronically controlled proportional pressure regulating valve NW 2.5 and NPT 1/8, Type PRE-.	132–137	139, 140	141
tecno plus Electronically controlled proportional pressure regulating valve NW 6 and NPT 1/4, 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
NPT 1/4 – 2*

*Series tecno basic
NW 2.5, NPT 1/8*

*Series tecno plus
NW 6, NPT 1/4*



Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

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			NPT 1/4	NPT 3/8	NPT 3/8	NPT 1/2	
Installation			In any position		In any position		
Weight (mass)		kg	0.6	0.6	0.95	0.95	
Medium and ambient temperatures	T _{min} T _{max}	°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 ¹⁾	p _{1min}	bar	0	0	0	0	
	p _{1max}	bar	16	16	16	16	
Operating pressure range – outlet pressure	p _{2min}	bar	0	0	0	0	
	p _{2max}	bar	10	10	10	10	
Maximum flow ²⁾	Q _N	l/min m ³ /h	2200	2500	4500	6000	
			132	150	270	360	
Hysteresis ³⁾	p _{2max}	%	< 1	< 1	< 1	< 1	
Repeatability ³⁾	p _{2max}	%	< 0.5	< 0.5	< 0.5	< 0.5	
Sensitivity ³⁾	p _{2max}	%	< 0.5	< 0.5	< 0.5	< 0.5	
Linearity ³⁾	p _{2max}	%	< 1	< 1	< 1	< 1	
Electrical characteristics							
Nominal voltage	U _N	V DC	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	
Residual ripple		%	10	10	10	10	
Power consumption	I _{Bmax}	A	0.15	0.15	0.15	0.15	
Set value input	U _W I	V	0–10	0–10	0–10	0–10	
		mA	0–20	0–20	0–20	0–20	
		mA	4–20	4–20	4–20	4–20	
Input resistance	R _E	kΩ	200	200	200	200	
Actual value output	U _X	V	0–10	0–10	0–10	0–10	
Output current	I _{Amax}	mA	20	20	20	20	
Degree of protection		IP	65 to DIN 40050, EN 60529		65 to DIN 40050, EN 60529		

- ¹⁾ $p_1 \geq p_2 + 10\% p_2$
²⁾ at $p_1 = 10$ bar to $p_2 = 6.3$ bar
³⁾ see explanation on page 122

Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

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-11/2	A50RE-2
	Diecast aluminum			
	NBR			
	NBR			
	NPT 3/4	NPT 1	NPT 11/2	NPT 2
	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



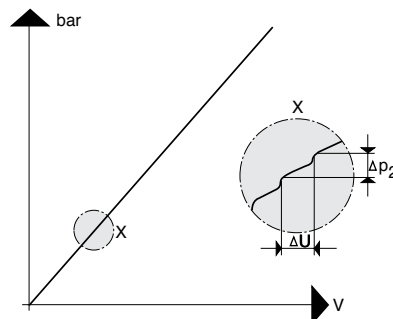
Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

Definitions

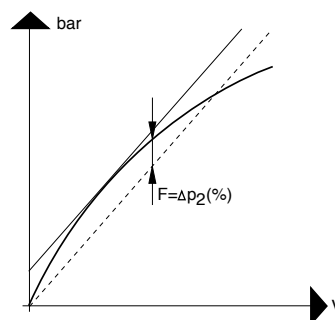
Sensitivity

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.



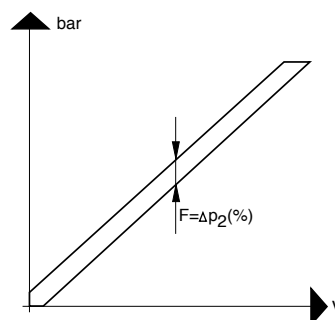
Linearity

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.



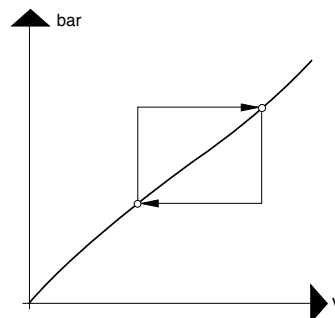
Hysteresis

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.

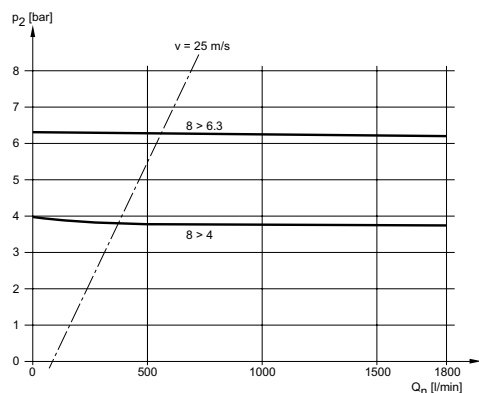


Repeatability

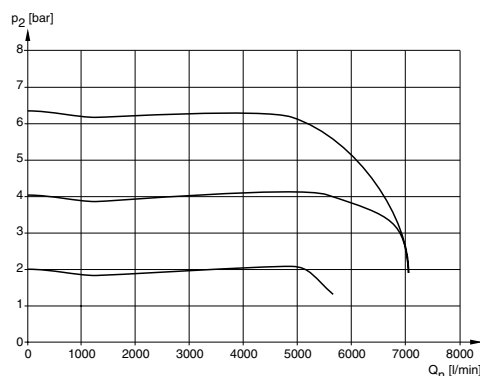
Control components for a given set value usually produce repeated actual values that differ less from each other than from the absolute set value, because the relatively large linearity deviation is excluded. Repeatability is improved if hysteresis is minimized.



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



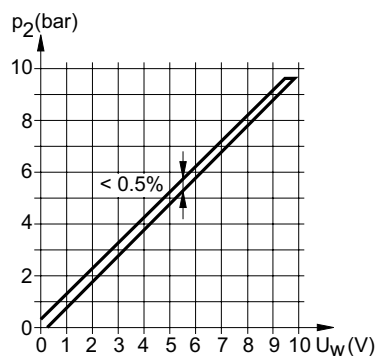
Type: CRE-1/2



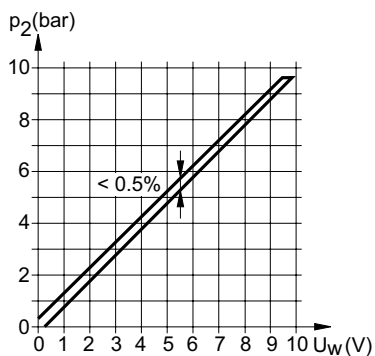
Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

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

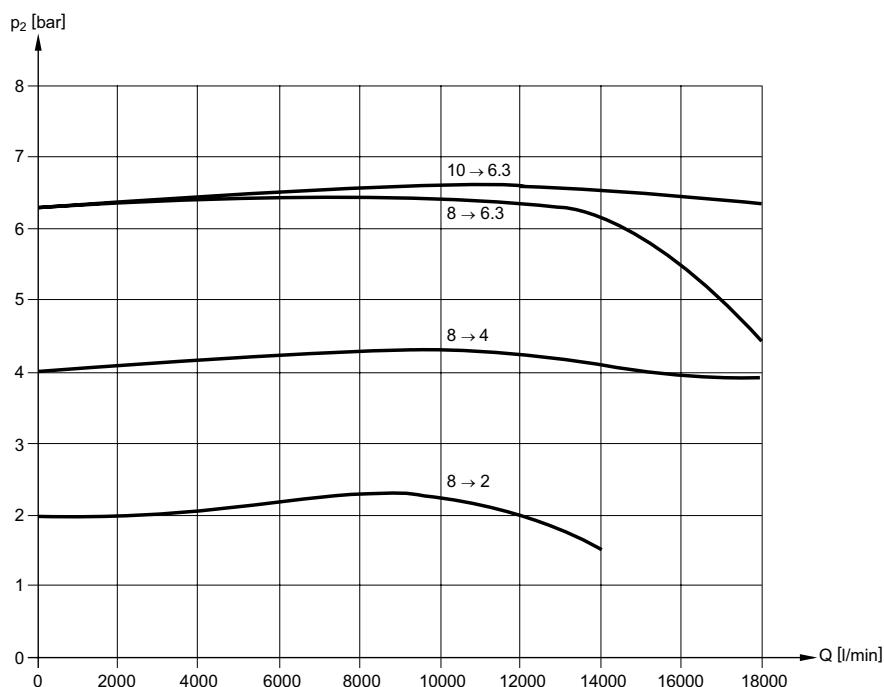


Output pressure as function of input voltage
Type: CRE-1/2



Flow characteristics

Type: A25RE-1

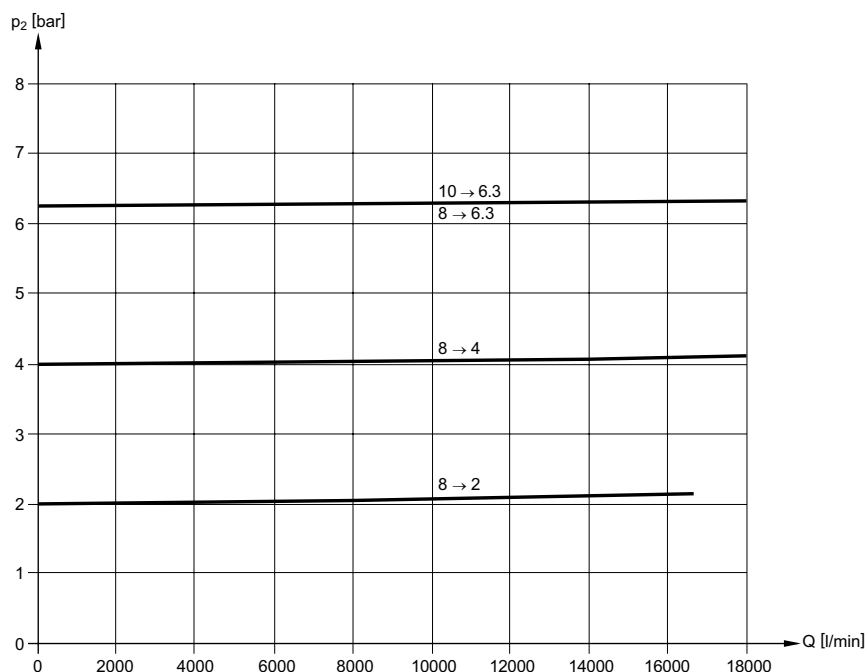


Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

Flow characteristics

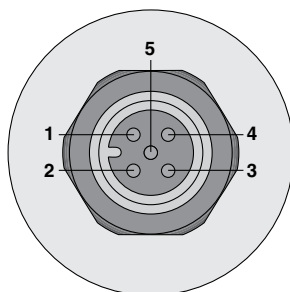
Type: A50RE-2



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)

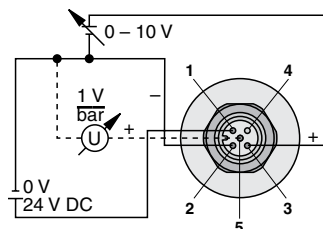
Pin 5:

Analog actual value output
0–10 V
Tolerance ± 0.15 V

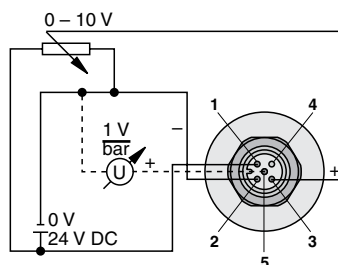


Control options—Type: SRE-..., CRE-...

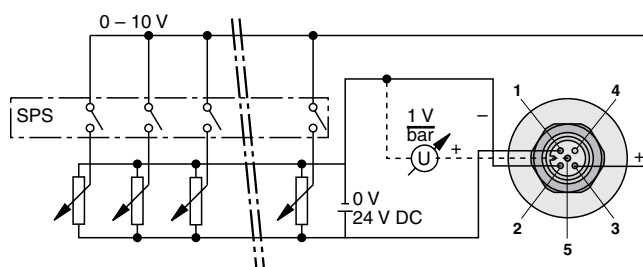
Analog voltage



With a single potentiometer



PLC in connection with several potentiometers



The total resistance of the potentiometer series should not be less than 500 W

The resistance of the potentiometer should range between 500 W and 100 kW

Electronically controlled proportional pressure regulating valves

*Series airfit control
NPT 1/4 – 2*

Characteristics

Connection diagrams

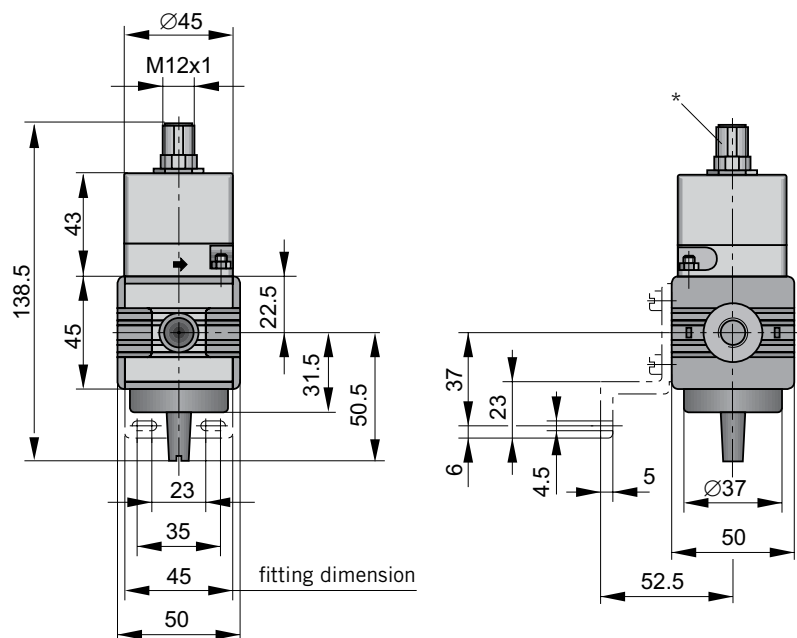


Electronically controlled proportional pressure regulating valves

Series airfit control
NPT 1/4 – 2

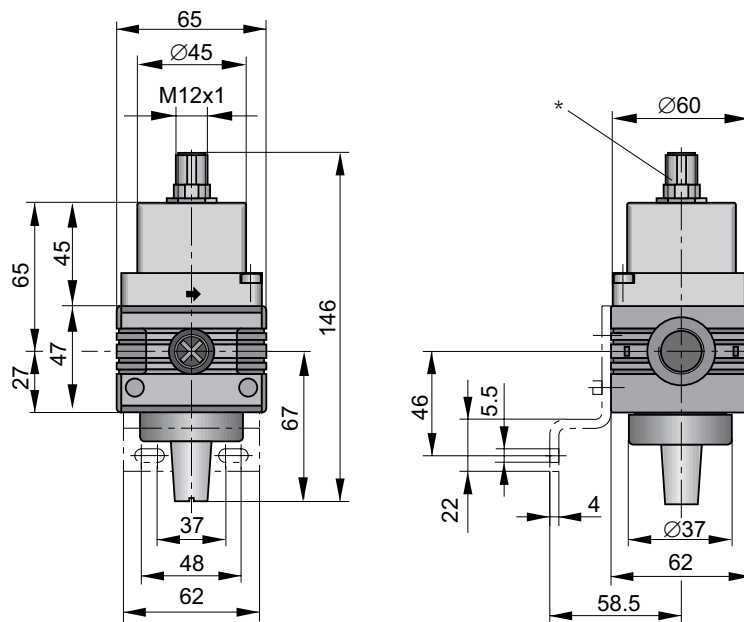
Dimensions

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



* Connection for 5-pin plug M12x1

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



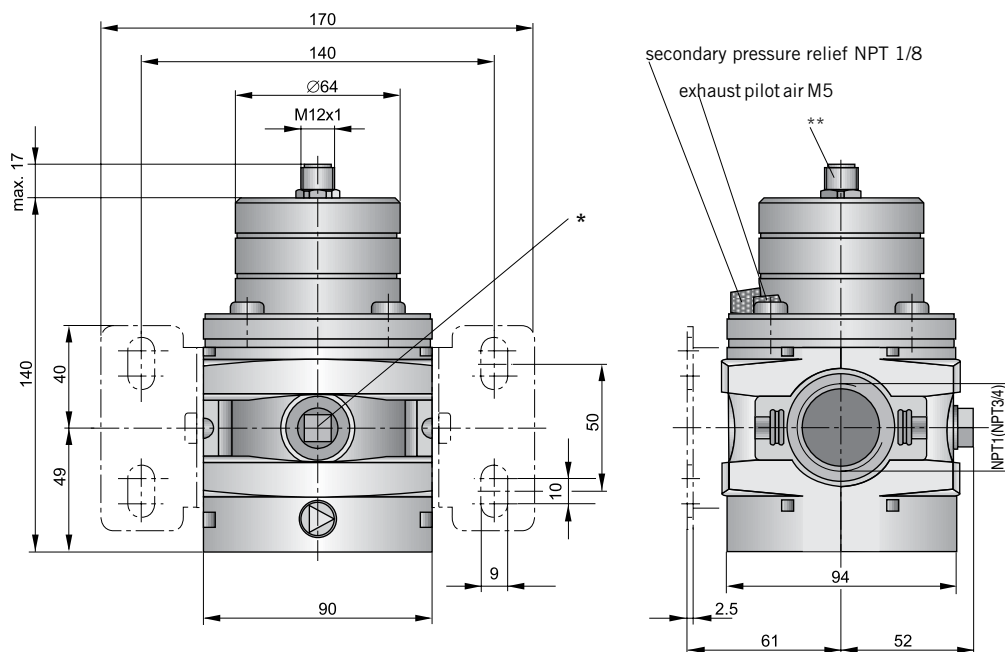
* Connection for 5-pin plug M12x1



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 NPT 1/4, plug screw mounted

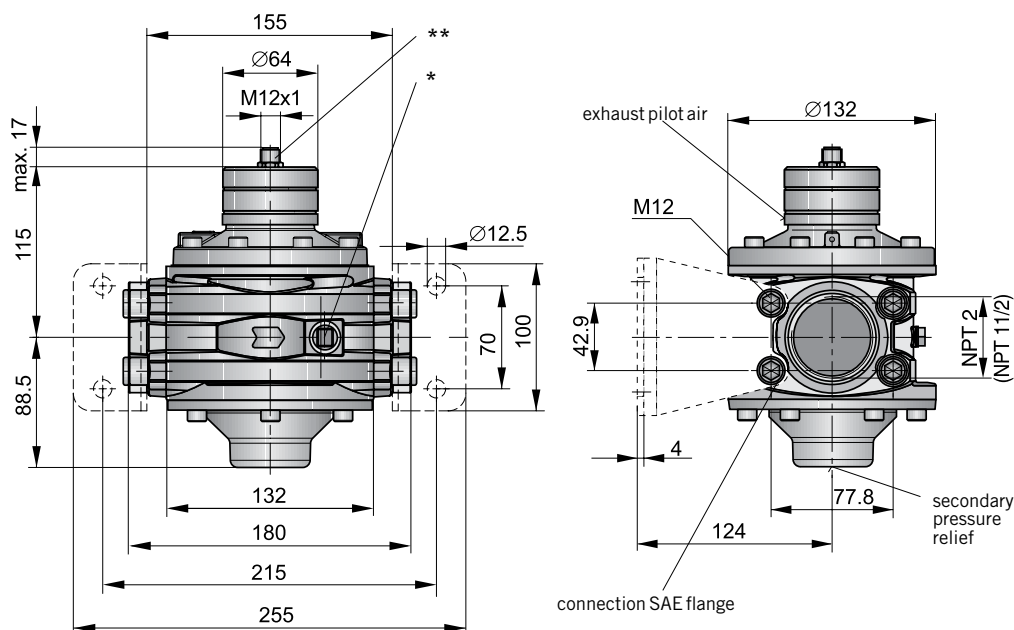
** Connection for 5-pin plug M12x1

Electronically controlled proportional pressure regulating valves

*Series airfit control
NPT 1/4 – 2*

Dimensions

Type: A50RE-11/2, -2



* Two opposite gauge ports NPT 1/4, 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
NPT 1/4 – 2

Order instructions

airfit control NPT 1/4, 3/8

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

airfit control NPT 3/4, 1

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



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

airfit control NPT 3/8, 1/2

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

airfit control NPT 11/2, 2

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		NPT 11/2	A50RE-U-11/2-NG	PB 60549-10000N-XXX
	10		NPT 2	A50RE-U-2-NG	PB 60649-10000N-XXX
Versions for set value 0–20 mA and 4–20 mA			NPT 11/2, 2	On request	On request
Versions for NO (normally open) functions			NPT 11/2, 2	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 NPT 11/2 (kit)	airfit A50	A50RE	PL18660
Connection flange NPT 2 (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
NPT 1/4 - 2

Order instructions

Configurable electronically proportional pressure regulating valve airfit control

Configurable electronically proportional pressure regulating valve unit code:

Order No.	PB	598	49	–	01	0	0	0	0	N	–	XXX
<div><div><div>Series</div><div><div>598</div><div>SRE-1/4</div></div><div><div>599</div><div>SRE-3/8</div></div><div><div>601</div><div>CRE-3/8</div></div><div><div>602</div><div>CRE-1/2</div></div><div><div>643</div><div>A25RE-3/4</div></div><div><div>644</div><div>A25RE-1</div></div><div><div>605</div><div>A50RE-11/2</div></div><div><div>606</div><div>A50RE-2</div></div></div><div><div>Outlet pressure range</div><div><div>01</div><div>0–1 bar</div></div><div><div>02</div><div>0–2 bar</div></div><div><div>03</div><div>0–3 bar</div></div><div><div>04</div><div>0–4 bar</div></div><div><div>05</div><div>0–5 bar</div></div><div><div>06</div><div>0–6 bar</div></div><div><div>07</div><div>0–7 bar</div></div><div><div>08</div><div>0–8 bar</div></div><div><div>09</div><div>0–9 bar</div></div><div><div>10</div><div>0–10 bar</div></div><div><div>XX</div><div>Special pressure range</div></div></div><div><div>Set value input</div><div><div>0</div><div>0–10 V</div></div><div><div>1</div><div>4–20 mA</div></div><div><div>2</div><div>0–20 mA</div></div><div><div>X</div><div>Special set value input</div></div></div><div><div>Version</div><div><div>0</div><div>NC (normally closed)</div></div><div><div>1</div><div>NO (normally open)</div></div></div></div> <div><div><div>3-digit special number</div><div>XXX</div><div>Standard design or as plain text e.g. special connector, special resistance, special setting areas, accessories fitted etc.</div></div><div><div>Sealing material</div><div><div>N</div><div>NBR (standard)</div></div><div><div>V</div><div>Viton (e.g. for oxygen)</div></div><div><div>X</div><div>Special material</div></div></div><div><div>Actual output</div><div><div>0</div><div>0–10 V</div></div><div><div>1</div><div>0–1 V</div></div><div><div>2</div><div>0–2 V</div></div><div><div>3</div><div>0–3 V</div></div><div><div>4</div><div>0–4 V</div></div><div><div>5</div><div>0–5 V</div></div><div><div>6</div><div>0–6 V</div></div><div><div>7</div><div>0–7 V</div></div><div><div>8</div><div>0–8 V</div></div><div><div>9</div><div>0–9 V</div></div><div><div>X</div><div>Special actual output</div></div></div></div>												



Mounting kit
for Type: SRE-..



Order No. PL16965

Mounting kit
for Type: CRE-..



Order No. PL17518

Mounting kit
for Type: A25RE-..



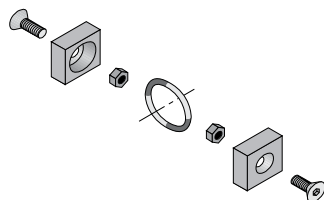
Order No. PL18988

Electronically controlled proportional pressure regulating valves

*Series airfit control
NPT 1/4 – 2*

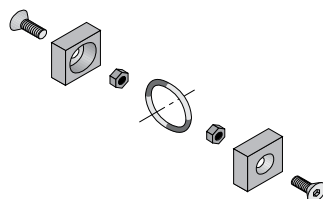
*Accessories
– Mounting kit
– Coupling kit*

Coupling kit
for Type: SRE-..



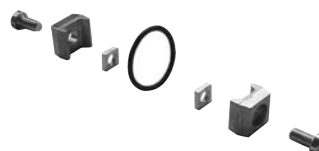
Order No. PL16959

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
NPT 1/8, NW 2.5

Series tecno plus
NPT 1/4, NW 6

Characteristics

- ¹⁾ Other pressure ranges on request.
- ²⁾ At $p_1 = 10$ bar and $p_2 = 6.3$ bar, $Dp = 1$ bar.
- ³⁾ At ambient temperature 20°C.
- ⁴⁾ Relative to p_{2max} .
- ⁵⁾ At p_1 max.
- ⁶⁾ 2-wire technology, i.e. power supply and set value via the same cable.
- ⁷⁾ Higher voltage will damage the valve.
- ⁸⁾ Flange plates with screw thread, see accessories.
- ⁹⁾ Output is switching "ON" when output pressure is equivalent \pm tolerances to set value, and "OFF" when the output pressure is outside this limit.
- ¹⁰⁾ With connector and exhaust ported, booster (3) and pilot (y).
- ¹¹⁾ During connection with protected cable and plug. Screen only presented on main unit.
- ¹²⁾ 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 ¹⁾			0–8 bar	0–2 bar	
Port size			NPT 1/8	NPT 1/8	
Mounting			Flange ⁸⁾	Flange ⁸⁾	
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 _{min}	°C	0	0	
	T _{max}	°C	+50	+50	
Storage temperature	T _{min}	°C	-20	-20	
	T _{max}	°C	+60	+60	
Medium			Filtered, dry, lubricated ⁽¹⁾ or oil-free compressed air 30µm (recommended 5 µm) dried to ISO8573-1, Kl. 3		
Lubrication			Oil-free or max. 30 mg/m ³ 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 _n	bar	6.3	6.3	
Pressure range, inlet	p _{1min}	bar	1.5	1.5	
	p _{1max}	bar	10	6	
Pressure range, outlet ¹⁾	p _{2min}	bar	0	0	
	p _{2max}	bar	8	2	
Maximum flow rate ²⁾	Q _N	l/min m ³ /h	350 ²⁾ 21	200 ²⁾ 12	
Hysteresis ⁴⁾	p _{2max}	%	< 0.2	< 0.2	
Repeatability ⁴⁾	p _{2max}	%	< 0.2	< 0.2	
Responsiveness ⁴⁾	p _{2max}	%	< 0.1	< 0.1	
Linearität ⁴⁾	p _{2max}	%	≤ 0.6	≤ 0.5	
Own air consumption ⁵⁾		NI/min	< 0.5	< 0.5	
Electrical characteristics – Type PRE-U					
Nominal voltage	U _N	V DC	24 ± 10%	24 ± 10%	
Nominal power	P _N	W	0.4	0.4	
Residual ripple	U _N	%	10	10	
Current consumption	I _{Bmax}	A	15	15	
Set value input	U _w	V	0–10	0–10	
Input resistance	R _E	kW	66	66	
Scale	W/p _s	V/bar	1	5	

for further characteristics see page 135–136



Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series *tecno basic*
NPT 1/8, NW 2.5

Series *tecno plus*
NPT 1/4, 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
	NPT 1/8	NPT 1/4	NPT 1/4	NPT 1/4
	Flange ⁸⁾	Flange ⁸⁾	Flange ⁸⁾	Flange ⁸⁾
	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 ¹⁾ 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 ³ 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 ²⁾ 6	1600 ²⁾	1600 ²⁾	1100 ²⁾
	< 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
NPT 1/8, NW 2.5

Series tecno plus
NPT 1/4, 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 ⁶⁾	I_B	mA	4	4	
Set value input	W	mA	4–20	4–20	
Input resistance	R_E	kW	≤ 550	≤ 550	
Scale	W/p ₂	V/bar	2	8	
Input voltage max. ⁷⁾	U_{Wmax}	V	12.5	12.5	
General electrical characteristics					
Actual value output			Optional	Optional	
Output voltage ¹³⁾	U_x	V	p ₂ 0 bar = 0 p _{2 max} = 10	p ₂ 0 bar = 0 p _{2 max} = 10	
Output current max.	I_{xmax}	mA	1 (short circuit proof)	1 (short circuit proof)	
Accuracy	p _{2max}	%	–	–	
Cable connector			3 PIN connector, M8 or 4 PIN connector, M8		
EMC (electromagnetic compatibility)			Shielded connecting cables must be used ¹¹⁾		
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 ⁹⁾					
Output voltage	U_{out}	VDC			
Output current	I_{out}	mA			
Tolerance	p _{2max}	%			

¹⁾ Other pressure ranges on request.

²⁾ At p₁ = 10 bar and p₂ = 6.3 bar, Dp = 1 bar.

³⁾ At ambient temperature 20°C.

⁴⁾ Relative to p_{2max}.

⁵⁾ At p₁ max.

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

⁷⁾ Higher voltage will damage the valve.

⁸⁾ Flange plates with screw thread, see accessories.

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

¹⁰⁾ With connector and exhaust ported, booster (3) and pilot (y)

¹¹⁾ During connection with protected cable and plug.

Screen only presented on main unit.

¹²⁾ Plus taken output current of digital output pressure reached

¹³⁾ Only type PRE-U



Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series *tecno basic*
NPT 1/8, NW 2.5

Series *tecno plus*
NPT 1/4, 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 ₂ 0 bar = 0 p _{2 max} = 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 ¹⁰⁾ DIN EN 60529	65 ¹⁰⁾ DIN EN 60529	65 ¹⁰⁾ DIN EN 60529
	Port 2 exhaust	Port 2 exhaust	Port 2 exhaust	Port 2 exhaust
OFF = 0 ON = UN – 0.7V				
		≤ 200 ¹²⁾		
		± 2		



Electronically controlled proportional pressure regulating valves

with
PIEZO control

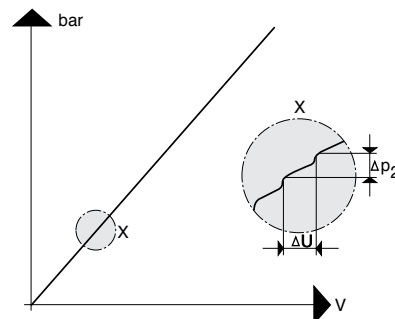
Series tecno basic
NPT 1/8, NW 2.5

Series tecno plus
NPT 1/4, NW 6

Characteristics

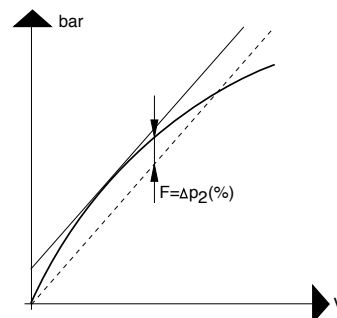
Sensitivity

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.



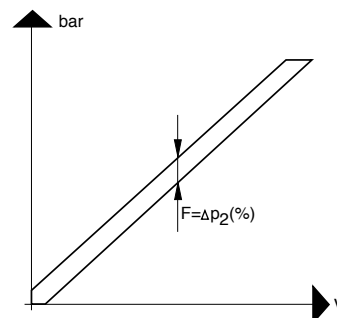
Linearity

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.



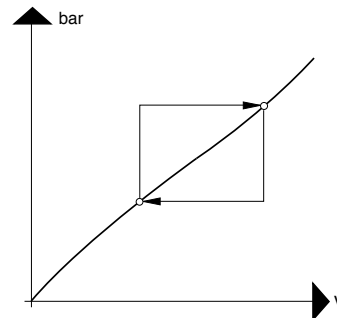
Hysteresis

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 Parker ORIGA 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.



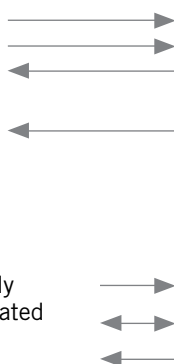
Design and Function

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
NPT 1/8, NW 2.5

Series tecno plus
NPT 1/4, NW 6

Design and function



Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series *tecno basic*
NPT 1/8, NW 2.5

Characteristics

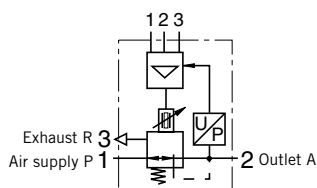
Connection diagrams

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.

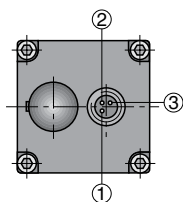
Symbol 3 PIN version



Color code

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

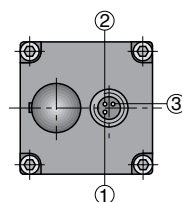
Connection diagram 1



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

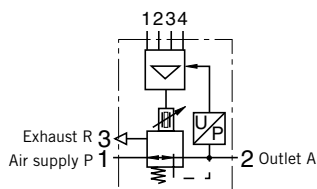
Connection diagram 2



Current controlled 4-20 mA, Type PRE-I (2-wire technology)

- 1, 2 = set value 4-20 mA, +
- 3 = set value GND

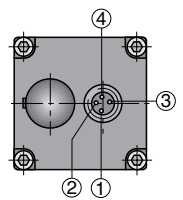
Symbol 4 PIN version



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

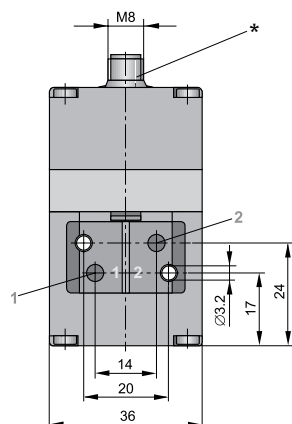


For order instructions see page 141, for characteristics see page 132-138, for accessories see page 140, 141

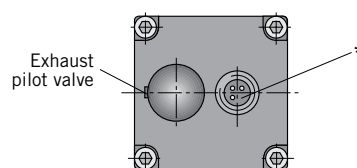
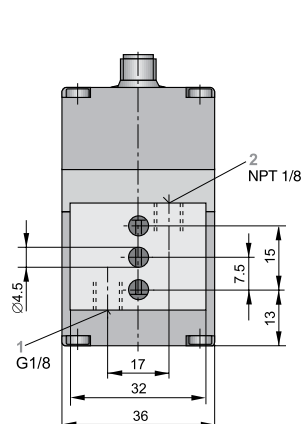
Dimensions in mm

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*
NPT 1/8, 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

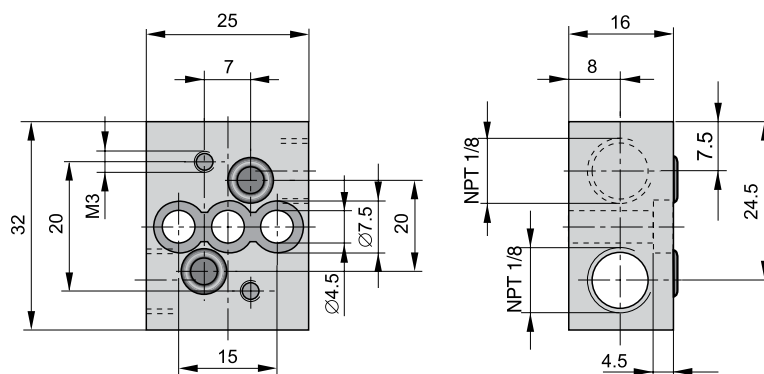
with
PIEZO control

Series tecno basic
NPT 1/8, NW 2.5

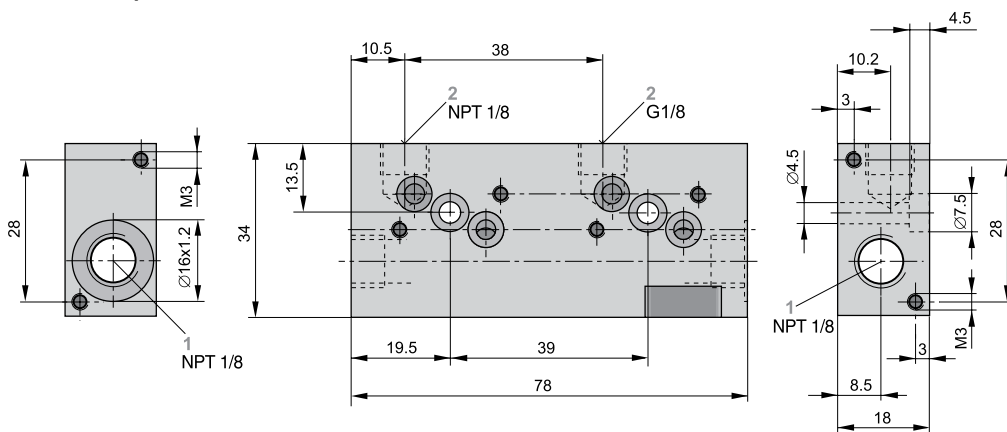
Base plates

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	
Version (set value type) with 3 PIN connector						Flange					
00 Voltage						0 Without flange					
01 Current 4–20 mA						5 Sidewise NPT 1/8					
Version with 4 PIN connector						Connection cable					
06 Voltage + actual value output						0 Without cable					
Pressure range						1 Cable, straight 3 PIN					
002 0.2 bar						2 Cable, elbow 3 PIN					
020 2 bar						3 Cable, straight 4 PIN					
080 8 bar						4 Cable, elbow 4 PIN					
Type variation											
0 Standard											

Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno basic
NPT 1/8, NW 2.5

Order instructions

Accessories

Description	Figure	Port size	Order No.
Single base plate		NPT 1/8	PS11112-A-01
2-fold base plate kit, complete, for serial connection		NPT 1/8	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

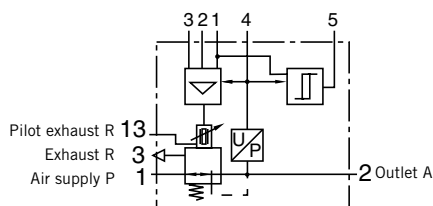
Series tecno plus
NPT 1/4, NW 6

Dimensions

Versions:

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

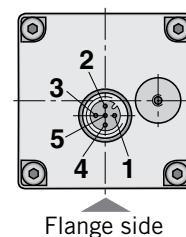
Symbol



Color code

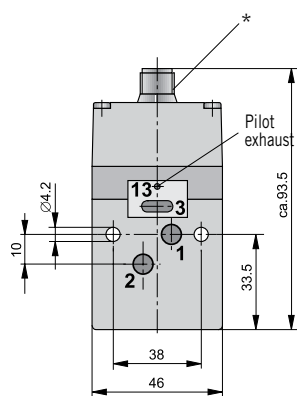
- 1 = brown
- 2 = white
- 3 = blue
- 4 = black
- 5 = gray

Connection diagram

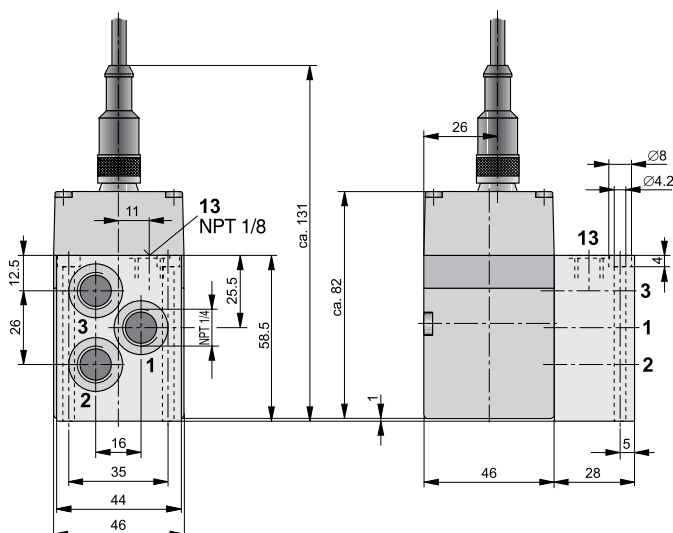


Version with 5 PIN connector M12 x 1, straight

without base plate



with single base plate



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



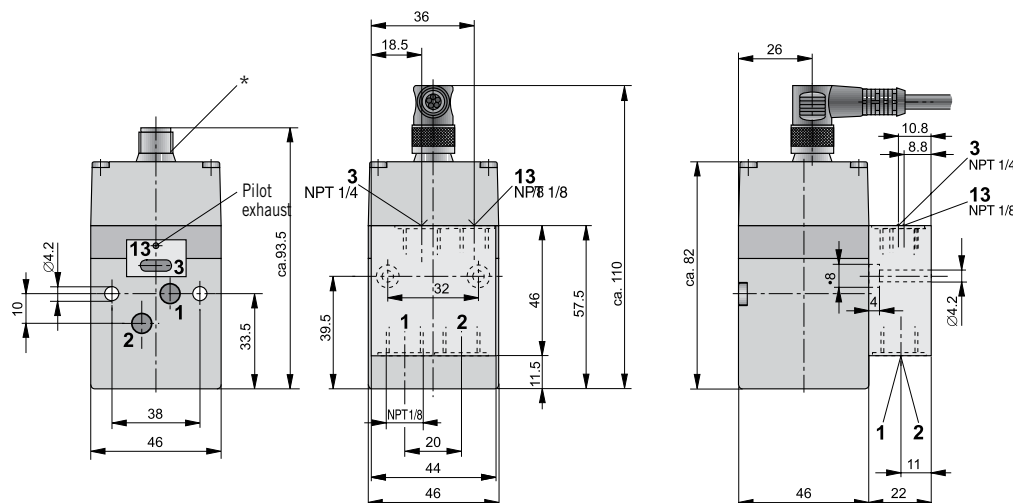
For order instructions see page 144, for characteristics see page 132–138,
for accessories see page 143, 144

Dimensions in mm

Version with 5 PIN connector M12 x 1, elbow

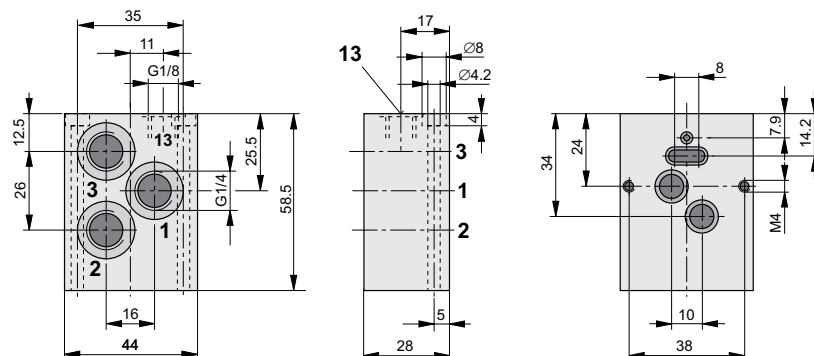
without base plate

with single base plate

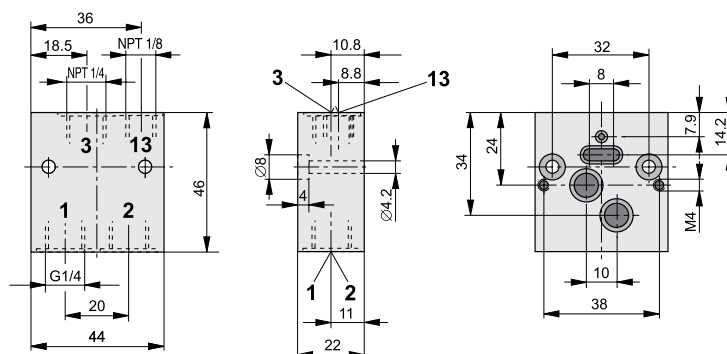


* Connection for 5-pole plug M12 x 1 (PS12316-A, PS12317-A)

Single base plate – Port size NPT 1/4, straight



Single base plate – Port size NPT 1/4, sidewise



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*
NPT 1/4, NW 6

Dimensions

Versions:

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

Connection plates



Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno plus
NPT 1/4, 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 NPT 1/4						
						3 Sidewise NPT 1/4						
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		NPT 1/4	PS12300-A-01
Single base plate, with connections, sidewise		NPT 1/4	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
NPT 1/2*

– *with/without
patented purge
air regulation*



Membrane dryers

Series airfit dry
NPT 1/2

– 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			NPT 1/2
Installation			In any position
Medium and ambient temperatures	T_{min} T_{max}	°C	+2 +60
Medium			Filtered air ³⁾
Weight (mass)		kg	3.3 Type CR: 3.6
Pneumatic characteristics			
Operating pressure range	p_{min} p_{max}	bar	5 16
Max. flow rate at compressed air inlet ¹⁾	$Q_{inlet/max}$	l/min m ³ /h	560 33
Pressure dewpoint reduction ¹⁾	Δt_{pd}	°C	20
Purge air consumption		%	ca. 10 (Type CR only by flow rate)
Pressure drop	Δp	bar	0.02–0.05 Type CR: 0.15

For optimum product selection please contact our sales engineer.

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

²⁾ See also the flow rate diagrams on the next page.

³⁾ 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
NPT 1/2

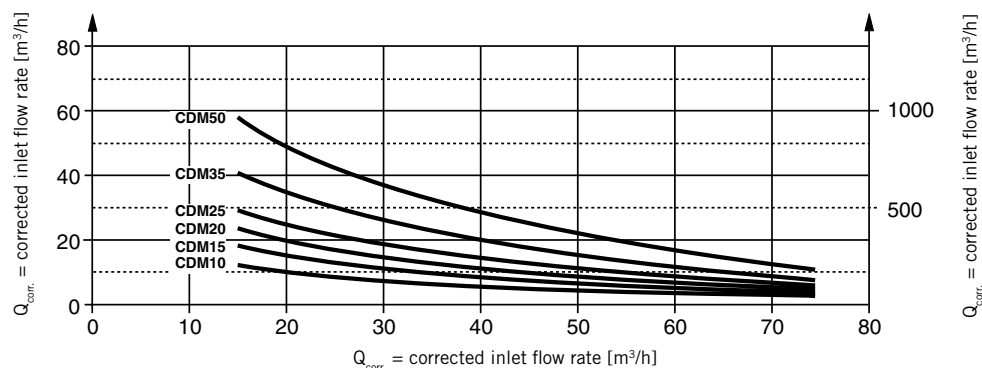
– with/without
patented purge
air regulation

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				
NPT 1/2	NPT 1/2	NPT 1/2	NPT 1/2	
In any position	In any position	In any position	In any position	
+2 +60	+2 +60	+2 +60	+2 +60	
Filtered air ³⁾	Filtered air ³⁾	Filtered air ³⁾	Filtered air ³⁾	
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 Parker ORIGA
– 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.



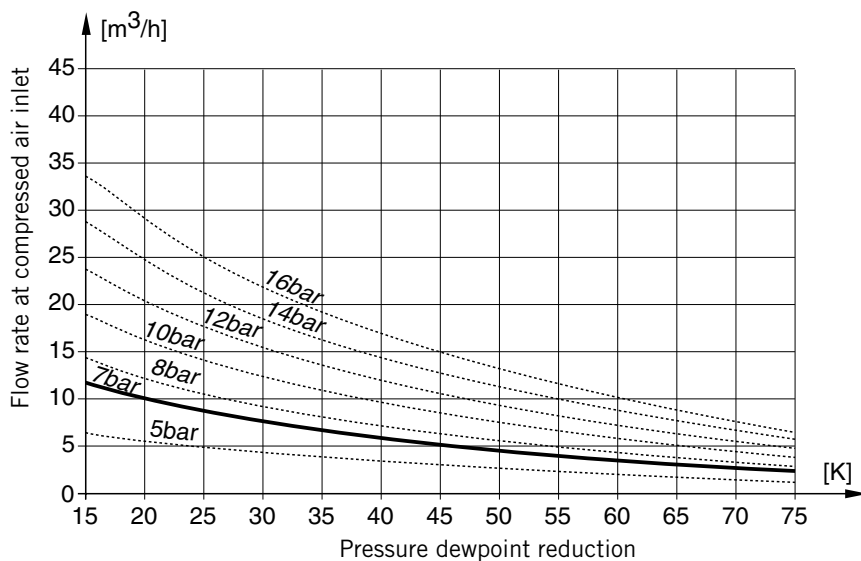
Membrane dryers

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

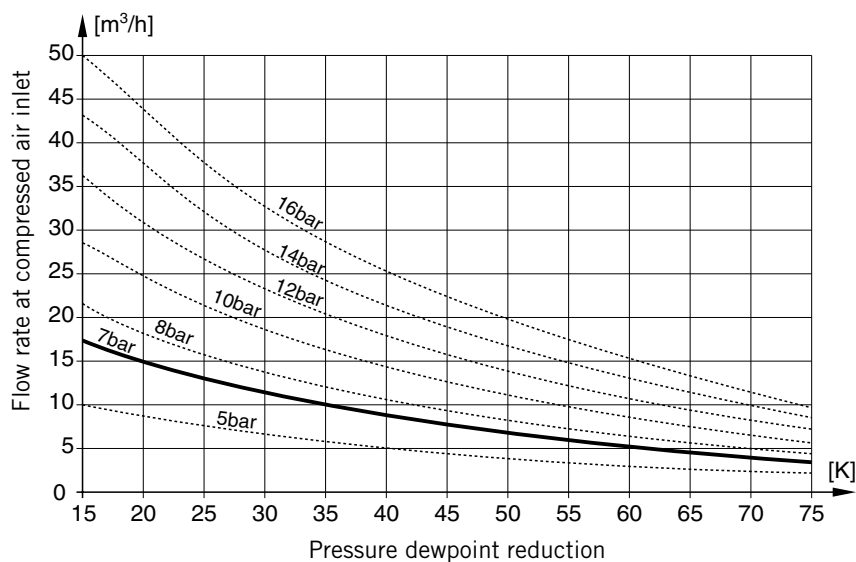
Series airfit dry
NPT 1/2

– with/without
patented purge
air regulation

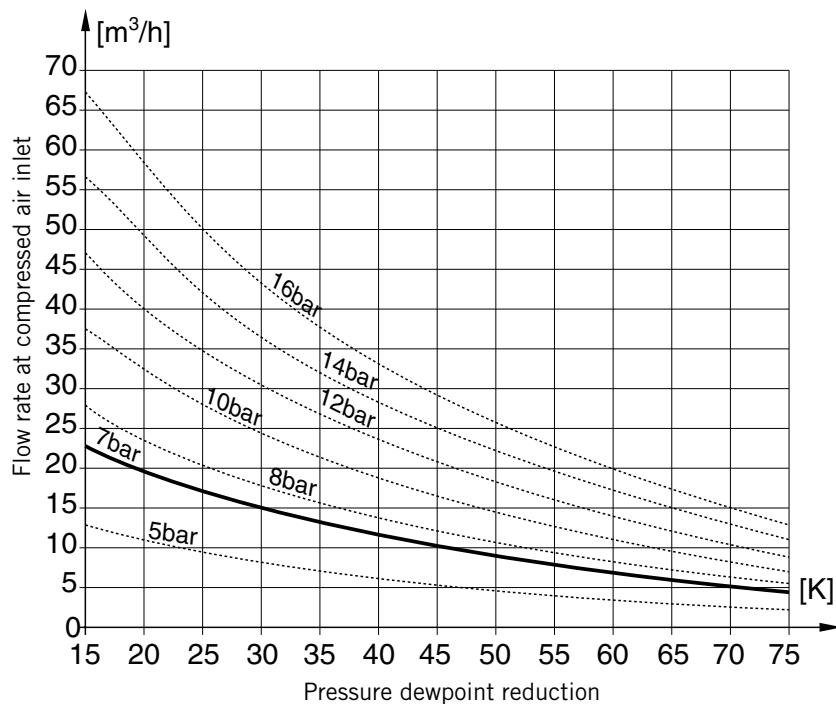
Flow rate in relation
to pressure dewpoint
reduction and inlet
pressure



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



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



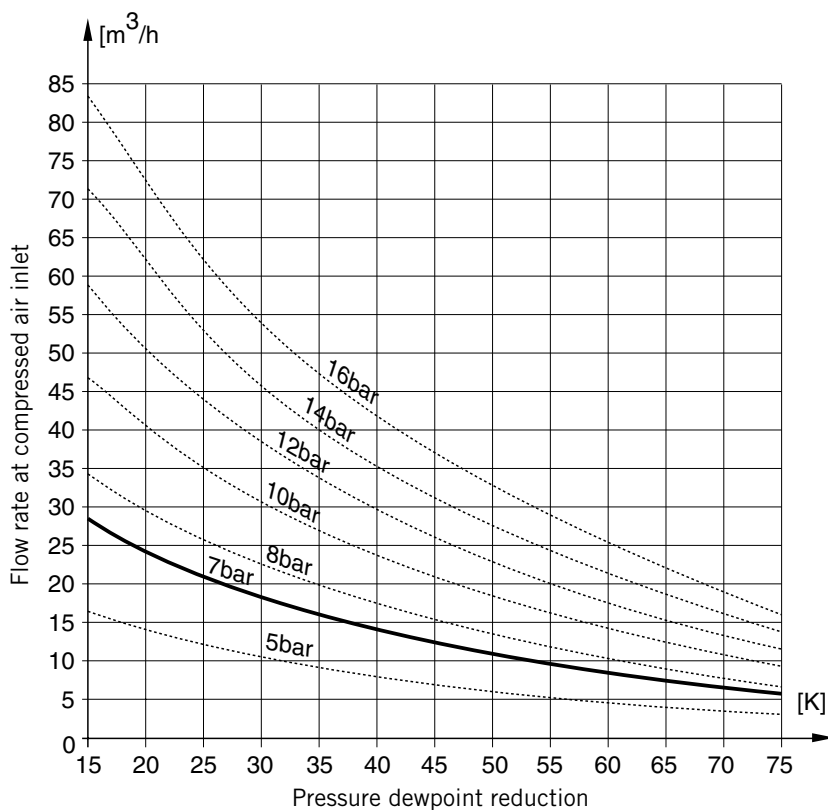
Membrane dryers

Series airfit dry
NPT 1/2

– 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
NPT 1/2

– with/without
patented purge
air regulation

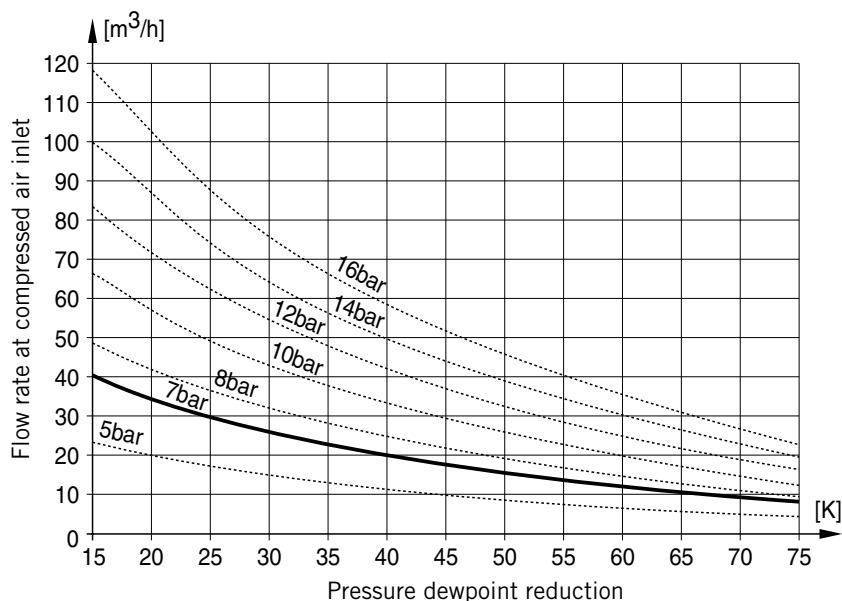
Flow rate in relation
to pressure dewpoint
reduction and inlet
pressure

Installation instruction
(recommended assembly
order)

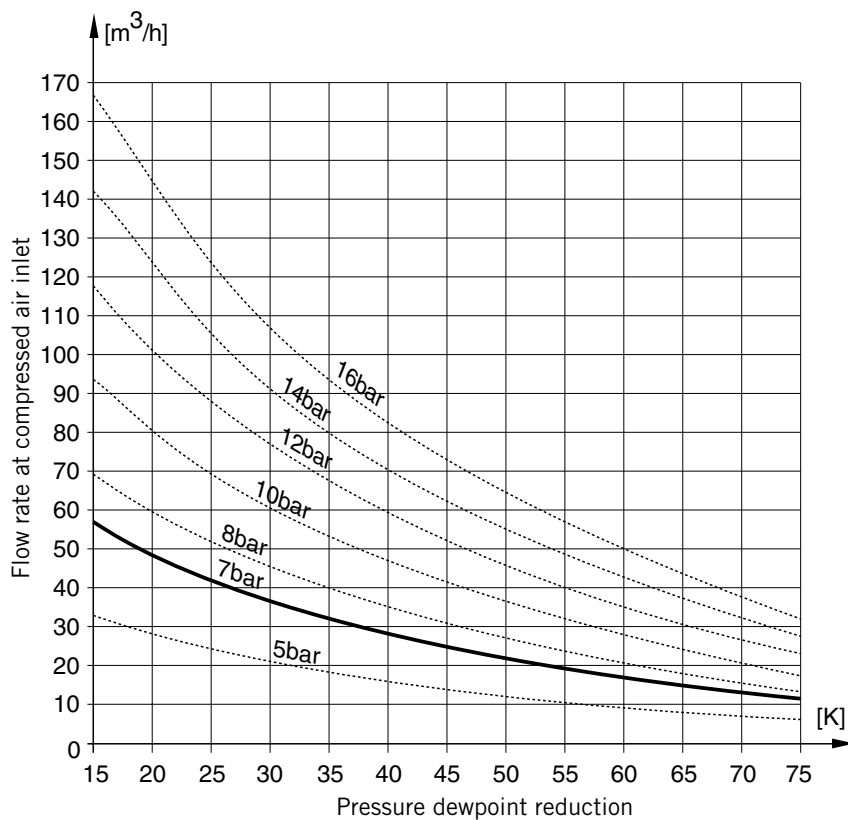
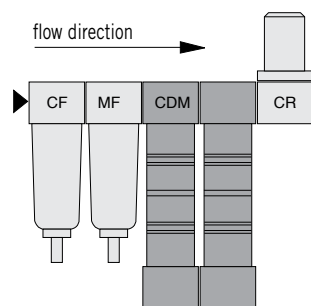
Type: CDM...1/2-R/CR

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

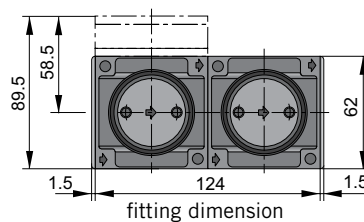
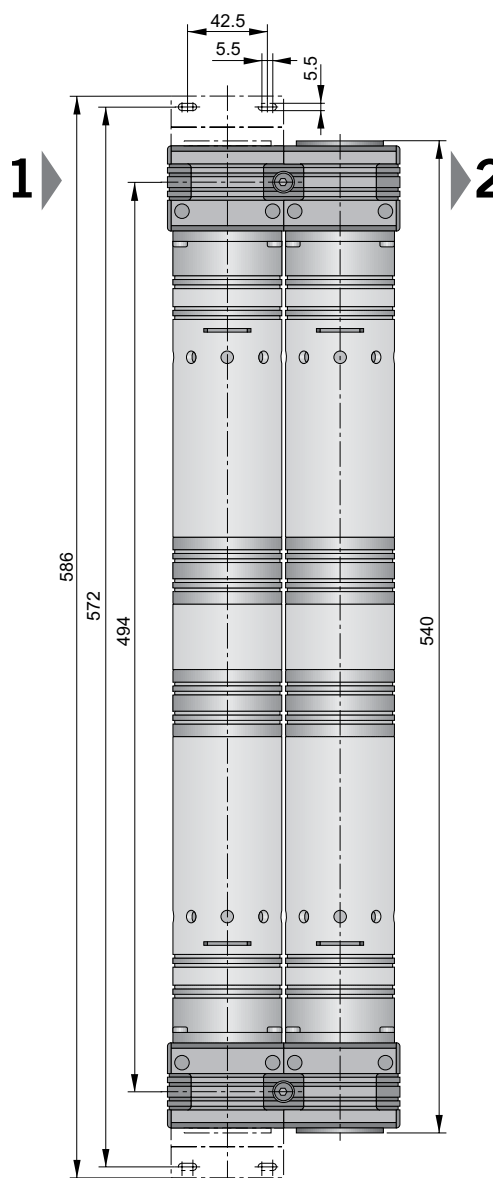
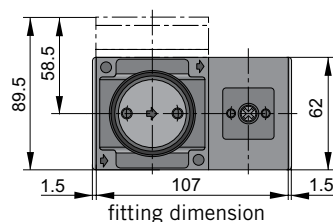
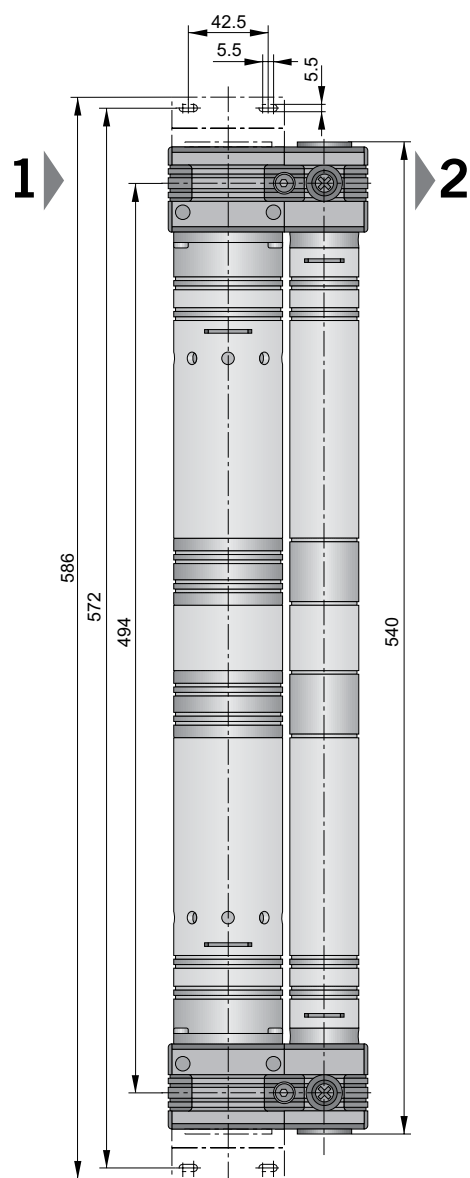
Membrane dryers

Series airfit dry
NPT 1/2

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

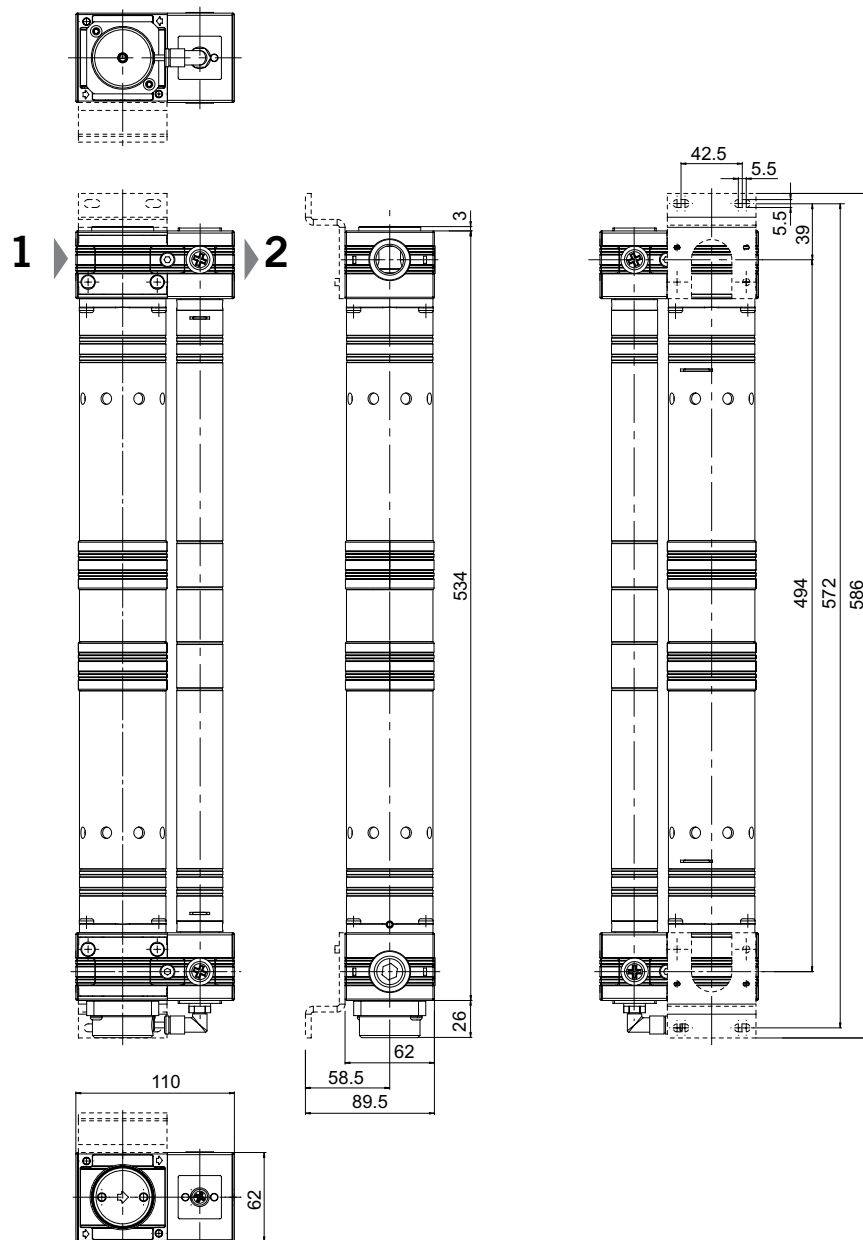


Membrane dryers

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

Series airfit dry
NPT 1/2

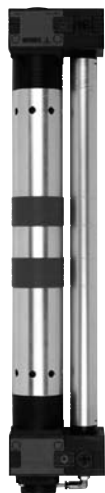
Dimensions



1 = P-inlet
2 = P-outlet

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

Dimensions in mm

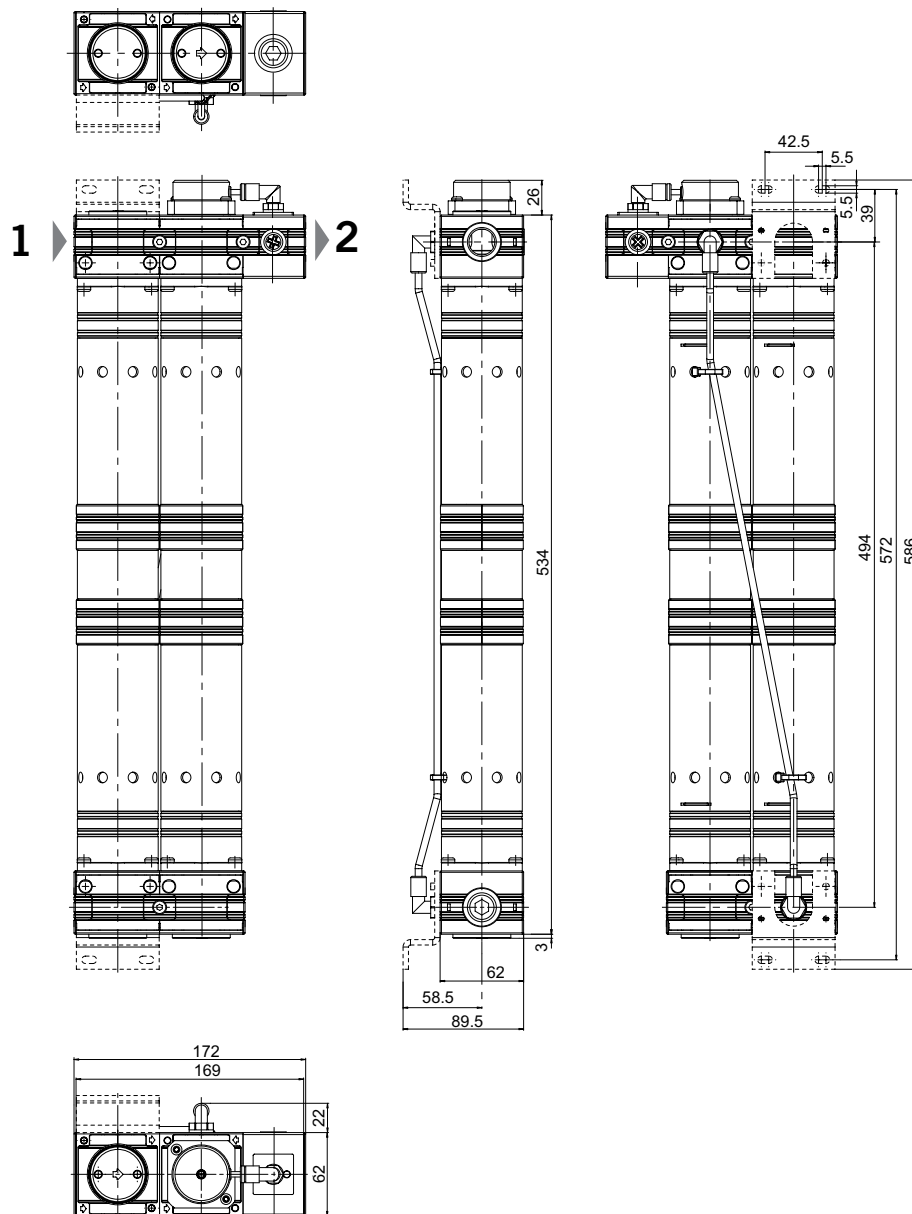


Type: CDM35/50-1/2-CS

Membrane dryers

Series airfit dry
NPT 1/2

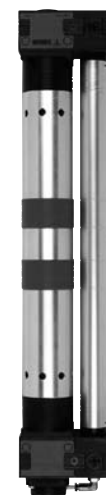
Dimensions



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
NPT 1/2

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Membrane dryer		NPT 1/2	CDM10-1/2-R	PB 54349-N020
		NPT 1/2	CDM15-1/2-R	PB 54349-N021
		NPT 1/2	CDM20-1/2-R	PB 54349-N022
		NPT 1/2	CDM25-1/2-R	PB 54349-N023
		NPT 1/2	CDM35-1/2-S	PB 54349-N030
		NPT 1/2	CDM50-1/2-S	PB 54349-N033
Membrane dryer with patented purge air regulation		NPT 1/2	CDM10-1/2-CR	PB 54349-N040
		NPT 1/2	CDM15-1/2-CR	PB 54349-N041
		NPT 1/2	CDM20-1/2-CR	PB 54349-N042
		NPT 1/2	CDM25-1/2-CR	PB 54349-N043
		NPT 1/2	CDM35-1/2-CS	PB 54349-N050
		NPT 1/2	CDM50-1/2-CS	PB 54349-N053

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			NPT 1/4	NPT 1/4	NPT 1/2	NPT 1/4	
Max. condensate capacity		cm ³	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 ¹⁾	Q_{max}	l/min m ³ /h	2280 137	2850 171	5700 342	1440 ³⁾ 86	
Degree of moisture separation at recommended flow	h	%	95	–	–		
Own air usage	Q	l/min	–	–	–		

¹⁾ At $p_1 = 10 \text{ bar}$ and $p_2 = 6.3 \text{ bar}$, $Dp = 1 \text{ bar}$

³⁾ At $p_1 = 6.3 \text{ bar}$, $Dp = 1 \text{ bar}$



	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 ²⁾
	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/8	NPT 1/4	NPT 1/4	NPT 3/8	$p_1 = \text{NPT } 3/8 \text{ A}$ $p_2 = \text{NPT } 1/4 \text{ I}$	NPT 1/4	NPT 1/4	NPT 1/4
	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	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 ⁵⁾ 0.66	11 ⁵⁾ 0.66	650 39	650 39	560 34		550 33	675 ⁴⁾ 41	375 ⁴⁾ 23	135 ⁴⁾ 8
	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	Max. 10 at full airflow		

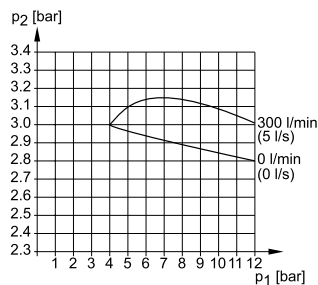
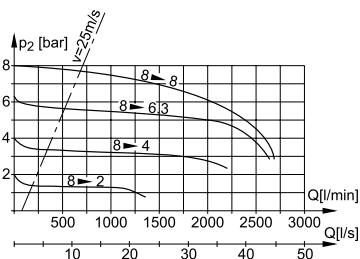
²⁾ The precision pressure regulator should not be used for "static" applications, i.e. with zero airflow. In such cases a small "artificial" airflow should be created on the secondary side using a 0.3 – 0.6 mm \varnothing jet.

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

⁵⁾ At $p_1 = 5 \text{ bar}$ and $p_2 = 2 \text{ bar}$

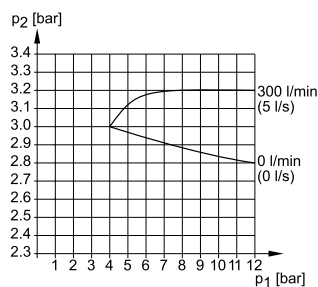
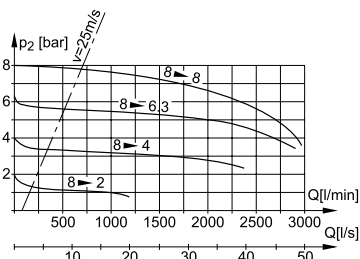
Special units

Flow characteristics



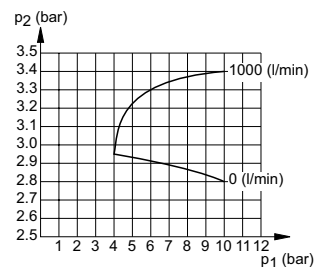
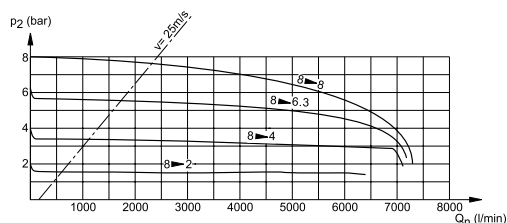
Pressure regulating valve
Type: SR-1/4 -SO (-40°C to +80°C)
Type: SR-1/4 -SO (0 to 40 bar)

**Outlet pressure variation with
fluctuating inlet pressure**

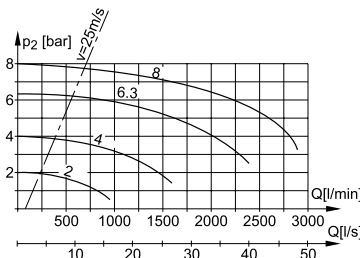


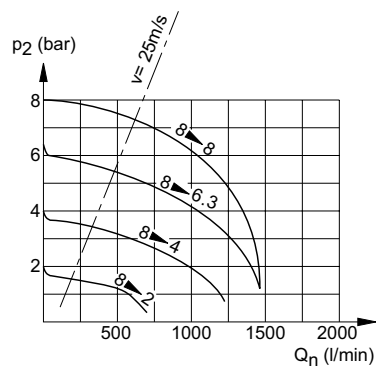
Pressure regulating valve – Type: CR-1/2 -SO
(-40°C bis +80°C)

**Outlet pressure variation with
fluctuating inlet pressure**



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





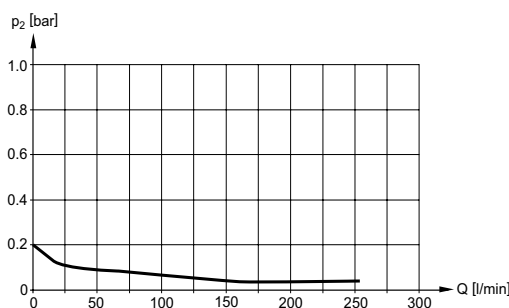
Special units

Flow characteristics

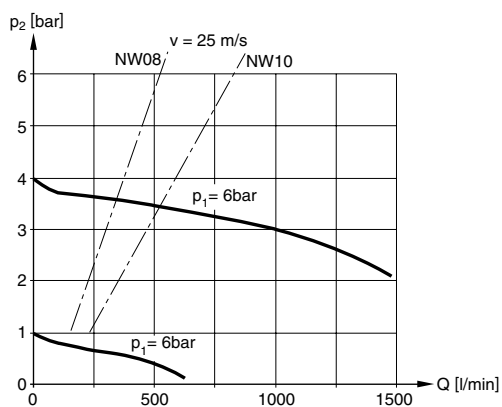
Pressure regulating valve for use with water
Type: WRP-06, WRP-08



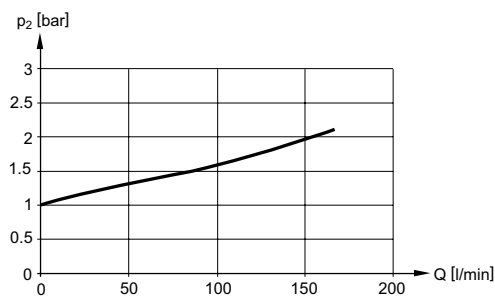
Low-pressure regulating valve
Type: MRP-06-SO, MRP-08-SO



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

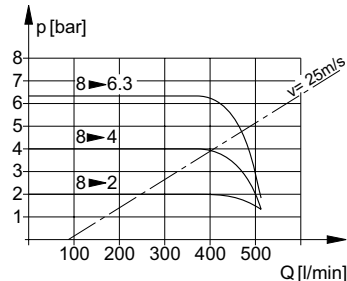


Exhaust flow (from 2→3)

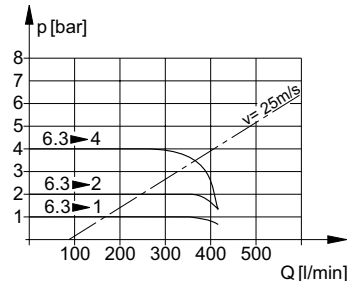


Precision pressure regulating valve

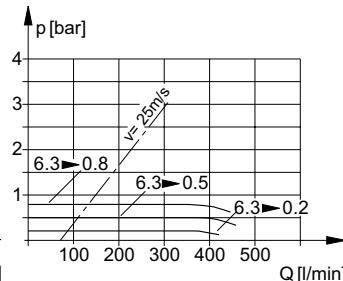
Type: XRP-08-8
 $p_2 = 0.5-8$ bar



Type: XRP-08-4
 $p_2 = 0.1-4$ bar



Type: XRP-08-08
 $p_2 = 0.02-0.8$ bar



Special units

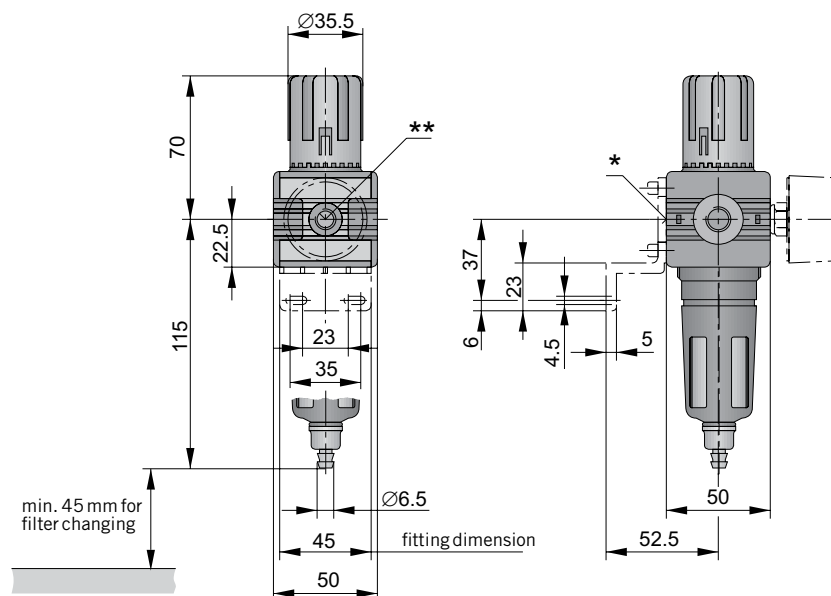
Dimensions

Filter-regulator

Series airfit swing NPT 1/4

Quick, easy filter change
with Quick-Snap system

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

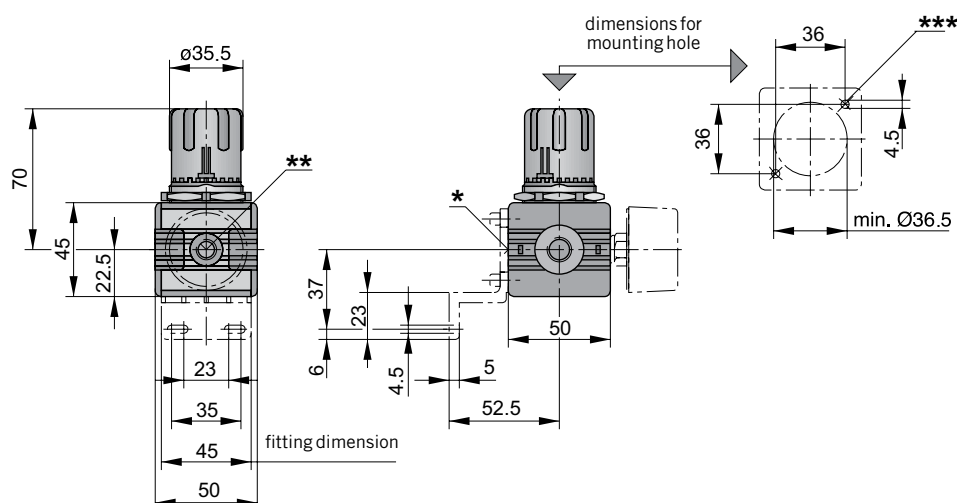


Pressure regulating valve

Series airfit swing NPT 1/4

- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8

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



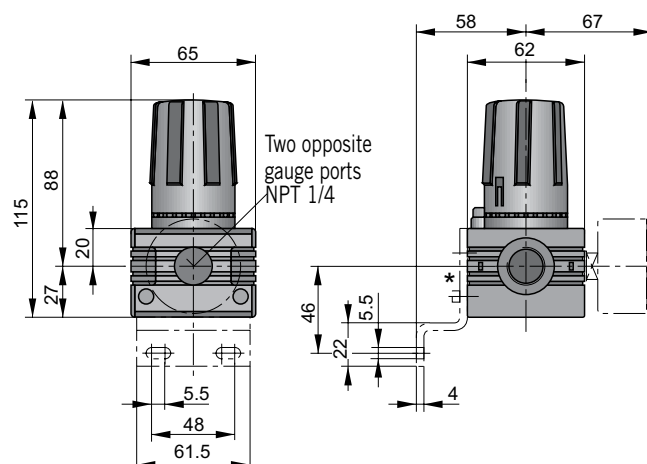
- * On delivery the plug screw is not assembled.
- ** Two opposite gauge ports NPT 1/8
- *** For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm



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.

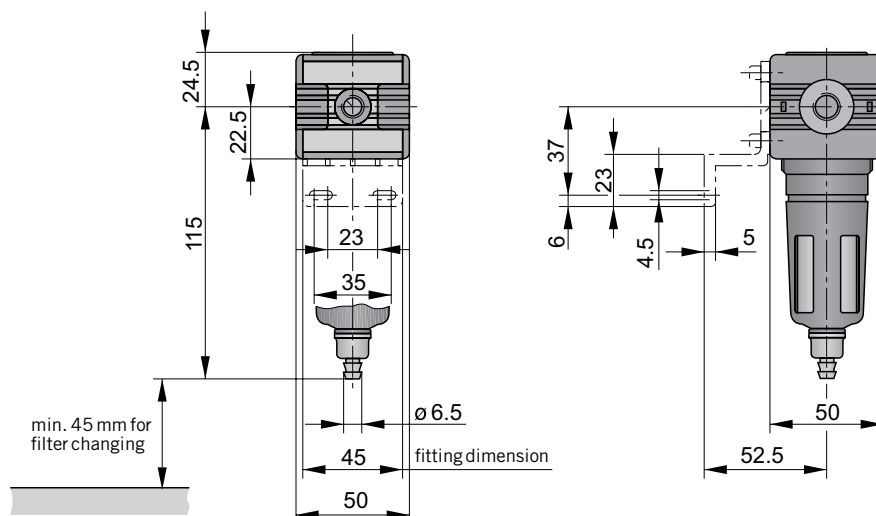
Special units

Dimensions

Pressure regulating valve

*Series airfit comfort
NPT 1/2*

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



Filter-water-separator

*Series airfit swing
NPT 1/4*

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



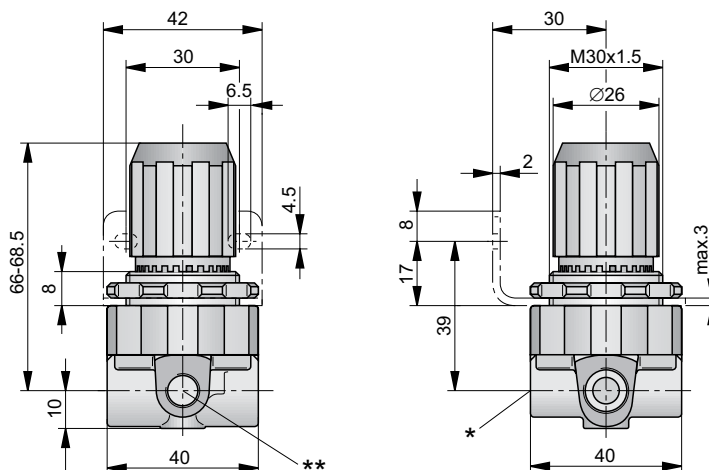
Special units

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

Dimensions

Pressure regulating valve

Series airfit light
NPT 1/8, 1/4



* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/8

Pressure regulating valve

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

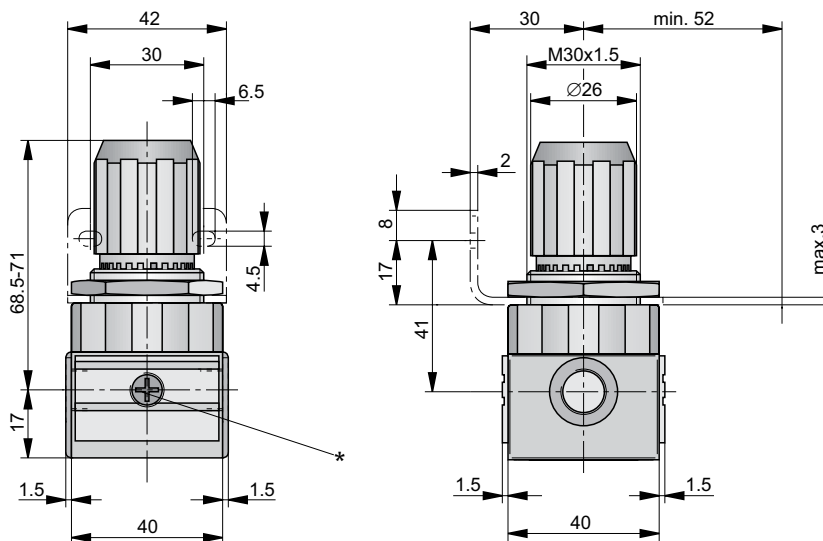
Series airfit light
NPT 1/8, 1/4

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



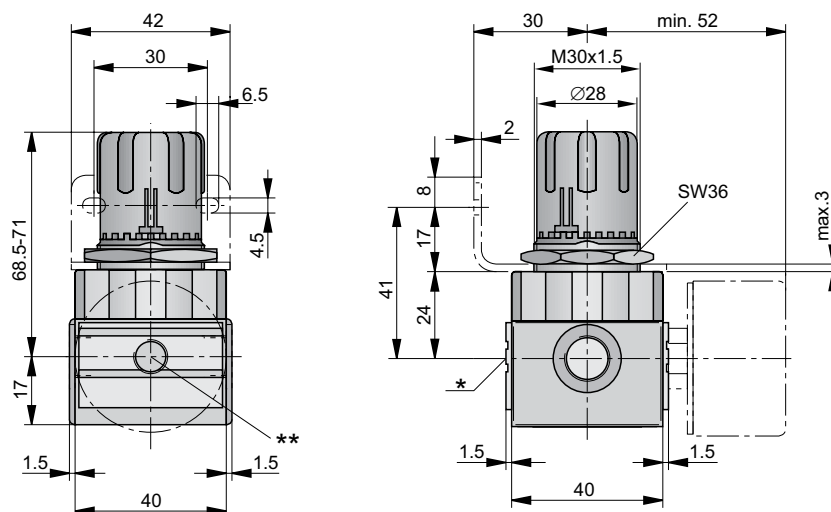
* On delivery the two plug screws are not assembled.



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 NPT 1/8

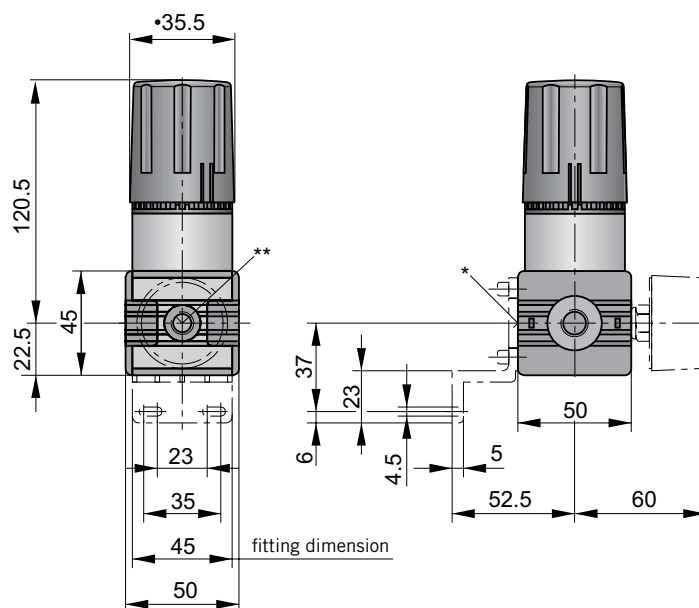
Special units

Dimensions

Pressure regulating valve

Series airfit light
NPT 1/8, G1/4

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



* On delivery the plug screw is not assembled.

** Two opposite gauge ports NPT 1/8

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

Dimensions in mm

Pressure regulating valve

Series airfit swing
NPT 1/4, G3/8



Special units

Filter-regulator – Type: MFRS-08

Installation instruction

Dimensions

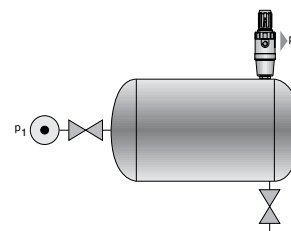
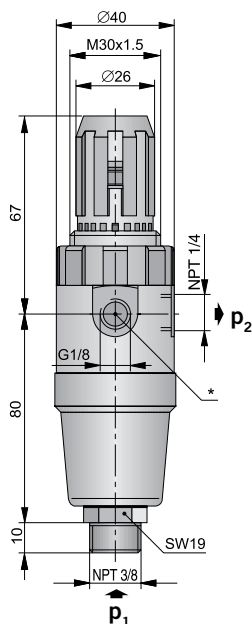
Filter-regulator

Series airfit

NPT 3/8 external thread

NPT 1/4 internal thread

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

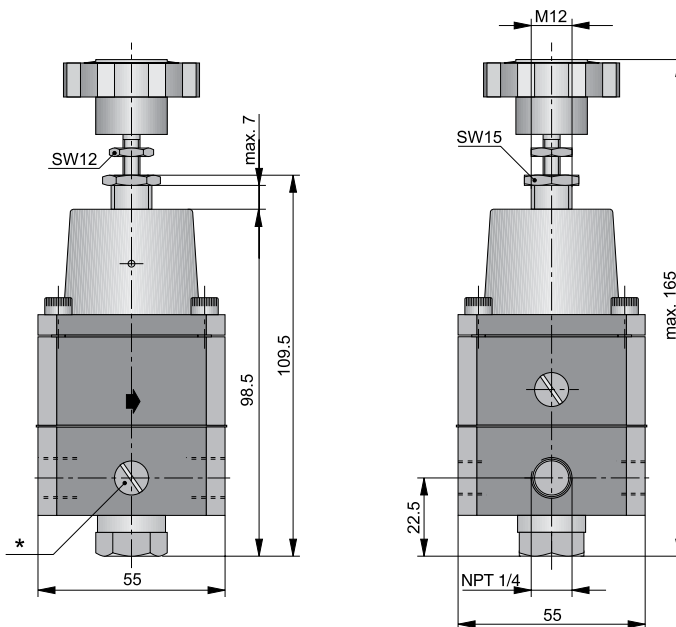


* Gauge port NPT 1/8

Precision pressure regulating valve

NPT 1/4

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



* Two opposite gauge ports NPT 1/8
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

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Filter-regulator for $T_{\min/\max} = -40$ to $+80$ °C		NPT 1/4	SK-1/4-5D	PB 45749-N065
Pressure regulating valve for $T_{\min/\max} = -40$ to $+80$ °C		NPT 1/4	SR-1/4-SO	PB 45449-N080
Pressure regulating valve for $T_{\min/\max} = -40$ to $+80$ °C		NPT 1/2	CR-1/2-SO	PB 55649-N080
Pressure regulating valve for $p_{\min/\max} = 0$ to 40 bar		NPT 1/4	SR-1/4-SO	PB 45449-N208
Filter-water-separator $p_{\min/\max} = 0$ to 30 bar		NPT 1/4	SF-1/4-SO	PB 45149-N049
Pressure regulating valve for panel mounting to DIN 43696		NPT 1/8	MRS-06	PB 21749-N010
		NPT 1/4	MRS-08	PB 21649-N010
Pressure regulating valve for use with water		NPT 1/8	WRP-06	PB 21749-N554
NPT 1/4		WRP-08	PB 21649-N554	
Low-pressure regulating valve		NPT 1/8	MRP-06-SO	PB 21749-N850
		NPT 1/4	MRP-08-SO	PB 21649-N850
Pressure regulating valve for weight compensation		NPT 1/4	SR-1/4-PE-MW	PB 45449-N252
		NPT 3/8	SR-3/8-PE-MW	PB 45549-N252
Filter-regulator for direct mounting onto compressor's receiver.		NPT 3/8 ext NPT 1/4 int	MFRS-08	PB 40199-N029
Precision pressure regulating valve $p_2 = 0$ to 8 bar		NPT 1/4	XRP-08-8	PB 03249-N000
Precision pressure regulating valve $p_2 = 0.1$ to 4 bar		NPT 1/4	XRP-08-4	PB 03249-N001
Precision pressure regulating valve $p_2 = 0.02$ to 0.8 bar		NPT 1/4	XRP-08-8	PB 03249-N002

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

Special units

Order instructions





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 _{min} T _{max}	°C °C	-20 +50				
Control medium			Filtered compressed air				
Lubricant			Mineral oil to DIN 1524 and DIN 51525				
Viscosity		mm²/s	20–765				
Weight (mass)		kg	0.65	0.65	0.65	0.75	0.80
Operating pressure range of air	p _{min} p _{max}	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 ¹⁾	Q _n	l/min m³/h	550 33	850 51	1900 114	3500 210	5000 300
Own air usage ²⁾	Q _n	m³/h	0.36				
Minimum flow at 6 bar	Q _{min}	m³/h	9				
Reservoir capacity		cm³	250				
Oil feed per stroke		mm³	3–30 adjustable, factory adjustment 30 mm³/stroke				
Optional extension kits			Up to max. 10 lubrication points by fitting of elements L11, L31, or L33				

¹⁾ at 6 bar and 25 m/s

²⁾ 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	10				3	10		3	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 mm³/stroke						3–30 adjustable, factory adjustment 30 mm³/stroke			3–30 adjustable, factory adjustment 30 mm³/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 ² /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 ¹⁾	Q_n	l/min m ³ /h	–	–
Own air usage ²⁾	Q_n	m ³ /h	–	–
Minimum flow at 6 bar	Q_{min}	m ³ /h	–	–
Reservoir capacity		cm ³	–	–
Oil feed per stroke		mm ³	3–30 adjustable factory adjustment 30 mm ³ /stroke	

¹⁾ at 6 bar and 25 m/s

²⁾ 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	–				

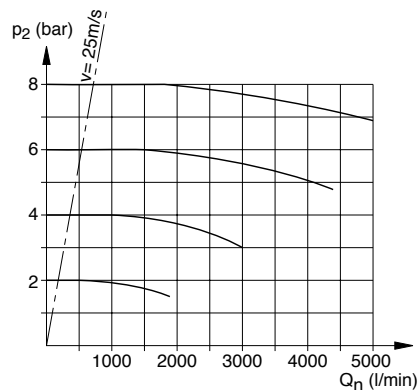
Injection lubricator system

Series oilfit

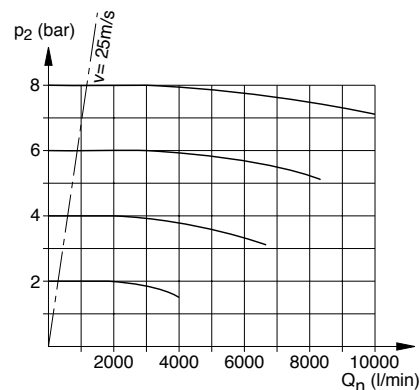
Flow characteristics

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

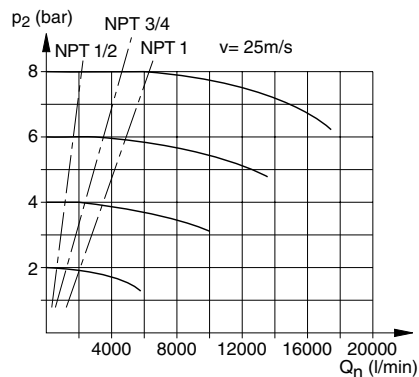
Port size G1/4



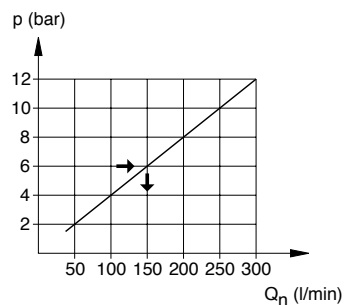
Port size G3/8



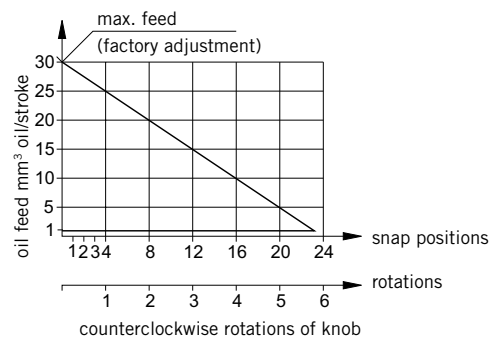
Port size G1/2, G3/4, G1



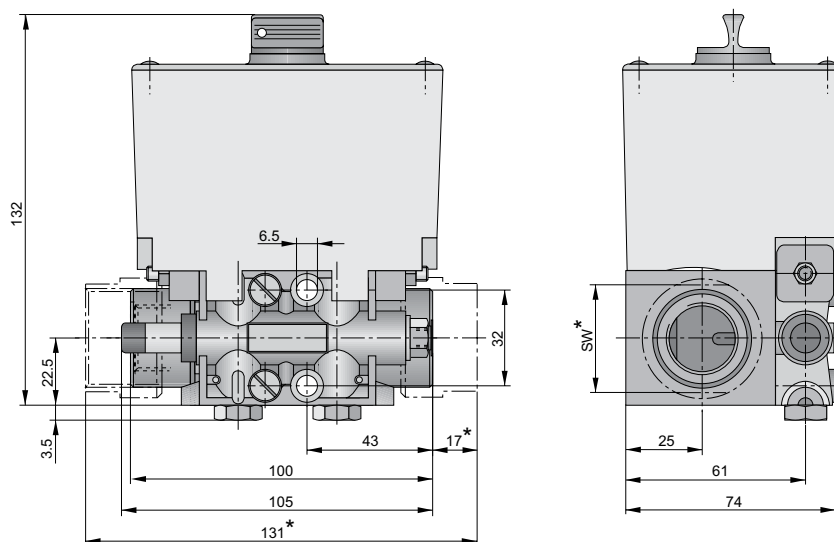
Minimum flow



Adjustment of oil feed



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



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

Injection lubricator system

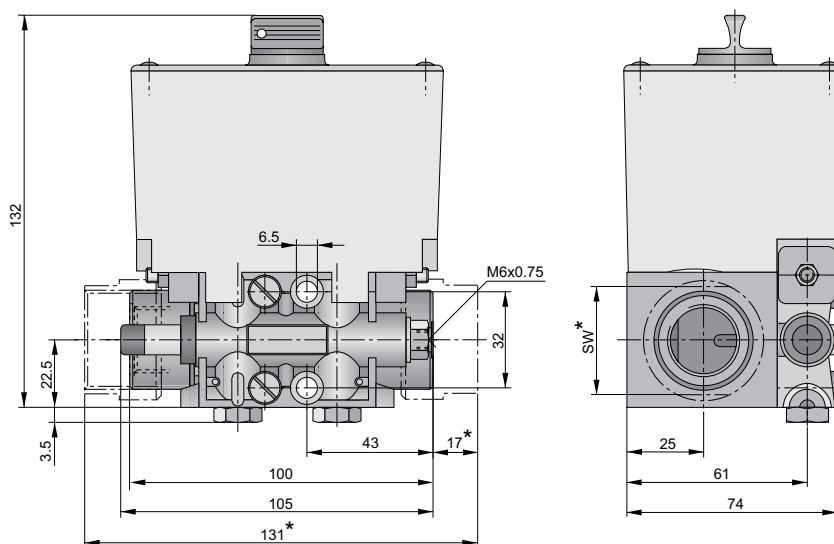
Series oilfit

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

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

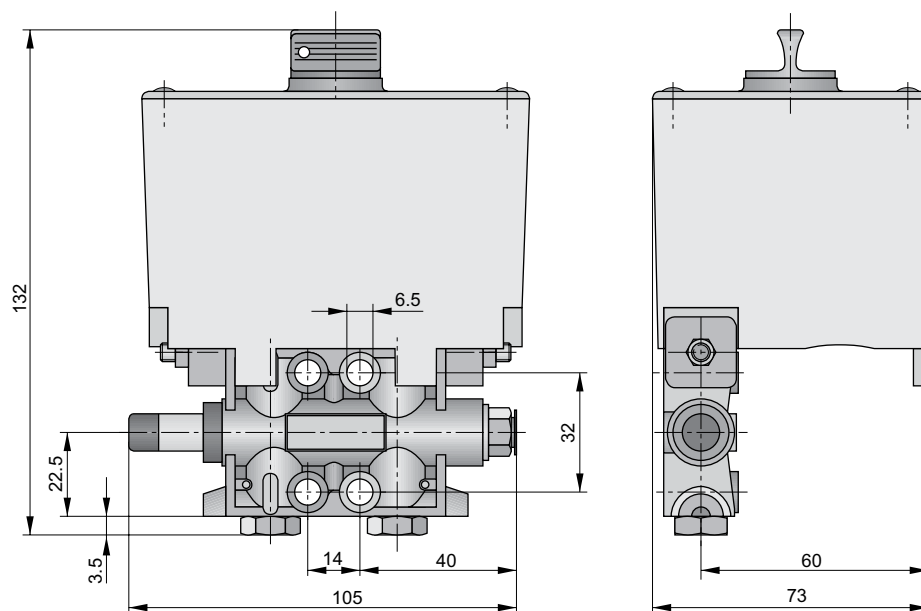
Dimensions

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

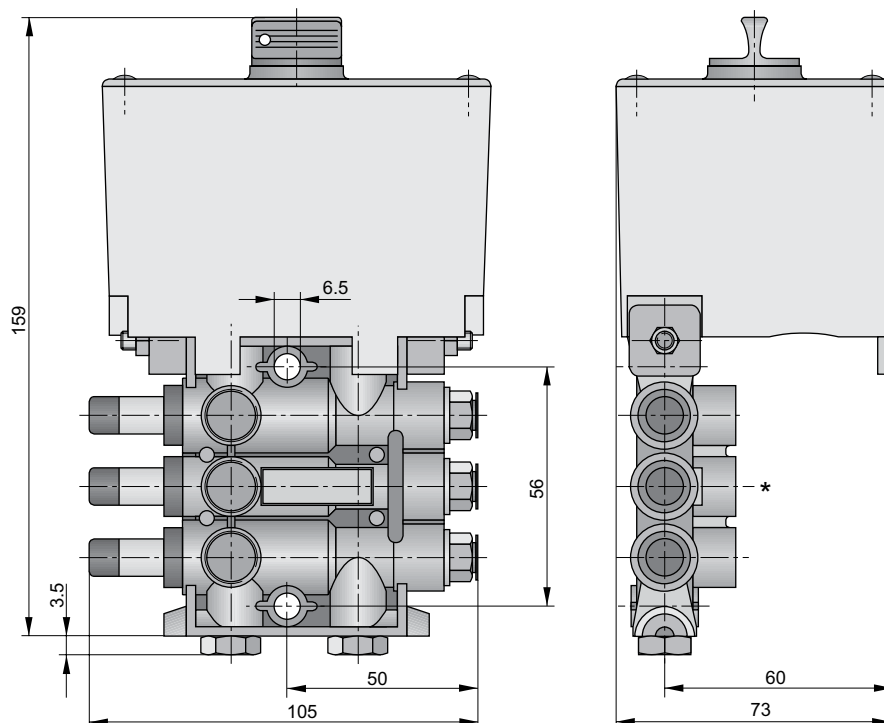


Injection lubricator combination

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



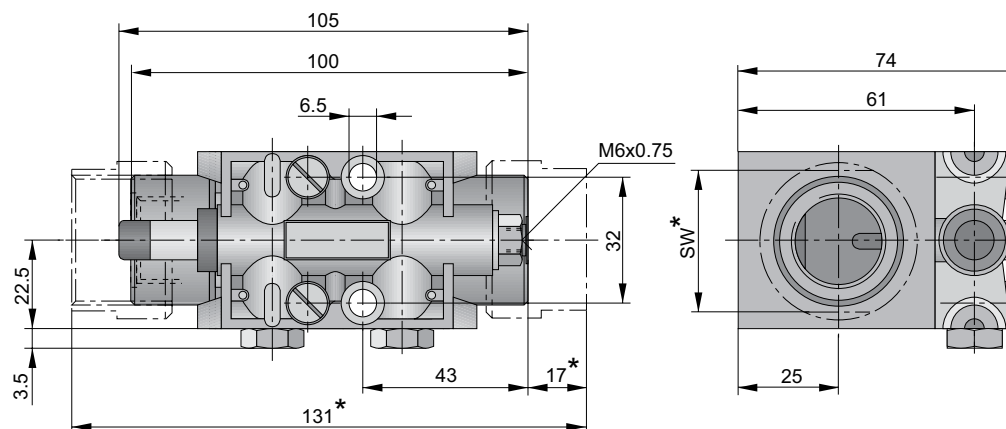
* 3 lateral connections NPT 1/8 only with type LB33

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

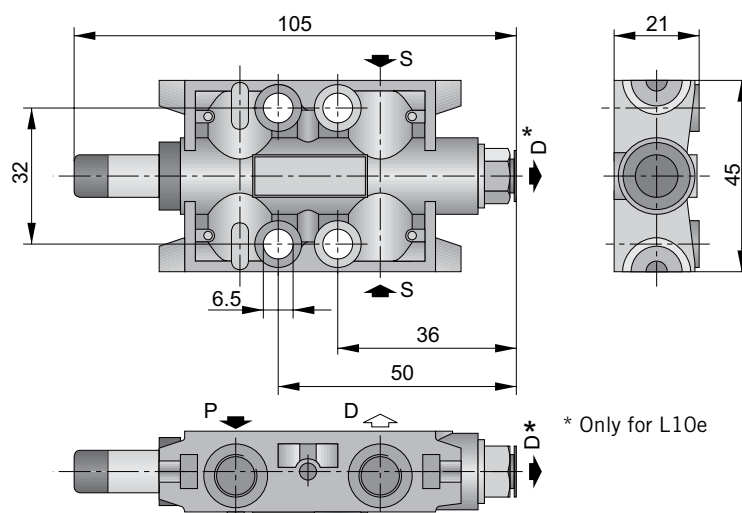
Series oilfit

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



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

Injection lubricator element Type: L10i, L10e

The lubricator elements have a plain lateral air inlet and can only be used for flange-mounting to the 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

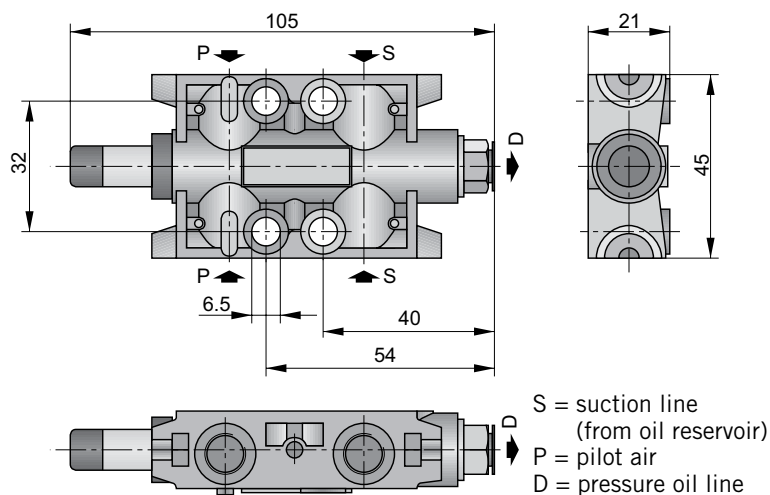
Series oilfit

Dimensions

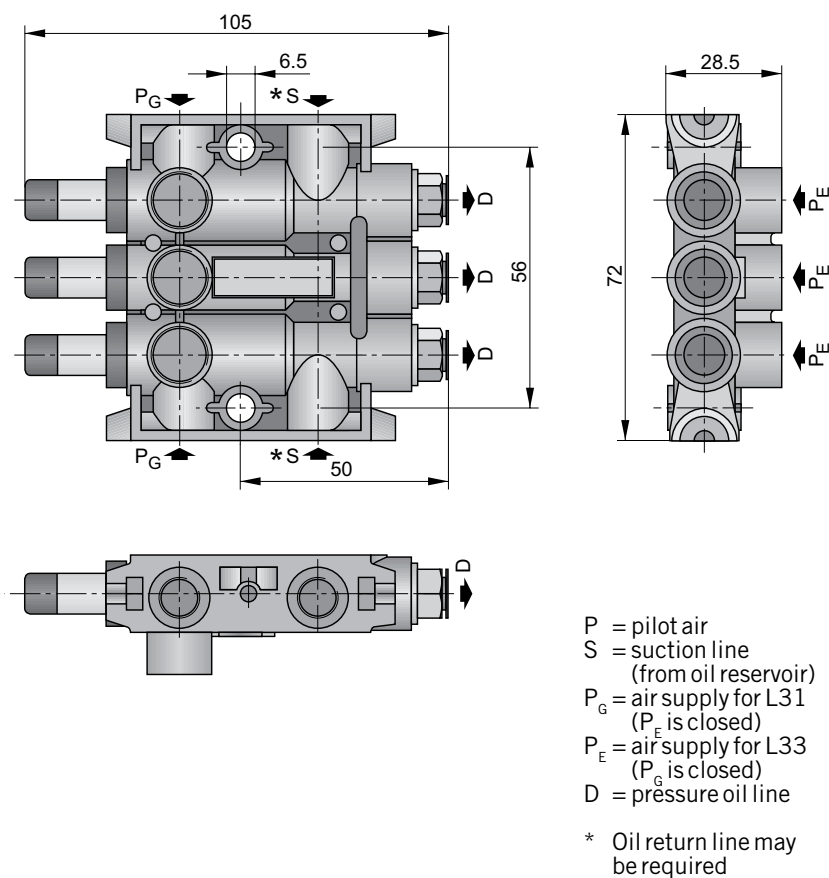
Injection lubricator elements
Type: L11, L31, L33

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

Type: L11



Type: L31, L33



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

Dimensions in mm

Standard versions

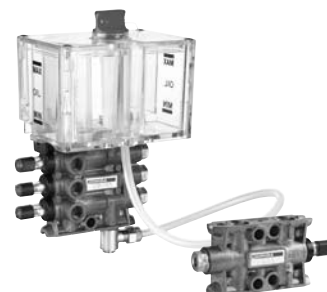
Description	Port size	Order instruction	
		Type	Order No.
Injection lubricator combinations with oil reservoir	G1/4	LUBI-08	PB 13449-N005
	G3/8	LUBI-10	PB 13549-N005
	G1/2	LUBI-15	PB 13649-N005
	G3/4	LUBI-20	PB 13749-N005
	G1	LUBI-25	PB 13849-N005
	G1/4	LUBE-08	PB 13449-N007
	G3/8	LUBE-10	PB 13549-N007
	G1/2	LUBE-15	PB 13649-N007
	G3/4	LUBE-20	PB 13749-N007
	G1	LUBE-25	PB 13849-N007
		LB11	PB 13049-N000
		LB31	PB 13149-N000
		LB33	PB 13249-N000
Injection lubricator elements	G1/4	LUI-08	PB 13449-N001
	G3/8	LUI-10	PB 13549-N001
	G1/2	LUI-15	PB 13649-N001
	G3/4	LUI-20	PB 13749-N001
	G1	LUI-25	PB 13849-N001
		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

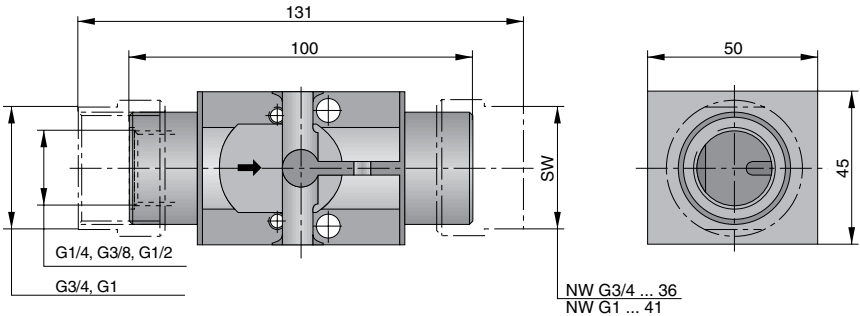
Accessories

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



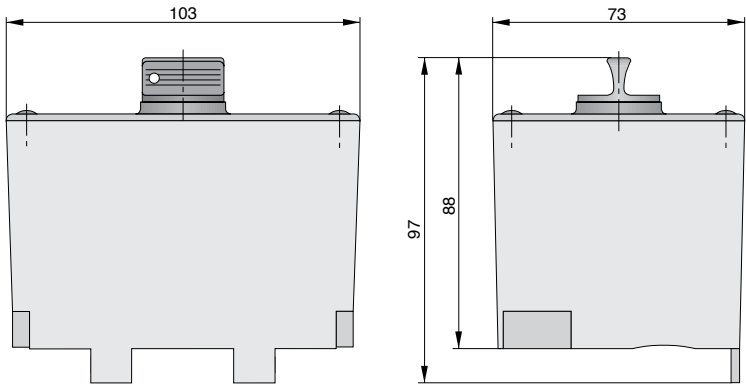
Oil reservoir

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 ³
Oil supply	Without pressure (gravity feed)
Material	Polyester resin (PETP)

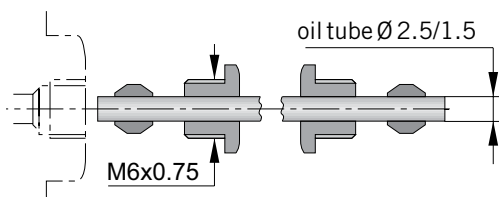
Oil reservoir Type: Bi



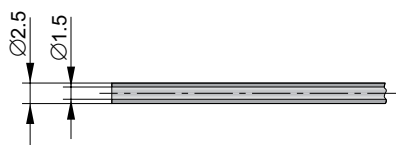
For order instructions see page 183, for characteristics see page 168–172, for accessories see page 178–183

Dimensions in mm

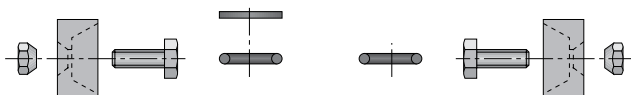
Connection kit, 12 parts – Type: A



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

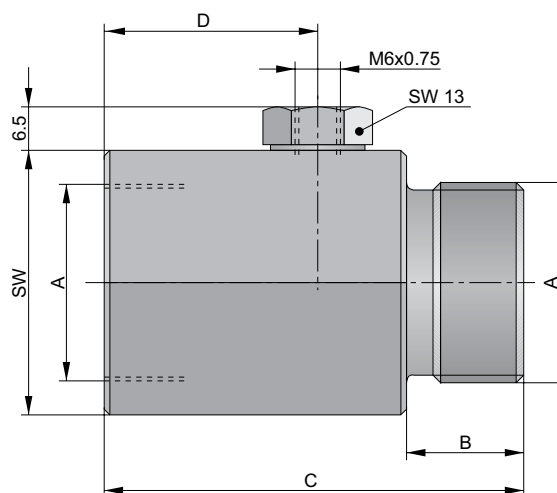
Accessories

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



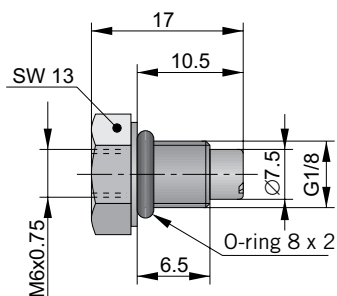
Dimension table

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: E₀



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 ₀
Air connection	G1/8
Spray angle	Conical

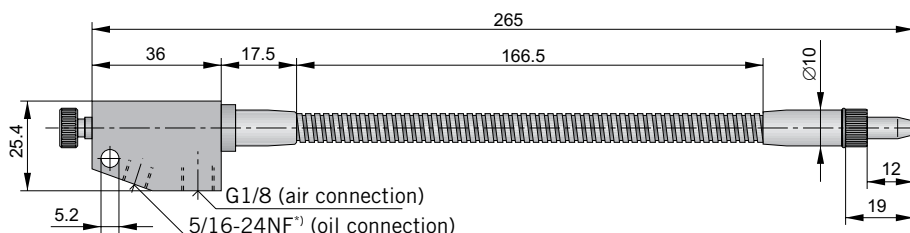
Injection lubricator system

Series oilfit

Accessories

Dimensions

Flexible atomizer – Type: B-101



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

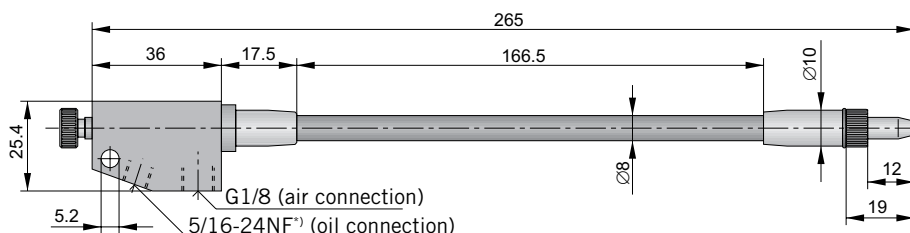
Atomizer

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

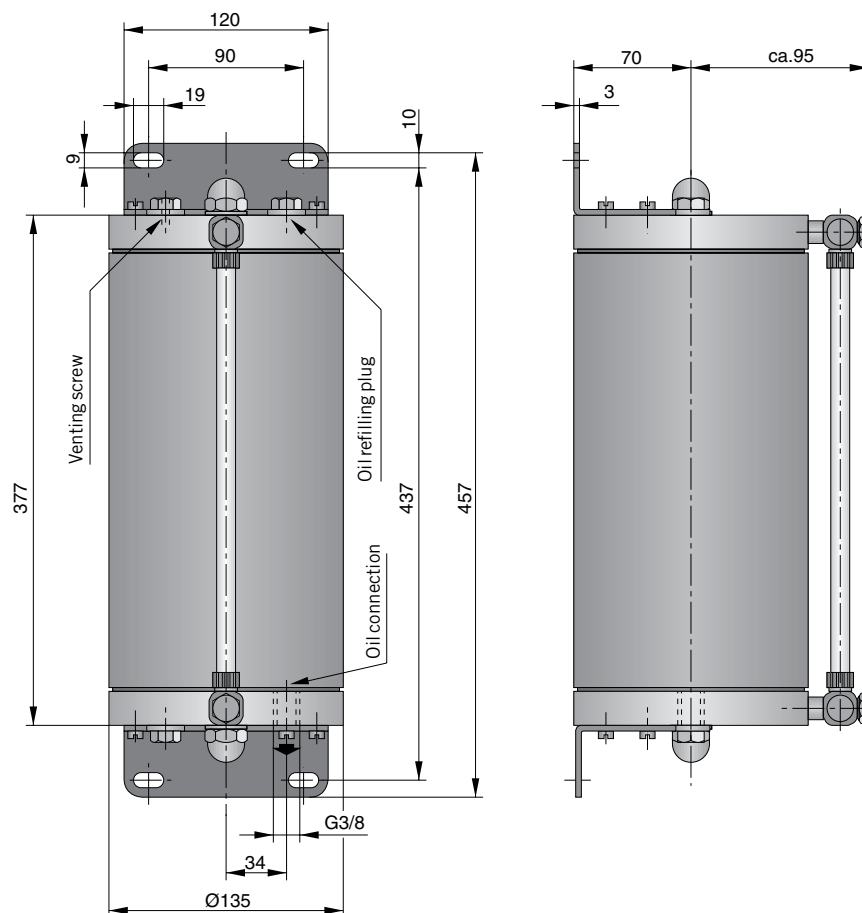
Dimensions

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 ³	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

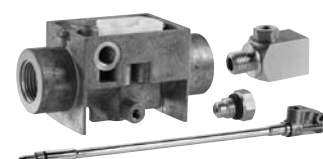
Description	Port size	Order instructions	
		Type	Order No.
Converter	G1/4	U-08	PL08144
	G3/8	U-10	PL08109
	G1/2	U-15	PL08110
	G 3/4	U-20	PL08111
	G1	U-25	PL08112
Coupling kit (9-part)		K	PL08066
Connection kit (12-part)		A	PL08185
Oil tube, prefilled with oil, length 10 m		S	PL08187-10
Air connection 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 _o	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

Gauge, center rear connection

Gauges
 \varnothing 40, 50, 63 mm
 to DIN 16005
 Class 1.6

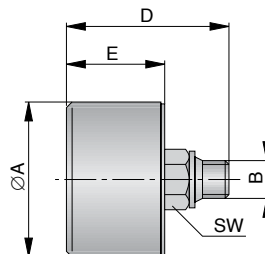
– with center rear
 connection
 (standard)

Dimensions,
 Order instructions

Material:
 Housing – black polymer
 Face – acrylic glass

Scale:
 Double scale in bar/psi

Delivery includes:
 1 gauge
 1 sealing ring



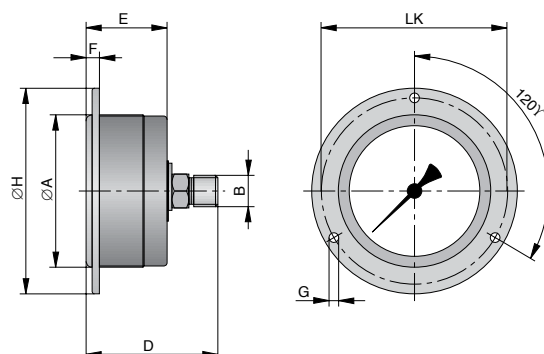
Order instructions, dial range and dimension table

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 8012-00	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 _{max.}	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

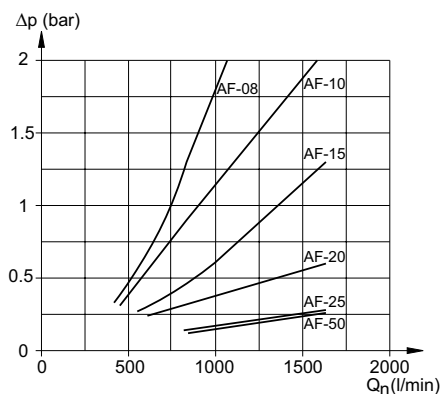
Exhaust filter
(silencer)
Series AF
G1/4 – G2

Characteristics

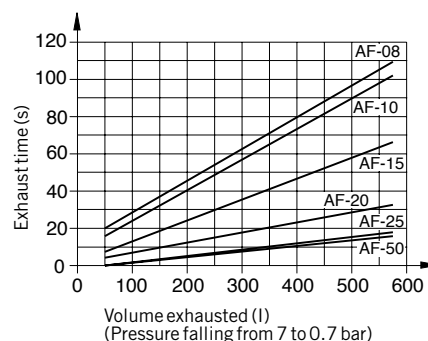
Pressures quoted as gauge pressure

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	Δp	bar	See diagram
Degree of filtration	h	%	99.999 solid particles and vapors (oil, water) >0.1 micron
Residual oil content		mg/m ³	0.01
Silencing compared with open exhaust		dB	20 20 20 25 35 35 35
Exhaust capacity		l/s	See diagram

Pressure drop

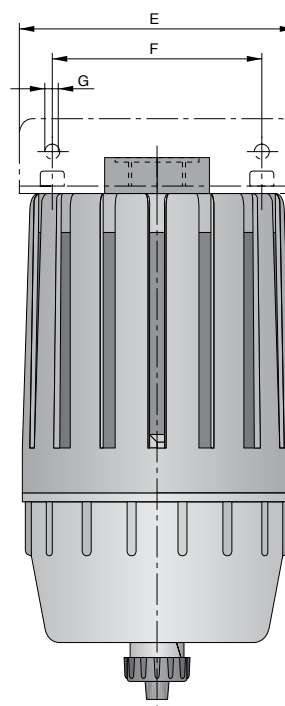
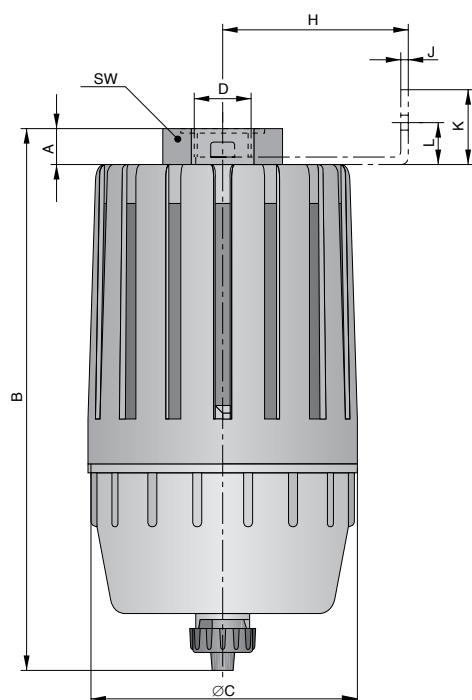


Exhaust capacity



Dimensions in mm

Exhaust filter – Type: AF-...



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

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-N000
		G3/8	AF-10	PB 35249-N000
		G1/2	AF-15	PB 35349-N000
		G3/4	AF-20	PB 35449-N000
		G1	AF-25	PB 35549-N000
		G1 1/4	AF-32	PB 36949-N000
		G2	AF-50	PB 35049-N000
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

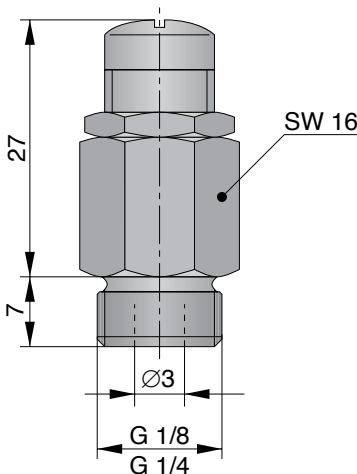
Pressure relief valve
Series USV
G1/8, G1/4

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

Characteristics	Description
Use	For all Parker ORIGA 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 ² /s (cst) 20°C 100 mm ² /s (cst) 40°C 32 mm ² /s (cst) When using below freezing point (0°C) it is necessary to consult us.
Contents	1 liter

Order No: **KY8766**

Air preparation accessories

Special oil for oil mist lubricator

Viscosity VG32



