Air preparation units ...

ORIGA – simply the first

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Parker

ORIGA

ENGINEERING YOUR SUCCESS.

ARA® PNEUMATIK

53-012 Wrocław
ul. Wyścigowa 38

tel. 71 364 72 82
fax 71 364 72 83

www.arapneumatik.pl

Information on application

The contents of this catalog are not binding and are only intended for informational purposes and are not to be considered as an offer with legal effect. A written confirmation of order from Parker Origa is decisive for the conclusion of a contract; this confirmation is given solely under the respective currently applicable Parker Origa General Terms of Sale and Delivery. These are included in our price list and on the Internet at www.parker-origa.com.

All the products presented in this catalog are purely for commercial use. None of the information or contents is appropriate for private consumers. Private consumers cannot place orders based on the information in the catalog. Please contact Parker Origa for further information.

All the products listed in this catalog are designed for typical pneumatic applications that are installed in higher-level machines, for example. The recognized technical rules for safe, expert work are to be observed for the use and installation of pneumatic products. The precondition for the use of the products is, unless stated otherwise, correctly prepared compressed air free from aggressive media. Furthermore, the respective regulations of the legislator, the TÜV (Technical Inspection Association), the respective professional associations or the VDE (Association of Electrical, Electronic and Information Technologies) provisions also apply.

The technical data stated in this catalog is to be observed by the user. The data stated may not be exceeded nor fallen short of. If such data is not stated then it may be assumed that there are no such upper or lower limits, or restrictions for particular applications. In the case of unusual physical or chemical applications, consultation and clearances are to be obtained from Parker Origa

Unless otherwise agreed in individual cases, the customer or end consumer is responsible for the disposal of the ORIGA products. Disposal by Parker Origa is not included in the price and this would have to be taken into account in the event of any applicable return to and disposal by Parker Origa.

Technical data and representations

The technical data and illustrations have been compiled with great care and to the best of our knowledge. We cannot assume any guarantee for the up-to-dateness, correctness, and completeness of the information.

The data and information such as illustrations, drawings, descriptions, dimensions, weights, materials, technical, and other performances, as well as the products and services described in general product descriptions, Parker Origa catalogs, brochures, and price lists of any type are subject to change and may be modified or updated at any time without prior announcement by Parker Origa. They are only binding in so far as the contract or confirmation of order expressly refers to them. Slight deviations from such product descriptions are deemed as approved and do not affect the fulfillment of contracts in so far as these are considered acceptable to customers.

This catalog does not contain any guarantees, assured characteristics, or agreements on condition by Parker Origa for the products represented, neither expressly nor implicitly, nor with regard to the availability of the products. Advertising statements regarding quality characteristics, properties, or applications of ORIGA products are without legal obligation.

As far as legally permissible, any liability is excluded on the part of Parker Origa for direct or indirect damage, consequential damage, and claims of any type and on any legal basis arising from the use of the information contained in this catalog.

Trademarks, copyright, and reproduction

The representation of industrial rights such as brands, logos, registered trademarks, or patents in this catalog does not include the granting of licenses or rights of use. The use of these is not permitted without the express consent of Parker Origa. The entire contents of this catalog are the intellectual property of Parker Origa. Within the meaning of copyright, any unlawful use of intellectual property, even extracts, is prohibited. Reprinting, reproduction, and translation (even extracts) are only permitted with the prior written consent of Parker Origa.

Importance of EU Directives

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

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

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

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

If a product may not be CE marked according to the Machinery Directive, it must however be marked if it comes within the scope of application of any other Directive.
The following harmonized standards are applied in the design of ORIGA components and systems:

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

The following Directives are of particular significance to Parker Origa:

- 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.
- According to the Pressure Equipment Directive, ORIGA products are components of low hazard potential, thus most of the products do not come under this Directive. The exceptions to this are maintenance equipment from a certain pressure/volume level onwards. These components are treated according to the Directive, if required, and bear the CE mark.

ORIGA products are excluded from the following EU Guidelines:

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

Table of contents

Table of contents

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.parker-origa.com)

Overview

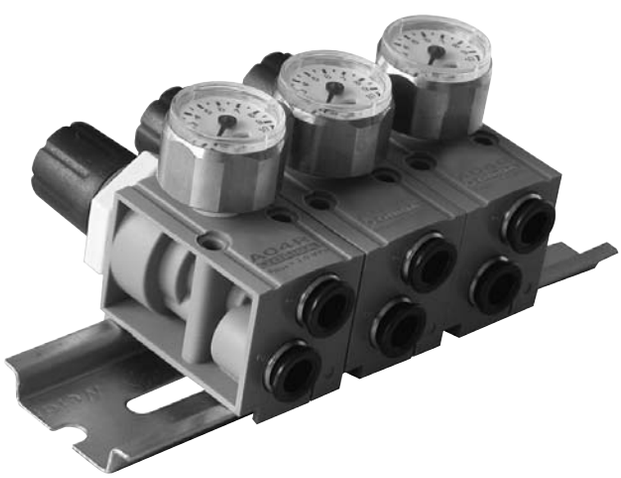
Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Pressure regulating valve	4	5	5

Pressure regulating valve

Series A04R

– *with push-in connections OD4*

– *with push-in connections OD6*



Pressure regulating valve

Series A04R

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

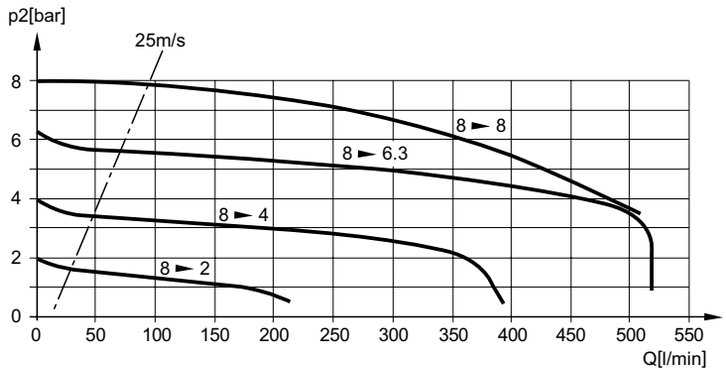
Pressure regulating valve with push-in connections
– for panel mounting
– for rail mounting to EN06175

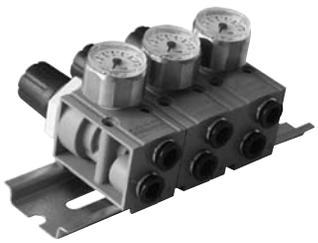
Pressures quoted as gauge pressure

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

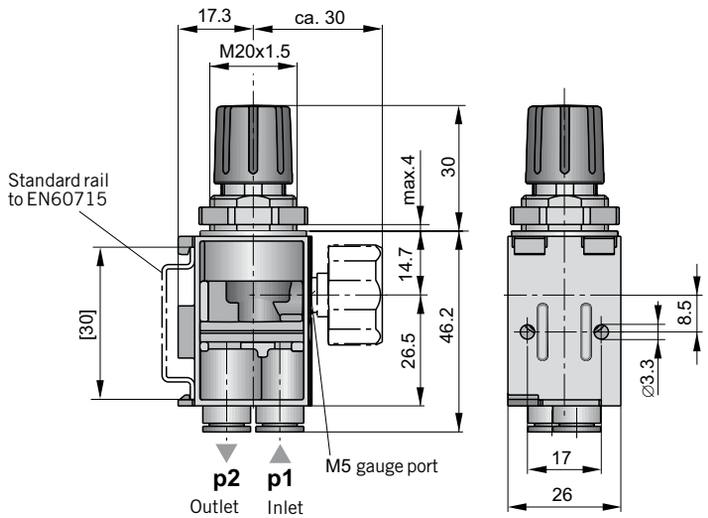
[1] at p_1 = 10 bar and p_2 = 6.3 bar, Δp = 1 bar

Flow characteristics – Type: A04R-Q6

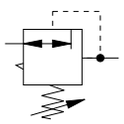




Dimensions (mm)

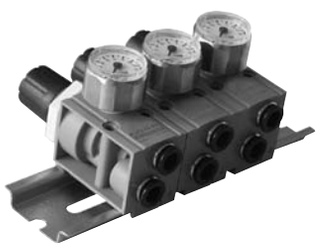


Order instructions

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

Accessories

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



Dimensions in mm

Air preparation units

Series airfit light
G1/8, G1/4

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	8–11	12	16, 17
Air preparation unit two-piece	8–11	12	16, 17
Filter-regulator	8–11	13	16, 17
Filter-water-separator	8–11	13	16, 17
Pressure regulating valve	8–11	14	16, 17
Oil mist lubricator	8–11	14	16, 17
Submicrofilter	8–11	15	16, 17
Activated carbon filter	8–11	15	16, 17
Accessories	–	17–19	17–19

Air preparation units

Series airfit light
G1/8, G1/4

Characteristics

Special solutions
(e.g. temperature, pressure, medium ...) on request, or see page155–166 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Air preparation unit three-piece**	**Air preparation unit two-piece**	
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator*, gauge, mounting ring, and locating ring	Consisting of filter-regulator, oil mist lubricator*, gauge, mounting ring, and locating ring	
Type			MFRLS-08	MKLS-06	MKLS-08
Material					
– Housing			Fiber – reinforced polyamide 66		
– Plastic bowl			Polycarbonate		
– Standard sealings			NBR	NBR	
Port size (NPTF version)			G1/4	G1/8	G1/4
Max. condensate capacity		cm^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 °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 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	360 22	473 29
Degree of moisture separation at recommended flow [2]	η	%	> 90	> 90	
Residual oil amount		mg/m^3	–	–	

[1] at p_1 =10 bar and p_2 = 6.3 bar, Δp = 1 bar
[2] at 6.3 bar and 25 m/s
*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm^2/s at 40°C) or Parker Origa airpressure oil, Order No.: KG6140 (see page 203)

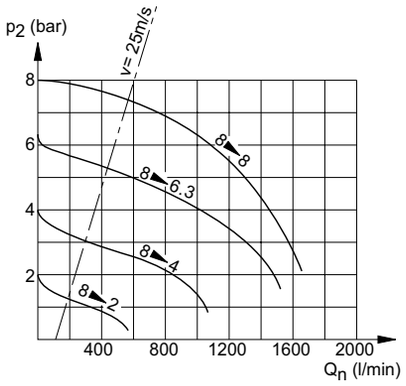
	Filter-regulator		Filter-water-separator		Pressure regulating valve		Oil mist lubricator		Submicrofilter		Activated carbon filter	
	Cyclone system with filter element, combined with piston-type pressure regulating valve (spring loaded) with secondary pressure relief, locating ring, handwheel lockable		With cyclone system and filter element		Piston-type pressure regulating valve (spring loaded) with secondary pressure relief, locating ring, handwheel lockable		Oil mist lubricator with flow compensation*)					
	MKS-06	MKS-08	MFS-06	MFS-08	MRP-06	MRP-08	MLS-06	MLS-08	MF007-1/8	MF007-1/4	MC007-1/8	MC007-1/4
	Fiber – reinforced polyamide 66											
	Polycarbonate				–		Polycarbonate					
	NBR		NBR		NBR		NBR		NBR		NBR	
	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4
	12	12	12	12	–		–		12	12	–	–
	30 or 5		30 or 5									
	Polycarbonate or semi-automatic (pressure relief)				–		–		Manual			
							Constant oil drip rate independent of air flow					
	–		–		–		35		–		–	
							Manual					
	Vertical, bowl at the bottom				In any position		Vertical, bowl at the bottom					
	0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +50 at 10 bar		0 +40 at 10 bar	
	0.12		0.10		0.11		0.09		0.10		0.10	
	0 10		0 10		0 10		0 10		0 10		0 10	
	0.5 to 8				0.5 to 8							
	0.2		–		0.2		–		–		–	
	1.6 0.6				1.6 0.6							
	575 35	770 46	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/m^3)		0.003% in combination MF-..	

Air preparation units

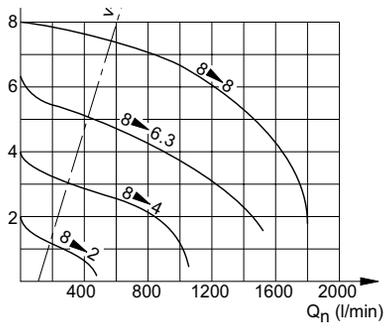
Series airfit light
G1/8, G1/4

Flow characteristics

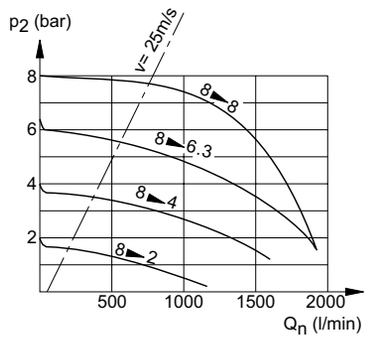
Air preparation units, three-piece, two-piece
Type: MFRLS-08



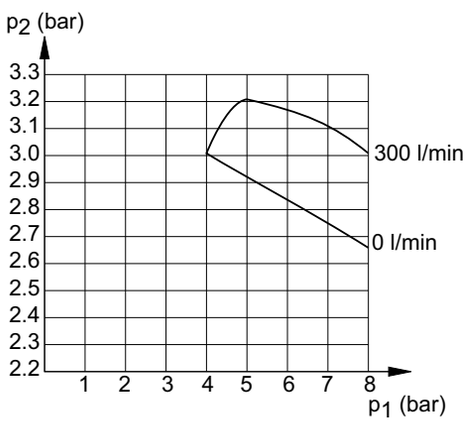
Type: MKLS-08



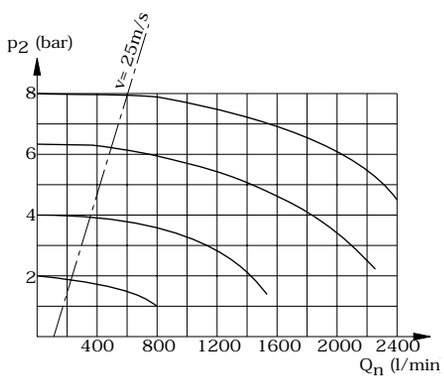
Filter-regulator
Type: MKS-08



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



Filter-water-separator
Type: MFS-08

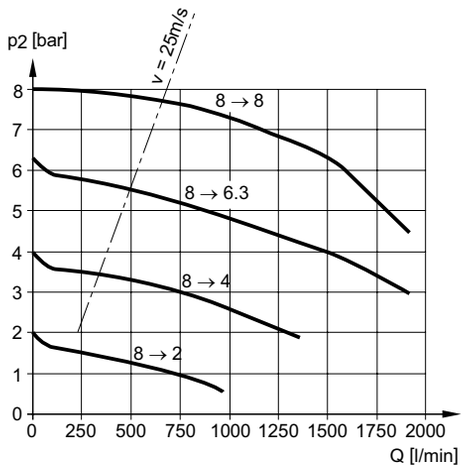


Air preparation units

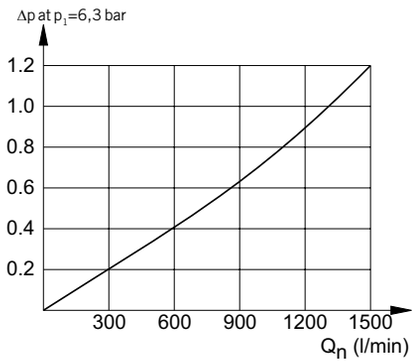
Series airfit light
G1/8, G1/4

Flow characteristics

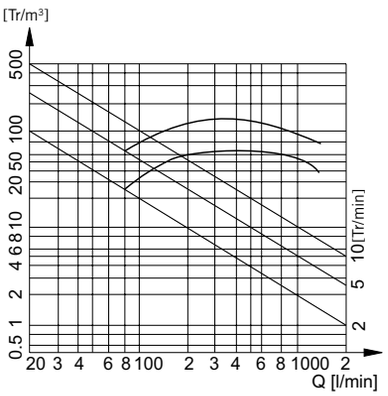
Pressure regulating valve
Type: MRP-08



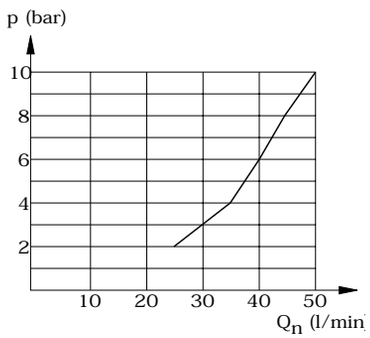
Oil mist lubricator
Type: MLS-08



Oil/air ratio
Type: MLS-08



Min. operating conditions
Type: MLS-08



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

Dimensions in mm

Air preparation units

Series airfit light
G1/8, G1/4

Dimensions

Delivery includes:

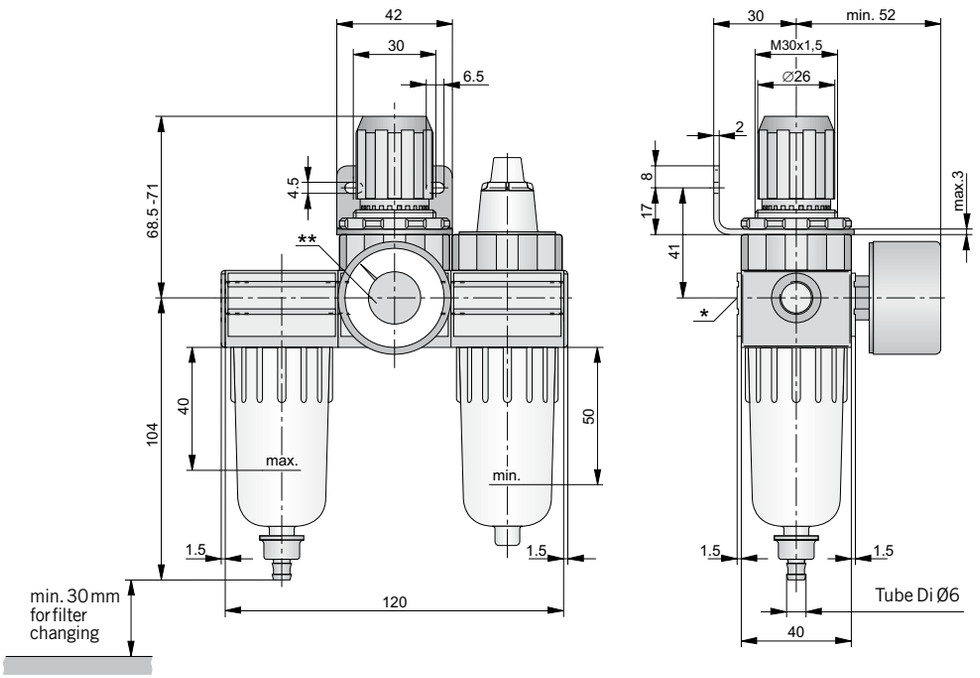
Air preparation unit three-piece:
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Air preparation unit two-piece:
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket
- Mounting ring

Filter-regulator:
- Mounting ring included

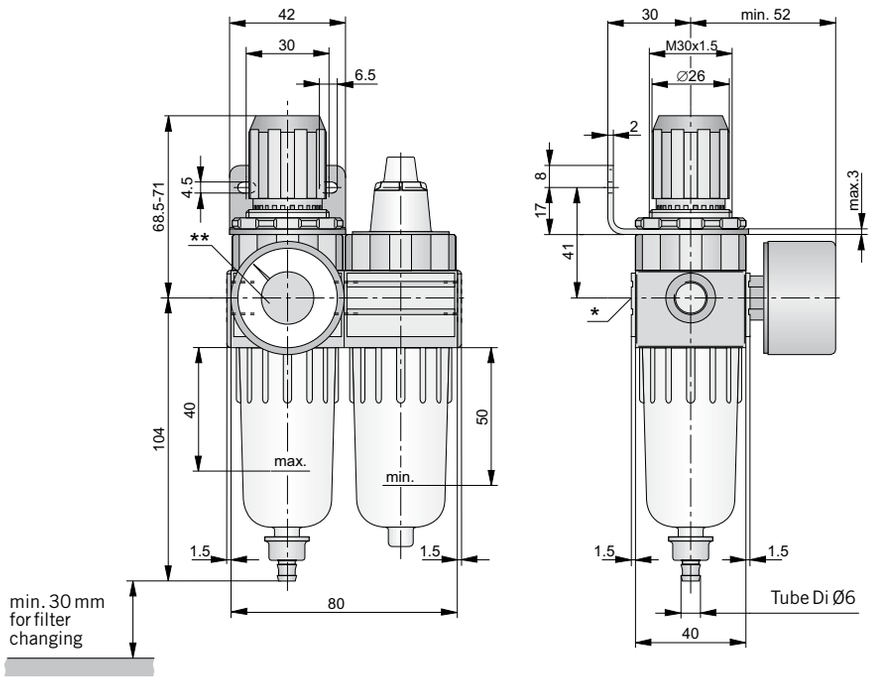
Pressure regulating valve:
- Mounting ring included

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



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

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



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

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

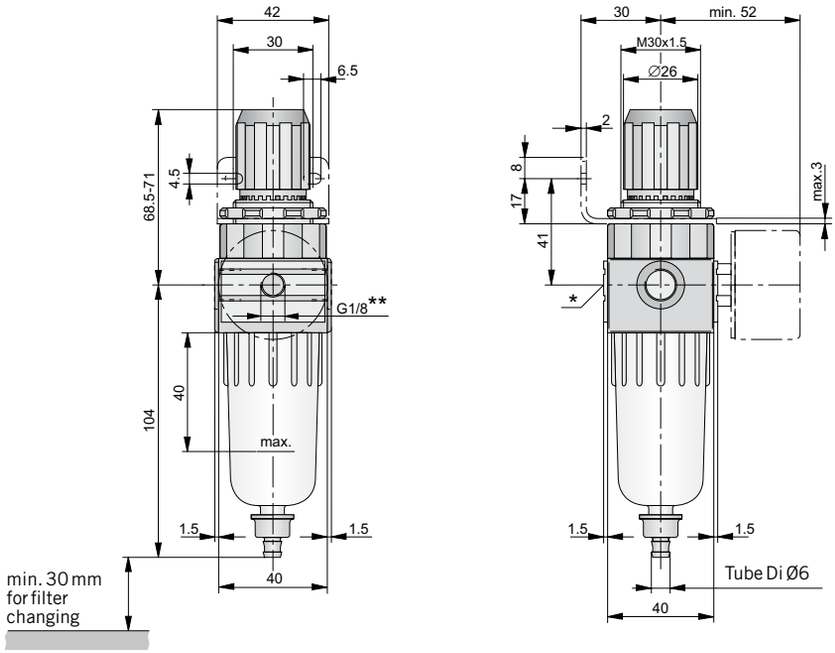
Dimensions in mm

Air preparation units

Series airfit light
G1/8, G1/4

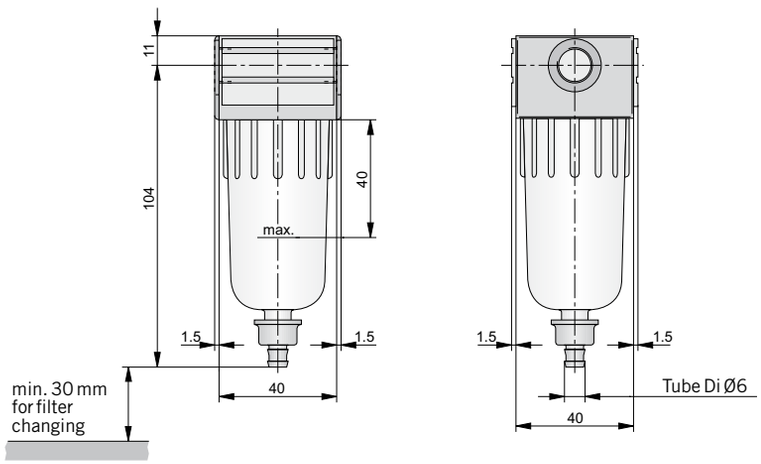
Dimensions

Filter-regulator – Type: MKS-06, -08



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

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



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

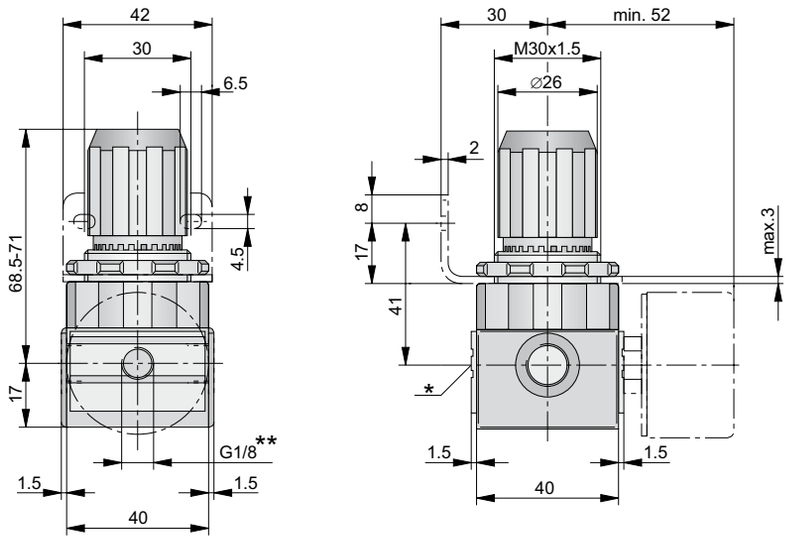
Dimensions in mm

Air preparation units

Series airfit light
G1/8, G1/4

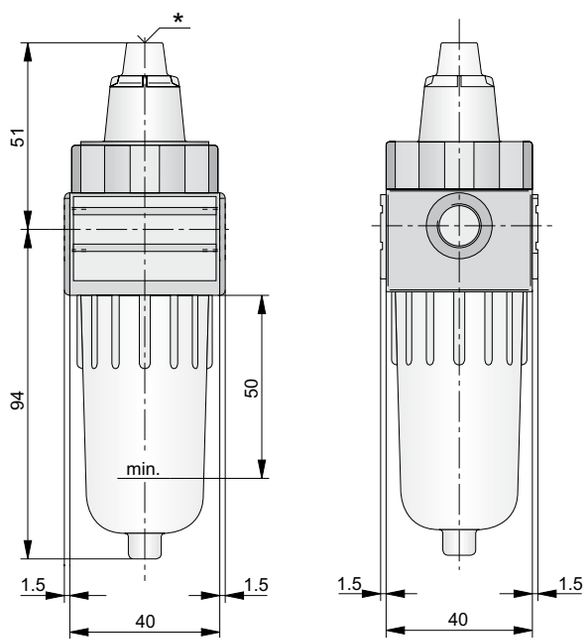
Dimensions

Pressure regulator – Type: MRP-06, -08



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

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



* Oil adjusting screw

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

Dimensions in mm

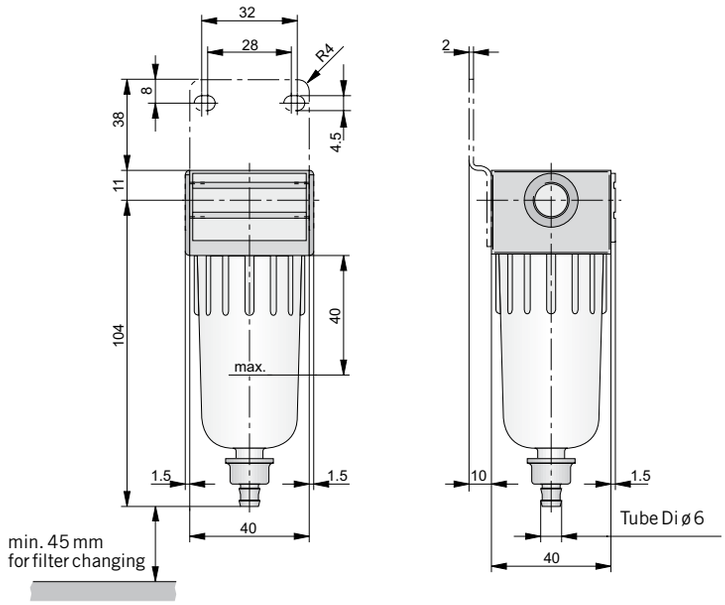
Air preparation units

Series airfit micro
G1/8, G1/4

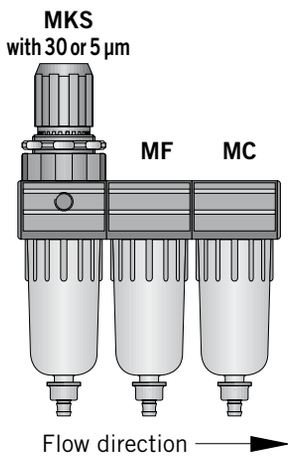
Dimensions

– for series airfit light

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



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

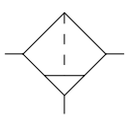
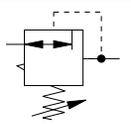
Dimensions in mm

Air preparation units

Series airfit light
G1/8, G1/4

Order instructions

Standard versions

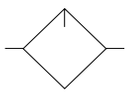
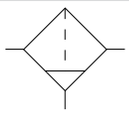
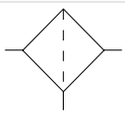
Description	Symbol	Port size	Order instruction	
			Type	Order No.
Air preparation unit three-piece				
– basic model		G1/4	MFRLS-08	PB 40949-100
– with filter element 5 µm		G1/4	MFRLS-08-5	PB 40949-110
– with semi-automatic drainage		G1/4	MFRLS-08-H	PB 40949-104
Air preparation unit two-piece				
– basic model		G1/8	MKLS-06	PB 40449-100
– basic model		G1/4	MKLS-08	PB 40549-100
– with filter element 5 µm		G1/8	MKLS-06-5	PB 40449-109
– with filter element 5 µm		G1/4	MKLS-08-5	PB 40549-109
– with semi-automatic drainage		G1/8	MKLS-06-H	PB 40449-104
– with semi-automatic drainage		G1/4	MKLS-08-H	PB 40549-104
Filter-regulator				
– basic model		G1/8	MKS-06	PB 40049-100
– basic model		G1/4	MKS-08	PB 40149-100
– with filter element 5 µm		G1/8	MKS-06-5	PB 40049-116
– with filter element 5 µm		G1/4	MKS-08-5	PB 40149-116
– with semi-automatic drainage		G1/8	MKS-06-H	PB 40049-101
– with semi-automatic drainage		G1/4	MKS-08-H	PB 40149-101
Filter-water-separator				
– basic model		G1/8	MFS-06	PB 40649-100
– basic model		G1/4	MFS-08	PB 40749-100
– with filter element 5 µm		G1/8	MFS-06-5	PB 40649-116
– with filter element 5 µm		G1/4	MFS-08-5	PB 40749-116
– with semi-automatic drainage		G1/8	MFS-06-H	PB 40649-101
– with semi-automatic drainage		G1/4	MFS-08-H	PB 40749-101
Pressure regulating valve				
– basic model with p_1 - flow compensation		G1/8	MRP-06	PB 21749-800
– basic model with p_1 - flow compensation		G1/4	MRP-08	PB 21649-800

Air preparation units

Series airfit light
G1/8, G1/4

Order instructions

Standard versions

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

Accessories

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

* for more gauges see page 198, 199

For more information see accessories page 18, 19

Air preparation units

Series airfit light
G1/8, G1/4

Accessories
– Porting block

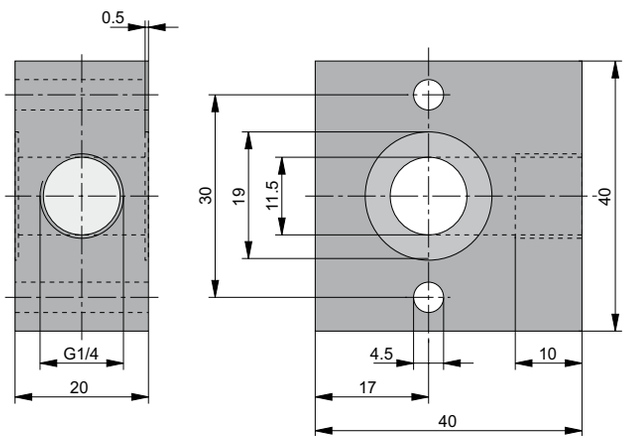
To provide unlubricated air,
e.g. for air gun

Delivery includes:

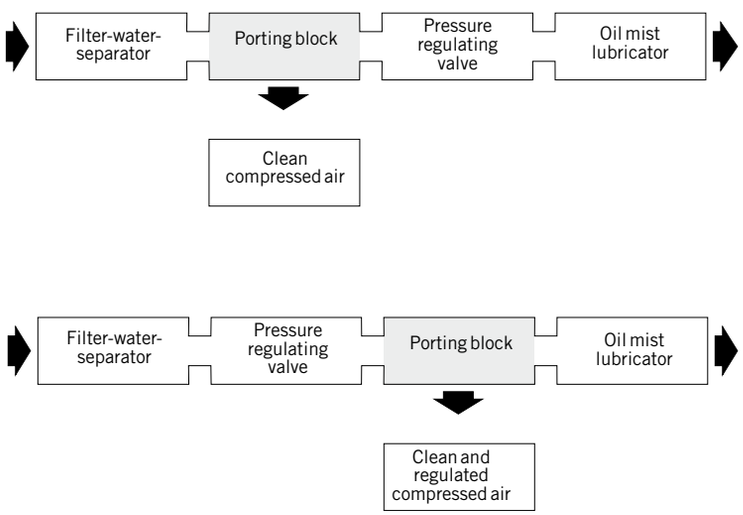
Porting block
2 sealing rings
2 mounting screws

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

Dimensions



Installation Instructions

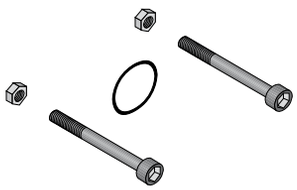


Order instructions – Accessories

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

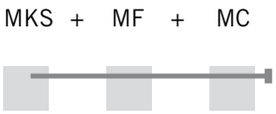
Dimensions in mm

Coupling kit



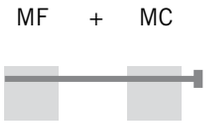
Order No. PL16030

Coupling kit



Order No. PL16755

Coupling kit



Order No. PL16669

Mounting bracket

Order No. PL15531

Gauge Ø 40, 0–10 bar, G1/8

Order No. KZ8813

Air preparation units

Series airfit light
G1/8, G1/4

Accessories
– *Coupling kits*
– *Mounting brackets*
– *Gauges*

Air preparation units

Series airfit swing
G1/4, G3/8

Overview

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

Air preparation units

Series airfit swing
G1/4, G3/8

Characteristics

Special solutions
(e.g. temperature, pressure, medium ...) on request, or see page 167–178 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Air preparation unit three-piece**		**Air preparation unit two-piece**	
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator*, gauge, mounting bracket		Consisting of filter-regulator, oil mist lubricator*, gauge, mounting bracket	
Type			SFRL-1/4	SFRL-3/8	SKL-1/4	SKL-3/8
Material						
– Housing			Diecast zinc			
– Plastic bowl			Polycarbonate		Polycarbonate	
– Metal bowl			Diecast zinc		Diecast zinc	
– Diaphragm			NBR		NBR	
– Standard sealings			NBR			
Port size (NPTF version)			G1/4	G3/8	G1/4	G3/8
Max. condensate capacity		cm^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	η	%	> 95	> 90	> 95	> 90

[1] at p_1 =10 bar and p_2 = 6.3 bar, Δp = 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 MRP-1/8 (see page 9)
*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm^2/s at 40°C) or Parker Origa compressed air oil, Order No.: KG6140 (see page 203)

	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, handwheel 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								
	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8	G1/4	G3/8	G1/4
	22	22	22	22	22	22	–		–
	30 or 5		30 or 5		1				
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual		–		–
	–		–		–		–		–
	–		–		–		–		–
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position
	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)
	0.35		0.25		0.25		0.30		0.40
	0 16		0 16		0 16		0 16		0 16
	0.5 to 8 On request 0.5 to 4[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 G1/4, G3/8

Characteristics

Special solutions (e.g. temperature, pressure, medium ...) on request, or see page 167–178 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)			G1/4	G3/8	G1/4	G3/8
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]	η	%	–		–	
Residual oil amount		mg/m^3	–		–	

[1] at p_1 =10 bar and p_2 = 6.3 bar, Δp = 1 bar,
start-stop valve and 3/2 Way shut-off valve: at p_1 = 6.3 bar, Δp = 1 bar
[2] at 6 bar and 25 m/s flow velocity

*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm^2/s at 40°C) or Parker Origa compressed air oil, Order No.: KG6140 (see page 203)

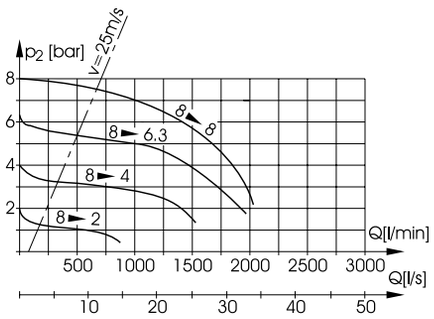
	Stop valve		**Submicrofilter**		**Activated carbon filter**		**3/2 Way shut-off valve**	
	3/2 Way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 Way valve (spool type), direct assembly to any unit from the airfit swing series, with coupling kit PL16959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

Air preparation units

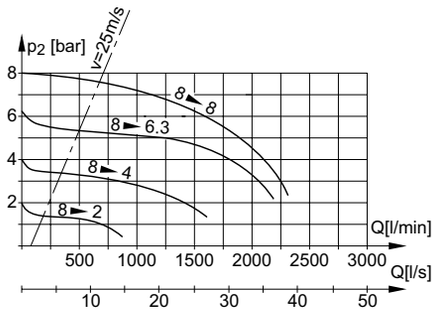
Series airfit swing
G1/4, G3/8

Flow characteristics

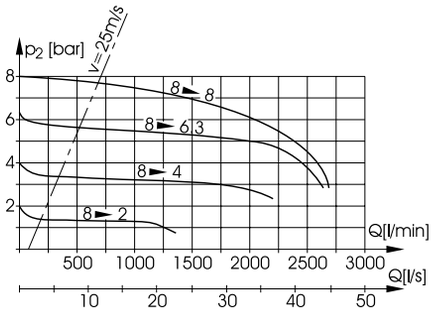
Air preparation unit three-piece/two-piece
Type: SFRL-1/4



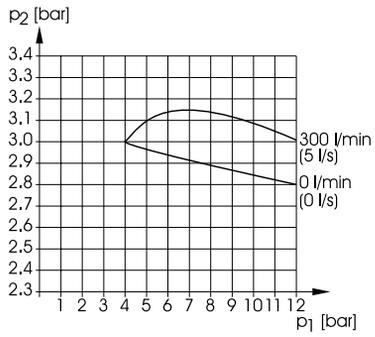
Type: SKL-1/4



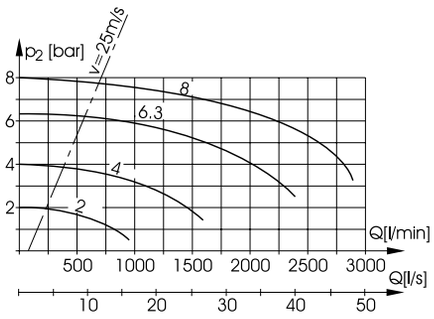
Filter-regulator
Type: SK-1/4



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



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

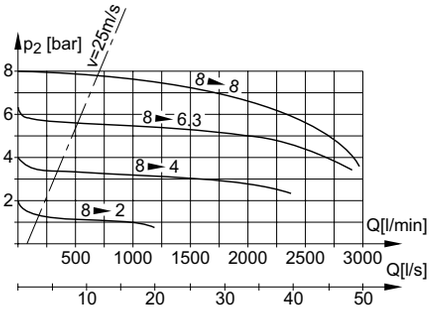


Air Preparation Units

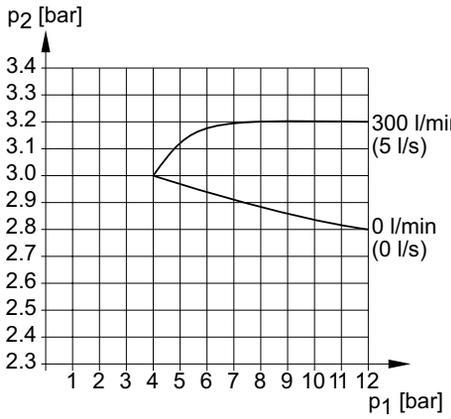
Series airfit swing
G1/4, G3/8

Flow characteristics

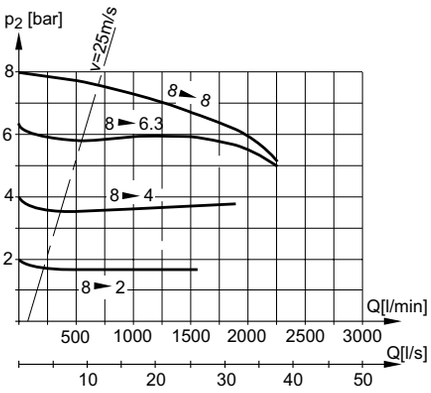
Pressure regulating valve
Type: SR-1/4, SR-1/4-T



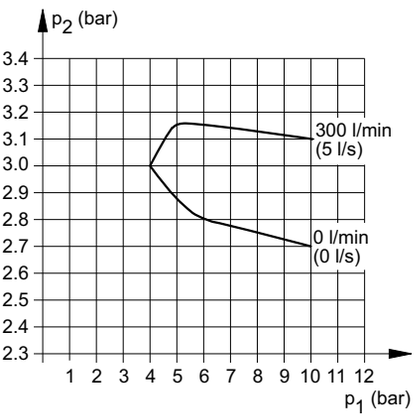
Outlet pressure variation with fluctuating inlet pressure
Type: SR-1/4, SR-1/4-T



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



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



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

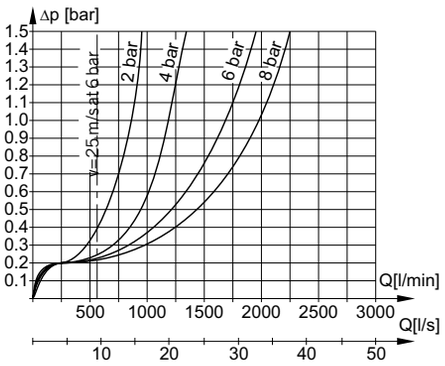
Dimensions in mm

Air Preparation Units

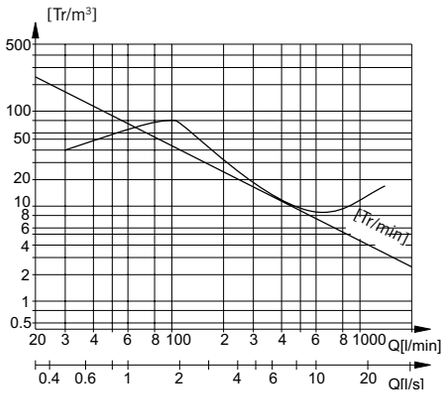
Series airfit swing
G1/4, G3/8

Flow characteristics

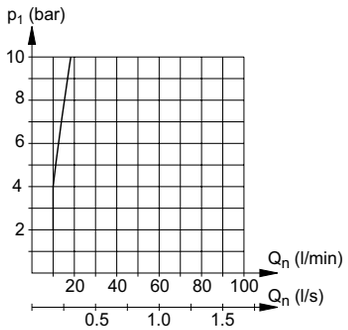
Oil mist lubricator
Type: SL-1/4



Oil/air ratio
Type: SL-1/4



Min. operating conditions
Type: SL-1/4



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

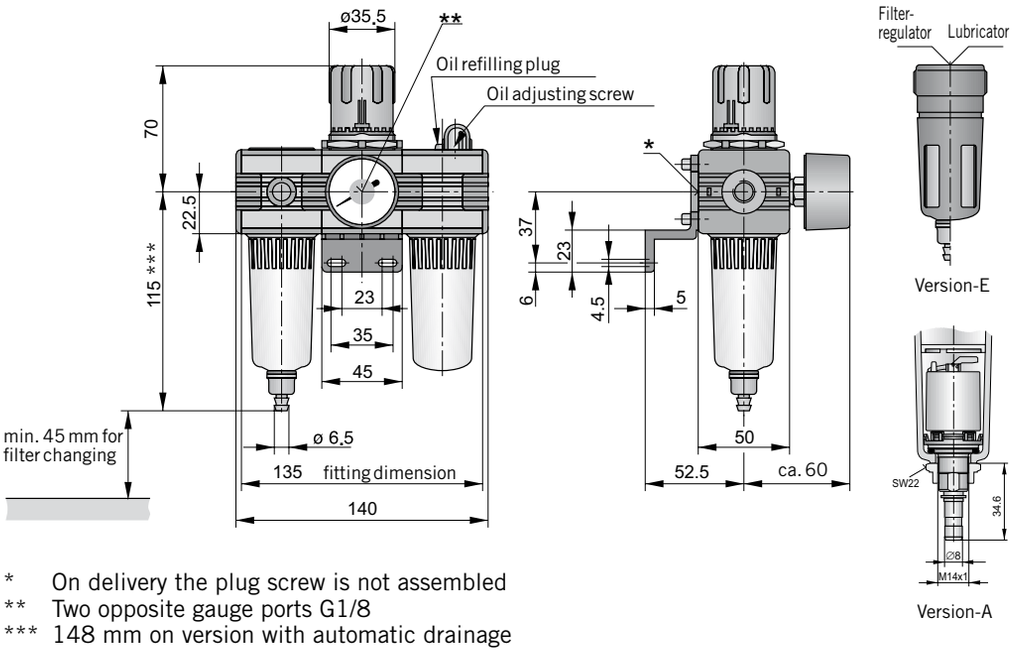
Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

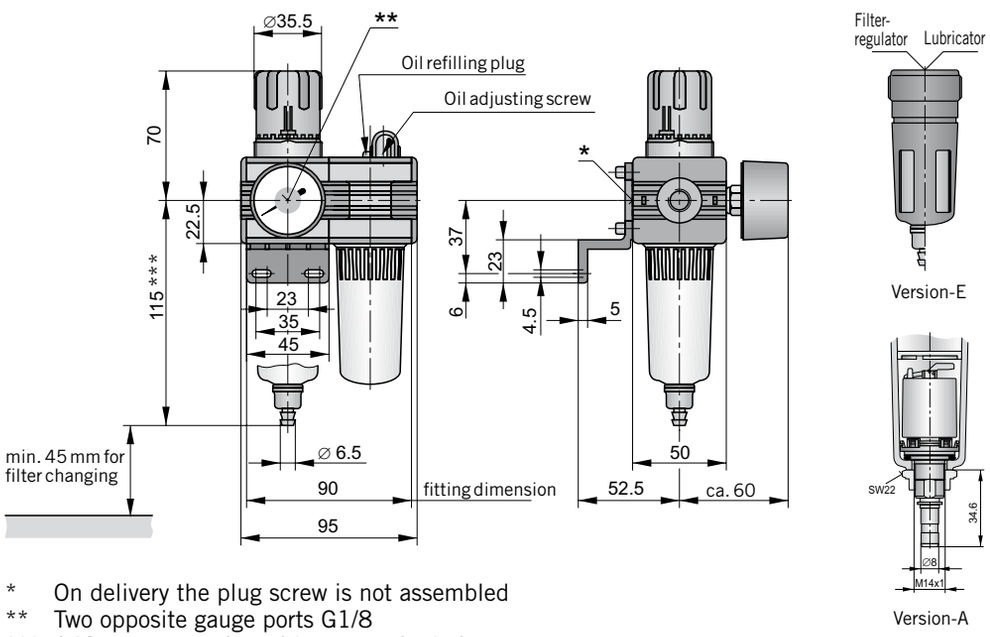
Dimensions

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



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

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



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

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

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

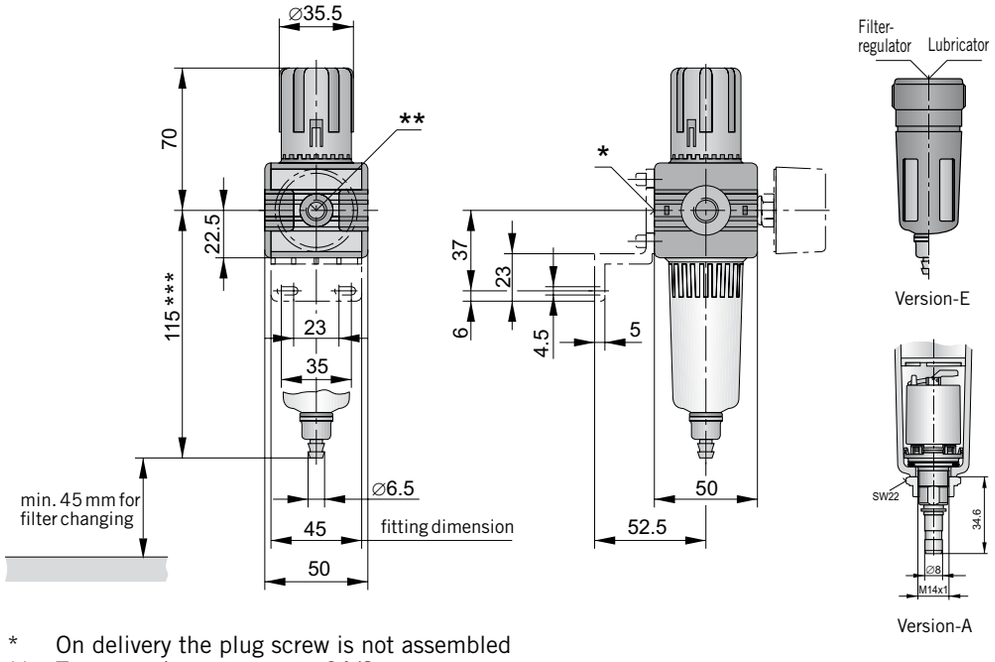
Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

Dimensions

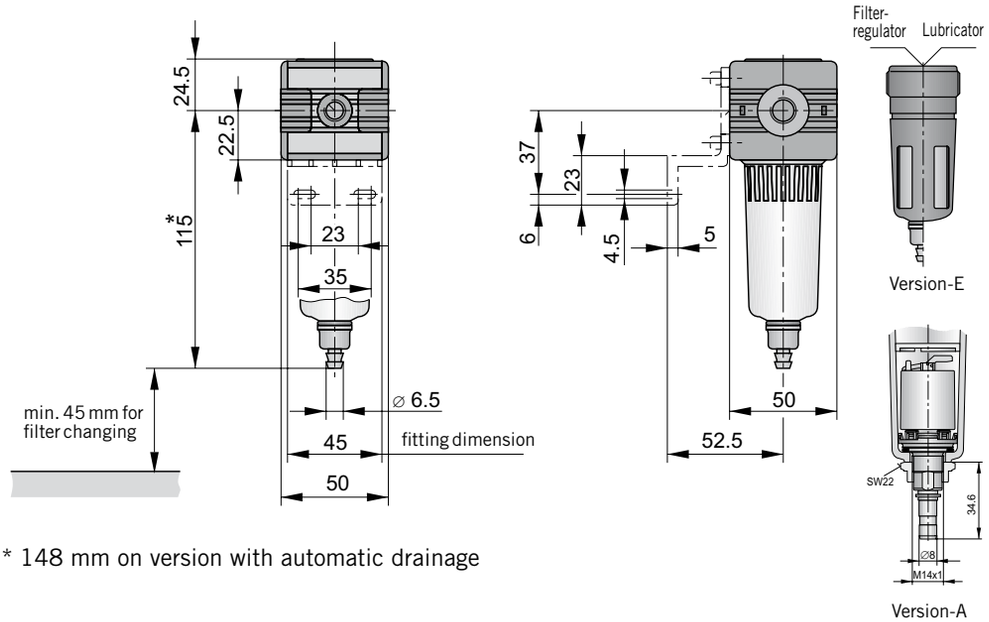
Filter-regulator – Type: SK-1/4, 3/8



* On delivery the plug screw is not assembled
** Two opposite gauge ports G1/8
*** 148 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*



* 148 mm on version with automatic drainage

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

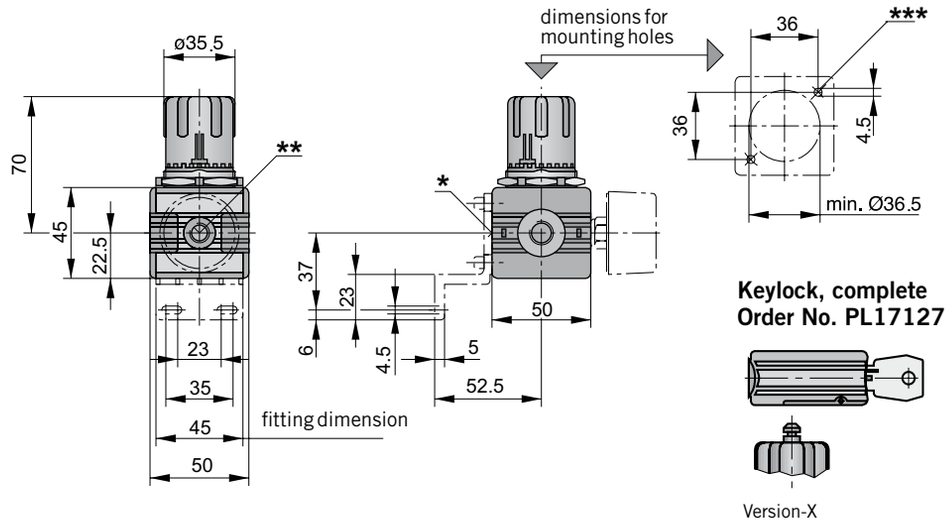
Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

Dimensions

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

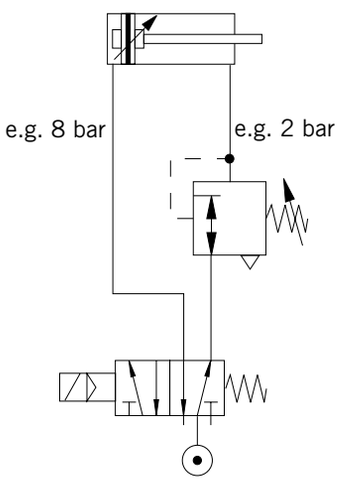


Keylock, complete
Order No. PL17127

Version-X

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

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



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

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

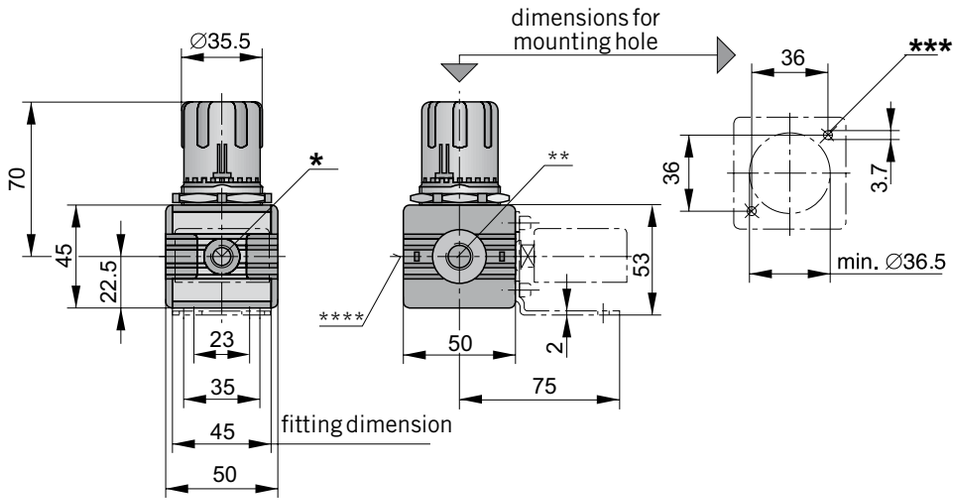
Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

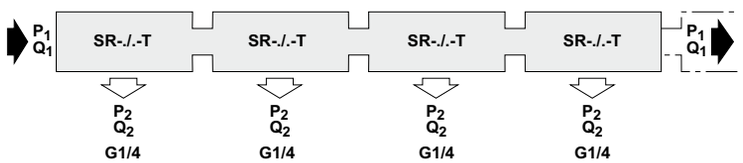
Dimensions

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



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

Installation instructions for battery mounting



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

Dimensions in mm

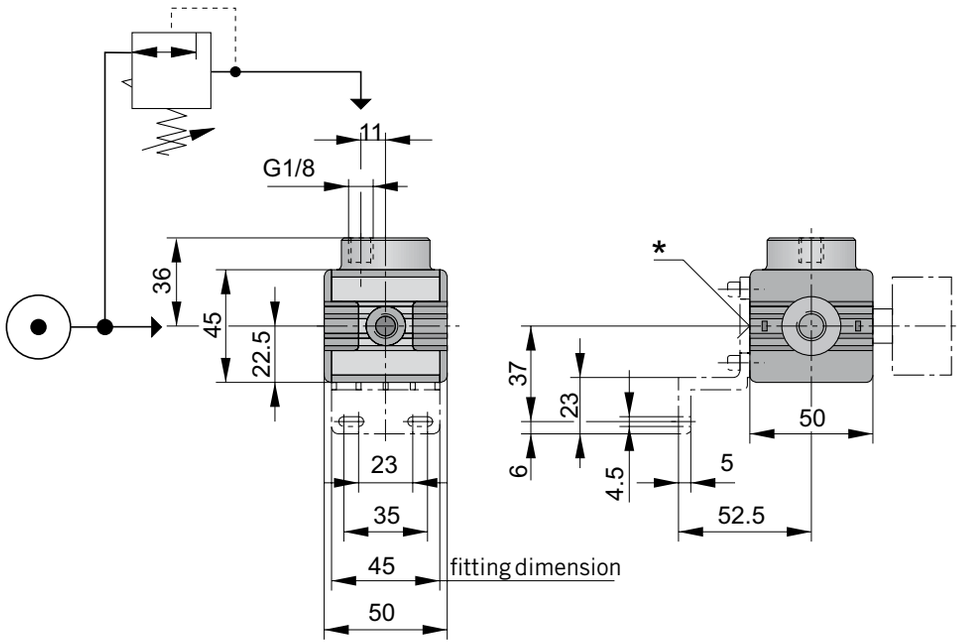
Air Preparation Units

Series airfit swing
G1/4, G3/8

Dimensions

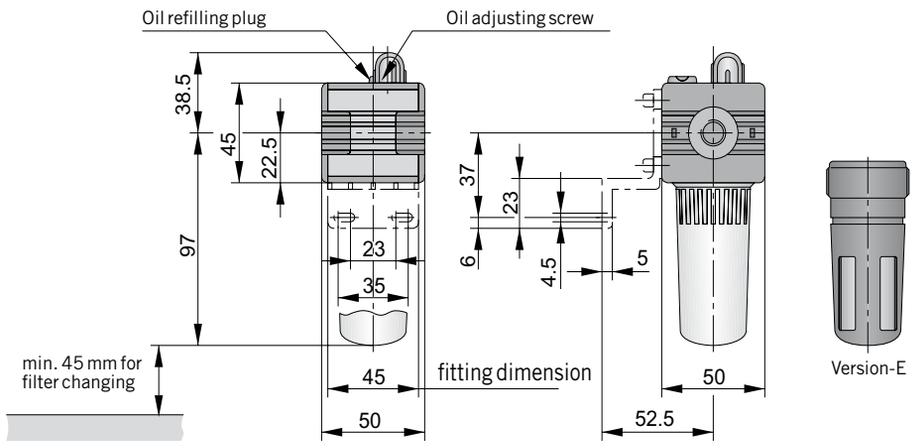
Pressure regulating valve, pilot operated – Type: SRV-1/4

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



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

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



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

Dimensions in mm

Air Preparation Units

Series airfit swing G1/4, G3/8

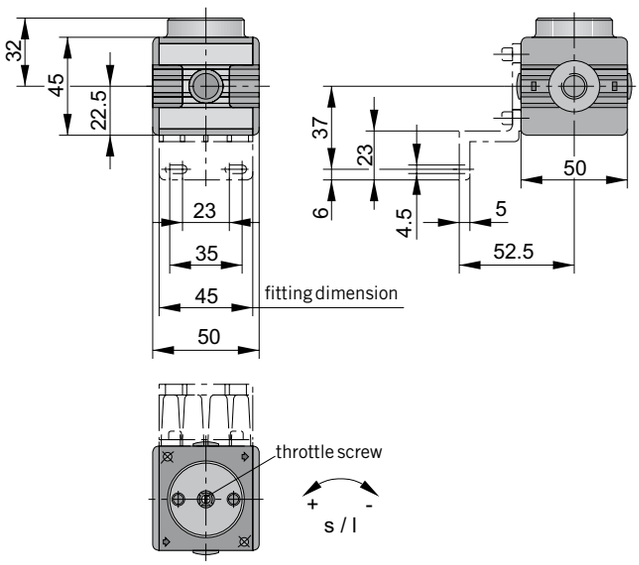
Dimensions

Features:

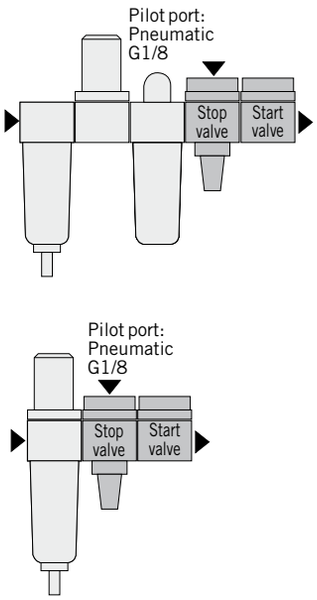
Safety valve for slow pressure build-up in pneumatic circuits. It prevents uncontrolled movements of the pneumatic components under the impact of full operating pressure. Pressure build-up time can be adjusted with the throttle screw.

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

Start valve – Type: SDA-1/4, 3/8

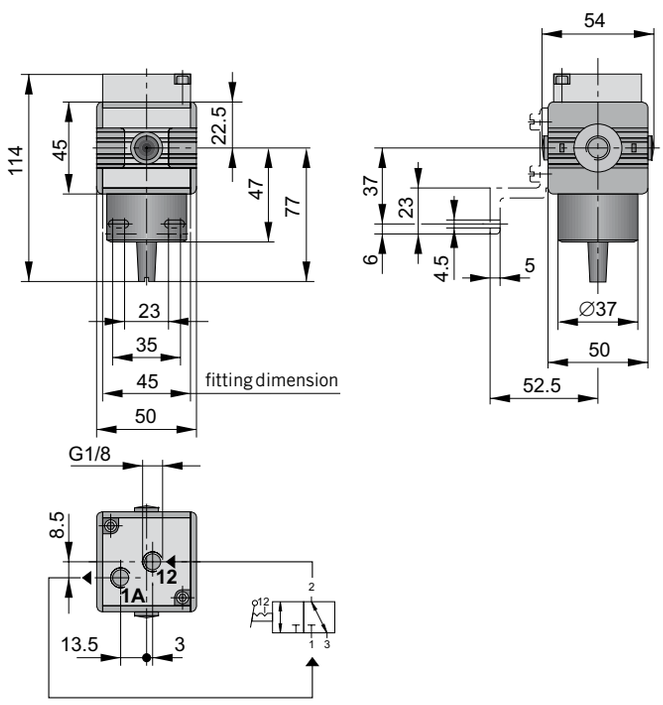


Installation instructions for start-stop valve



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 x V (l) = t (s)
6 → 0.1 bar	0.65 x V (l) = t (s)
4 → 0.1 bar	0.55 x V (l) = t (s)
2 → 0.1 bar	0.45 x 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

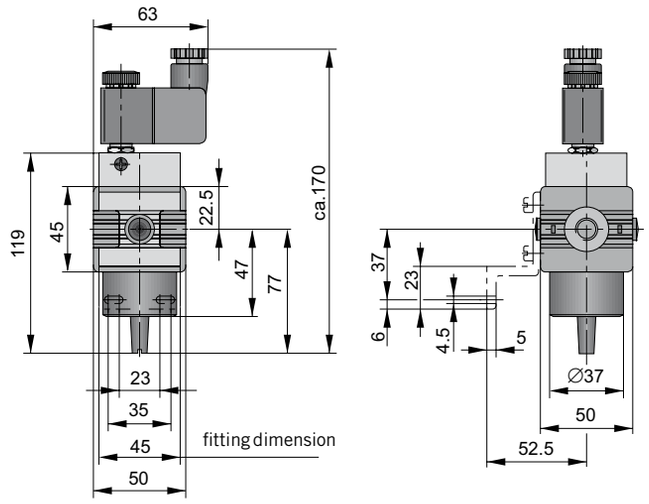
Dimensions in mm

Air Preparation Units

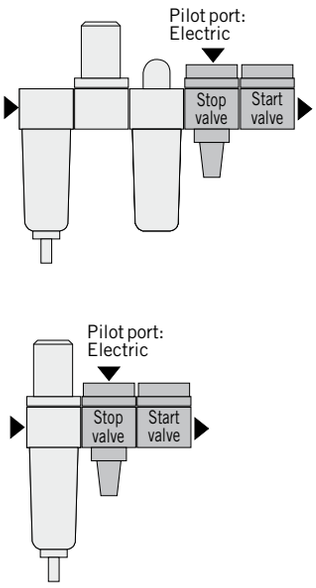
Series airfit swing
G1/4, G3/8

Dimensions

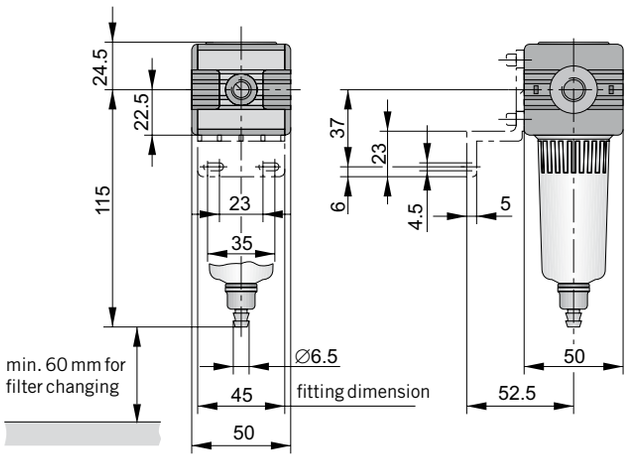
Stop valve – Type: SDR-1/4E, 3/8E (electrically actuated)



Installation instructions

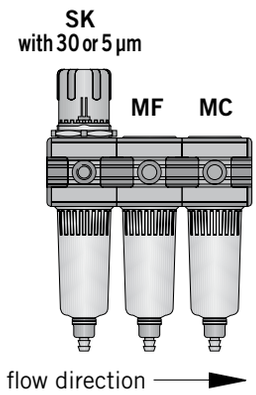


Submicrofilter – Type: MF012-1/4, 3/8
Activated carbon filter – Type: MC012-1/4, 3/8



Installation procedure

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



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

Dimensions in mm

Air Preparation Units

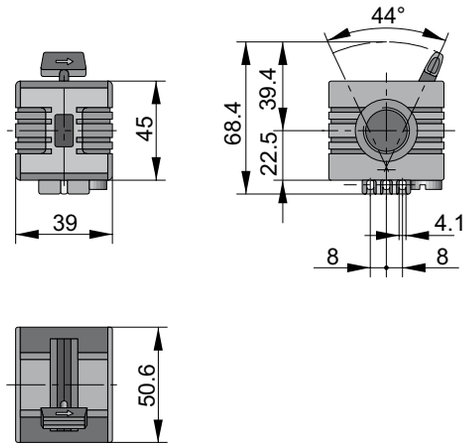
3/2 way shut-off valve
Type: SDV-1/4-XS, -3/8-XS

Series airfit swing
G1/4, G3/8

Dimensions

Features:

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



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

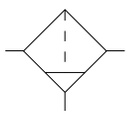
Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
Air preparation unit three-piece				
Basic version		G1/4	SFRL-1/4	PB 48149-000
		G3/8	SFRL-3/8	PB 48249-000
with semi-automatic drainage		G1/4	SFRL-1/4-H	PB 48149-001
		G3/8	SFRL-3/8-H	PB 48249-001
with automatic drainage		G1/4	SFRL-1/4-A	PB 48149-002
		G3/8	SFRL-3/8-A	PB 48249-002
Air preparation unit two-piece				
Basic version		G1/4	SKL-1/4	PB 48449-000
		G3/8	SKL-3/8	PB 48549-000
with semi-automatic drainage		G1/4	SKL-1/4-H	PB 48449-001
		G3/8	SKL-3/8-H	PB 48549-001
with automatic drainage		G1/4	SKL-1/4-A	PB 48449-002
		G3/8	SKL-3/8-A	PB 48549-002
with metal bowl (sight glass) [1])		G1/4	SKL-1/4-E	PB 48449-004
		G3/8	SKL-3/8-E	PB 48549-004
Filter-regulator				
Basic version		G1/4	SK-1/4	PB 45749-000
		G3/8	SK-3/8	PB 45849-000
with filter element 5 µm		G1/4	SK-1/4-5	PB 45749-016
		G3/8	SK-3/8-5	PB 45849-016
with semi-automatic drainage		G1/4	SK-1/4-H	PB 45749-001
		G3/8	SK-3/8-H	PB 45849-001
with automatic drainage		G1/4	SK-1/4-A	PB 45749-002
		G3/8	SK-3/8-A	PB 45849-002
with metal bowl (sight glass) [1])		G1/4	SK-1/4-E	PB 45749-004
		G3/8	SK-3/8-E	PB 45849-004
Filter-water-separator				
Basic version		G1/4	SF-1/4	PB 45149-000
		G3/8	SF-3/8	PB 45249-000
with filter element 5 µm		G1/4	SF-1/4-5	PB 45149-016
		G3/8	SF-3/8-5	PB 45249-016
with filter element 1 µm (dust filter)		G1/4	SFD-1/4-1	PB 45149-070
		G3/8	SFD-3/8-1	PB 45249-070
with semi-automatic drainage		G1/4	SF-1/4-H	PB 45149-001
		G3/8	SF-3/8-H	PB 45249-001
with automatic drainage		G1/4	SF-1/4-A	PB 45149-002
		G3/8	SF-3/8-A	PB 45249-002
with metal bowl (sight glass) [1])		G1/4	SF-1/4-E	PB 45149-004
		G3/8	SF-3/8-E	PB 45249-004

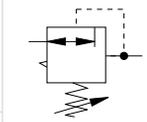
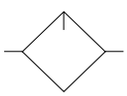
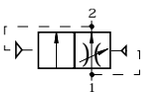
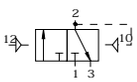
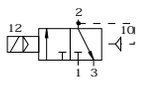
[1]) Versions with metal bowl and automatic drainage on request

Air Preparation Units

Series airfit swing G1/4, G3/8

Order instructions

Standard versions

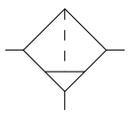
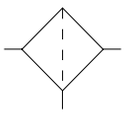
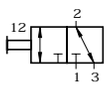
Description	Symbol	Port size	Order instruction Type	Order No.
Pressure regulating valve				
– Basic version		G1/4	SR-1/4	PB 45449-000
		G3/8	SR-3/8	PB 45549-000
– with adapter for keylock		G1/4	SR-1/4-X	PB 45449-006
		G3/8	SR-3/8-X	PB 45549-006
– Special pressure regulating valve for high relief capacity		G1/4	SR-1/4SO	PB 45449-030
– Pressure regulating valve with through p_1 supply port		p_1-G1/4, through p_2-G1/4, Output	SR-1/4-T-1/4	PB 45449-100
– Pressure regulating valve with through p_1 supply port		p_1-G3/8, through p_2-G1/4, Output	SR-3/8-T-1/4	PB 45549-100
– Pressure regulating valve, pilot operated		G1/4	SRV-1/4	PB 45449-070
Oil mist lubricator				
– Basic version		G1/4	SL-1/4	PB 46149-000
		G3/8	SL-3/8	PB 46249-000
– with metal bowl (sight glass)		G1/4	SL-1/4-E	PB 46149-004
		G3/8	SL-3/8-E	PB 46249-004
Start valve				
– Start valve		G1/4	SDA-1/4	PB 47149-100
		G3/8	SDA-3/8	PB 47249-100
Stop valve				
– pneumatically actuated		G1/4	SDR-1/4 P	PB 47149-200
		G3/8	SDR-3/8 P	PB 47249-200
– electrically actuated 24 V DC		G1/4	SDR-1/4 E	PB 47149-201
		G3/8	SDR-3/8 E	PB 47249-201
– electrically actuated 230 V/50 Hz		G1/4	SDR-1/4 E	PB 47149-204
		G3/8	SDR-3/8 E	PB 47249-204

Air Preparation Units

Series airfit swing G1/4, G3/8

Order instructions

Standard versions

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

Accessories

Description	For type	Order No.
Mounting kit	Standard	PL16965
Mounting kit	SR-..T	PL18519
Gauge Ø 40, 0–10 bar, G1/8*	SK, SR, SR-T	KZ8813
Coupling kit		PL16959
Porting block kit 3 x G1/8, 1 x G1/4 (coupling kit included)		PL16969
Porting block kit 3 x G1/8, 1 x G1/4 for pressure switch (mounting material included)		PL16977
Bowl guard kit		PL16970-00
Keylock for pressure regulating valve	SR-..X	PL17127
Keylock for 3/2 way shut-off valve	SDV	KG9017
Solvent resistant sight glass	SL	PL07233
Special oil for oil mist lubricators 1 l (see page 203)		KY8766

* for more gauges see page 198, 199

For more information see accessories page 40, 41

Air Preparation Units

Series airfit swing
G1/4, G3/8

Accessories
– Porting block kit

To provide unlubricated air
e.g. for air gun

Versions:

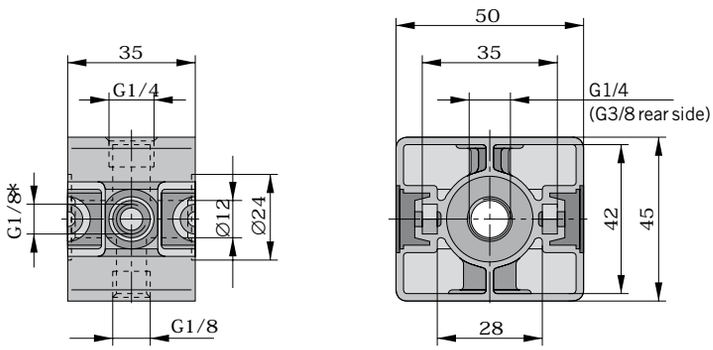
– Standard
– For pressure switch mounting

Delivery includes:

1 porting block
1 coupling kit
Plug screws

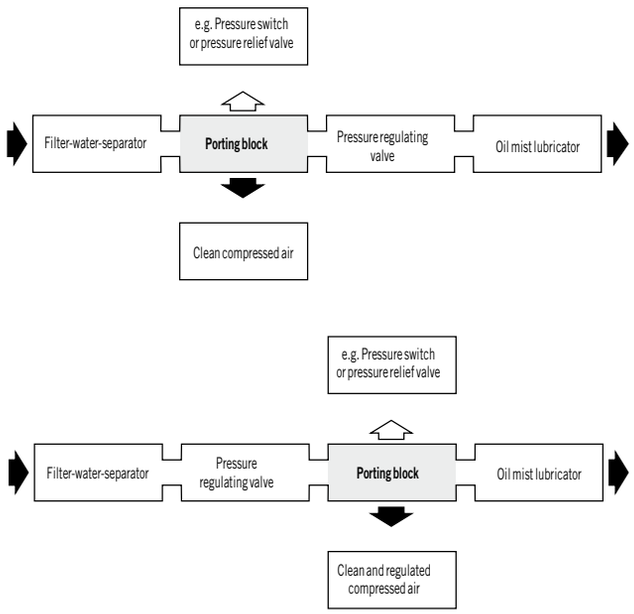
Characteristics	Description
Installation	Between 2 units of the airfit swing series
Mounting	Directly flange mountable with coupling kit supplied
Material	Zinc diecasting, black finish

Dimensions



* G1/8 thread on both sides

Installation instructions



Order instructions

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

Dimensions in mm

Air Preparation Units

Series airfit swing
G1/4, G3/8

Accessories
– Bowl guard kit

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

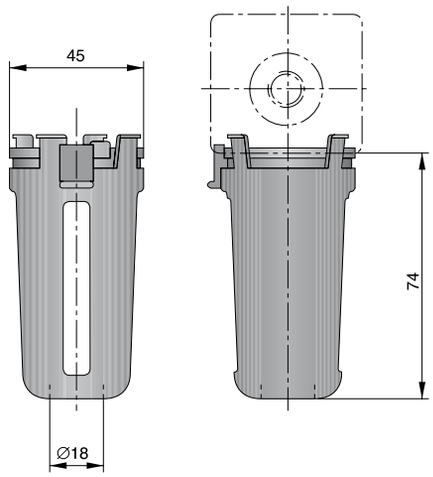
Delivery includes:

1 bowl guard
(with snap mounting)

Bowl guard kit

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

Dimensions



Order instructions

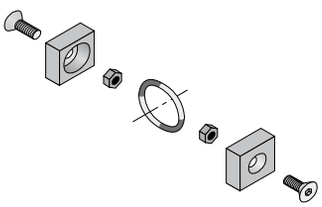
Port size	Order No.
G1/4, G3/8	PL 16970-00

Accessories
– Mounting kit
– Coupling kit
– Solvent resistant sight glass
– Keylock
– Gauge

Mounting kit

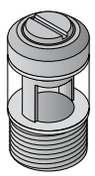
Order No. PL16965

Coupling kit



Order No. PL16959

Solvent resistant sight glass



Order No. PL07233

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

Order No. PL17127

Gauge Ø40, 0–10 bar, G1/8

Order No. KZ8813

Dimensions in mm

Air Preparation Units

airfit A15 series
G1/2, G3/4

Specifications

Special solutions on request

Specifications

Characteristics	Symbol	Unit	Air preparation unit, 2-piece with shut-off valve	Air preparation unit, 2-piece
Type			Consisting of shut-off valve, filter regulator and nano oil mist lubricator, pressure gauge and mounting bracket	Consisting of filter regulator and nano oil mist lubricator, pressure gauge and mounting bracket
Type			A15DVKL-1/2 A15DVKL-3/4	A15KL-1/2 A15KL-3/4
Materials				
– Housing			High-tech polymer	
– Plastic container			High-tech polymer with polypropylene insert	
– Membrane			NBR	NBR
– Standard seals			NBR	
Connection size (variant NPTF)			G1/2, G3/4 (NPT 1/2)	
Max. condensate volume		cm^3	60	60
Pore size of filter insert		µm	30 or 5	30 or 5
Condensate draining			Manual, semi-automatic (with pressure release) or automatic (l	
Mixture ratio		mg/m^3	5 or 25 - 50	5 or 25 - 50
Max. oil fill level		cm3	90	90
Oil top-up			Manual, also possible during operation	
Installation position			Vertical, container downwards	
Medium and ambient temperature	Tmin Tmax	°C °C	0 (to -40 on request) 60	
Weight (mass)		kg	1.3	1.0
Pneumatic specifications				
Operating pressure range, input	p1 min p1 max	bar bar	0 16	
Operating pressure range, output	p2 min/ max	bar	0.3 to 8 (0.3 to 16 on request) 3)	
Max. flow rate	Qmax	l/min m^3/h	3300 [1] 198	3300 [1] 198
Most favorable operating range for lubricator 2)	Qn	l/min m^3/h	1850 111	1850 111

[1] at p_1 = 8 bar and p_2 = 6.3 bar and Δp = 1 bar
[2] at 6 bar and 25 m/s flow rate
[3] by using special control springs, the pressure in the specified p2 range can be adjusted accurately
[4] at p_1 = 8 bar and Δp = 1 bar

*)In order to obtain optimum atomization of the oil, viscosities ≤ 32 cSt in line with ISO 3448 (32 mm^2/s at 40°C) are recommended.
Parker Origa compressed air oil VG15 — order number KG6140

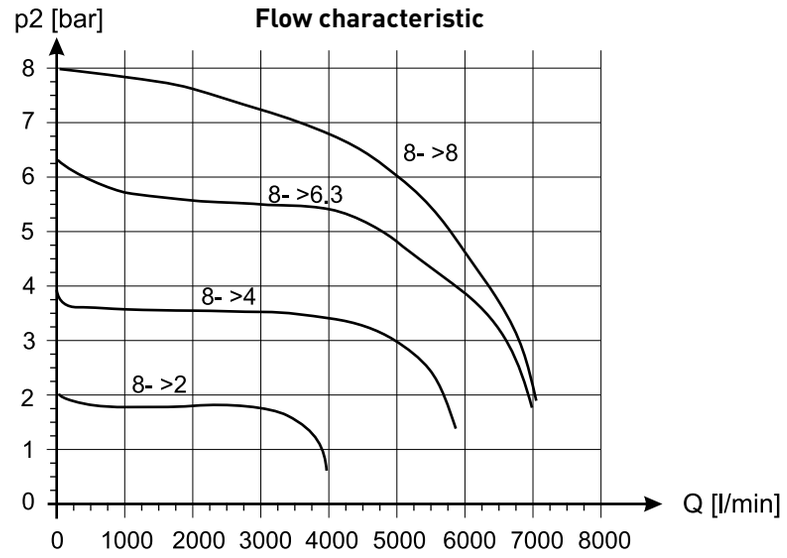
	Combination device (filter regulator)	**Filter water separator**	**Pressure regulator**	**Nano oil mist lubricator**
	With cyclone system and filter insert, combined with membrane pressure regulator (spring tension controlled), with secondary ventilation, primary pressure compensation and quantity compensation, locking hand wheel	With cyclone system and filter insert	Membrane pressure regulator (spring tension controlled) with secondary ventilation, primary pressure compensation and quantity compensation, locking hand wheel	Nano oil mist lubricator with constant mixture ratio*)
	A15K-1/2 A15K-3/4	A15F-1/2 A15F-3/4	A15R-1/2 A15R-3/4	A15L-1/2 A15R-3/4
			–	–
	NBR	–	NBR	NBR
	60	60	–	–
	30 or 5	30 or 5	–	–
evel-dependent)			–	–
	–	–	–	5 or 25 - 50
	–	–	–	90
	–	–	–	Manual, also possible during operation
			Any	Vertical, container downwards
	0.5	0.35	0.35	0.35
		–	0.3 to 8 (0.3 to 16 on request) [3]	–
	5400 [1] 324	7000 [4] 420	5800 [1] 348	7200 [4] 432
	–	–	–	1850 111

Air Preparation Units

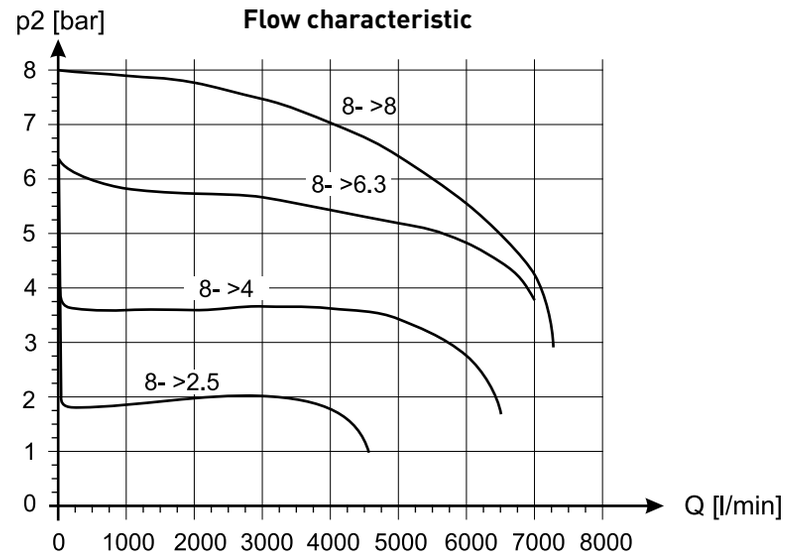
airfit A15 series
G1/2, G3/4

Flow characteristics

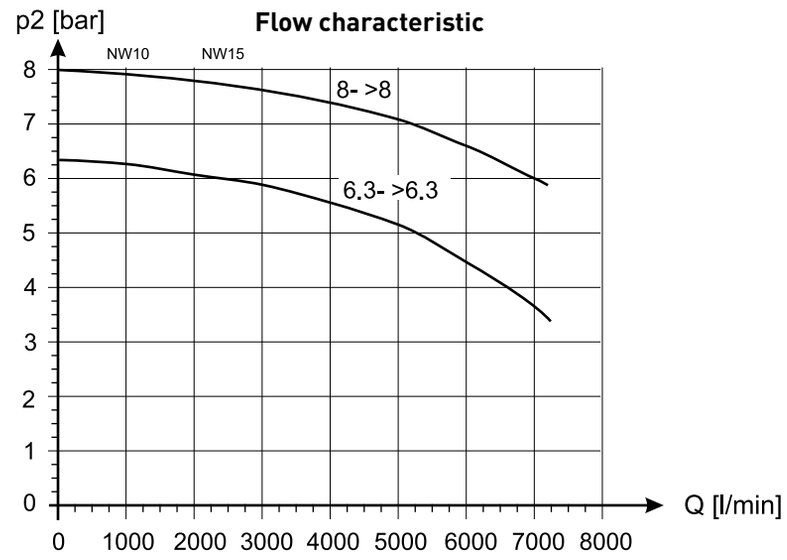
Air preparation unit, 2-piece — model A15KL-1/2



Combination device (filter regulator) — model A15K-1/2



Filter water separator — model A15F-1/2



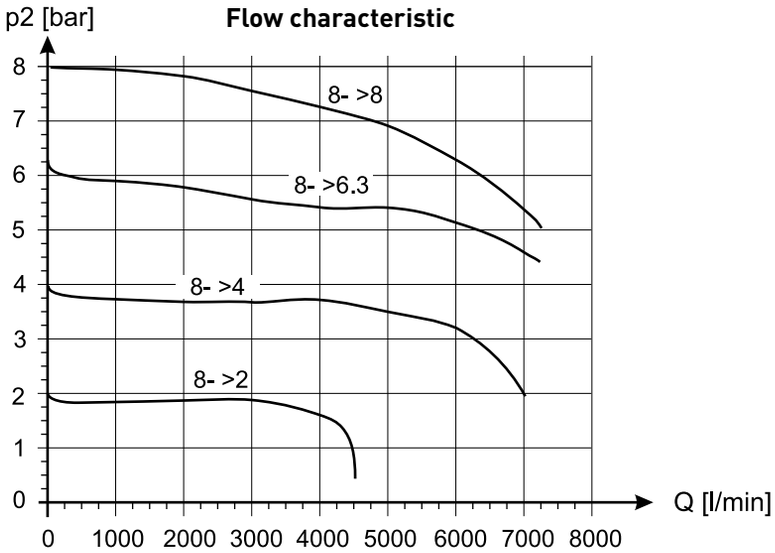
See page 5 for Specifications

Air Preparation Units

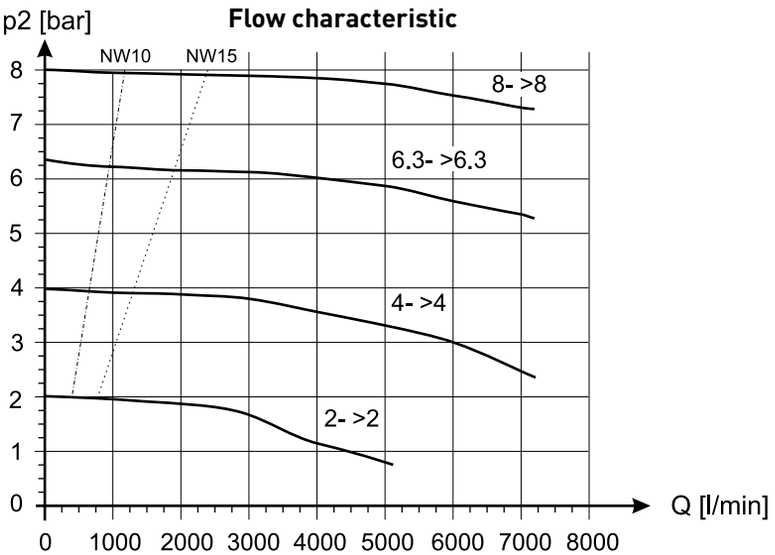
airfit A15 series
G1/2, G3/4

Flow characteristics

Pressure regulators — model A15R-1/2



Nano oil mist lubricator – model A15L-1/2



See page 5 for Specifications

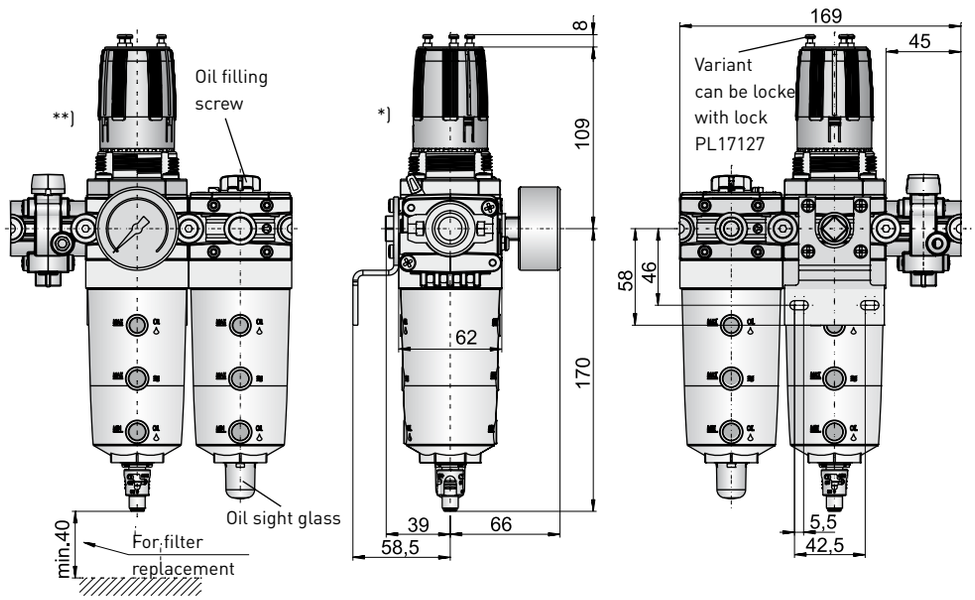
Air Preparation Units

airfit A15 series
G1/2, G3/4

Dimensions

Features
- *Bracket can be mounted immediately*
- *Modern design*

Air preparation unit, 2-piece with shut-off valve — model A15DVKL-1/2, -3/4



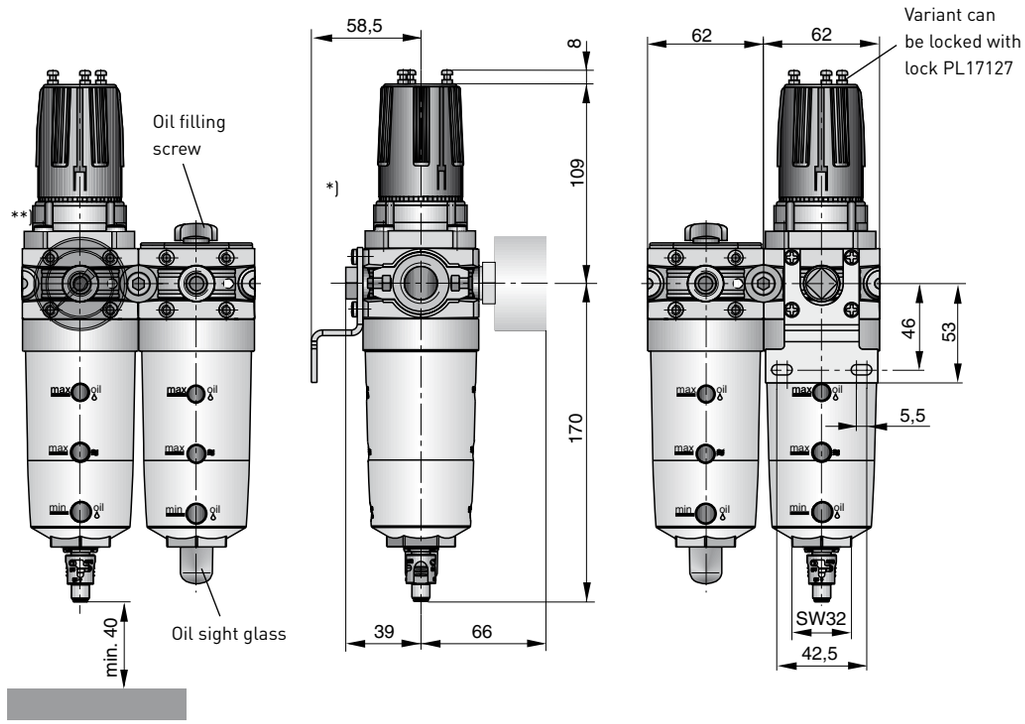
Scope of delivery:

Maintenance unit, 2-piece:
Combination device (filter regulator)
Nano oil mist lubricator
Pressure gauge
Mounting bracket
(Optional shut-off valve)

Combination device (filter regulator):
No pressure gauge
No mounting bracket

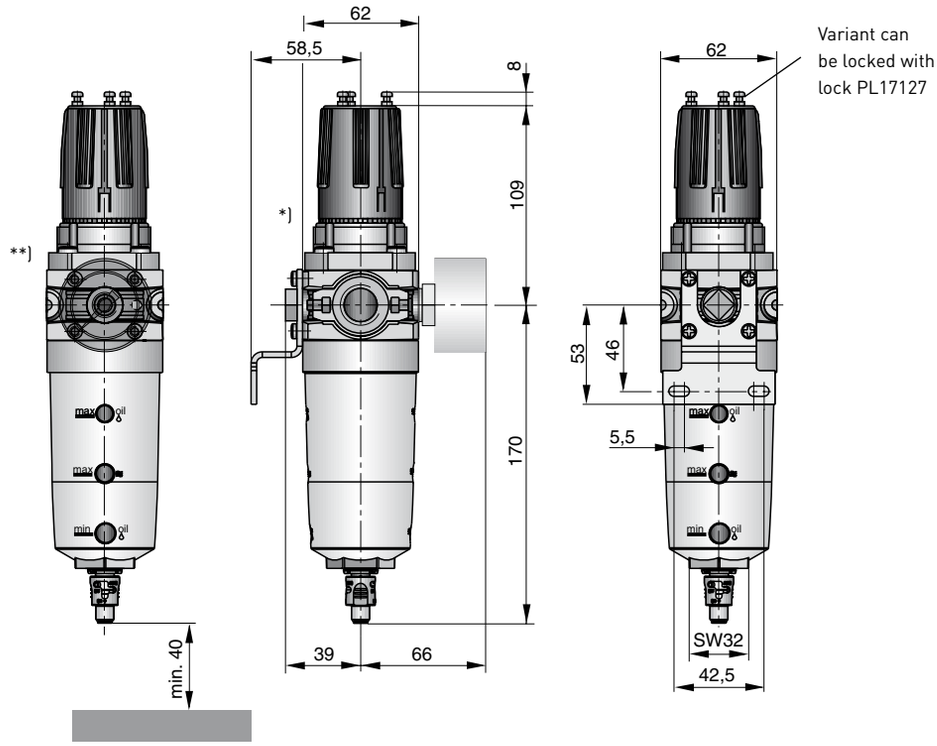
*) Locking screw is delivered unfitted
**) Double-sided pressure gauge connection G1/4

Air preparation unit, 2-piece — model A15KL-1/2, -3/4



*) Locking screw is delivered unfitted
**) Double-sided pressure gauge connection G1/4

Combination device (filter regulator) — model A15K-1/2, -3/4



*) Locking screw is delivered unfitted
**) Double-sided pressure gauge connection G1/4

See page 42 for Specifications

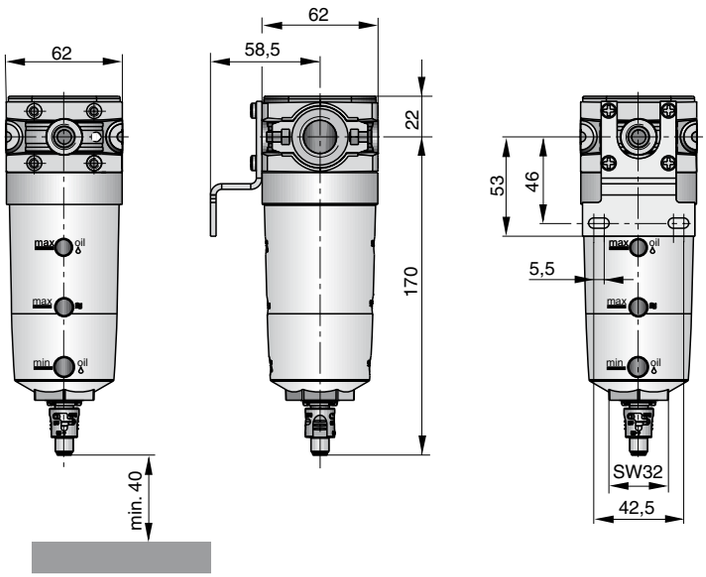
Dimensions in mm

Air Preparation Units

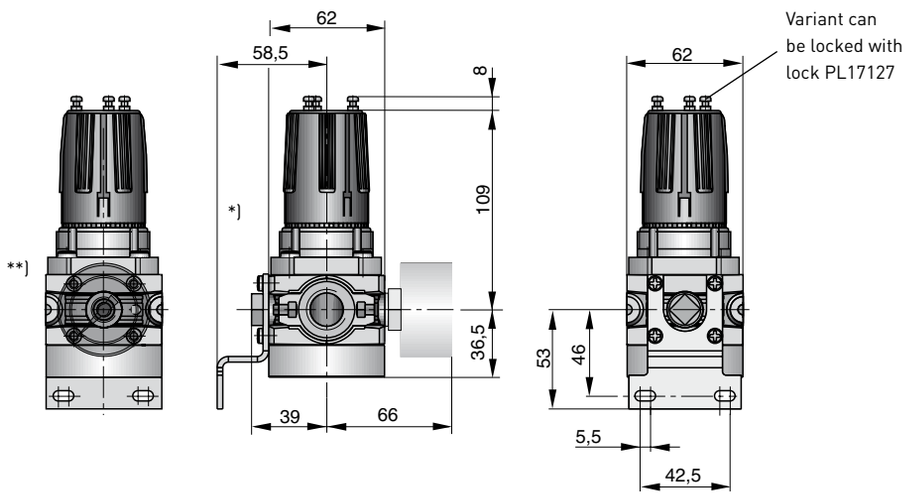
airfit A15 series
G1/2, G3/4

Dimensions

Filter water separator — model A15F-1/2, -3/4



Pressure regulator — model A15R-1/2, -3/4

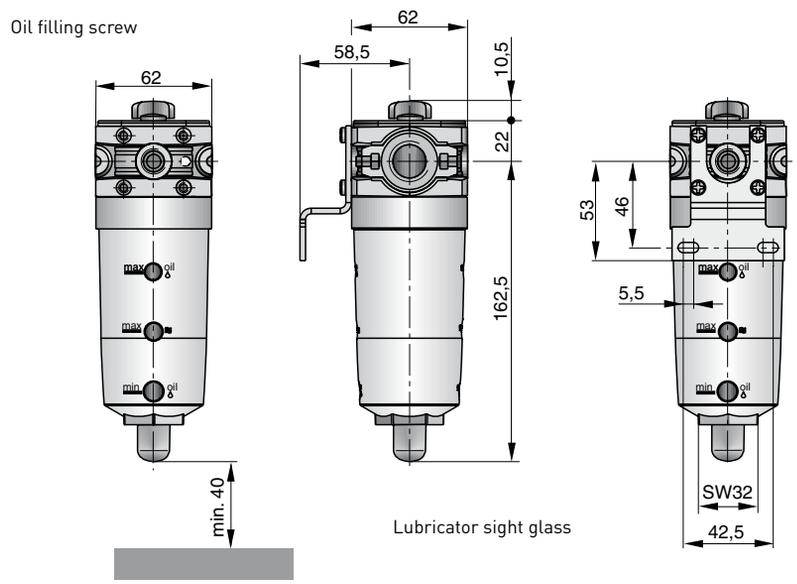


*) Locking screw is delivered unfitted
**) Double-sided pressure gauge connection G1/4

See page 42 for Specifications

Dimensions in mm

Nano oil mist lubricator — model A15L-1/2, -3/4



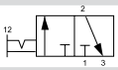
Air Preparation Units

airfit A15 series
G1/2, G3/4

Dimensions

Order details

Shut-off valve

Description	Symbol	Connect.	Type	Order no.
3/2-way shut-off valve 4 locks possible		G1/2	A15DV-1/2	A15DV449-000
		G3/4	A15DV-3/4	A15DV649-000

Accessories

Description	Symbol	Connect.	Type	Order no.
Pressure gauge Ø 50, 0–10 bar, G1/4		G1/4		KG8012
Mounting kit				PL19805
Coupling kit				PL19807
Lock for CR-./.-X				PL17127
Compressed air oil VG12 for nano oil mist lubricator				KG6140
Porting kit A15 incl. mounting material G1/2, 2xG1/4		G1/2		PL19899
Porting kit compatible with airfit comfort incl. mounting material G1/2, 2xG1/4, G1/8		G1/2		PL19902

See page 42 for Specifications

Dimensions in mm

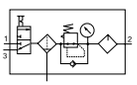
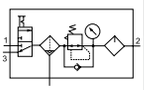
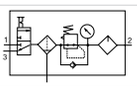
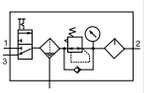
Air Preparation Units

airfit A15 series
G1/2, G3/4

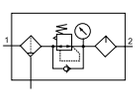
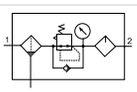
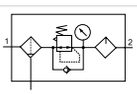
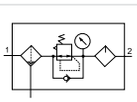
Order details

Standard units

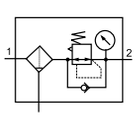
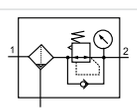
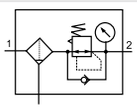
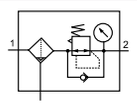
Maintenance unit, 2-piece with 3/2-way shut-off valve

Characteristics	Symbol	Con-nect.	Type	Order no.
Standard, with combined manual and semi-automatic condensate draining with 30-micron filter insert, 5 mg/m³ oil mist lubricator		G1/2	A15DVKL-1/2-SSS-100-ON-MW	A15KL449-010
		G3/4	A15DVKL-3/4-SSS-100-ON-MW	A15KL649-010
With fully automatic condensate draining		G1/2	A15DVKL-1/2-ASS-100-ON-MW	A15KL449-012
		G3/4	A15DVKL-3/4-ASS-100-ON-MW	A15KL649-012
With 50 mg/m³ oil mist lubricator		G1/2	A15DVKL-1/2-SSP-100-ON-MW	A15KL449-510
		G3/4	A15DVKL-3/4-SSP-100-ON-MW	A15KL649-510
With 50 mg/m³ oil mist lubricator and fully automatic condensate draining		G1/2	A15DVKL-1/2-ASP-100-ON-MW	A15KL449-512
		G3/4	A15DVKL-3/4-ASP-100-ON-MW	A15KL649-512

Maintenance unit, 2-piece

Description	Symbol	Con-nect.	Type	Order no.
Standard, with combined manual and semi-automatic condensate draining with 30-micron filter insert, 5 mg/m³ oil mist lubricator		G1/2	A15KL-1/2-SSS-100-ON-MW	A15KL449-000
		G3/4	A15KL-3/4-SSS-100-ON-MW	A15KL649-000
With fully automatic condensate draining		G1/2	A15KL-1/2-ASS-100-ON-MW	A15KL449-002
		G3/4	A15KL-3/4-ASS-100-ON-MW	A15KL649-002
With 50 mg/m³ oil mist lubricator		G1/2	A15KL-1/2-SSP-100-ON-MW	A15KL449-500
		G3/4	A15KL-3/4-SSP-100-ON-MW	A15KL649-500
With 50 mg/m³ oil mist lubricator and fully automatic condensate draining		G1/2	A15KL-1/2-ASP-100-ON-MW	A15KL449-502
		G3/4	A15KL-3/4-ASP-100-ON-MW	A15KL649-502

Combination device (filter regulator)

Description	Symbol	Con-nect.	Type	Order no.
Standard, with combined manual and semi-automatic condensate draining with 30-micron filter insert, 5 mg/m³ oil mist lubricator		G1/2	A15K-1/2-SS-100-ON-MW	A15K-449-000
		G3/4	A15K-3/4-SS-100-ON-MW	A15K-649-000
With fully automatic condensate draining		G1/2	A15K-1/2-S5-100-ON-MW	A15K-449-016
		G3/4	A15K-3/4-S5-100-ON-MW	A15K-649-016
With 50 mg/m³ oil mist lubricator		G1/2	A15K-1/2-AS-100-ON-MW	A15K-449-002
		G3/4	A15K-3/4-AS-100-ON-MW	A15K-649-002
With 50 mg/m³ oil mist lubricator and fully automatic condensate draining		G1/2	A15K-1/2-A5-100-ON-MW	A15K-449-018
		G3/4	A15K-3/4-A5-100-ON-MW	A15K-649-018

Air Preparation Units

airfit A15 series
G1/2, G3/4

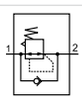
Order details

Standard units

Filter water separator

Characteristics	Symbol	Con-nect.	Type	Order no.
Standard, with combined manual and semi-automatic condensate draining, with 30-micron filter insert		G1/2	A15F-1/2-SS-ON-0	A15F-449-000
		G3/4	A15F-3/4-SS-ON-0	A15F-649-000
With 5-micron filter insert, with combined manual and semi-automatic condensate draining.		G1/2	A15F-1/2-S5-ON-0	A15F-449-016
		G3/4	A15F-3/4-S5-ON-0	A15F-649-016
With 1-micron filter insert, with combined manual and semi-automatic condensate draining.		G1/2	A15F-1/2-S1-ON-0	A15FD449-000
		G3/4	A15F-3/4-S1-ON-0	A15FD649-000
With fully automatic condensate draining		G1/2	A15F-1/2-AS-ON-0	A15F-449-002
		G3/4	A15F-3/4-AS-ON-0	A15F-649-002
With 5-micron filter insert, with fully automatic condensate draining		G1/2	A15F-1/2-A5-ON-0	A15F-449-018
		G3/4	A15F-3/4-A5-ON-0	A15F-649-018

Pressure regulator

Description	Symbol	Con-nect.	Type	Order no.
Basic version Control spring for 8 bar (16 bar on request)		G1/2	A15R-1/2-100-N-O	A15R-449-000
		G3/4	A15R-3/4-100-N-O	A15R-649-000
With adapter for lock		G1/2	A15R-1/2-1X0-N-O	A15R-449-006
		G3/4	A15R-3/4-1X0-N-O	A15R-649-006
Signal-controlled, extremely high flow characteristic		G1/2	A15RV-1/2-N-O	A15RV449-000
		G3/4	A15RV-3/4-N-O	A15RV649-000

Nano oil mist lubricator

Description	Symbol	Connect.	Type	Order no.
5 mg/m³ nano oil mist lubricator for components lubricated for life (e.g. cylinder, valves etc.)		G1/2	A15L-1/2-S-N-O	A15K-449-000
		G3/4	A15L-3/4-S-N-O	A15K-649-000
500 mg/m³ nano oil mist lubricator for effective oil lubrication (e.g. compressed air vane motors)		G1/2	A15L-1/2-P-N-O	A15K-449-016
		G3/4	A15L-3/4-P-N-O	A15K-649-016

Submicrofilter

Description	Symbol	Con-nect.	Type	Order no.
Basic version with clogging display with combined manual and semi-automatic condensate draining		G1/2	A15MF-1/2-SC-VN-O	A15MF449-000
		G3/4	A15MF-3/4-SC-VN-O	A15MF649-000
With automatic draining		G1/2	A15MF-1/2-AC-VN-O	A15MF449-002
		G3/4	A15MF-3/4-AC-VN-O	A15MF649-002

Activated carbon filter

Description	Symbol	Con-nect.	Type	Order no.
With combined manual and semi-automatic condensate draining		G1/2	A15MC-1/2-SA-ON-0	A15MC449-000
		G3/4	A15MC-3/3-SA-ON-0	A15MC649-000

Air Preparation Units

airfit A15 series
G1/2, G3/4

Order details

Order key, configurable for A15 basic versions and air preparation unit

A15	K	1/2	–	SSS	–	100	–	V	–	0	–	W	–	EX

Selection ①
Selection ②
Selection ③
Selection ④

①

Description	
F	Filter water separator
R	Pressure regulator
L	Nano oil mist lubricator
K	Filter regulator
FRL	Maintenance unit, 3-piece
DVK	Shut-off valve with filter regulator
KL	Maintenance unit, 2-piece
DVKL	Shut-off valve with maintenance unit, 2-piece
RV	Pressure regulator, pilot operated
MF	Microfilter
MC	Activated carbon filter

②

Connection size	
1/2	G1/2
3/4	G3/4
3/8	G3/8
N1/2	1/2" NPT
N3/8	3/8" NPT

③

Pressure regulator, filter regulator (not for RV) – Options

1 0 0	Pressure limitation factory preset		Locking option		Pressure regulating range	
	0	No factory presetting	0	Not lockable	1	0.3–8 bar
	6	= e.g. pressure limitation 6 bar	X	3 locks possible using PL17127*	2	0.3–16 bar

④

Filter water separator, filter regulator, microfilter – Options					Nano oil mist lubricator - Options	
S S S	Filter fineness		Condensate drainage		Const. oil discharge	
	S	Standard 30 µm	S	Standard (manual/semi-automatic)	S	1–5 *1) mg/m³
	5	5 µm	A	Automatic drainage	P	20–50 *2) mg/m³
	1	1 µm (not with A15K)	C	Closed container		
	C	0.01 µm (only in conjunction with A15MF)				
	A	Activated carbon filter (only in conjunction with A15MC)				

*1) For components already lubricated for life (e.g. actuators, valves etc.)
*2) For components that need effective oil lubrication (e.g. compressed air vane motors)

See page 42 for Specifications

Air Preparation Units

airfit A15 series
G1/2, G3/4

Order details

Selection ⑧
Selection ⑦
Selection ⑥
Selection ⑤

⑤

Operating conditions/ Seals	
N	Standard (NBR) Temperature range 0 to +60°C
C	Cold-resistant design Temperature range -40 to +60°C
V	Oxygen-resistant design
F	Food-resistant design

⑥

Filter clogging display (only for filter water separator with 1 µm and microfilter)	
0	No clogging display
V	With clogging display

⑦

Accessories for filters and nano oil mist lubricators	
0	No accessories
W	Mounting bracket included
K	Coupling kit included

Accessories for air preparation units, regulators and filter regulators	
0	No accessories Locking screw included
W	Mounting bracket and locking screw included
MW	Pressure gauge, mounting bracket and locking screw included (standard for air preparation units)

⑧

Approvals	
	No specification standard
EX	ATEX-compliant explosion protection design

See page 42 for Specifications

Air Preparation Units

Series airfit comfort
G3/8, G1/2

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	56, 57, 60	64	72
Air preparation unit two-piece	56, 57, 60	64	72
Filter-regulator	56, 57, 60	65	72
Filter-water-separator	56, 57, 61	65	73
Dust filter	56, 57, 61	65	73
Pressure regulating valve	56, 57, 61	66-68	73
Pressure regulating valve, pilot operated	56, 57, 62	69	73
Oil mist lubricator	58, 59, 62, 63	69	74
Start valve	58, 59, 63	69	74
Stop valve	58, 59	70	74
Submicrofilter	58, 59	70	74
Activated carbon filter	58, 59	70	74
3/2 way shut-off valve	58, 59	71	74
Accessories	75-79	75-79	75-79

Air Preparation Units

Series airfit comfort G3/8, G1/2

Characteristics

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

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Air preparation unit three-piece**		**Air preparation unit two-piece**	
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator *), gauge, mounting bracket		Consisting of filter-regulator and oil mist lubricator *), gauge, mounting bracket	
Type			CFRL-3/8	CFRL-1/2	CKL-3/8	CKL-1/2
Material						
– Housing			Diecast zinc			
– Plastic bowl			Polycarbonate		Polycarbonate	
– Metal bowl			Diecast aluminum with polypropylene insert			
– Diaphragm			NBR		NBR	
– Standard sealings			NBR			
Port size (NPTF version)			G3/8	G1/2	G3/8	G1/2
Max. condensate capacity		cm^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	$p_1 - p_2$	bar	0.2		0.2	
Hysteresis $p_1=10/p_2=0$ $p_1=10/p_2=8$		bar	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]	η	%	95		95	

[1] at p_1 = 10 bar and p_2 = 6.3 bar, Δp = 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 203)

	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									
	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2	G3/8	G1/2
	57	57	57	57	57	57	–		–	
	30 or 5		30 or 5		1		–		–	
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual, semi-automatic (pressure relief)		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position	
	0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +50 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)		0 +60 at 10 bar (further temperatures on request)	
	0.75		0.55		0.55		0.55		0.50	
	0 16		0 16		0 16		0 16		0 16	
	0.5 to 8 On request 0.5 to 4[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.
Parker Origa compressed air oil KG6140 (see page 203)

For more characteristics of air preparation units see page 58–59

Air Preparation Units

Series airfit comfort G3/8, G1/2

Characteristics

Special solutions (e.g. temperature, pressure, medium ...) on request, or see page155–166 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Oil mist lubricator**		**Start valve**	
System			Oil mist lubricator with flow compensation *)		Poppet valve with integral throttle for slow pressure build-up (e.g. after emergency shutdown). At 0.5 x operating pressure the valve switches to full flow.	
Type			CL-3/8	CL-1/2	CDA-3/8	CDA-1/2
Material						
– Housing			Diecast zinc			
– Plastic bowl			Polycarbonate		–	
– Metal bowl			Diecast aluminum with polypropylene		–	
– Diaphragm			–		–	
– Standard sealings			NBR			
Port size (NPTF version)			G3/8	G1/2	G3/8	G1/2
Max. condensate capacity		cm^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]	η	%	–		–	
Residual oil amount		mg/m^3	–		–	

[1] at p_1 = 10 bar, Δp = 1 bar
[2] at 6 bar and 25 m/s flow velocity
*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm^2/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.
Parker Origa compressed air oil KG6140 (see page 203)

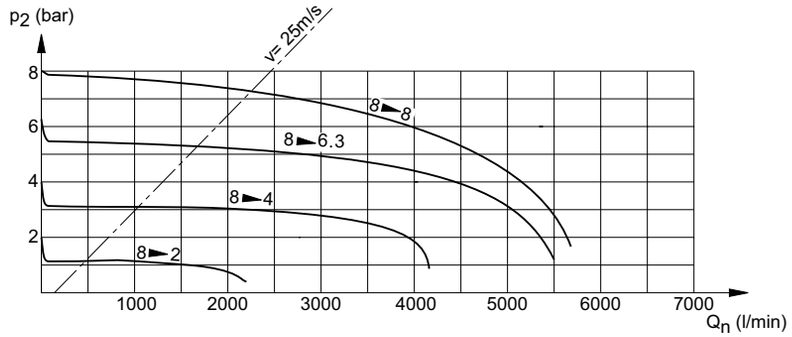
	Stop valve		**Submicrofilter**		**Activated carbon filter**		**3/2 way shut-off valve**	
	3/2 way poppet valve with pneumatic (P) or electrical (E) actuation and integrated exhaust silencer						3/2 way valve (spool type), direct assembly to any unit from the airfit comfort series, with coupling kit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

Air Preparation Units

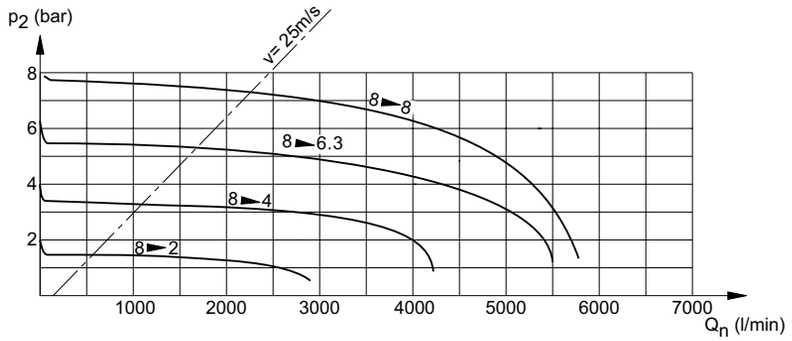
Series airfit comfort
G3/8, G1/2

Flow characteristics

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

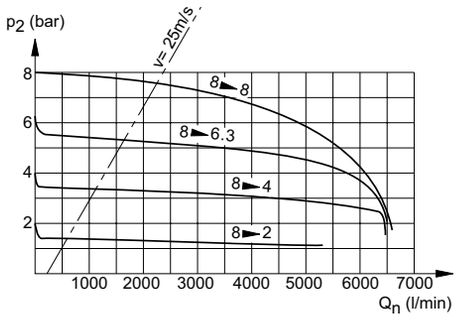


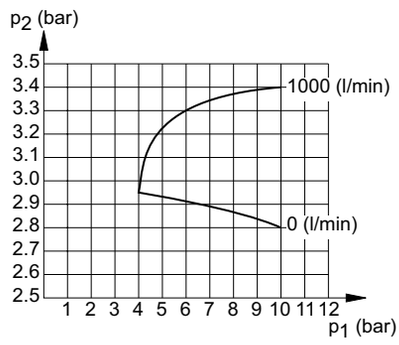
Air preparation unit two-piece
Type: CKL-1/2



Filter-regulator
Type: CK-1/2

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



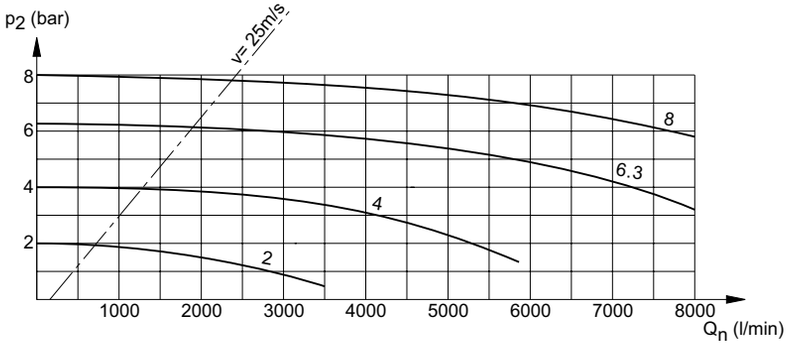


Air Preparation Units

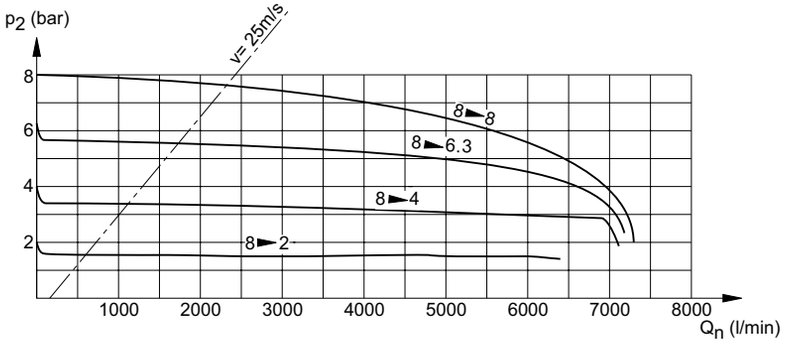
Series airfit comfort
G3/8, G1/2

Flow characteristics

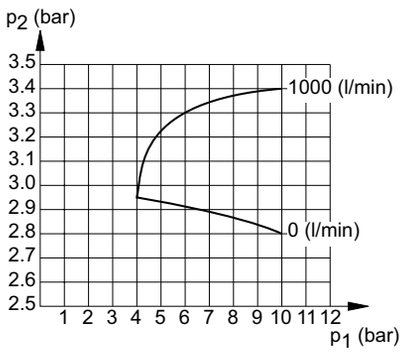
Filter-water-separator
Type: CF-1/2



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



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

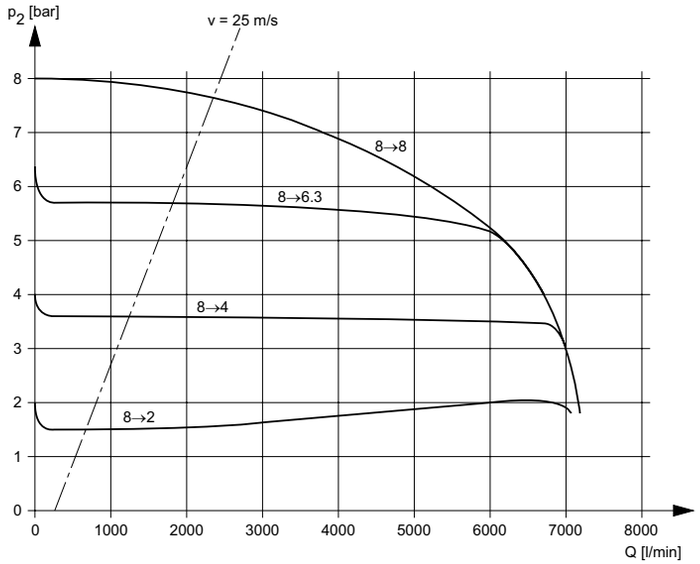


Air Preparation Units

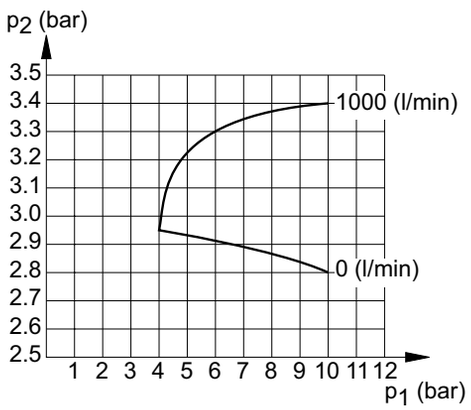
Series airfit comfort
G3/8, G1/2

Flow characteristics

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



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

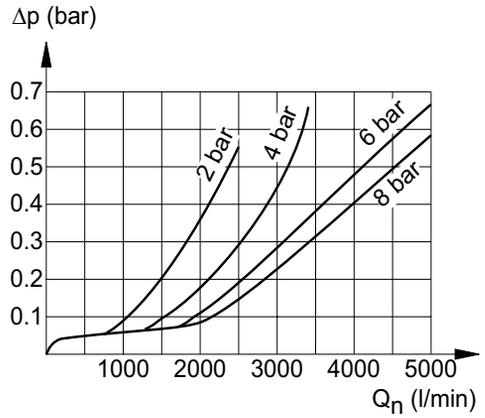


Air Preparation Units

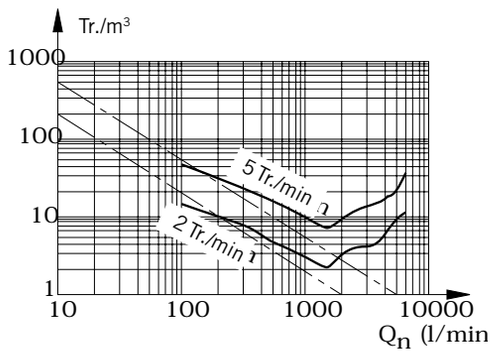
Series airfit comfort
G3/8, G1/2

Flow characteristics

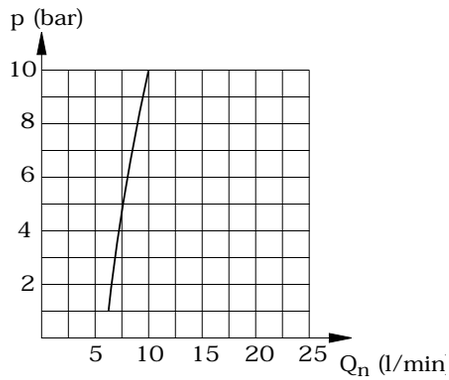
Oil mist lubricator
Type: CL-1/2



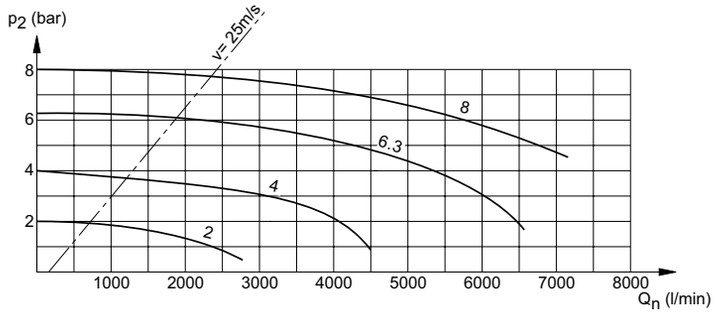
Oil/air ratio
Type: CL-1/2



Min. operating conditions
Type: CL-1/2



Start valve
Type: CDA-1/2



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

Air Preparation Units

Series airfit comfort G3/8, G1/2

Dimensions

Features:

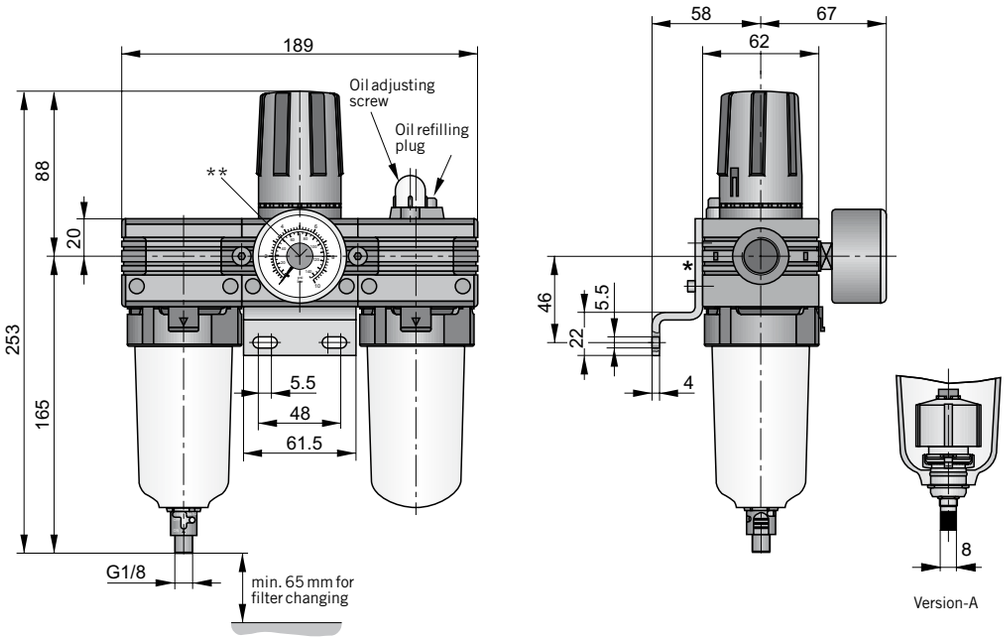
– Easy and quick installation of mounting kit
– Suitable for direct wall mounting
– Modern design

Delivery includes:

Air preparation unit three-piece:
Filter-water-separator
Pressure regulating valve
Oil mist lubricator
Gauge
Mounting bracket

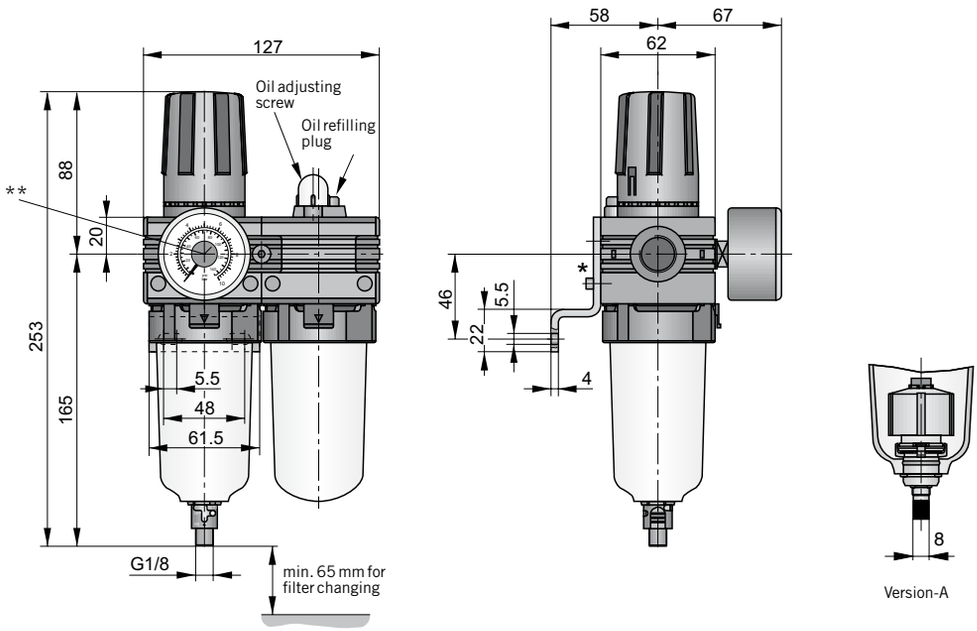
Air preparation unit two-piece:
Filter-regulator
Oil mist lubricator
Gauge
Mounting bracket

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



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

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



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

For order instructions see page 72–75, for characteristics see page 56–63, for accessories see page 76–79

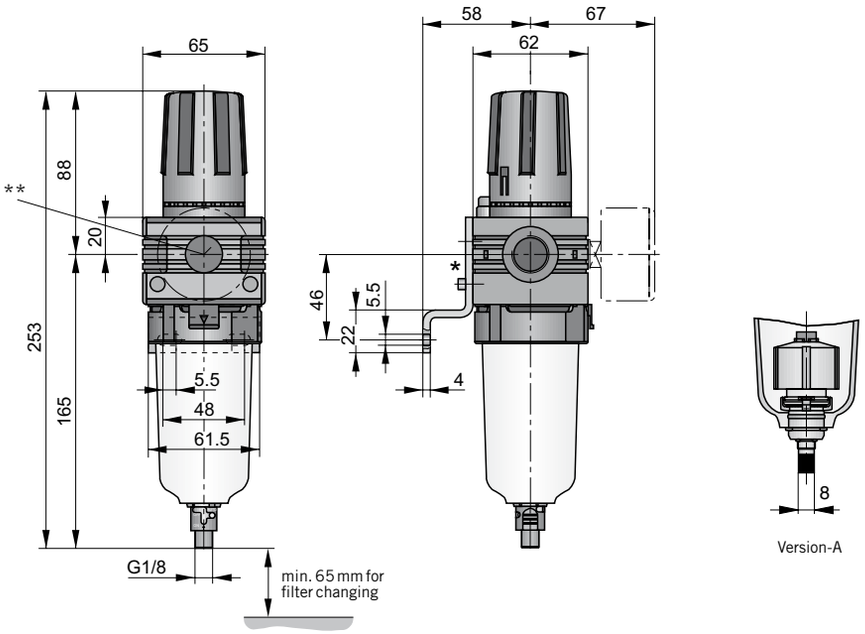
Dimensions in mm

Air preparation units

Series airfit comfort G3/8, G1/2

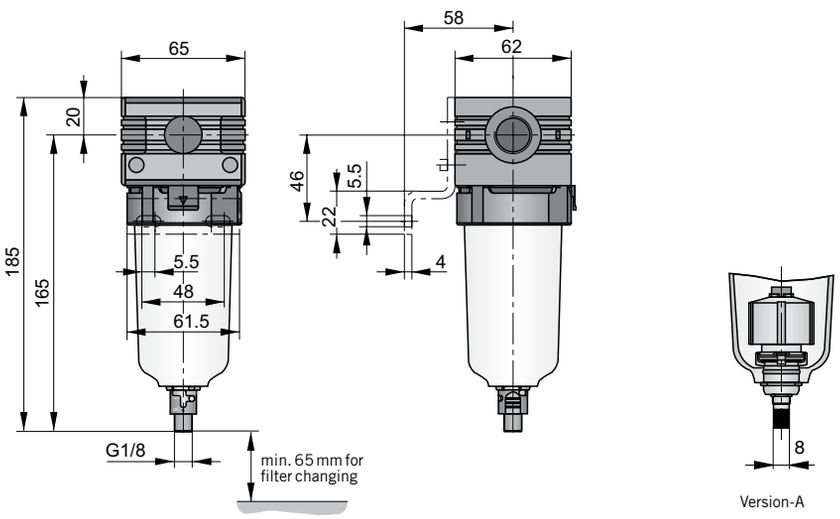
Dimensions

Filter-regulator – Type: CK-3/8, -1/2



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

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



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

For order instructions see page 72–75, for characteristics see page 56–63, for accessories see page 76–79

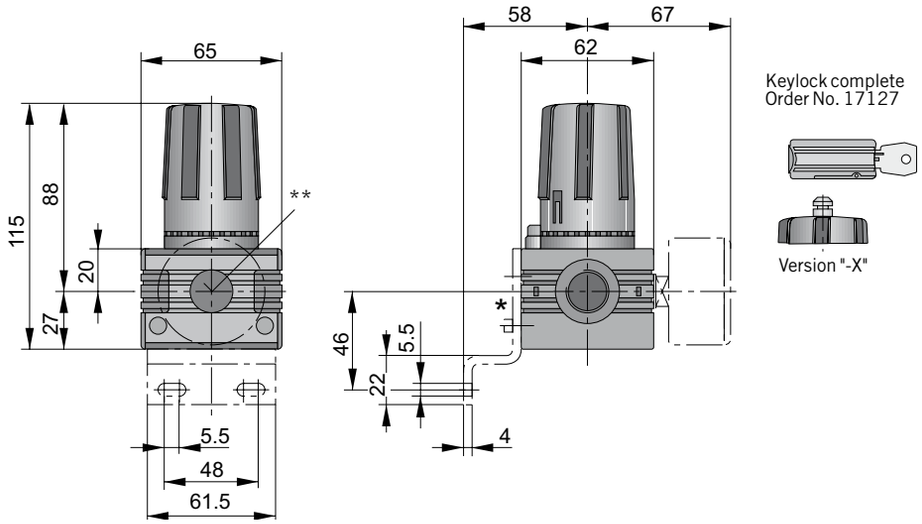
Dimensions in mm

Air preparation units

Series airfit comfort
G3/8, G1/2

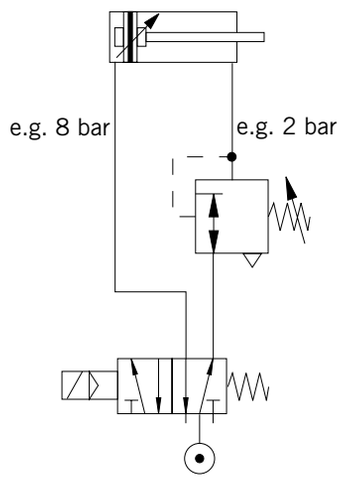
Dimensions

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



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

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



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

For order instructions see page 72–75, for characteristics see page 56–63,
for accessories see page 76–79

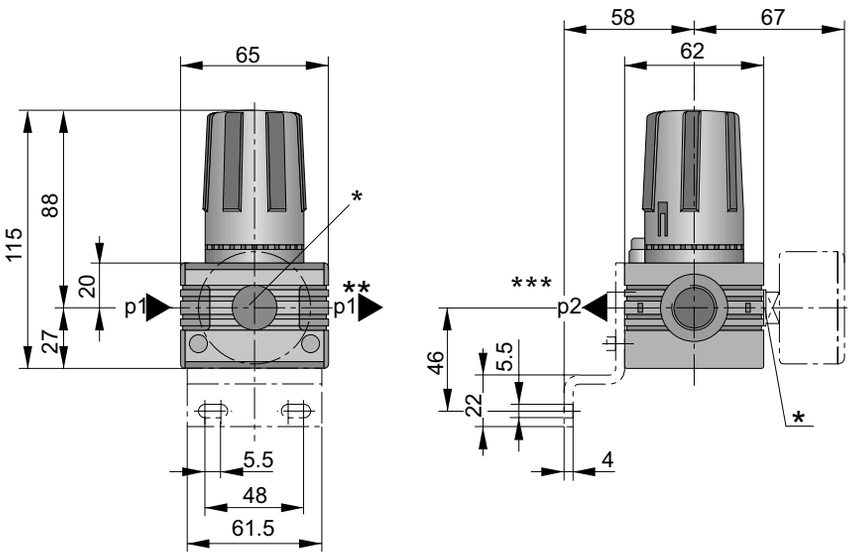
Dimensions in mm

Air preparation units

Series airfit comfort
G3/8, G1/2

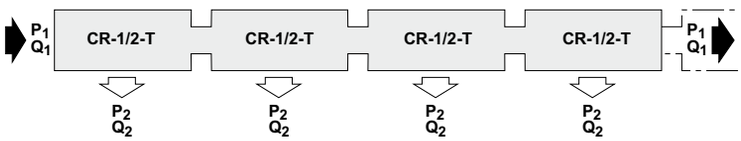
Dimensions

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



* Gauge ports G1/4
** With through p_1 supply port G1/2
*** p_2 port G3/8, G1/2

Installation instructions for battery mounting



For order instructions see page 72–75, for characteristics see page 56–63,
for accessories see page 76–79

Dimensions in mm

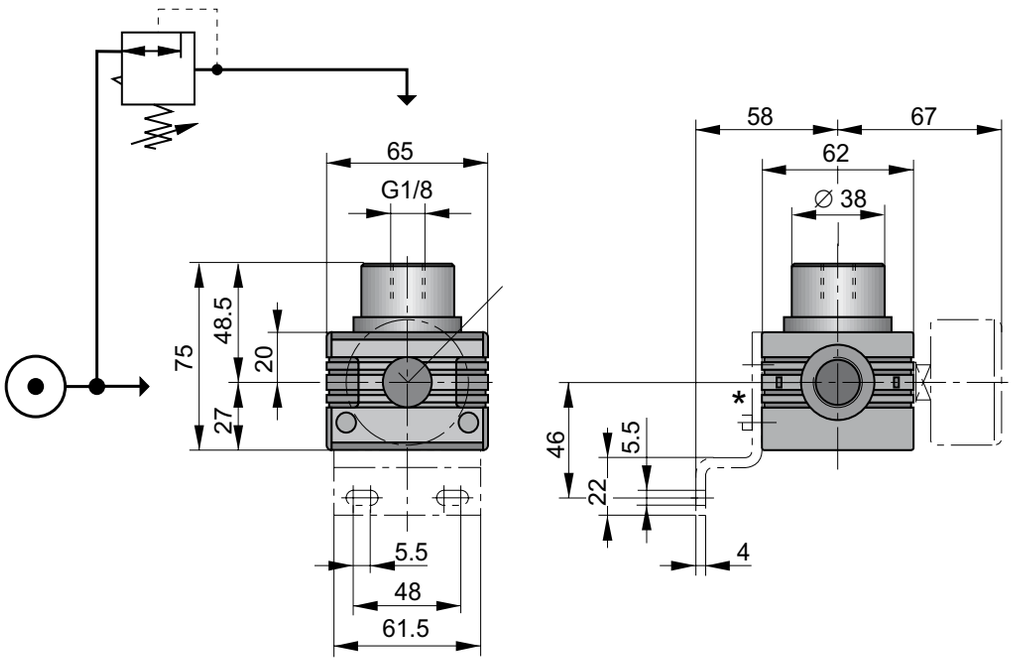
Air preparation units

Series airfit comfort
G3/8, G1/2

Dimensions

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

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



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

For order instructions see page 72–75, for characteristics see page 56–63,
for accessories see page 76–79

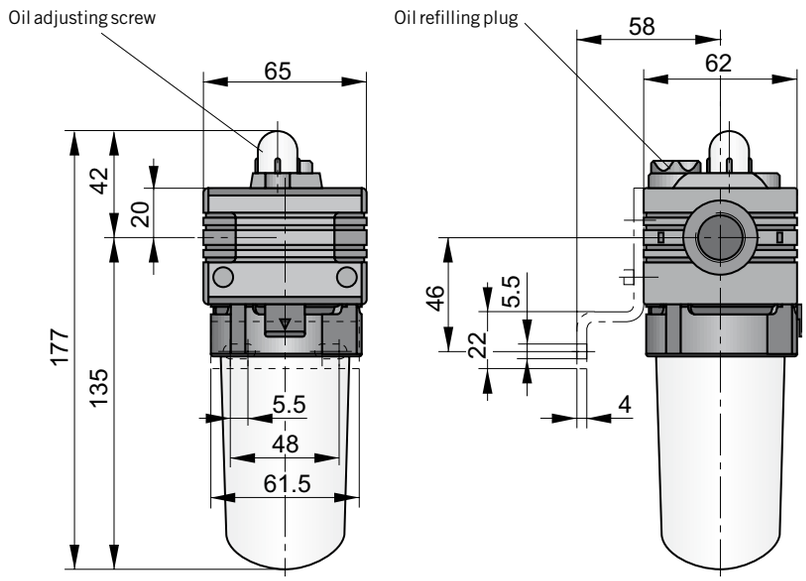
Dimensions in mm

Air preparation units

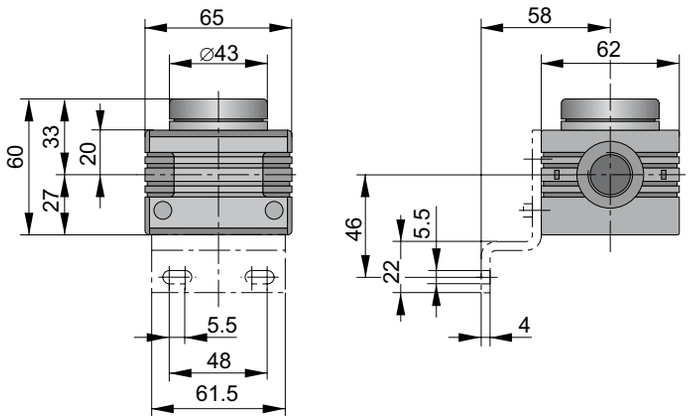
Series airfit comfort
G3/8, G1/2

Dimensions

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



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 72–75, for characteristics see page 56–63,
for accessories see page 76–79

Dimensions in mm

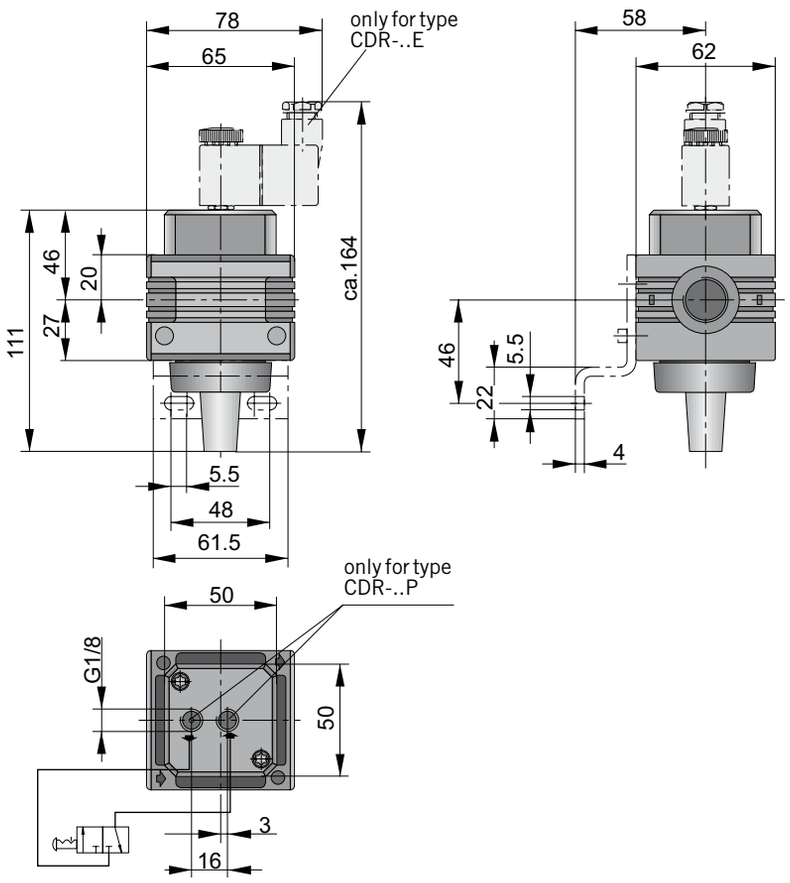
Air preparation units

Series airfit comfort G3/8, G1/2

Dimensions

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

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

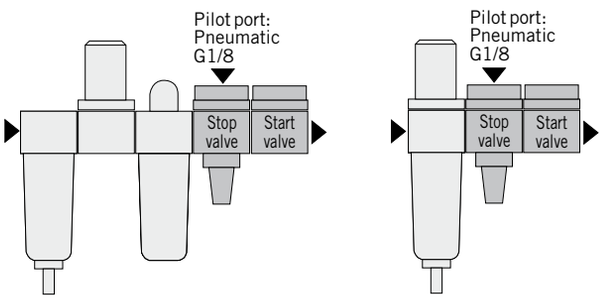


Venting time (s) in relation to volume

Pressure reduction from to	Venting time (s) *
8 → 0.1 bar	0.75 x V (l) = t (s)
6 → 0.1 bar	0.65 x V (l) = t (s)
4 → 0.1 bar	0.50 x 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 72–75, for characteristics see page 56–63, for accessories see page 76–79

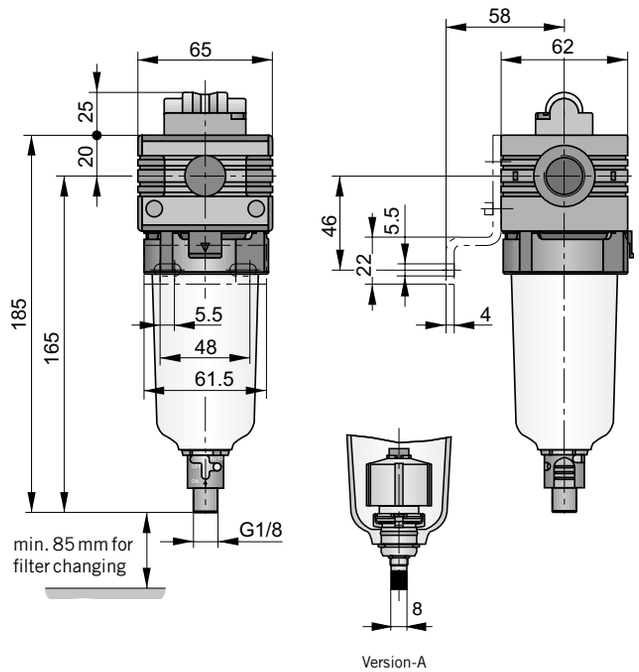
Dimensions in mm

Air preparation units

Series airfit comfort G3/8, G1/2

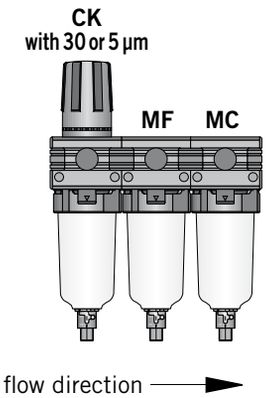
Dimensions

Submicrofilter – Type: MF036-3/8, -1/2
Activated carbon filter – Type: MC036-3/8, -1/2



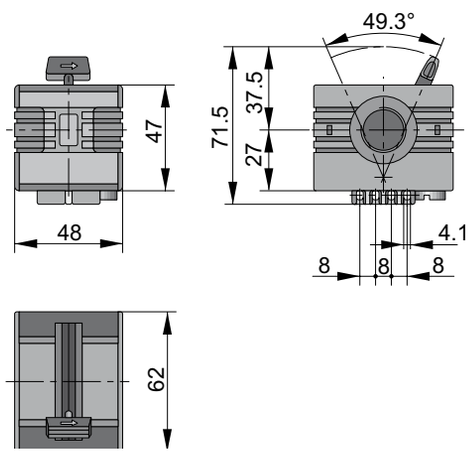
Installation instructions

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



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 72–75, for characteristics see page 56–63, for accessories see page 76–79

Dimensions in mm

Air preparation units

Series airfit comfort G3/8, G1/2

Order instructions

Standard versions

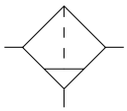
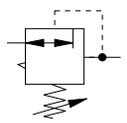
Description	Symbol	Port size	Order instruction Type	Order No.
Air preparation unit three-piece				
– Basic version with combined manual and semi-automatic drainage		G3/8	CFRL-3/8	PB 58249-000
		G1/2	CFRL-1/2	PB 58349-000
– with automatic drainage		G3/8	CFRL-3/8-A	PB 58249-002
		G1/2	CFRL-1/2-A	PB 58349-002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		G3/8	CFRL-3/8-E	PB 58249-004
		G1/2	CFRL-1/2-E	PB 58349-004
– with metal bowl (sight glass) and automatic drainage		G3/8	CFRL-3/8-AE	PB 58249-006
		G1/2	CFRL-1/2-AE	PB 58349-006
Air preparation unit two-piece				
– Basic version with combined manual and semi-automatic drainage		G3/8	CKL-3/8	PB 58549-000
		G1/2	CKL-1/2	PB 58649-000
– with automatic drainage		G3/8	CKL-3/8-A	PB 58549-002
		G1/2	CKL-1/2-A	PB 58649-002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		G3/8	CKL-3/8-E	PB 58549-004
		G1/2	CKL-1/2-E	PB 58649-004
– with metal bowl (sight glass) and automatic drainage		G3/8	CKL-3/8-AE	PB 58549-006
		G1/2	CKL-1/2-AE	PB 58649-006
Filter-regulator				
– Basic version (30 µm) with combined manual and semi-automatic drainage		G3/8	CK-3/8	PB 55849-000
		G1/2	CK-1/2	PB 55949-000
– with filter element 5 µm, with combined manual and semi-automatic drainage		G3/8	CK-3/8-5	PB 55849-016
		G1/2	CK-1/2-5	PB 55949-016
– with automatic drainage		G3/8	CK-3/8-A	PB 55849-002
		G1/2	CK-1/2-A	PB 55949-002
– with metal bowl (sight glass), with combined manual and semi-automatic drainage		G3/8	CK-3/8-E	PB 55849-004
		G1/2	CK-1/2-E	PB 55949-004
– with metal bowl (sight glass) and automatic drainage		G3/8	CK-3/8-AE	PB 55849-006
		G1/2	CK-1/2-AE	PB 55949-006

Air preparation units

Series airfit comfort G3/8, G1/2

Order instructions

Standard versions

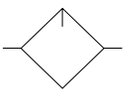
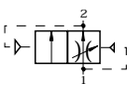
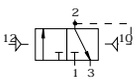
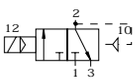
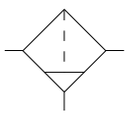
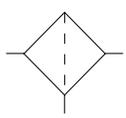
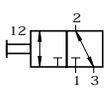
Description	Symbol	Port size	Order instruction	
			Type	Order No.
Filter-water-separator				
– Basic version (30 µm) with combined manual and semi-automatic drainage		G3/8	CF-3/8	PB 55249-000
		G1/2	CF-1/2	PB 55349-000
– with filter element 5 µm with combined manual and semi-automatic drainage		G3/8	CF-3/8-5	PB 55249-016
		G1/2	CF-1/2-5	PB 55349-016
– with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage		G3/8	CFD-3/8-1	PB 55249-070
		G1/2	CFD-1/2-1	PB 55349-070
– with automatic drainage		G3/8	CF-3/8-A	PB 55249-002
		G1/2	CF-1/2-A	PB 55349-002
– with metal bowl (sight glass) with combined manual and semi-automatic drainage		G3/8	CF-3/8-E	PB 55249-004
		G1/2	CF-1/2-E	PB 55349-004
– with metal bowl (sight glass) and automatic drainage		G3/8	CF-3/8-AE	PB 55249-006
		G1/2	CF-1/2-AE	PB 55349-006
Pressure regulating valve				
– Basic version		G3/8	CR-3/8	PB 55549-000
		G1/2	CR-1/2	PB 55649-000
– with adapter for keylock		G3/8	CR-3/8-X	PB 55549-006
		G1/2	CR-1/2-X	PB 55649-006
– Special pressure regulating valve for high relief capacity		G1/2	CR-1/2SO	PB 55649-023
– Pressure regulating valve with through p_1 supply port		p_1-G1/2, through p_2-G3/8, Output	CR-1/2-T 3/8	PB 55649-101
– Pressure regulating valve with through p_1 supply port		p_1-G1/2, through p_2-G1/2, Output	CR-1/2-T 1/2	PB 55649-100
– Pressure regulating valve, pilot operated		G3/8	CRV-3/8	PB 55549-075
		G1/2	CRV-1/2	PB 55649-075
– Pressure regulating valve, pilot operated, actuation without own air consumption – for actuation by an electronic regulator, see page 131		G3/8	CRV-3/8-SO	PB 55549-077
		G1/2	CRV-1/2-SO	PB 55649-077

Air preparation units

Series airfit comfort G3/8, G1/2

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
Oil mist lubricator				
– Basic version		G3/8	CL-3/8	PB 56249-000
		G1/2	CL-1/2	PB 56349-000
– with metal bowl (sight glass)		G3/8	CL-3/8-E	PB 56249-004
		G1/2	CL-1/2-E	PB 56349-004
Start valve				
– Start valve		G3/8	CDA-3/8	PB 57249-100
		G1/2	CDA-1/2	PB 57349-100
Stop valve				
– pneumatically actuated		G3/8	CDR-3/8 P	PB 57249-200
		G1/2	CDR-1/2 P	PB 57349-200
– electrically actuated 24 V DC		G3/8	CDR-3/8 E	PB 57249-201
		G1/2	CDR-1/2 E	PB 57349-201
– electrically actuated 230 V/50 Hz		G3/8	CDR-3/8 E	PB 57249-204
		G1/2	CDR-1/2 E	PB 57349-204
Submicrofilter				
– Basic version, standard with service life indicator, with combined manual and semi-automatic drainage		G3/8	MF 036-3/8-V	PB 59249-010
		G1/2	MF 036-1/2-V	PB 59349-010
– additionally with automatic drainage		G3/8	MF 036-3/8-AV	PB 59249-012
		G1/2	MF 036-1/2-AV	PB 59349-012
– additionally with metal bowl (sight glass) and automatic drainage		G3/8	MF 036-3/8-EAV	PB 59249-016
		G1/2	MF 036-1/2-EAV	PB 59349-016
Activated carbon filter				
– Basic version, with combined manual and semi-automatic drainage		G3/8	MC 036-3/8	PB 59549-000
		G1/2	MC 036-1/2	PB 59649-000
– with metal bowl (sight glass),		G3/8	MC 036-3/8-E	PB 59549-004
		G1/2	MC 036-1/2-E	PB 59649-004
3/2 Way shut-off valve				
– 3/2 Way shut-off valve		G3/8	CDV-3/8-XS	PB 56849-000
		G1/2	CDV-1/2-XS	PB 56949-000

Air preparation units

Series airfit comfort G3/8, G1/2

Order instructions

Accessories

Description	For type	Order No.
Mounting kit	Standard	PL17518
Gauge Ø 50, 0–10 bar, G1/4*	CK, CR, CR-T	KG8012
Coupling kit		PL17608
Porting block kit G1/8 – G1/2 (coupling kit included)		PL17607
Porting block kit G1/8 – G1/2 for pressure switch (incl. mounting material)		PL17609
Check valve, mountable with porting block kit PL17609		PL16596
Bowl guard kit		PL17680
Keylock for pressure regulating valve	CR-..X	PL17127
Keylock for 3/2 Way shut-off valve	CDV	KG9017
Solvent resistant sight glass	CL	PL07233
Adapter plates-kit p_1/ p_2 G3/4		PL17682
Special oil for oil mist lubricators 1 l (see page 203)		KY8766

* for more gauges see page 198, 199
For more information see accessories page 76–79

Air preparation units

Series airfit comfort G3/8, G1/2

Accessories – Porting block kit

To provide unlubricated air e.g. for air gun

Versions:

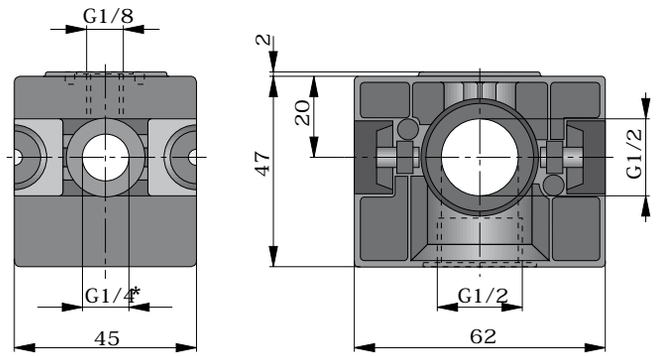
– Standard
– For pressure switch mounting
– Check valve, mountable

Delivery includes:

1 porting block
1 coupling kit
Plug screws

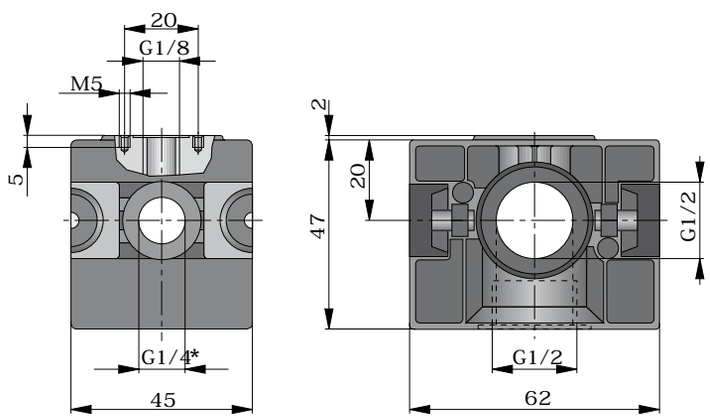
Characteristics	Description
Installation	Between 2 units of the series airfit comfort
Mounting	Directly flange mountable with coupling kit supplied
Material	Zinc diecasting, black finish

Standard version



* G1/4 thread on both sides

Version – for mounting pressure switch



* G1/4 thread on both sides

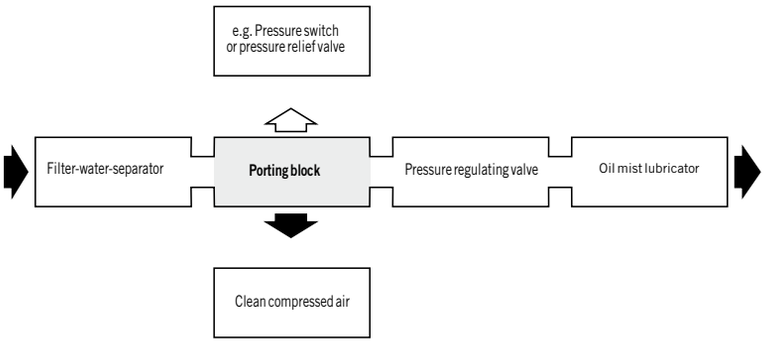
Dimensions in mm

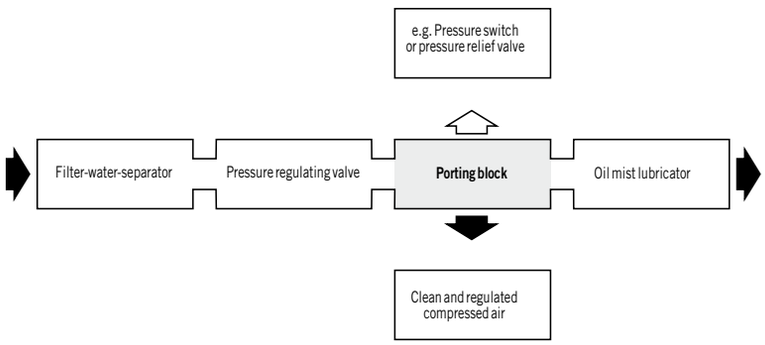
Air preparation units

Series airfit comfort
G3/8, G1/2

Accessories
– Porting block kit

Installation instructions





Order instructions

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

Dimensions in mm

Air preparation units

Series airfit comfort G3/8, G1/2

Accessories – Bowl guard kit

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

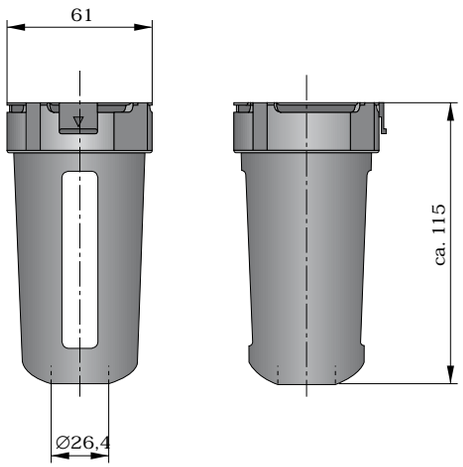
Assembly instructions:

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

Bowl guard kit

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

Dimensions



Order instructions

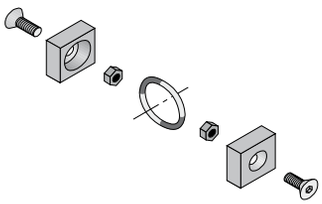
Port size	Order No.
G3/8, G1/2	PL 17680

Dimensions in mm

Mounting kit

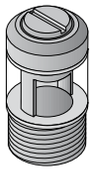
Order No. PL17518

Coupling kit



Order No. PL17608

Solvent resistant sight glass



Order No. PL07233

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

Order No. PL17127

Gauge Ø50, 0–10 bar, G1/4

Order No. KG8012

Air preparation units

Series airfit comfort G3/8, G1/2

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

Dimensions in mm

Air preparation units

Series airfit A25
G3/4, G1

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Air preparation unit three-piece	82, 83, 86	90	97
Air preparation unit two-piece	82, 83, 86	90	97
Filter-regulator	82, 83, 86, 87	91	97
Filter-water-separator	82, 83, 87	91	97
Dust filter	82, 83, 87	91	97
Pressure regulating valve	82, 83, 88	92	98
Pressure regulating valve, pilot operated	82, 83, 88	92	98
Oil mist lubricator	84, 85, 88	93	98
Start-stop valve	84, 85, 89	93-95	98
Submicrofilter	84, 85	96	98
Activated carbon filter	84, 85	96	98
3/2 Way shut-off valve	84, 85	96	98
Accessories	99-101	99-101	99-101

Air preparation units

Series airfit A25
G3/4, G1

Characteristics

Special solutions (e.g. temperature, pressure, medium ...) on request, or see page167–177 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Air preparation unit three-piece**		**Air preparation unit two-piece**	
System			Consisting of filter-water-separator, pressure regulating valve, oil mist lubricator *), gauge, mounting bracket, locating ring		Consisting of filter-regulator and oil mist lubricator *), gauge, mounting bracket, locating ring	
Type			A25FRL-3/4-EMW	A25FRL-1-EMW	A25KL-3/4-EMW	A25KL-1-EMW
Material						
– Housing			Diecast zinc			
– Metal bowl			Diecast aluminum with polypropylene insert			
– Diaphragm			NBR		NBR	
– Standard sealings			NBR			
Port size (NPTF version)			G3/4	G1	G3/4	G1
Max. condensate capacity		cm^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	η	%	See diagram		See diagram	

[1] at p_1 = 10 bar and p_2 = 6.3 bar, Δp = 1 bar
[2] for dry compressed air, ice formation must be avoided
[3] at p_1 = 8 bar and Δp = 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 mm^2/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.
Parker Origa compressed air oil KG6140 (see page 203)

	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									
	G3/4	G1	G3/4	G1	G3/4	G1	G3/4	G1	G3/4	G1
	130	130	130	130	130	130				
	30 or 5		30 or 5		1		–		–	
	Manual, semi-automatic (pressure relief), or automatic (float type)				Manual, semi-automatic (pressure relief)		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	–		–		–		–		–	
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position		In any position	
	-10 [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 84–85

Air preparation units

Series airfit A25 G3/4, G1

Characteristics

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

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Oil mist lubricator**		**Start-stop valve**	
System			Oil mist lubricator with flow compensation *)		Start-stop valve pneumatically or electrically actuated as well as manual override	
Type			A25L-3/4-E	A25L-1-E	A25DS-3/4	A25DS-1
Material						
– Housing			Diecast zinc			
– Metal bowl			Diecast aluminum with polypropylene insert		–	
– Diaphragm			NBR		–	
– Standard sealings			NBR			
Port size (NPTF version)			G3/4	G1	G3/4	G1
Max. condensate capacity		cm^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} T_{max}	°C °C	-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]	η	%	–		–	
Residual oil amount		mg/m^3				

[1] at p_1 = = 6.3 bar, Δp = 1 bar
[2] at 6.3 bar and 25 m/s flow velocity

*) Viscosities of ≤ 32 Cst in line with ISO 3448 (32 mm^2/s at 40°C) are recommended to ensure optimum atomization and long oil mist paths.
Parker Origa compressed air oil KG6140 (see page 203)

Air preparation units

Series airfit A25 G3/4, G1

Characteristics

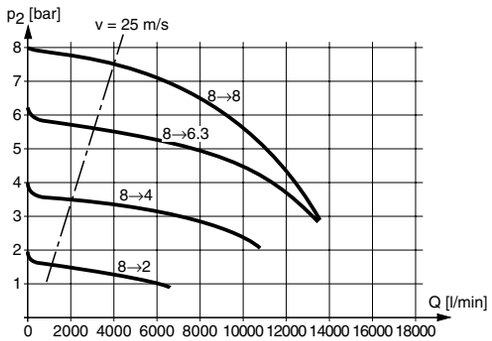
	Submicrofilter		Activated carbon filter		3/2 Way shut-off valve	
					3/2 Way valve (spool type), direct assembly to any unit from the airfit A25 series, with coupling kit PL18787	
	A25MF-230-3/4-E	A25MF-230-1-E	A25MC-230-3/4-E	A25MC-230-1-E	A25DV-3/4	A25DV-1
	Diecast zinc					
	Diecast zinc with polypropylene insert		Diecast zinc with polypropylene insert		–	
	–		–		–	
	NBR					
	G3/4	G1	G3/4	G1	G3/4	G1
	130	130	130	130	–	
	Manual, semi-automatic (pressure relief), or automatic (float type)		Manual, semi-automatic (pressure relief)		–	
	–		–		–	
	–		–		–	
	–		–		–	
	Vertical, bowl at the bottom		Vertical, bowl at the bottom		In any position	
	0 +50 (+60 to 12.5 bar)		0 +50 (+60 to 12.5 bar)		-10 [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

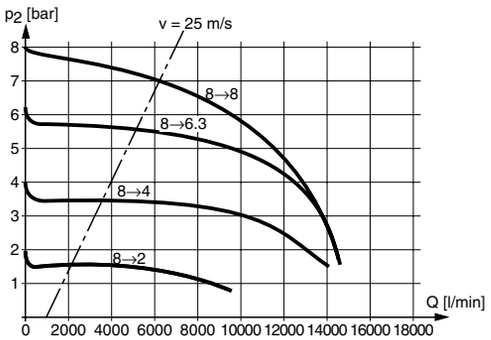
Series airfit A25
G3/4, G1

Flow characteristics

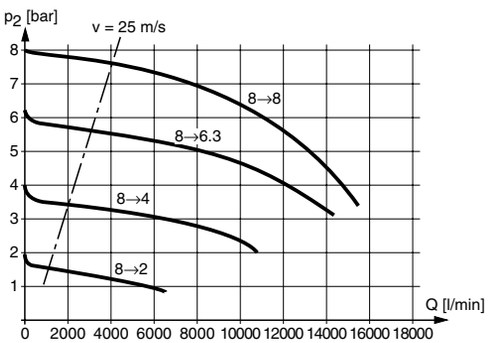
Air preparation unit three-piece
Type: A25FRL-3/4-EMW



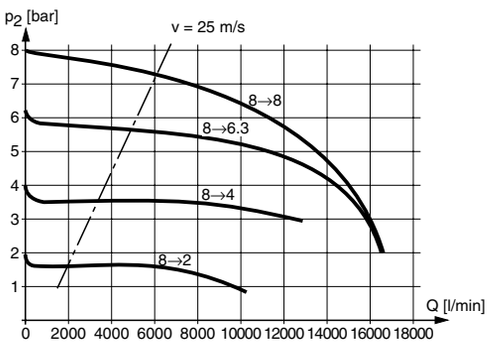
Type: A25FRL-1-EMW



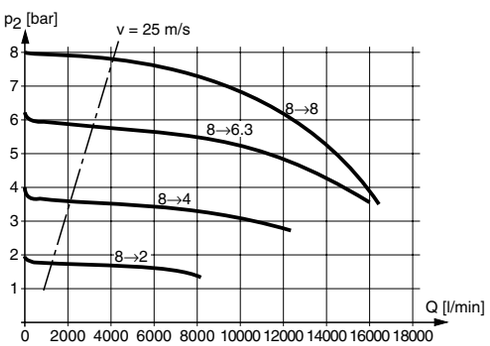
Air preparation unit two-piece
Type: A25KL-3/4-EMW



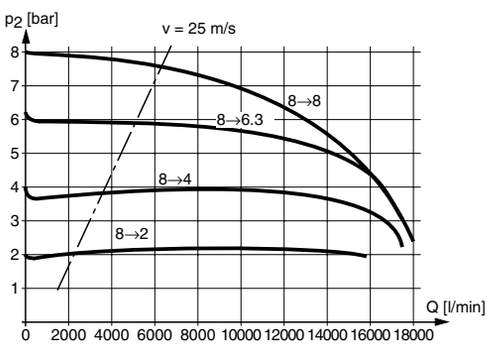
Type: A25KL-1-EMW



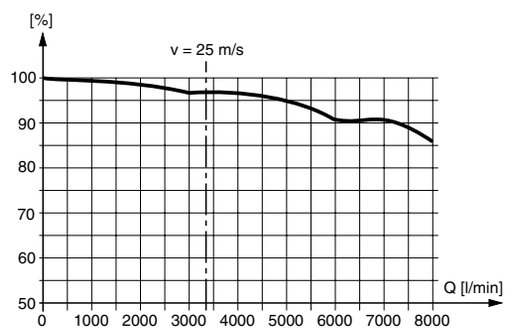
Filter-regulator
Type: A25K-3/4-E



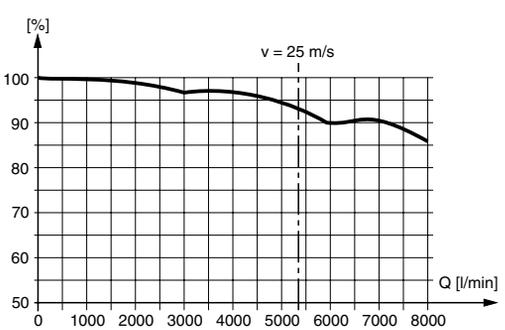
Type: A25K-1-E



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



Type: A25K-1-E

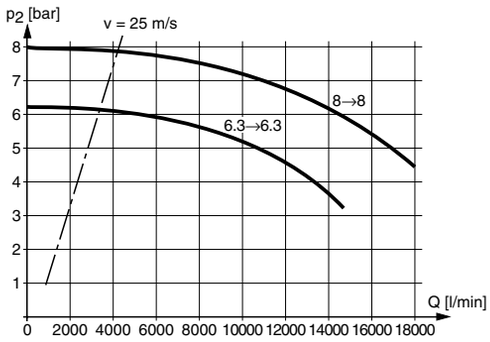


Air preparation units

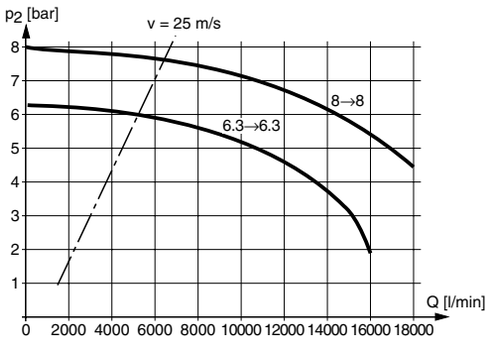
Series airfit A25
G3/4, G1

Flow characteristics

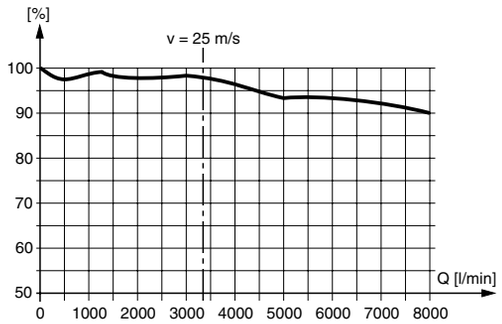
Filter-water-separator
Type: A25F-3/4-E



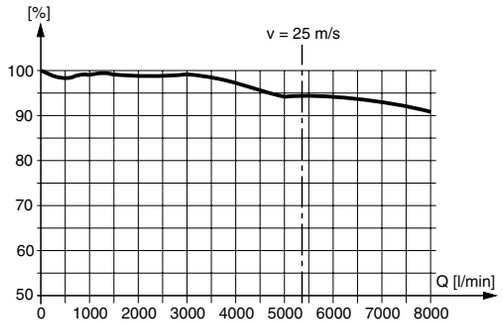
Type: A25F-1-E



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



Type: A25F-1-E

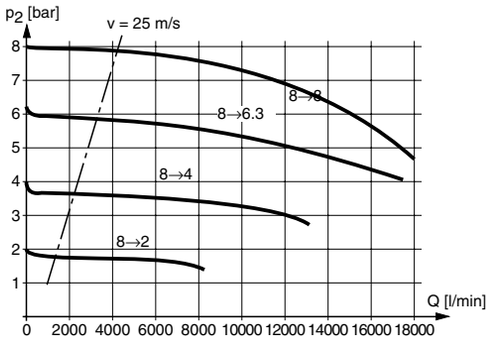


Air preparation units

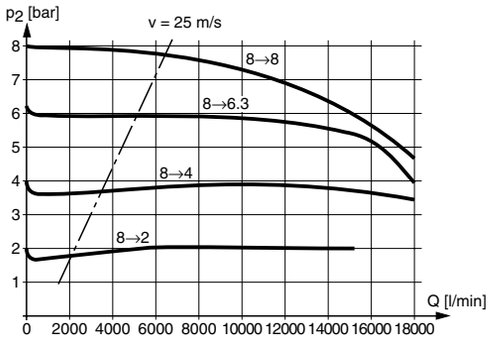
Series airfit A25
G3/4, G1

Flow characteristics

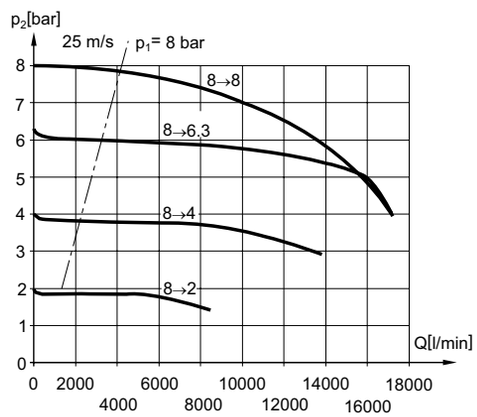
Pressure regulating valve
Type: A25R-3/4



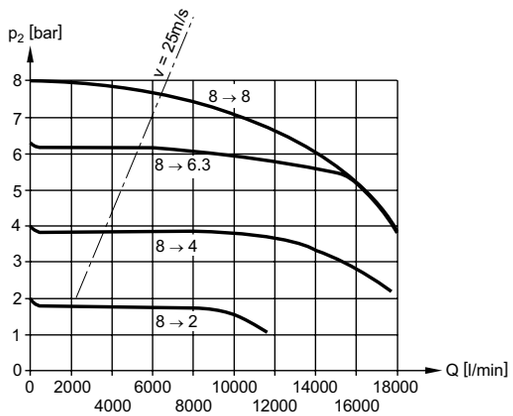
Type: A25R-1



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



Type: A25RV-1

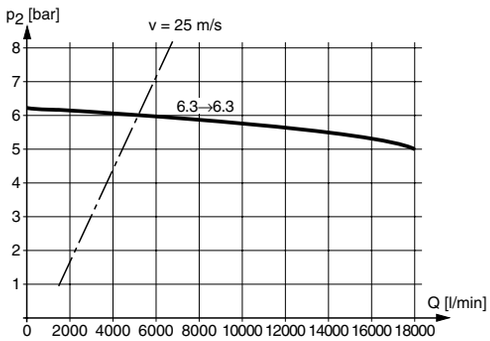


Air preparation units

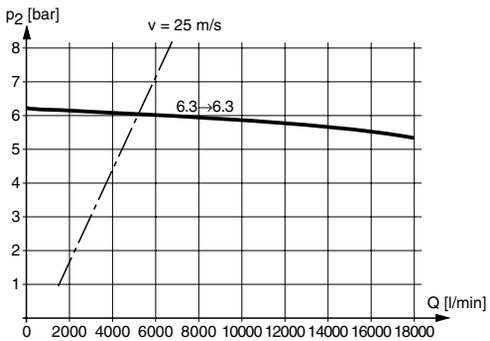
Series airfit A25
G3/4, G1

Flow characteristics

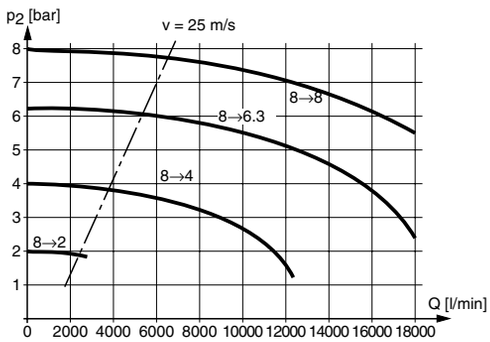
Oil mist lubricator
Type: A25L-3/4-E



Type: A25L-1-E



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



Air preparation units

Series airfit A25
G3/4, G1

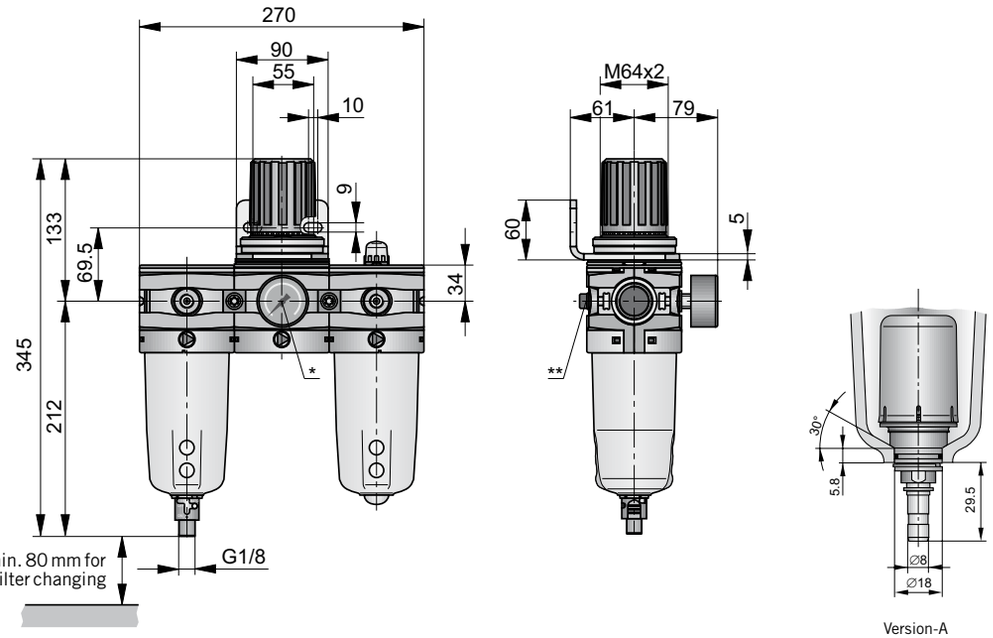
Dimensions

Delivery includes:

Air preparation unit three-piece:
- Filter-water-separator
- Pressure regulating valve
- Oil mist lubricator
- Gauge
- Mounting bracket

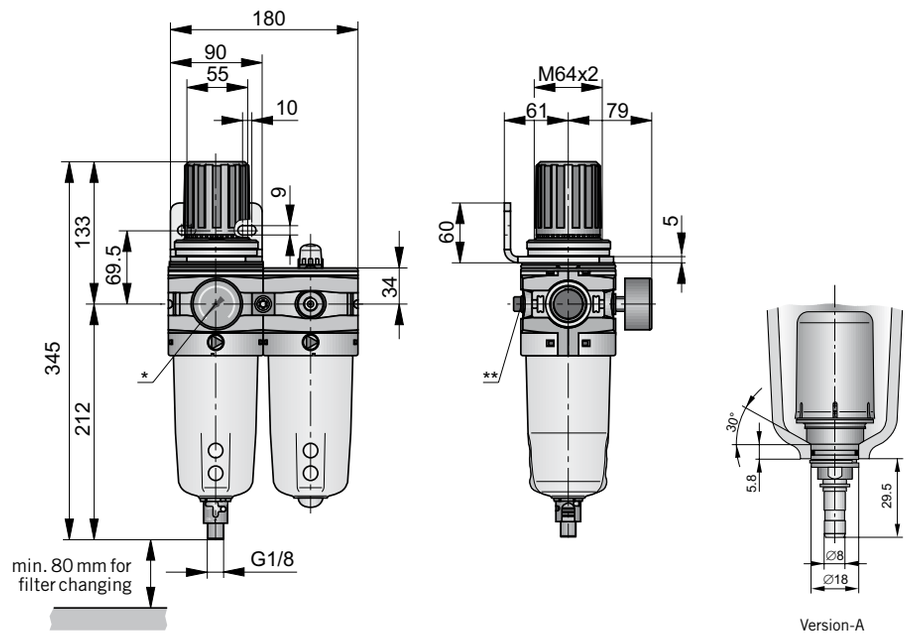
Air preparation unit two-piece:
- Filter-regulator
- Oil mist lubricator
- Gauge
- Mounting bracket

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



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

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



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

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

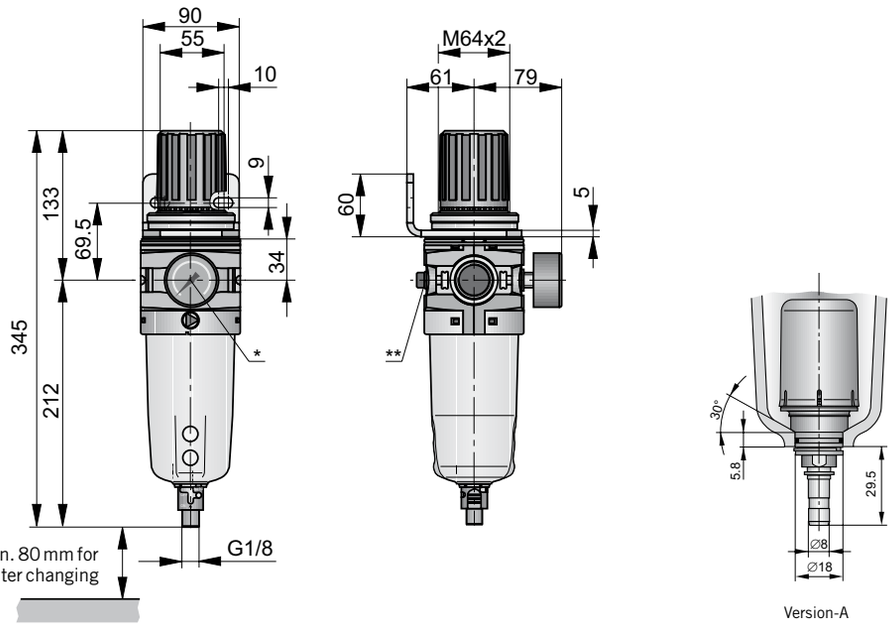
Dimensions in mm

Air preparation units

Series airfit A25
G3/4, G1

Dimensions

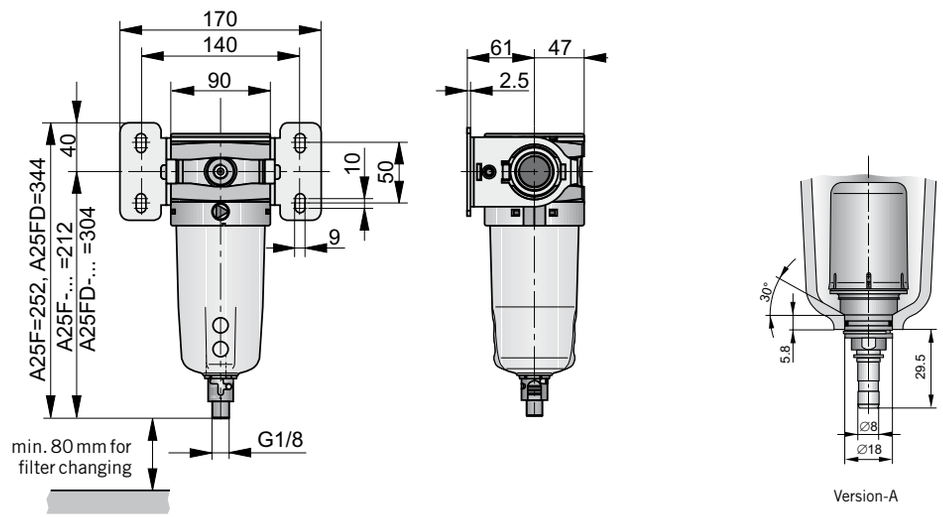
Filter-regulator – Type: A25K-3/4, -1



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

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

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



For order instructions see page 97–99, for characteristics see page 82–89,
for accessories see page 100, 101

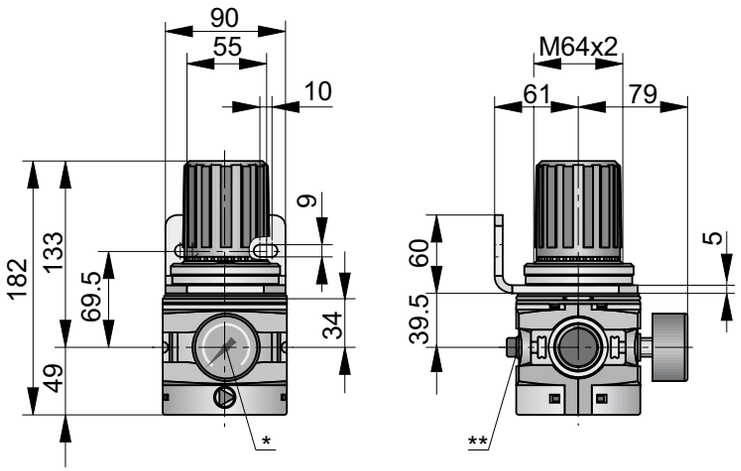
Dimensions in mm

Air preparation units

Series airfit A25
G3/4, G1

Dimensions

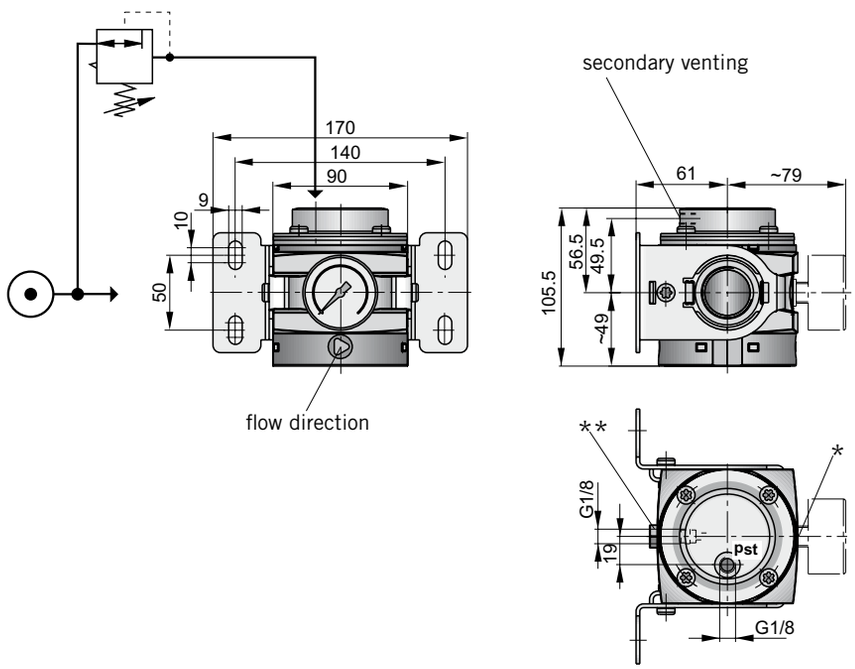
Pressure regulating valve – Type: A25R-3/4, -1



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

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

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



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

For order instructions see page 97–99, for characteristics see page 82–89,
for accessories see page 100, 101

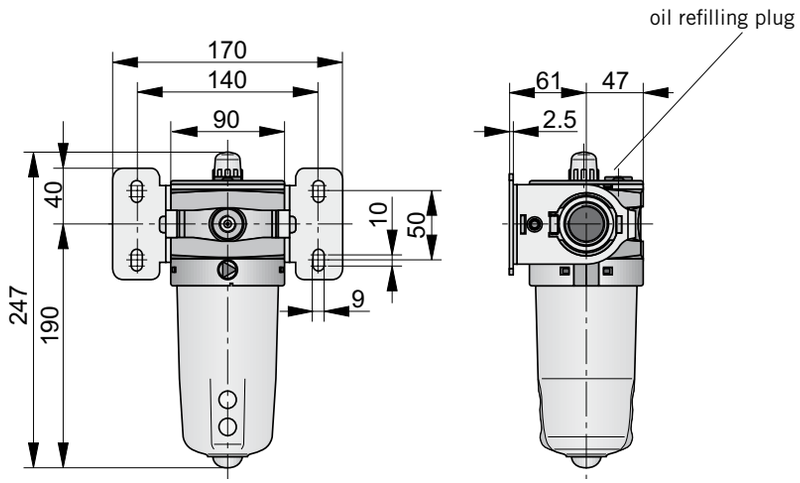
Dimensions in mm

Air preparation units

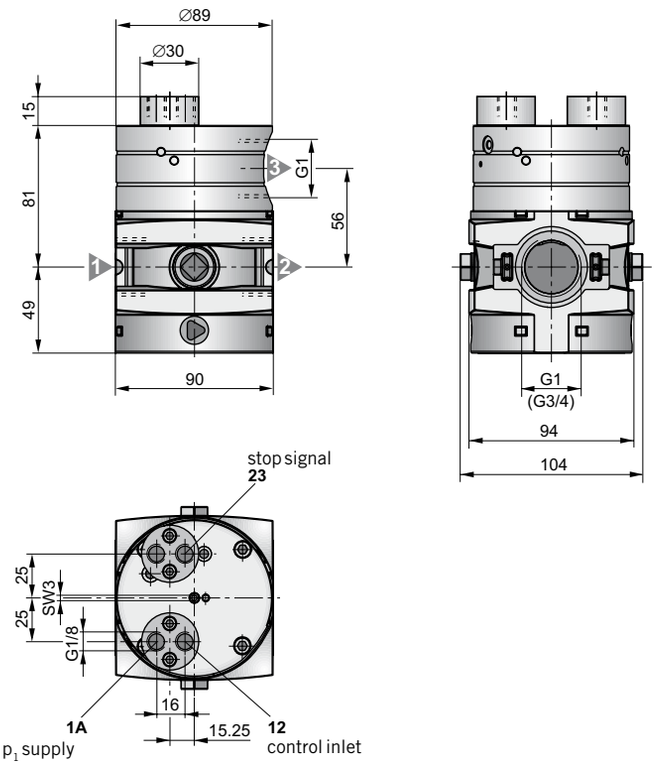
Series airfit A25
G3/4, G1

Dimensions

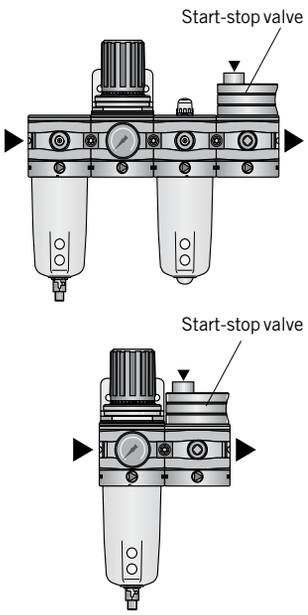
Oil mist lubricator – Type: A25L-3/4, -1



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 97–87, for characteristics see page 82–89,
for accessories see page 100,101

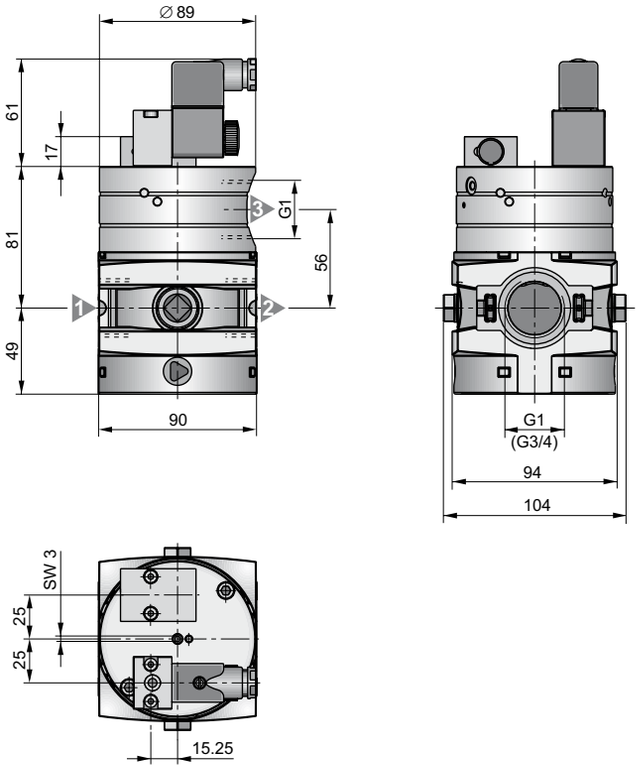
Dimensions in mm

Air preparation units

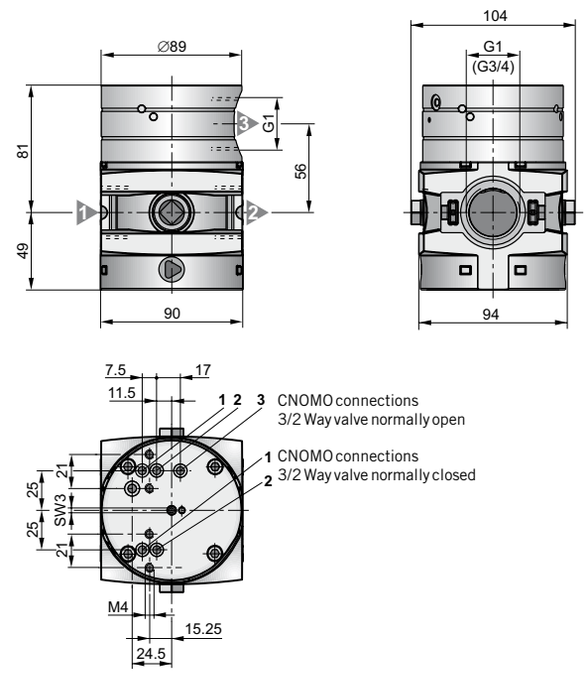
Series airfit A25
G3/4, G1

Dimensions

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



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



For order instructions see page 97–99, for characteristics see page 82–89,
for accessories see page 100, 101

Dimensions in mm

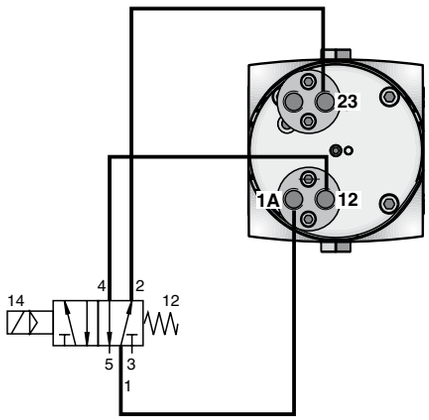
Air preparation units

Series airfit A25
G3/4, G1

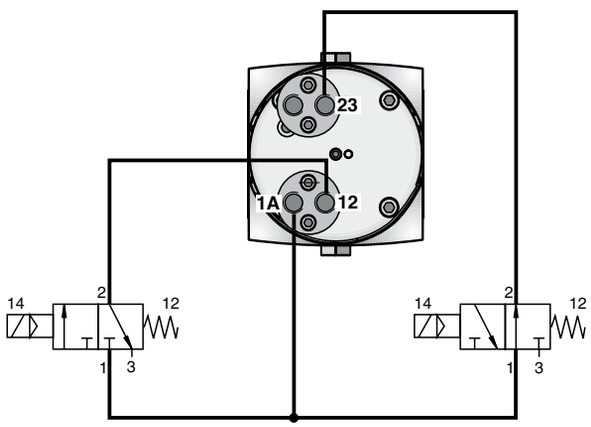
Control types

Start-stop valve, pneumatically actuated

Combined start/stop function



Combined start/stop function with acknowledgement



Further control types on request

For order instructions see page 97–99, for characteristics see page 82–89,
for accessories see page 100, 101

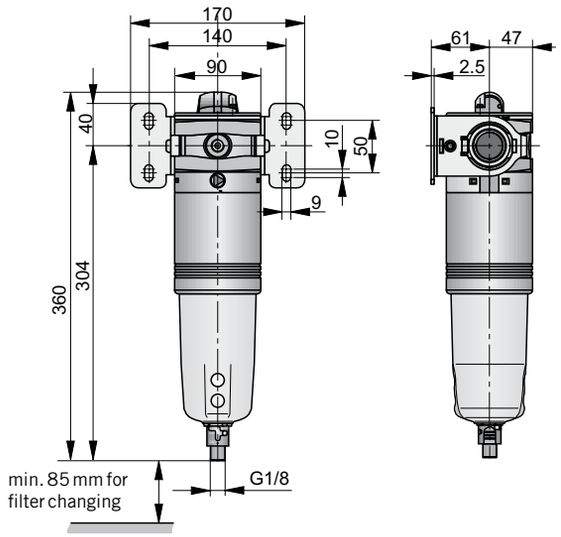
Dimensions in mm

Air preparation units

Series airfit A25
G3/4, G1

Dimensions

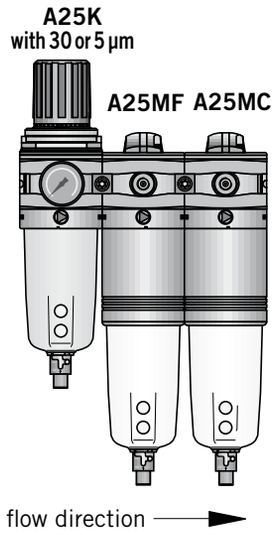
Submicrofilter – Type: A25MF230-3/4, -1
Activated carbon filter – Type: A25MC230-3/4, -1



Note:
Activated carbon filter A25MC230-E without contamination indicator

Installation instruction

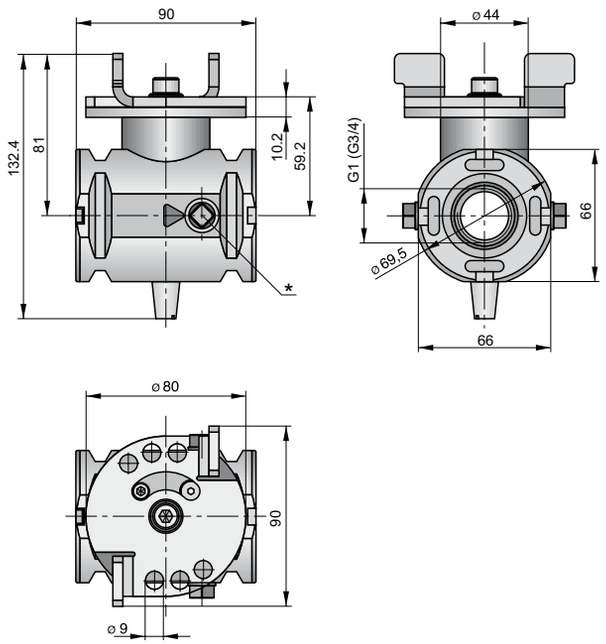
To increase the life span of the filter elements, we recommend the following order.



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 G1/8 on request

For order instructions see page 97–99, for characteristics see page 82–89, for accessories see page 100, 101

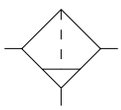
Dimensions in mm

Air preparation units

Series airfit A25
G3/4, G1

Order instructions

Standard versions

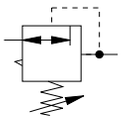
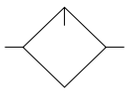
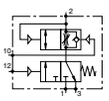
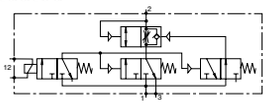
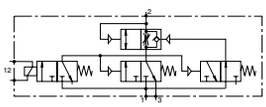
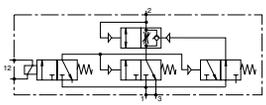
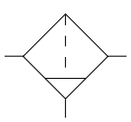
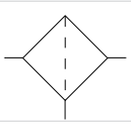
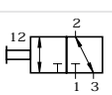
Description	Symbol	Port size	Order instruction Type	Order No.
Air preparation unit three-piece				
– Basic version with combined manual and semi-automatic drainage		G3/4	A25FRL-3/4-EMW	PB 63449-000
		G1	A25FRL-1-EMW	PB 63549-000
– with automatic drainage		G3/4	A25FRL-3/4-AEMW	PB 63449-005
		G1	A25FRL-1-AEMW	PB 63549-005
Air preparation unit two-piece				
– Basic version with combined manual and semi-automatic drainage		G3/4	A25KL-3/4-EMW	PB 63649-000
		G1	A25KL-1-EMW	PB 63749-000
– with automatic drainage		G3/4	A25KL-3/4-AEMW	PB 63649-005
		G1	A25KL-1-AEMW	PB 63749-005
Filter-regulator				
– Basic version with combined manual and semi-automatic drainage		G3/4	A25K-3/4-E	PB 62249-000
		G1	A25K-1-E	PB 62349-000
– with filter element 5 µm, with combined manual and semi-automatic drainage		G3/4	A25K-3/4-5E	PB 62249-016
		G1	A25K-1-5E	PB 62349-016
– with automatic drainage		G3/4	A25K-3/4-AE	PB 62249-002
		G1	A25K-1-AE	PB 62349-002
– with adapter for keylock		G3/4	A25K-3/4-EX	PB 62249-010
		G1	A25K-1-EX	PB 62349-010
Filter-water-separator				
– Basic version with combined manual and semi-automatic drainage		G3/4	A25F-3/4-E	PB 61649-000
		G1	A25F-1-E	PB 61749-000
– with filter element 5 µm with combined manual and semi-automatic drainage		G3/4	A25F-3/4-5E	PB 61649-016
		G1	A25F-1-5E	PB 61749-016
– with filter element 1 µm (dust filter) with combined manual and semi-automatic drainage		G3/4	A25FD-3/4-E	PB 61649-070
		G1	A25FD-1-E	PB 61749-070
– with automatic drainage		G3/4	A25F-3/4-AE	PB 61649-002
		G1	A25F-1-AE	PB 61749-002

Air preparation units

Series airfit A25
G3/4, G1

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
Pressure regulating valve				
– Basic version		G3/4	A25R-3/4	PB 61849-000
		G1	A25R-1	PB 61949-000
– with adapter for keylock		G3/4	A25R-3/4-X	PB 61849-006
		G1	A25R-1-X	PB 61949-006
– Pressure regulating valve, pilot operated		G3/4	A25RV-3/4	PB 61849-070
		G1	A25RV-1	PB 61949-070
Oil mist lubricator				
– Basic version		G3/4	A25L-3/4-E	PB 62049-000
		G1	A25L-1-E	PB 62149-000
Start-stop valve				
– pneumatically actuated		G3/4	A25DS-3/4-P	PB 63049-000
		G1	A25DS-1-P	PB 63149-000
– electrically actuated 230 V/50 Hz		G3/4	A25DS-3/4-E	PB 63049-004
		G1	A25DS-1-E	PB 63149-004
– electrically actuated 24 V DC		G3/4	A25DS-3/4-E	PB 63049-001
		G1	A25DS-1-E	PB 63149-001
– electrically actuated with CNOMO connections		G3/4	A25DS-3/4-C	PB 63049-010
		G1	A25DS-1-C	PB 63149-010
Submicrofilter				
– Basic version, with combined manual and semi-automatic drainage		G3/4	A25MF230-3/4-EV	PB 62549-010
		G1	A25MF230-1-EV	PB 62649-010
– additionally with automatic drainage		G3/4	A25MF230-3/4-AEV	PB 62549-012
		G1	A25MF230-1-AEV	PB 62649-012
Activated carbon filter				
– Basic version, with combined manual and semi-automatic drainage		G3/4	A25MC230-3/4-E	PB 62849-000
		G1	A25MC230-1-E	PB 62949-000
3/2 Way shut-off valve				
– 3/2 Way shut-off valve		G3/4	A25DV-3/4	PB 63249-000
		G1	A25DV-1	PB 63349-000

Accessories

Description	For type	Order No.
Mounting kit (bracket + mounting nut)		PL 18990
Gauge, Ø 50 mm, 0–16 bar, G1/4		KG 8013
Porting block kit		PL 18986
Coupling kit		PL 18987
Keylock for pressure regulating valve	A25R..-X	PL 17127
Solvent resistant sight glass	A25L	PL15717
Adapter plates-kit p_1/p_2, G1 1/4		PL19199
Adapter plates-kit p_1/p_2, G1 1/2		PL19200
Special oil for oil mist lubricators 1 l (see page 203)		KY8766

* for more gauges see page 198, 199
For more information see accessories page 100, 101

Air preparation units

Series airfit A25
G3/4, G1

Order instructions

Air preparation units

Series airfit A25
G3/4, G1

Accessories
– Porting block kit

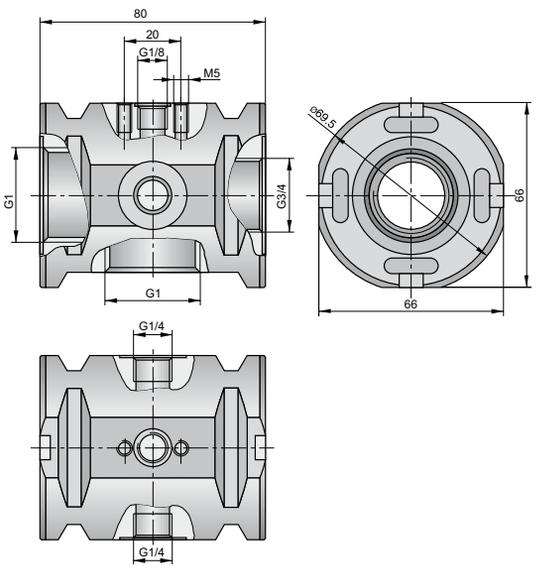
To provide unlubricated air e.g. for air gun. With pressure switch connections

Delivery includes:

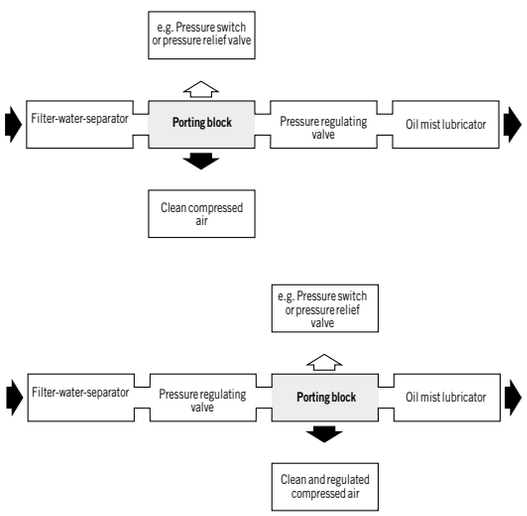
1 porting block
1 coupling kit
3 plug screws

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

Dimensions



Installation instructions



Order instructions

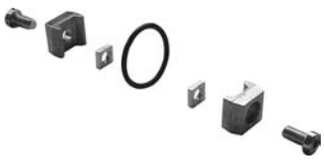
Description	Order instruction	
	Type	Order No.
Porting block kit	A25X	PL 18986

Dimensions in mm

Mounting kit

Order No. PL18990

Coupling kit



Order No. PL18987

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

Order No. PL17127

Gauge
Ø50, 0–16 bar, G1/4

Order No. KG8013

Air preparation units

Series airfit A25
G3/4, G1

Accessories

Air preparation units

Series airfit A50
G11/2, G2

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Filter-water-separator	104, 105 ,108	100	120
Pressure regulating valve, pilot operated	104, 105 ,108	110, 111	120
Submicrofilter	106, 107	118	122
Activated carbon filter	106, 107	118	122
Central air line lubricator	104, 105	119	122
Start valve	104, 105	112	121
2/2 Way start-stop valve	106, 107	112, 113	121
3/2 Way start-stop valve	106, 107, 109	114-115, 122	121, 122
Accessories	123, 124	123, 124	123, 124

Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions
(e.g. temperature, pressure, medium ...) on request, or see page167–178 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Filter-water-separator**	**Dust filter**
System			With cyclone system and filter element and wear indicator	Dust filter with wear indicator
Type			A50F-.-ADV	A50FD-.-ADV
Material				
– Housing			Diecast aluminum	
– Metal bowl			Diecast aluminum	
– Diaphragm			–	–
– Standard sealings			NBR	
Port size			G11/2, G2	G11/2, G2
Flange connection			SAE flange	SAE flange
Max. condensate capacity		cm^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	η	%	> 90	Only solid particles > 99% related to 1 µm

[1] at p_1 =10 bar and p_2 = 6.3 bar, Δp = 1 bar
[2] at p_1 = 6 bar and Δp = 1 bar
[3] recommended pilot pressure regulating valve SR-1/4 (see page 23)
[4] A50 pressure regulating valve and pneumatic pilot operated pressure regulating valve go along with a small self air
*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm^2/s at 40°C)
or Parker Origa compressed air oil, Order No.: KG6140 (see page 203)

	Pressure regulating valve[4]	**Pressure regulating valve,**[4] **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, handwheel 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					
	G11/2, G2	G11/2, G2	G1	G2	G11/2	G2
	SAE flange	SAE flange	–	–	SAE flange	SAE flange
	–	–	–	–	–	–
	–	–	–	–	–	–
	–	–	–	–	–	–
	–	–	2500	5000	–	–
	–	–	Manual – also during operation		–	–
	–	–	0.2–2	0.2–2	–	–
	In any position	In any position	Vertical, bowl at the bottom		In any position	In any position
	0 Further temperatures on request +60		+5 +60	+5 +60	0 Further temperatures +60 on request	
	3.5	3.4	10	18	3.4	3.4
	0 17.5	0 17.5	– 10	– 10	2 17.5	2 17.5
	0.5 to 8	0.5 to 16 p_{st} > 10	_	–		
	–	–	0.2 0.8	0.2 1.0	–	–
	> 40000 > 2400	> 40000 > 2400	> 20000 > 1200	> 40000 > 2400	> 40000 [2] > 2400	> 40000 [2] > 2400
	–	–	–	–	–	–

consumption.

For more characteristics of air preparation units see page 106–109

Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions (e.g. temperature, pressure, medium ...) on request, or see page 167–177 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 as well as manual override		
Type			A50DS-..		
Material					
– Housing			Diecast aluminum		
– Metal bowl			–		
– Diaphragm			–		
– Standard sealings			NBR		
Port size			G11/2	G2	
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 Further temperatures on request +60		
Weight (mass)		kg	3.4		
Pneumatic characteristics					
Operating pressure range – inlet pressure	$p_{1\ min}$ $p_{1\ max}$	bar bar	2 17.5		
Maximum flow [1]	Q_{max}	l/min m^3/h	> 40000 > 2400		
Degree of moisture separation at recommended flow	η	%	–	–	
Residual oil amount		mg/m^3	–	–	

[1] at p_1 = 6 bar and Δp = 1 bar

Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions
(e.g. temperature, pressure, medium ...) on request, or see page 167–177 for special units

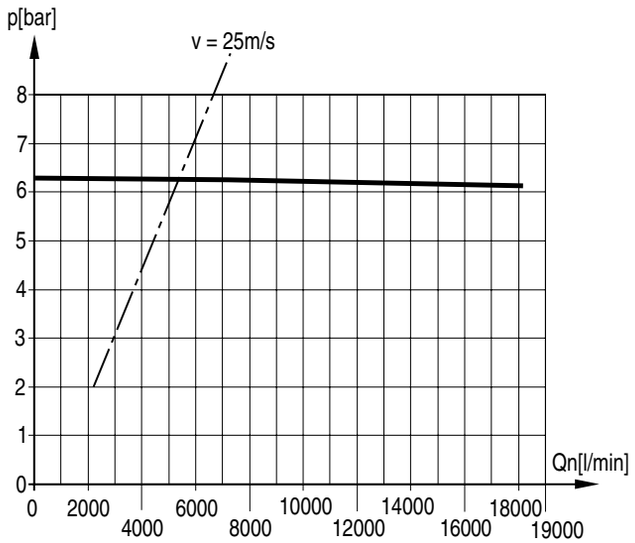
	3/2 Way start-stop valve		Submicrofilter		Activated carbon filter	
	Start-stop valve, electrically or pneumatically actuated as well as manual override					
	A50DS-..		A50MF1080-..-ADV		A50MC1080-..-DV	
	Diecast aluminum		Diecast aluminum		Diecast aluminum	
	–		–		–	
	–		–		–	
	NBR					
	G11/2	G2	G11/2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

Air preparation units

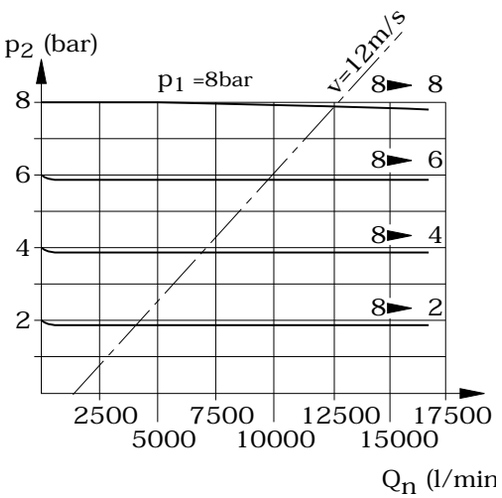
Series airfit A50
G11/2, G2

Flow characteristics

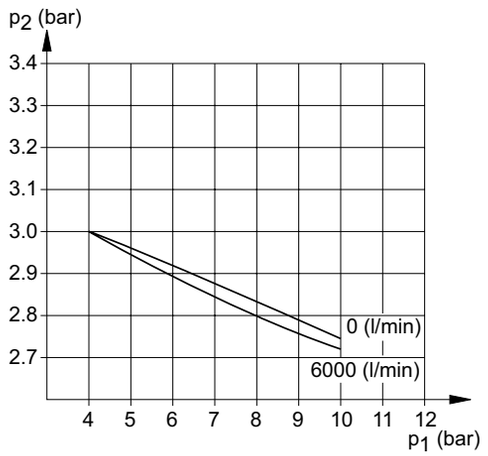
Filter-water-separator, dust filter
Type: A50F-11/2, -2
Type: A50FD-11/2, -2



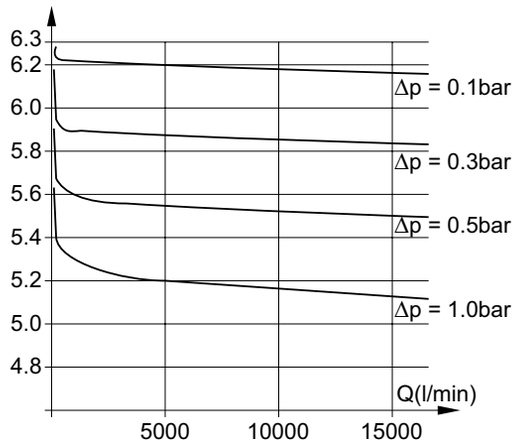
Pressure regulating valve – pilot operated
Type: A50R-11/2, -2
Type: A50RV-11/2, -2



Outlet pressure variation with fluctuating inlet pressure



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



Air preparation units

Series airfit A50
G11/2, G2

Flow characteristics

Air preparation units

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

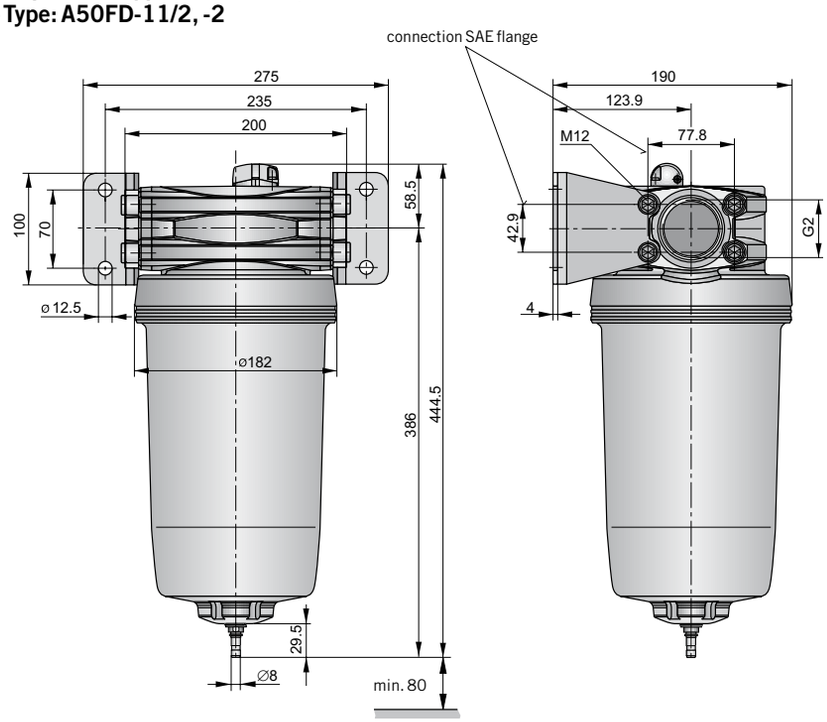
Dimensions

Delivery includes:

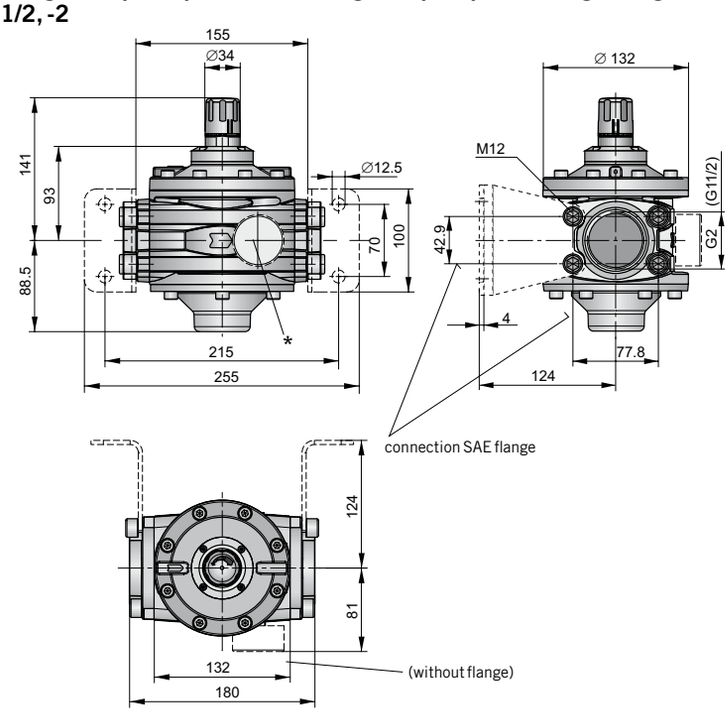
Basic version
(without thread flanges)
1 product

Version with thread flanges
1 product
2 thread flanges

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



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



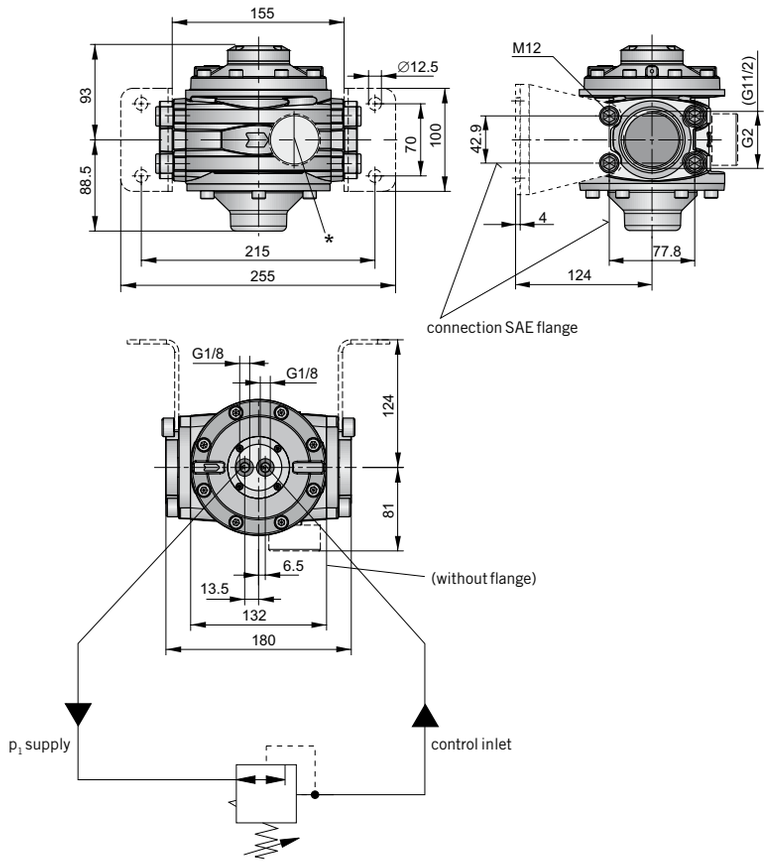
On delivery the plug screw is not assembled.
* Two opposite gauge ports G1/4

For order instructions see page 120–122, for characteristics see page 103–109,
for accessories see page 123, 124

Dimensions in mm

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

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



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

For order instructions see page 120–122, for characteristics see page 103–109, for accessories see page 123, 124

Dimensions in mm

Air preparation units

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

Dimensions

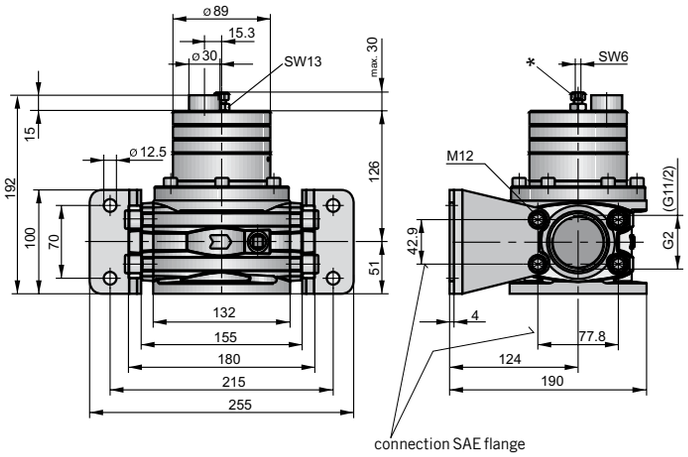
Start valve

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

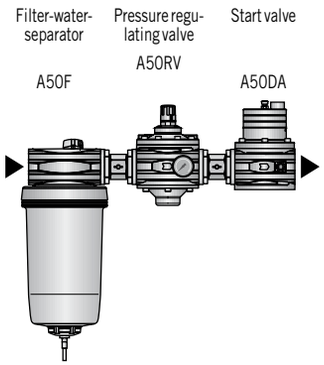
2/2 Way start-stop valve

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

Start valve – Typ: A50DA-11/2, -2

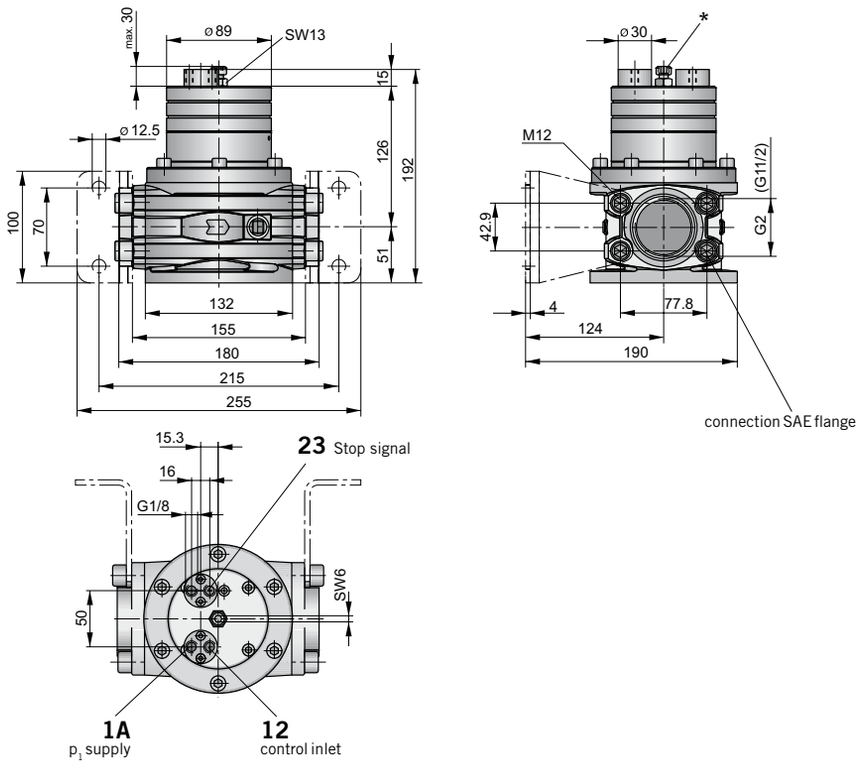


Installation instruction for start valve



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

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



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

For order instructions see page 120–122, for characteristics see page 104–107, for accessories see page 123, 124

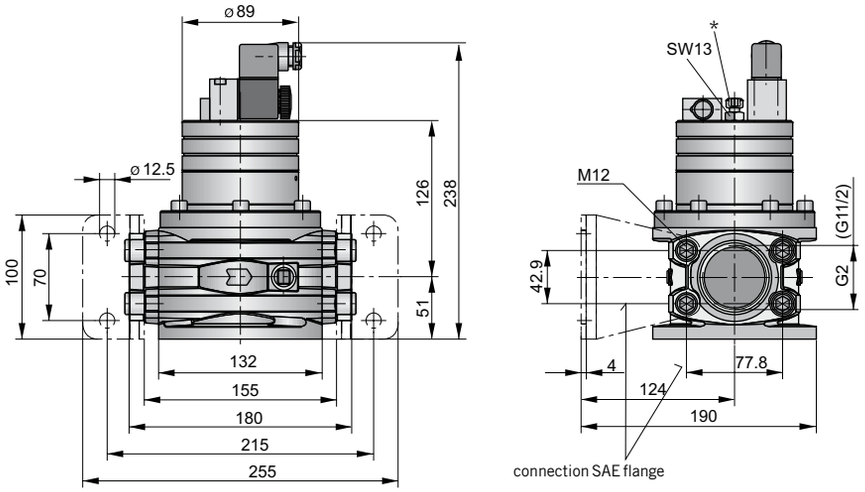
Dimensions in mm

Air preparation units

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

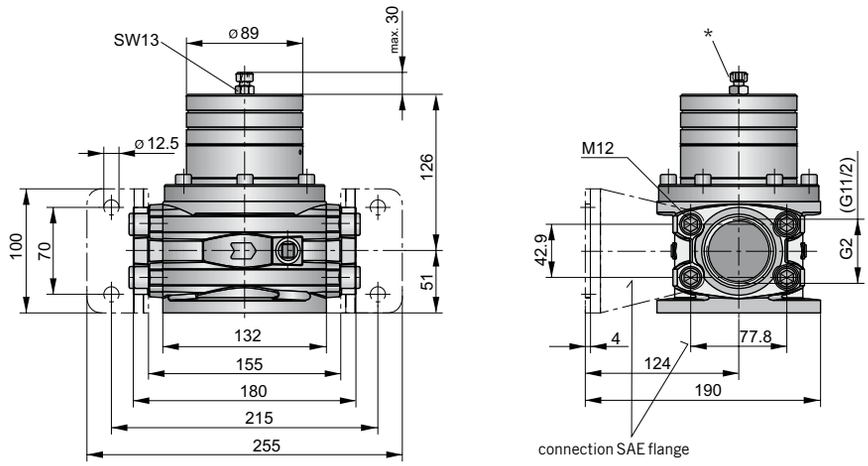
Dimensions

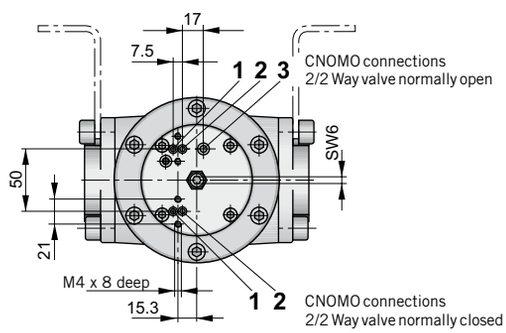
2/2 Way start-stop valve, electrically actuated – Type: A50DS-11/2, -2



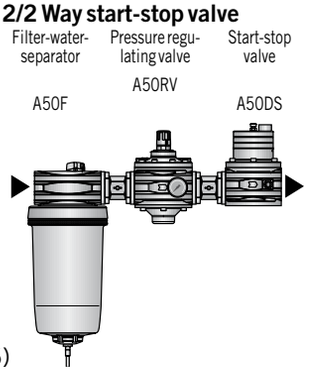
* Adjusting screw for start time selection (socket head screw SW 6)

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





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 120–122, for characteristics see page 104–107, for accessories see page 123, 124

Dimensions in mm

Air preparation units

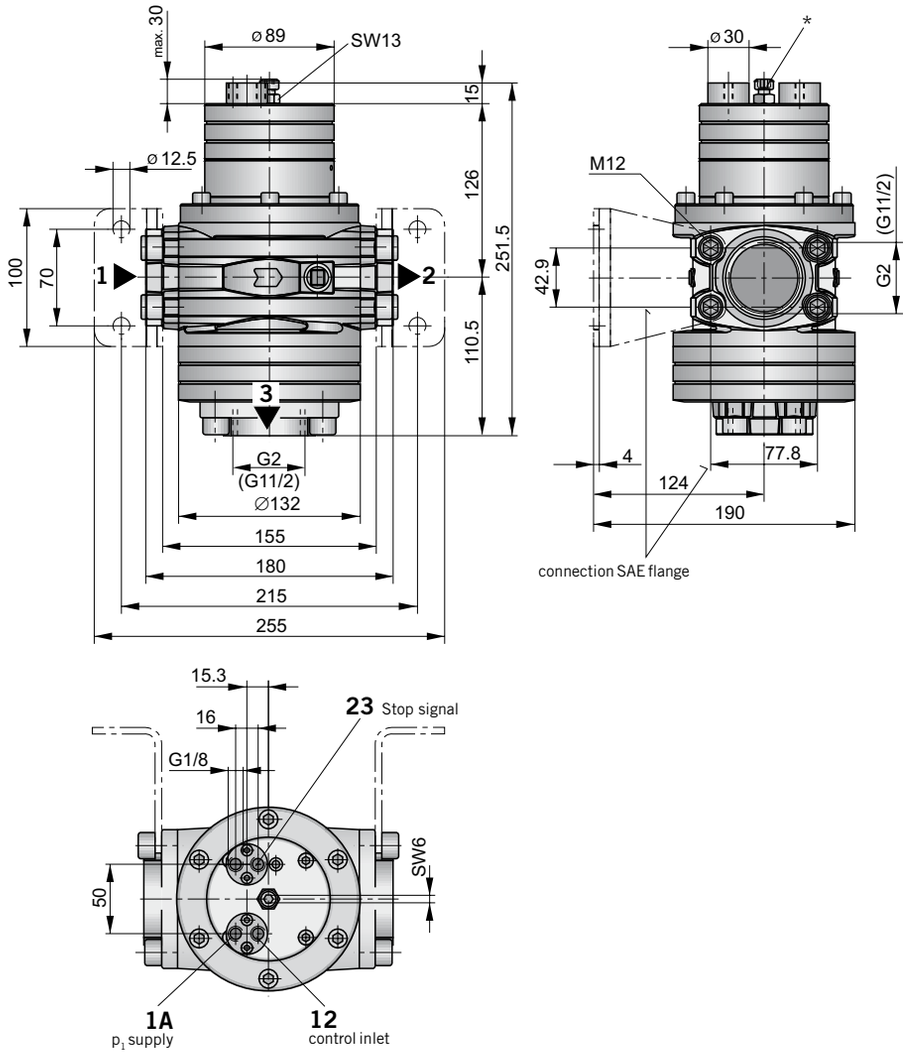
Series airfit A50
G11/2, G2
– with/without thread flanges

Dimensions

3/2 Way start-stop valve

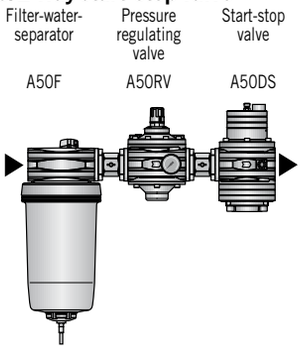
The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the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

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



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

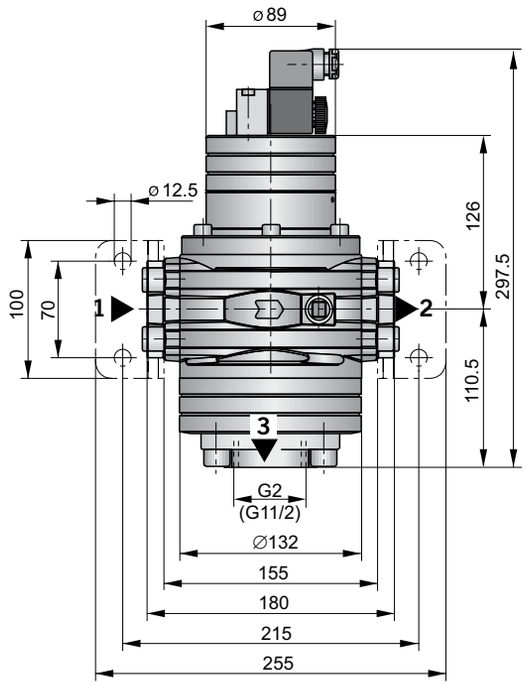
Installation instruction for 3/2 Way start-stop valve

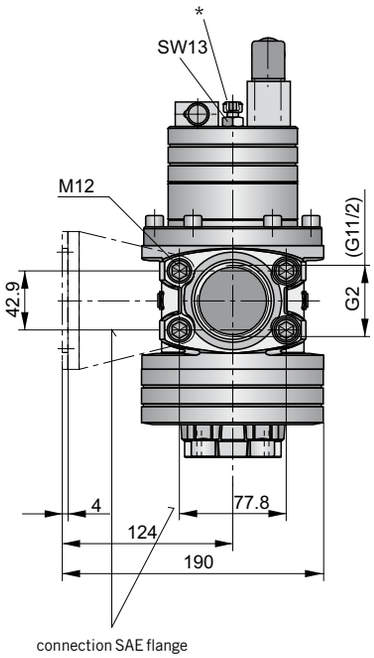


For order instructions see page 120–122, for characteristics see page 104–107, for accessories see page 123, 124

Dimensions in mm

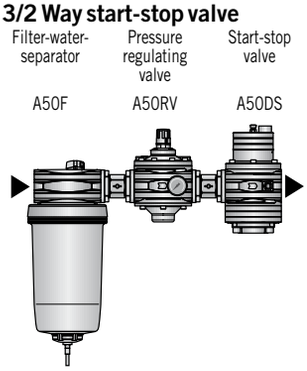
3/2 Way start-stop valve, electrically actuated – Type: A50DS-11/2, -2





* 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 120–122, for characteristics see page 104–107, for accessories see page 122, 124

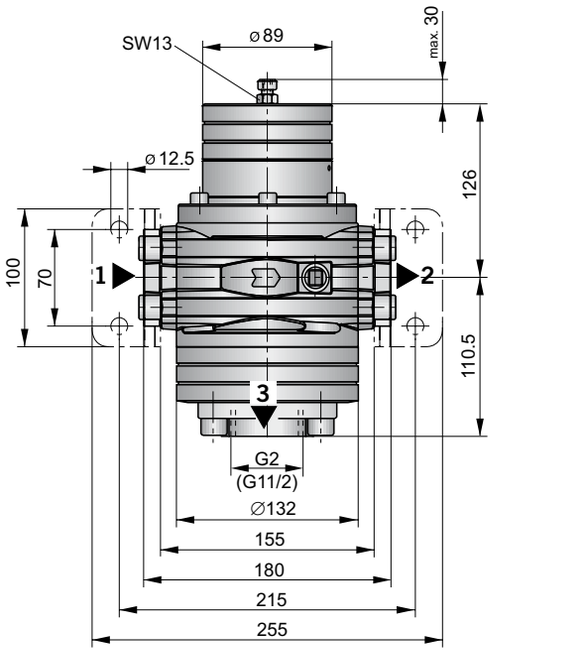
Dimensions in mm

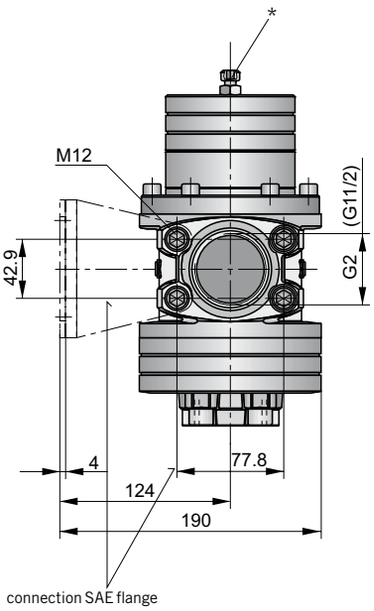
Air preparation units

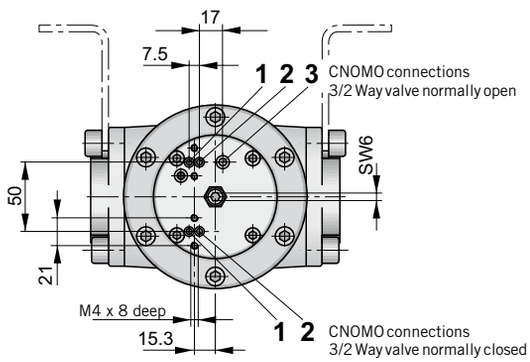
Series airfit A50
G11/2, G2
– with/without thread flanges

Dimensions

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

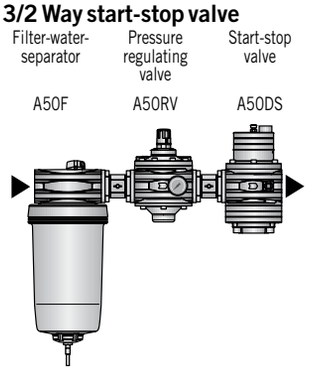






* Adjusting screw for start time selection (socket head screw SW 6)

Installation instruction for 3/2 Way start-stop valve

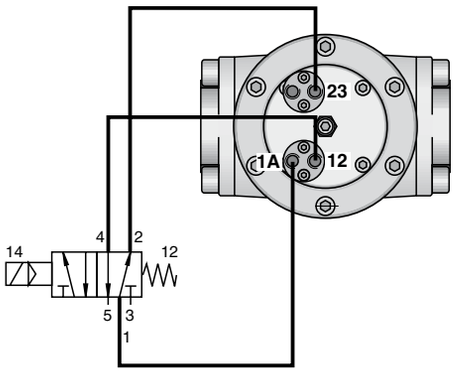


For order instructions see page 120–122, for characteristics see page 104–107, for accessories see page 123, 124

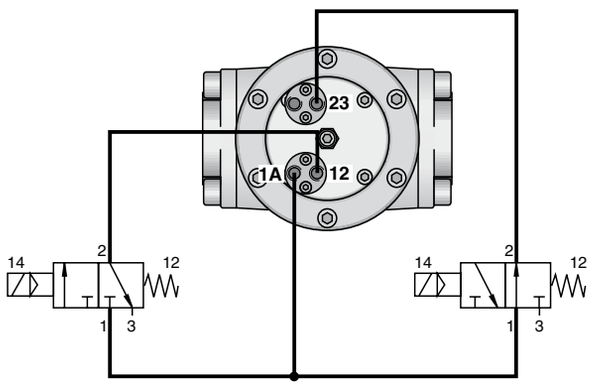
Dimensions in mm

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
G11/2, G2
– with/without thread flanges

Control types

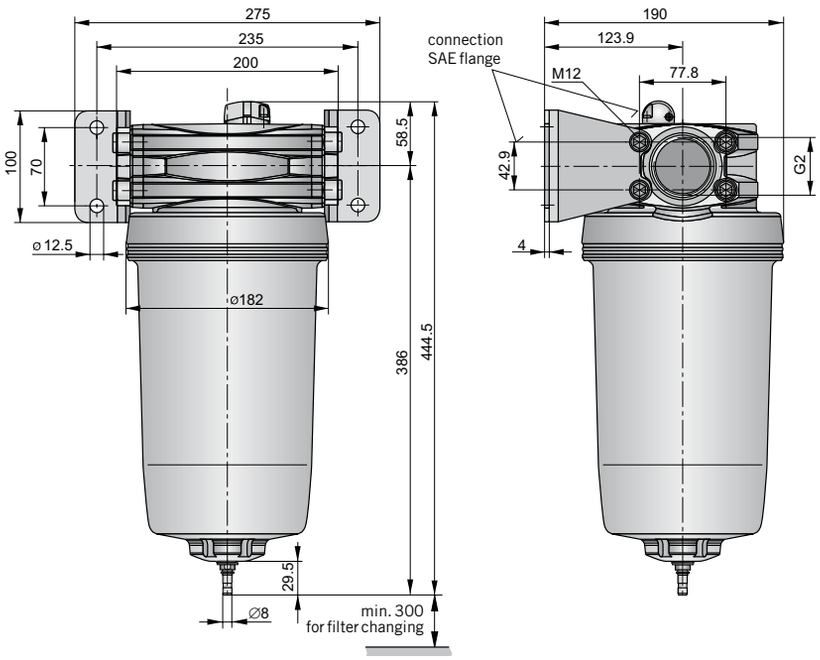
For order instructions see page 120–122, for characteristics see page 104–107, for accessories see page 123, 124

Dimensions in mm

Air preparation units

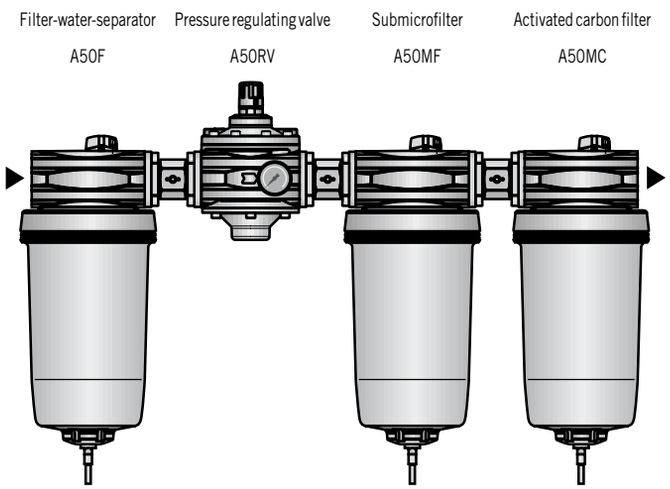
Series airfit A50
G11/2, G2
– with/without thread flanges

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



Installation instruction

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



For order instructions see page 120–122, for characteristics see page 104–107,
for accessories see page 123, 124

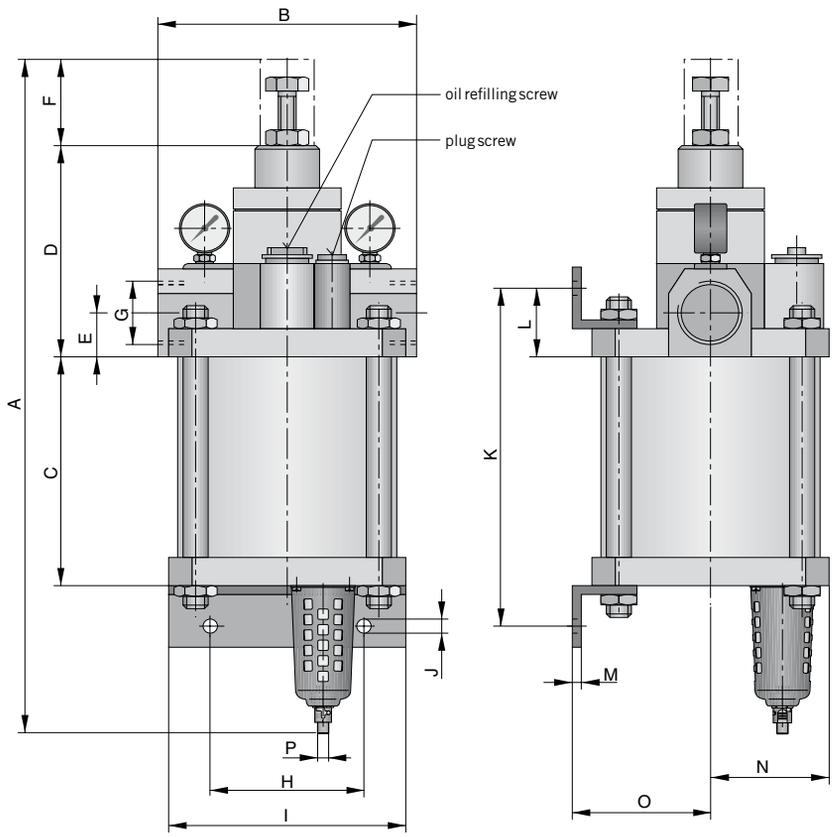
Dimensions in mm

Air preparation units

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

Dimensions

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



Central air line lubricator

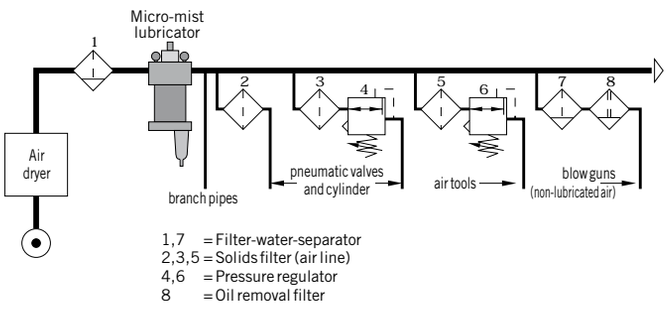
Micro-mist lubricator with oil-feed adjustment depending on differential pressure.
Comprising:
lubricator unit, 2 gauges, and mounting bracket

Differential pressure gauge:
Assembly kit with mounting kit
For Accessories see page 124

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 120–122, for characteristics see page 104–107, for accessories see page 123, 124

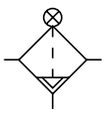
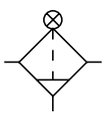
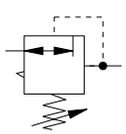
Dimensions in mm

Air preparation units

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

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
Filter-water-separator				
– Basic version		For SAE flange	A50F-ADV	PB60949-000
– Basic version with filter element 5 µm		For SAE flange	A50F-5ADV	PB 60949-016
– Basic version with connection flange*		G1 1/2	A50F-1 1/2-ADV	PB 60849-050
– Basic version with connection flange*		G2	A50F-2-ADV	PB 60949-050
– Version with connection flange* (with filter element 5 µm)		G1 1/2	A50F-1 1/2-5ADV	PB 60849-066
– Version with connection flange* (with filter element 5 µm)		G2	A50F-2-5ADV	PB 60949-066
– Dust filter basic version (with filter element 1 µm)		For SAE flange	A50FD-DV	PB 60949-120
– Dust filter with connection flange* (with filter element 1 µm)		G1 1/2	A50FD-1 1/2-DV	PB 60849-170
– Dust filter with connection flange* (with filter element 1 µ)		G2	A50FD-2-DV	PB 60949-170
Pressure regulating valve				
– Basic version with integrated pilot pressure regulating valve		For SAE flange	A50R	PB60649-021
– Basic version pilot operated (without pilot regulator)		For SAE flange	A50RV	PB60649-000
– Version with connection flange* with integrated pilot pressure regulating valve		G1 1/2	A50R-1 1/2	PB60549-070
– Version with connection flange* with integrated pilot pressure regulating valve		G2	A50R-2	PB60649-070
– Version with connection flange* pilot operated (without pilot regulator)		G1 1/2	A50RV-1 1/2	PB60549-050
– Version with connection flange* pilot operated (without pilot regulator)		G2	A50RV-2	PB60649-050

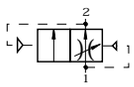
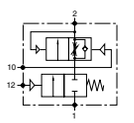
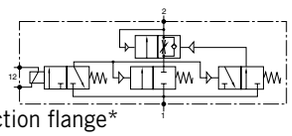
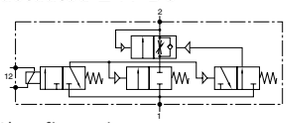
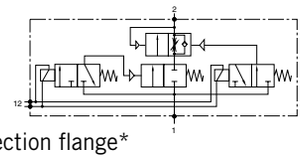
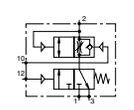
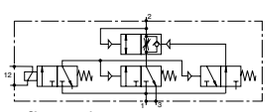
* Connection flanges are not supplied assembled

Air preparation units

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

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction Type	Order No.
Start valve				
– Start valve without connection flange		For SAE flange	A50DA	PB 60649-100
– Start valve with connection flange*		G1 1/2	A50DA-1 1/2	PB 60549-150
		G2	A50DA-2	PB 60649-150
2/2 Way start-stop valve				
– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-200
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-250
		G2	A50DS-2-P	PB 60649-250
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-204
 with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-254
		G2	A50DS-2-E	PB 60649-254
– electrically actuated 24V DC		For SAE flange	A50DS-E	PB 60649-201
 with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-251
		G2	A50DS-2-E	PB 60649-251
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-210
 with connection flange*		G1 1/2	A50DS-1 1/2-C	PB 60549-260
		G2	A50DS-2-C	PB 60649-260
3/2 Way start-stop valve				
– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-220
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-270
		G2	A50DS-2-P	PB 60649-270
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-224
 with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-274
		G2	A50DS-2-E	PB 60649-274

For more types see next page

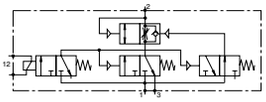
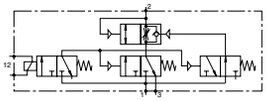
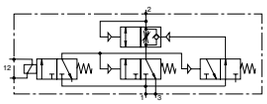
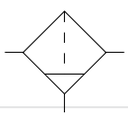
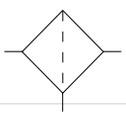
* Connection flanges are not supplied assembled

Air preparation units

Series airfit A50
G11/2, G2
– 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 121				
– electrically actuated 24V DC		for SAE flange	A50DS-E	PB 60649-221
– electrically actuated 24V DC with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-271
		G2	A50DS-2-E	PB 60649-271
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-230
		G1 1/2	A50DS-1 1/2-C	PB 60549-280
with connection flange*		G2	A50DS-2-C	PB 60649-280
Submicrofilter				
– with automatic drainage		For SAE flange	A50MF1080-ADV	PB 61249-000
– with automatic drainage with connection flange*		G1 1/2	A50MF1080-11/2-ADV	PB 61149-050
		G2	A50MF1080-2-ADV	PB 61249-050
Activated carbon filter				
– Basic version		For SAE flange	A50MC1080-DV	PB 61549-000
– Basic version with connection flange*		G1 1/2	A50MC1080-11/2-DV	PB 61449-050
		G2	A50MC1080-2-DV	PB 61549-050
Central air line lubricator				
– Basic version with aluminum tube with electrical oil level control		G1	EL-25	PB 15749-020
		G2	EL-50	PB 15549-020
		G2	EL-50-E	PB 15549-026

* Connection flanges are not supplied assembled

Accessories

Description	For type	Order No.
Mounting kit (2 brackets + 4 screws)		PL18672
Gauge, Ø 50 mm, 0–16 bar, G1/4 *		KG8013
Coupling kit		PL18735
Connection flange (kit) G1 1/2		PL18660
Connection flange (kit) G2		PL18662
Porting block kit G1with 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 198, 199
For more information see accessories page 123, 124

Air preparation units

Series airfit A50
G11/2, G2

Accessories
– Porting block kit

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

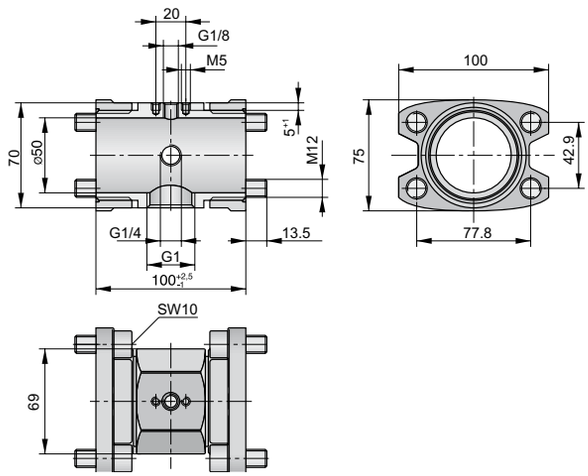
To provide unlubricated air e.g. for air gun.

For pressure switch mounting as standard

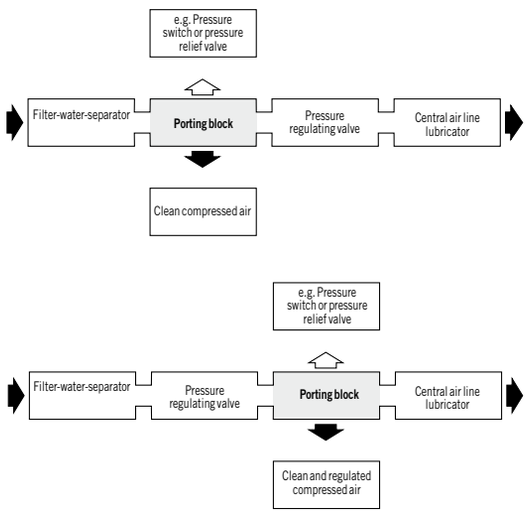
Delivery includes:

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 G2 (G11/2)	A50X	PL 18779

Dimensions in mm

Air preparation units

Series airfit A50
G1 1/2, G2

Accessories

Mounting kit

Order No. PL18672

Coupling kit

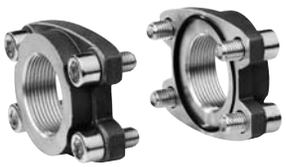
Order No. PL18735

Gauge
Ø 50, 0–10 bar, G1/4

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

For more gauges
see page 198, 199

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

Air preparation units

Condensate management airfit drain G1/2, G3/4

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Drain valve (assembly kit)	126, 127	128	130
Drain valve G1/2, DV-1/2e	126, 127	128, 129	130
Drain valve G1/2, DV-1/2e2	126, 127	129	130
Float-type drain valve, electronically actuated, G3/4, DV-3/4e	126, 127	129	130

Air preparation units

Condensate management airfit drain G1/2, G3/4

Characteristics

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

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	**Drain valve DV-1/2i (DV1/4i)**	**Drain valve DV-1/2e**	
System			Float controlled condensate drain valve (automatic)	Float controlled condensate drain valve (automatic)	
Port size			Assembly kit	G1/2	
Material					
– Float controller			Plastic (PP black)	Stainless steel	
– Housing			Plastic (PA)	Al	
– Sealings			Oil resistant rubber	Oil resistant rubber	
Condensate drainage			– During operation when reaching certain condensate level – During pressure relief – Manual	– During operation when reaching certain condensate level – Manual	
Installation			Vertical	Horizontal (see sketch)	
Mounting			In the bowl with a circlip or mounting nut M14x1	Double nipple	
Weight (mass)		kg	0.06	0.65	
Medium and ambient temperatures	T_{min} T_{max}	°C °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 G1/2, G3/4

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
	G1/2	G3/4 external thread or NPT 1/2
	Plastic (PP black)	–
	Aluminum, polycarbonate bowl	–
	Oil resistant rubber	–
	– During operation when reaching certain condensate level – During pressure relief – Manual	Level sensing, electronically controlled
	Vertical (see sketch)	Vertical
	Double nipple or direct	Direct
	0.3	1.0
	0 50 at 10 bar	1 60
	–	max. 60
	0 16	0.8 16
	–	5
	–	10
	–	30 at 7 bar
	– –	24–230 80–230
	–	5
	–	65
	–	max. 300
	–	0.1

Air preparation units

Condensate management airfit drain G1/2

Dimensions

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

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

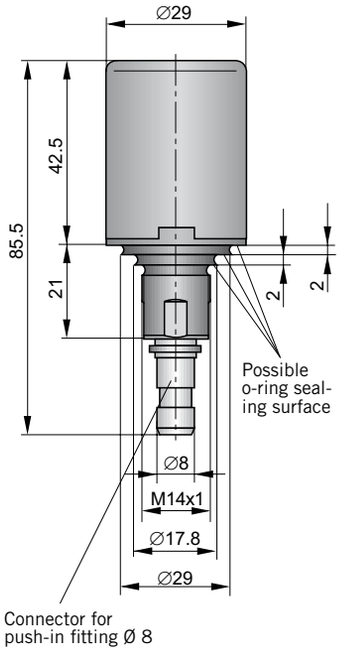
For installation in all plastic and metal reservoirs. Fitted in the HOERBIGER A25 and A50 series.

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

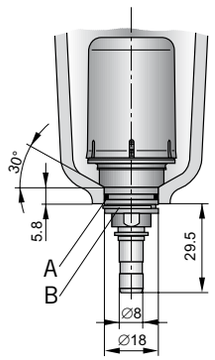
Drain valve DV-1/2e

Float-controlled drain valve for automatic drainage of condensate from compressed air lines and compressors. Tackles highly polluted condensate without problems.
Installation instruction:
Generally at the lowest point, where condensate and oil collect.

Type:DV-1/2i



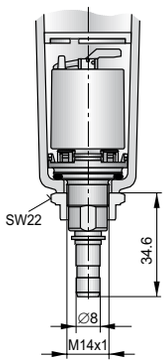
Type:DV-1/2i
– for series airfit A25, A50



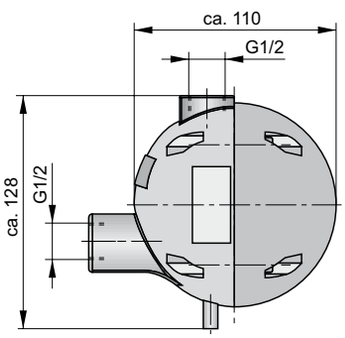
Installation instruction DV-1/2i

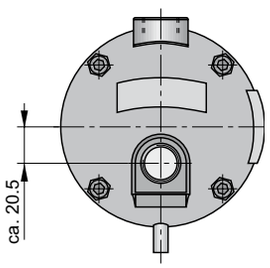
1. Lightly grease seal ring A before assembly.
2. Insert the drain valve into the bowl from the top.
3. Secure the drain valve outside the bowl with circlip B.

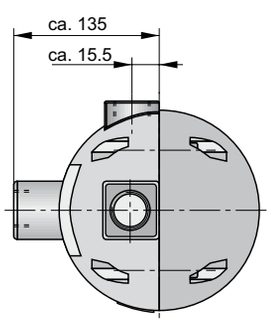
Type:DV-1/4i
– for series airfit swing



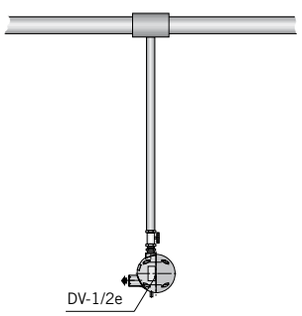
Type: DV-1/2e

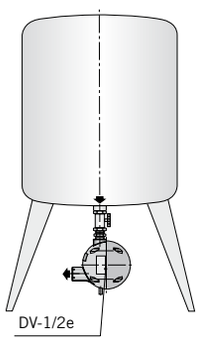






Installation instruction Type: DV-1/2e

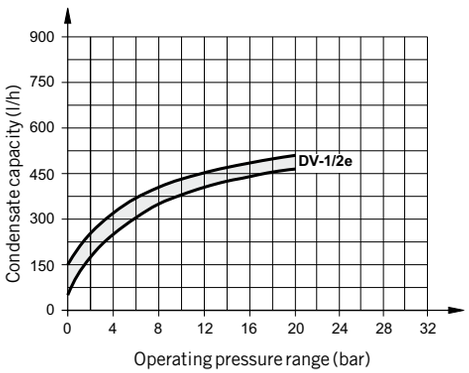




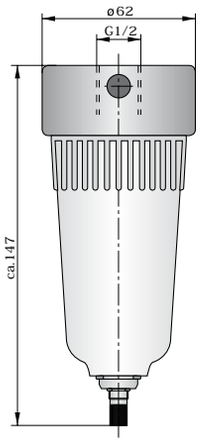
For order instructions see page 130, for characteristics see page 126, 127

Dimensions in mm

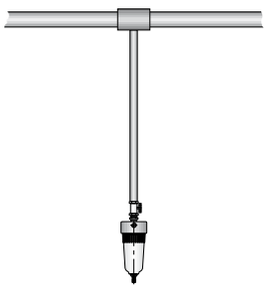
Condensate capacity – Type: DV-1/2e



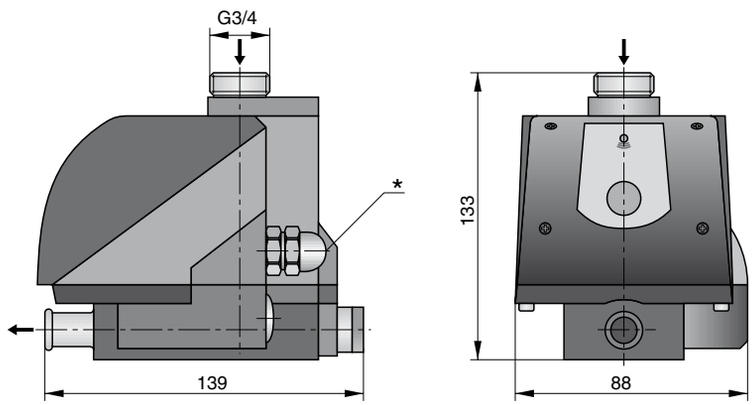
Type: DV-1/2e2



Installation instruction Type: DV-1/2e2



Type: DV-3/4e



* Electronic connection PG9

For order instructions see page 130, for characteristics see page 126, 127

Dimensions in mm

Air preparation units

Condensate management airfit drain G1/2

Dimensions

Drain valve DV-1/2e2

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

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

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

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

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

Air preparation units

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

Order instructions

Order instructions

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

Electronically controlled proportional pressure regulating valves

Series airfit control
G1/4 – G2

Series tecno basic
NW 2.5, G1/8

Series tecno plus
NW 6, G1/4

Overview

Electronically controlled proportional pressure regulating valves

Series airfit control G1/4 – G2

Characteristics

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

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description			
System			Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback	
Type			SRE-1/4	SRE-3/8	CRE-3/8	CRE-1/2
Material						
– Housing			Diecast zinc			
– Standard sealings			NBR			
Port size			G1/4	G3/8	G3/8	G1/2
Installation			In any position		In any position	
Weight (mass)		kg	0.6	0.6	0.95	0.95
Medium and ambient temperatures	T_{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} p_{1max}	bar bar	0 16	0 16	0 16	0 16
Operating pressure range – outlet pressure	p_{2min} p_{2max}	bar bar	0 10	0 10	0 10	0 10
Maximum flow [2]	Q_N	l/min m^3/h	2200 132	2500 150	4500 270	6000 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]	$p_{2\ max}$	%	< 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 mA mA	0–10 0–20 4–20	0–10 0–20 4–20	0–10 0–20 4–20	0–10 0–20 4–20
Input resistance	R_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 134

Electronically controlled proportional pressure regulating valves

Series airfit control G1/4 – G2

Characteristics

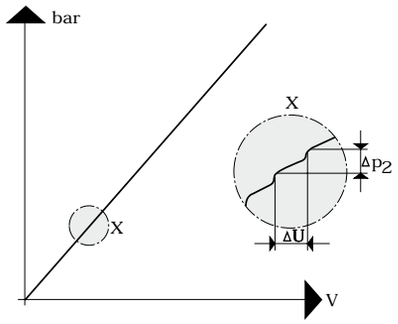
	Piston-type pressure regulating valve, pilot operated, with pneumatic and electric feedback		Diaphragm-type pressure regulating valve, pilot operated, with pneumatic and electric feedback	
	A25RE-3/4	A25RE-1	A50RE-11/2	A50RE-2
	Diecast aluminum			
	NBR			
	G3/4	G1	G11/2	G2
	In any position	In any position	In any position	In any position
	1.2	1.2	4.1	4.1
	0 +50	0 +50	0 +50	0 +50
	Filtered, lubricated, or oil-free compressed air, inert gases			
	0 16	0 16	0 16	0 16
	0 10	0 10	0 10	0 10
	20000 1200	20000 1200	> 40000 > 2400	> 40000 > 2400
	< 1	< 1	< 1	< 1
	< 0.5	< 0.5	< 0.5	< 0.5
	< 0.5	< 0.5	< 0.5	< 0.5
	< 1	< 1	< 1	< 1
	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%	24 V = ± 10%
	10	10	10	10
	0.15	0.15	0.15	0.15
	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)	0–10 0–20 (on request) 4–20 (on request)
	243	243	243	243
	0–10	0–10	0–10	0–10
	10	10	10	10
	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529	65 to DIN 40050, EN 60529

Electronically controlled proportional pressure regulating valves

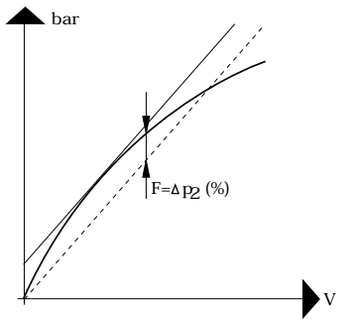
Series airfit control G1/4 – G2

Definitions

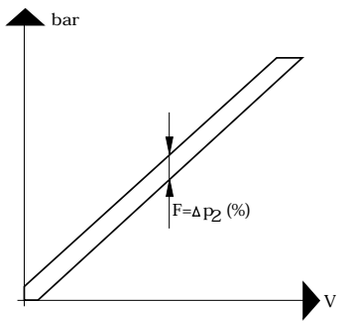
Sensitivity
The smallest deviation from set output pressure that leads to a change in actual output pressure is referred to as sensitivity and this is expressed as a percentage of maximum output pressure. Sensitivity of the XRE II valve is below 0.5%, which allows output pressure to be set very precisely.



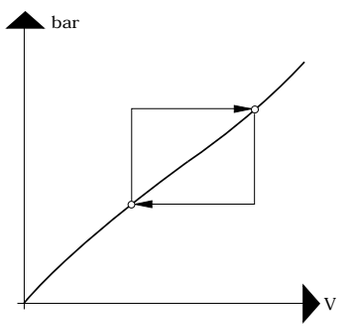
Linearity
The ideal curve showing output pressure in relation to electronic signal would be a straight (linear) line (see dotted line), to predict exactly which pressure can be expected at a given voltage. The deviation can be calculated from the maximal deviation from the straight line, in relation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



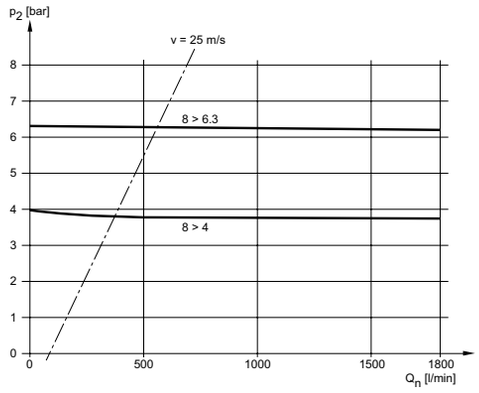
Hysteresis
The same set output pressure generates slightly different actual output pressures, depending on whether the previous setting was higher or lower. This difference, known as hysteresis, is caused by friction and temporary deformation of elastic components. The hysteresis of the SRE valve is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



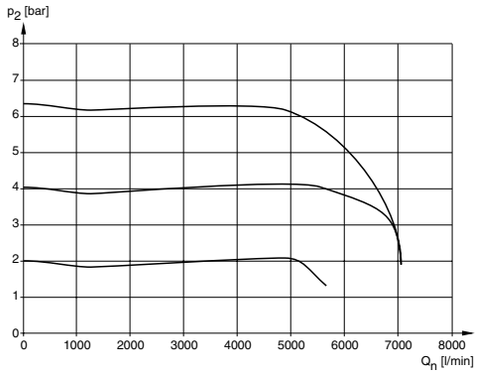
Repeatability
Control components for a given set value usually produce repeated actual values that differ less from each other than from the absolute set value, because the relatively large linearity deviation is excluded. Repeatability is improved if hysteresis is minimized.



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



Type: CRE-1/2

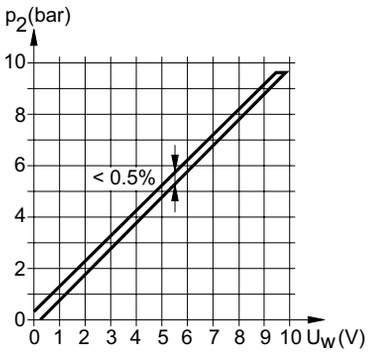


Electronically controlled proportional pressure regulating valves

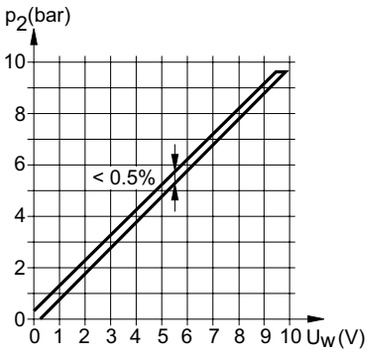
Series airfit control
G1/4 – G2

Flow characteristics

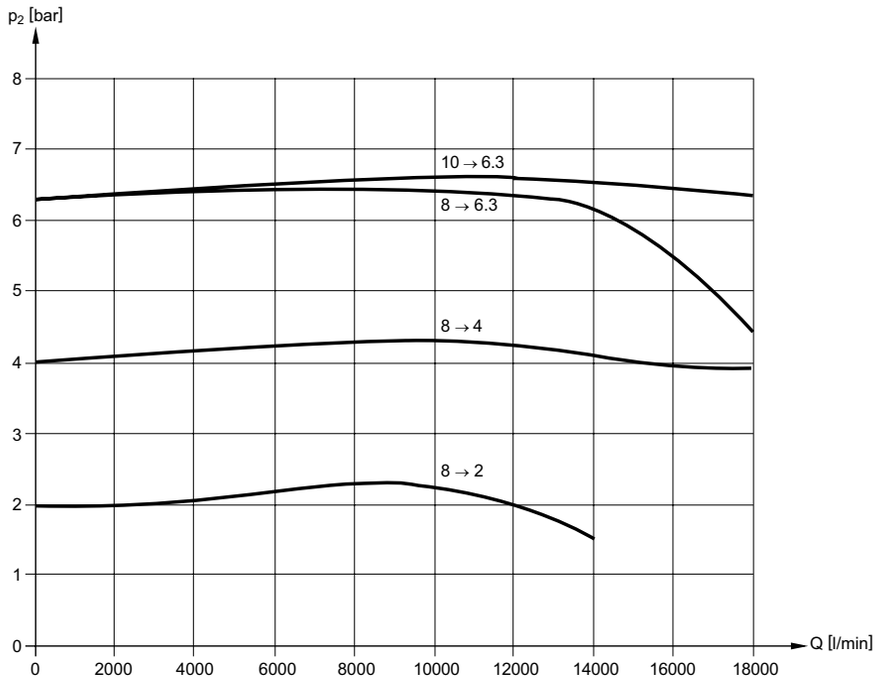
Output pressure as function of input voltage
Type: SRE-1/4



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



Type: A25RE-1

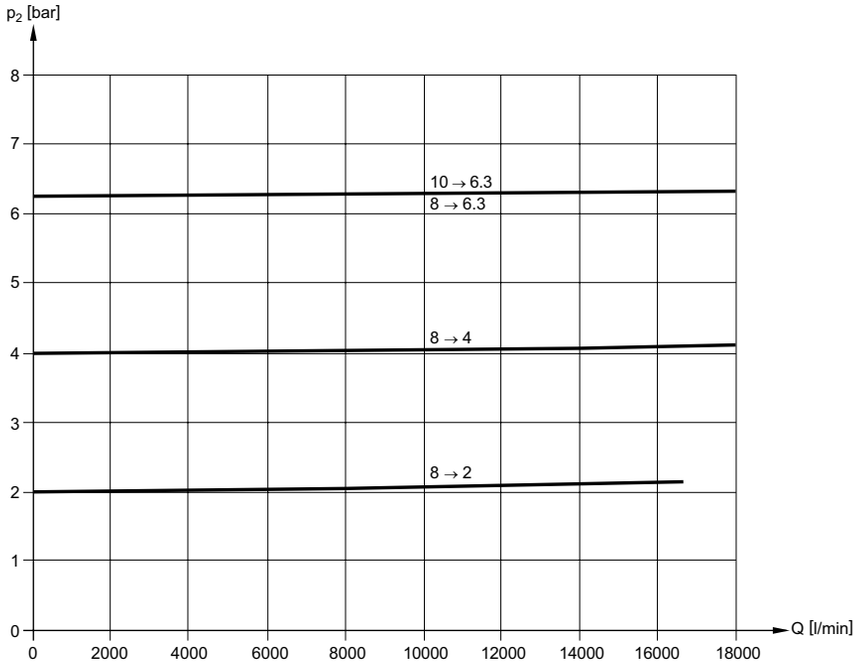


Electronically controlled proportional pressure regulating valves

Series airfit control
G1/4 – G2

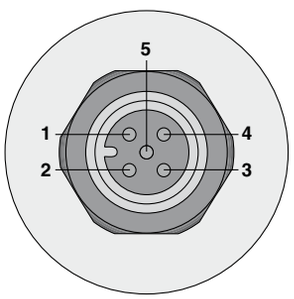
Flow characteristics

Type: A50RE-2



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

Connector M12x1



Pin 1:
Power supply
Plus +24 V DC ± 10%
0.15 A
Residual ripple 10%

Pin 2:
Power supply 0 V
Reference and mass capacity
for set value and actual value

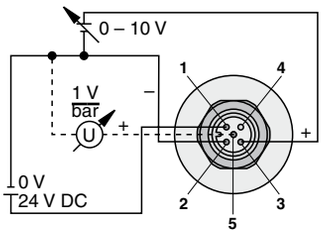
Pin 3:
Set value input
0–10 V

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

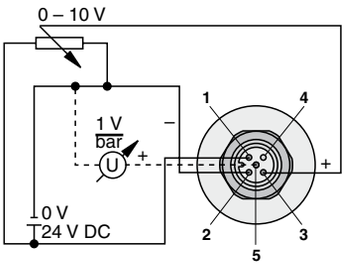
Control options– Type: SRE-.., CRE-..

Analog voltage

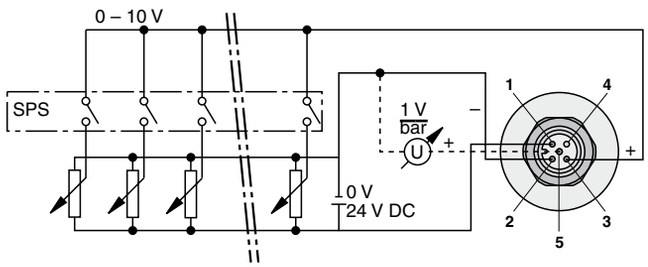


PLC in connection with several potentiometers

With a single potentiometer



The resistance of the potentiometer should range between 500 Ω and 100 kΩ



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

Electronically controlled proportional pressure regulating valves

Series airfit control G1/4 – G2

Characteristics

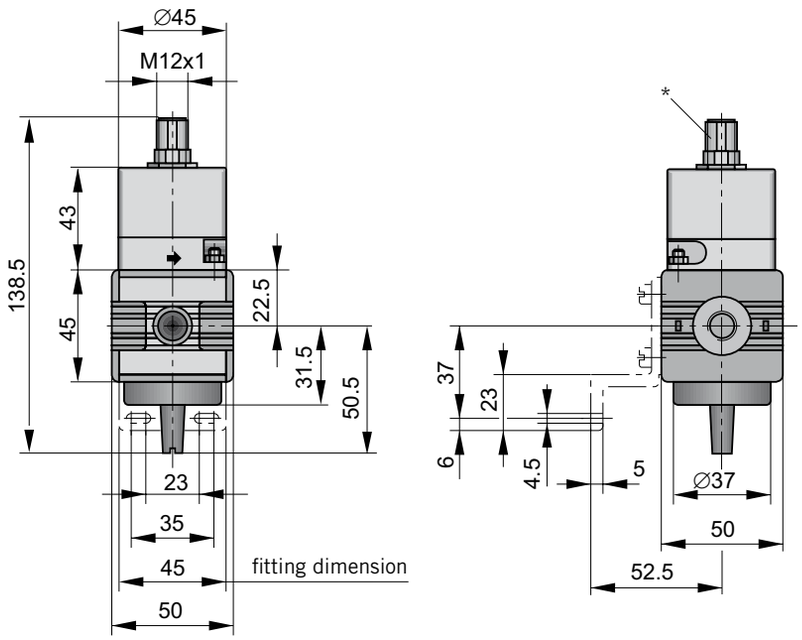
Connection diagrams

Electronically controlled proportional pressure regulating valves

Series airfit control
G1/4 – G2

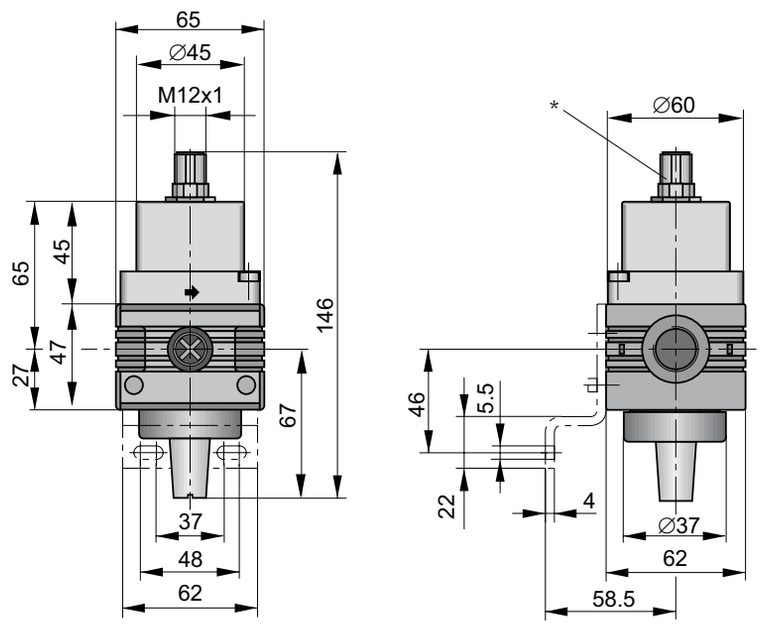
Dimensions

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



* Connection for 5-pin plug M12x1

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



* Connection for 5-pin plug M12x1

For order instructions see page 142, for characteristics see page 132–137,
for accessories see page 143

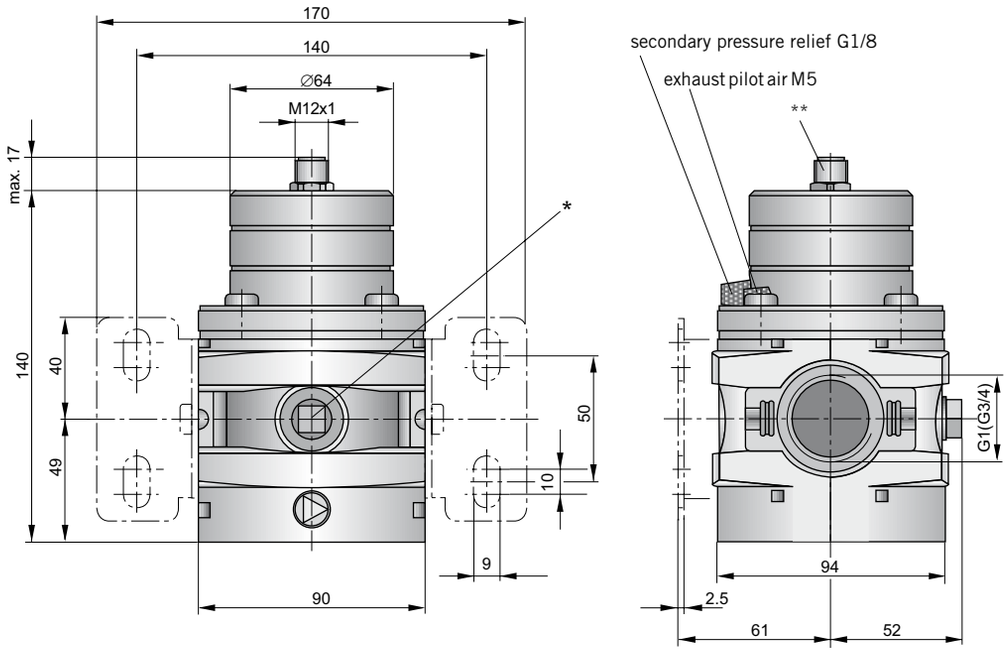
Dimensions in mm

Electronically controlled proportional pressure regulating valves

Series airfit control G1/4 – G2

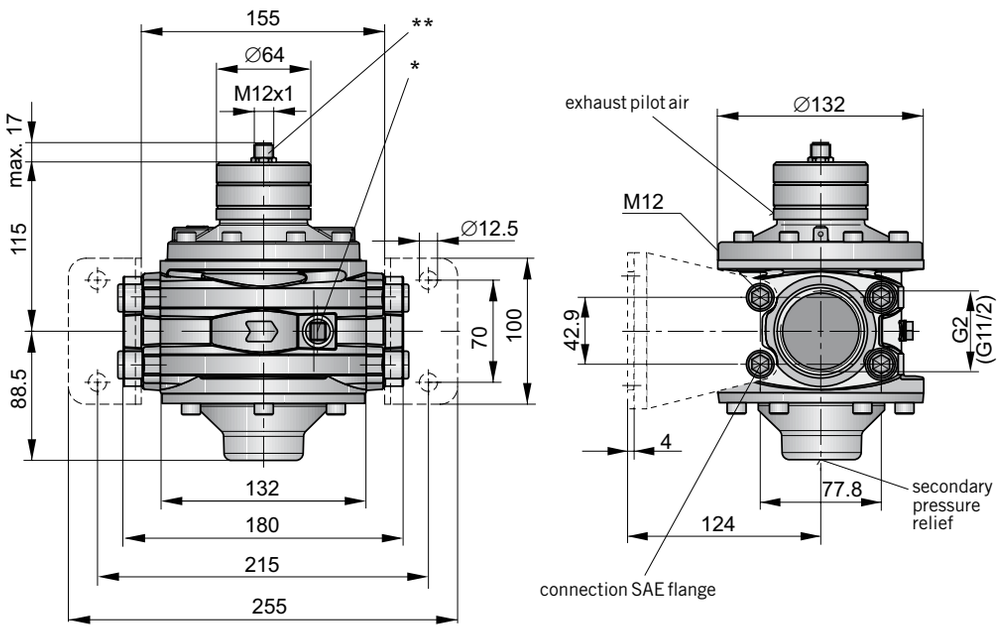
Dimensions

Type: A25RE-3/4, -1



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

Type: A50RE-11/2, -2



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

For order instructions see page 142, for characteristics see page 132–137,
for accessories see page 143

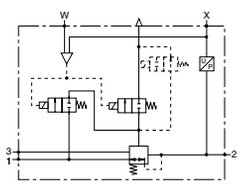
Dimensions in mm

Electronically controlled proportional pressure regulating valves

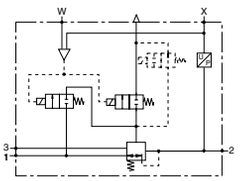
Series airfit control
G1/4 – G2

Order instructions

airfit control G1/4, G3/8

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G1/4	SRE-U-1/4 NG [1]	PB 59849-10000N-XXX
	10		G3/8	SRE-U-3/8 NG [1]	PB 59949-10000N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G1/4	SRE-I-1/4 NG [1]	PB 59849-10100N-XXX
	10		G3/8	SRE-I-3/8 NG [1]	PB 59949-10100N-XXX
Version for set value 4–20 mA, NC (normally closed)	10		G1/4	SRE-I-1/4 NG [1]	PB 59849-10200N-XXX
	10		G3/8	SRE-I-3/8 NG [1]	PB 59949-10200N-XXX
Version for set value 0–10 V, NO (normally open)	10		G1/4	SRE-U-1/4 NO [2]	PB 59849-10010N-XXX
	10		G3/8	SRE-U-3/8 NO [2]	PB 59949-10010N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G1/4	SRE-I-1/4 NO [2]	PB 59849-10110N-XXX
	10		G3/8	SRE-I-3/8 NO [2]	PB 59949-10110N-XXX
Version for set value 4–20 mA, NO (normally open)	10		G1/4	SRE-I-1/4 NO [2]	PB 59849-10210N-XXX
	10		G3/8	SRE-I-3/8 NO [2]	PB 59949-10210N-XXX

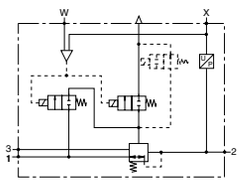
airfit control G3/4, G1

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

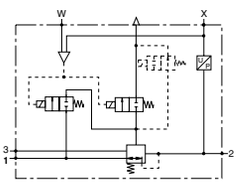
[1] NG: device keeps pressure when currentless
[2] NO: device keeps pressure when currentless

For configurable order code of proportional pressure regulating valves see page 142

airfit control G3/8, G1/2

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

airfit control G1 1/2, G2

Description	Max. outlet pressure (bar)	Symbol	Port size	Type	Order No.
Basic version for set value 0–10 V, NC (normally closed)	10		G1 1/2	A50RE-U-1 1/2-NG [1)]	PB 60549-10000N-XXX
	10		G2	A50RE-U-2-NG [1)]	PB 60649-10000N-XXX
Versions for set value 0–20 mA and 4–20 mA			G1 1/2, G2	On request	On request
Versions for NO (normally open) functions			G1 1/2, G2	On request	On request

Accessories

Description	For series	Type	Order No.
Mounting kit	airfit swing	SRE	PL16965
Coupling kit	airfit swing	SRE	PL16959
Mounting kit	airfit comfort	CRE	PL17518
Coupling kit	airfit comfort	CRE	PL17608
Mounting kit	airfit A25	A25RE	PL18988
Coupling kit	airfit A25	A25RE	PL16987
Mounting kit	airfit A50	A50RE	PL18672
Coupling kit	airfit A50	A50RE	PL18735
Connection flange G1 1/2 (kit)	airfit A50	A50RE	PL18660
Connection flange G2 (kit)	airfit A50	A50RE	PL18662

For configurable order code of proportional pressure regulating valves see page 142

Electronically controlled proportional pressure regulating valves

Series airfit control G1/4 – G2

Order instructions

Configurable electronically proportional pressure regulating valve airfit control

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

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

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

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

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

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

Attention	
N	NBR (Standard design)
V	Viton design (e.g. for oxygen)
X	Special material
S	NPT-thread at NBR version
U	NPT-thread at Viton version

Actual output	
0	0–10 V
1	0–1 V
2	0–2 V
3	0–3 V
4	0–4 V
5	0–5 V
6	0–6 V
7	0–7 V
8	0–8 V
9	0–9 V
A	4–20 mA
B	0–20 mA
X	Special actual output

Mounting kit
for Type: SRE-..

Order No. PL16965

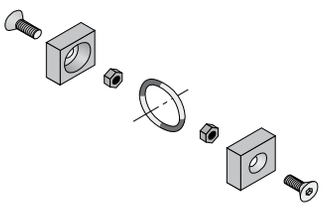
Mounting kit
for Type: CRE-..

Order No. PL17518

Mounting kit
for Type: A25RE-..

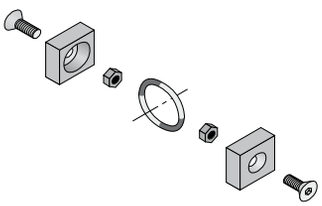
Order No. PL18988

Coupling kit
for Type: SRE-..



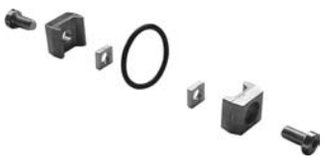
Order No. PL16959

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

Series airfit control
G1/4 – G2

Accessories
– Mounting kit
– Coupling kit

Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno basic
G1/8, NW 2.5

Series tecno plus
G1/4, NW 6

Characteristics

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description	
System			Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control	
Type			tecno basic PRE-U, PRE-I	tecno basic PRE-U, PRE-I
Version [1]			0–8 bar	0–2 bar
Port size			G1/8	G1/8
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} T_{max}	°C °C	0 +50	0 +50
Storage temperature	T_{min} T_{max}	°C °C	-20 +60	-20 +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/m³ mineral oil Type VG 32 to ISO 3448	
Flow direction			On: 1 → 2 Off: 2 → 3	On: 1 → 2 Off: 2 → 3
Material			Aluminum, brass, spring steel, plastic, elastomer	
Pneumatic characteristics				
Nominal pressure	p_n	bar	6.3	6.3
Pressure range, inlet	p_{1min} p_{1max}	bar bar	1.5 10	1.5 6
Pressure range, outlet[1]	p_{2min} p_{2max}	bar bar	0 8	0 2
Maximum flow rate [2]	Q_N	l/min m³/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]	$p_{2\,max}$	%	≤ 0.6	≤ 0.5
Own air consumption [5]		Nl/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	kΩ	66	66
Scale	W/p_2	V/bar	1	5

for further characteristics see page 147–148

1) Other pressure ranges on request.
2) At p_1= 10 bar and p_2= 6.3 bar, Δp=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 ± 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

Electronically controlled proportional pressure regulating valves

with PIEZO control

Series tecno basic G1/8, NW 2.5

Series tecno plus G1/4, NW 6

Characteristics

		Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control		
	tecno basic PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I
	0–0.2 bar	0–10 bar	0–6 bar	0–2 bar
	G1/8	G1/4	G1/4	G1/4
	Flange [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/m³ 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
G1/8, NW 2.5

Series tecno plus
G1/4, NW 6

Characteristics

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description		
System			Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control		
Type			tecno basic PRE-U, PRE-I	tecno basic PRE-U, PRE-I	
Electrical characteristics – Type PRE-I					
Power supply [6]	I_B	mA	4	4	
Set value input	W	mA	4–20	4–20	
Input resistance	R_E	kΩ	≤ 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 p_1= 10 bar and p_2= 6.3 bar, Δp=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 ± 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 G1/8, NW 2.5

Series tecno plus G1/4, NW 6

Characteristics

		Piezo pilot controlled 3-way proportional pressure regulating valve, electronic closed loop control		
	tecno basic PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I	tecno plus PRE-U, PRE-I
	4	–	–	–
	4–20	0 (4–20)	0 (4–20)	0 (4–20)
	≤ 550	500	500	500
	80	2	2667	8
	12.5			
	Optional	–	–	–
	p_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

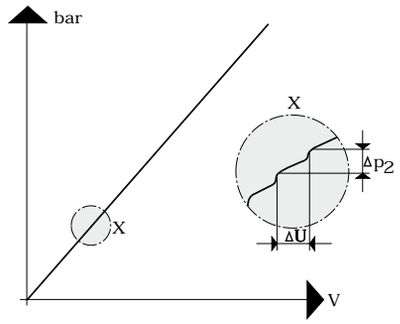
Series tecno basic
G1/8, NW 2.5

Series tecno plus
G1/4, NW 6

Characteristics

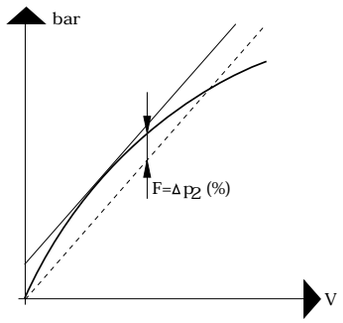
Sensitivity

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



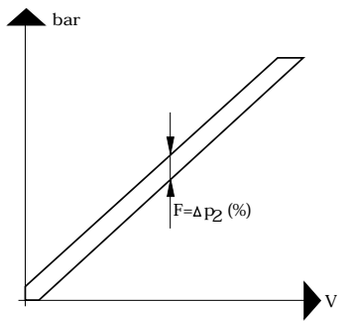
Linearity

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



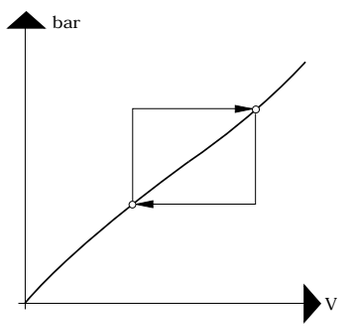
Hysteresis

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



Repeatability

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



Electronically controlled proportional pressure regulating valves

with PIEZO control

Series tecno basic G1/8, NW 2.5

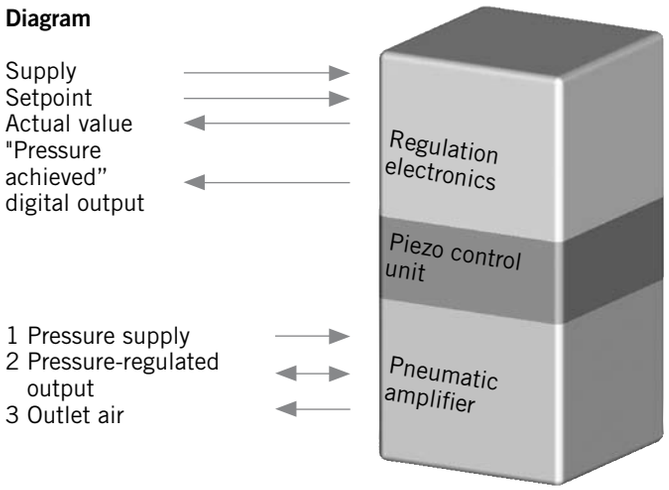
Series tecno plus G1/4, NW 6

Design and function

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



Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno basic
G1/8, NW 2.5

Characteristics

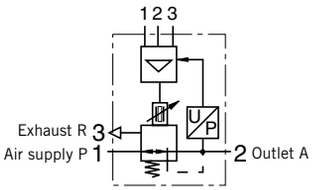
Connection diagrams

Versions:

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

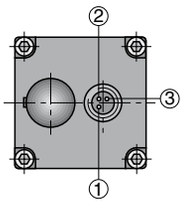
Electronically controlled pressure regulating valve with PIEZO pilot control and ACTUAL VALUE feedback. An integrated potentiometer ensures that the device can be set to best meet the requirements of any given application. Remote control possible.

Symbol
3 PIN version



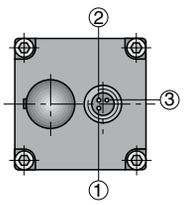
Color code
1 = blue
2 = black
3 = brown

Connection diagram 1



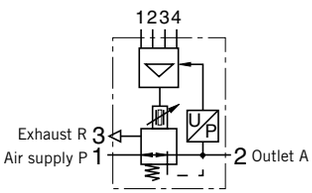
Voltage controlled 0-10 V, Type PRE-U
1 = power supply 24 V DC/15 mA
2 = set value 0–10 V
3 = GND set value and power supply

Connection diagram 2



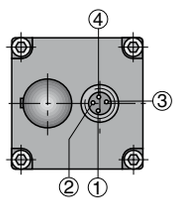
Current controlled 4–20 mA, Type PRE-I (2-wire technology)
1, 2 = set value 4–20 mA, +
3 = set value GND

Symbol
4 PIN version



Color code
1 = blue
2 = white
3 = brown
4 = black

Connection diagram 3



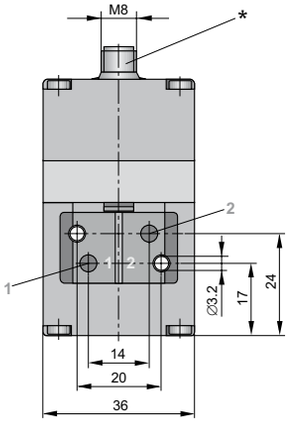
Voltage controlled 0–10 V, Type PRE-U with actual output
1 = power supply 24 V DC
2 = set value 0–10 V
3 = GND set value and power supply
4 = actual value output 0 10 V

For order instructions see page 153, for characteristics see page 144–150, for accessories see page 152, 153

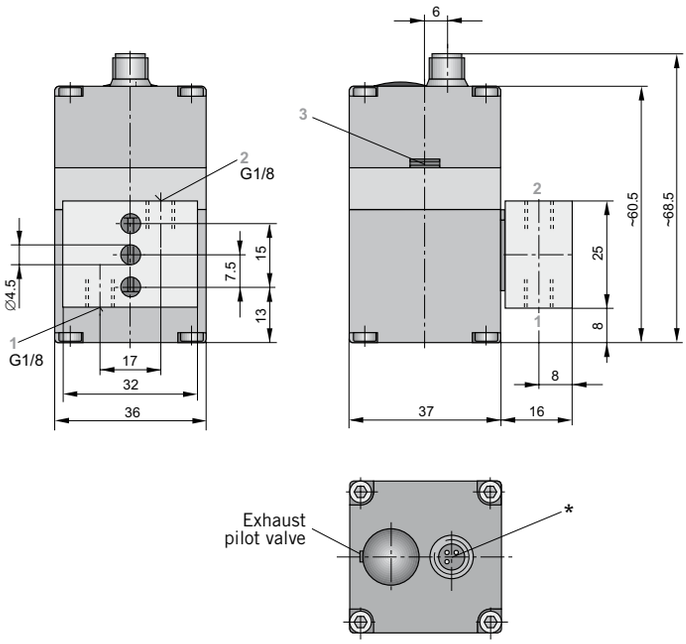
Dimensions in mm

Dimensions

without base plate



with single base plate



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

Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno basic
G1/8, NW 2.5

Dimensions

Versions:

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

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

For order instructions see page 153, for characteristics see page 144–150,

Dimensions in mm

Electronically controlled proportional pressure regulating valves

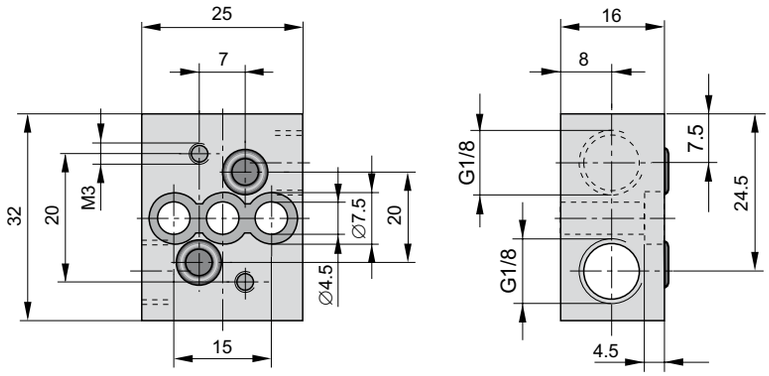
with
PIEZO control

Series tecno basic
G1/8, NW 2.5

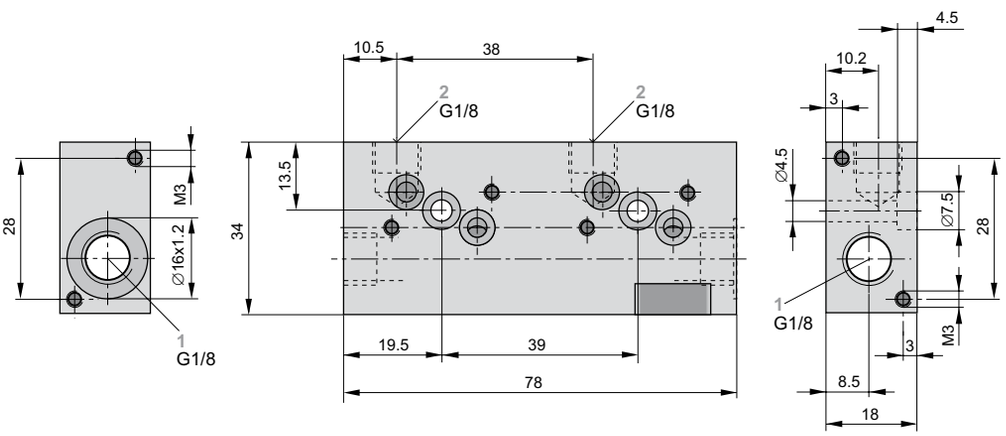
Base plates

Dimensions

Single base plate



2-fold base plate, for serial connection



For order instructions see page 153, for characteristics see page 144–150,
for accessories see page 152, 153

Dimensions in mm

Electronically controlled proportional pressure regulating valves

with PIEZO control

Series tecno basic G1/8, NW 2.5

Order instructions

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	
00	Voltage
01	Current 4–20 mA

Version with 4 PIN connector	
06	Voltage + actual value output

Pressure range	
002	0.2 bar
020	2 bar
080	8 bar

Type variation	
0	Standard

Flange	
0	Without flange
5	Sidewise G1/8

Connection cable	
0	Without cable
1	Cable, straight 3 PIN
2	Cable, elbow 3 PIN
3	Cable, straight 4 PIN
4	Cable, elbow 4 PIN

Accessories

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

Electronically controlled proportional pressure regulating valves

with
PIEZO control

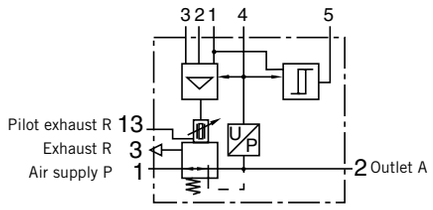
Series tecno plus
G1/4, NW 6

Dimensions

Versions:

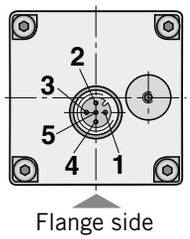
– Voltage controlled (Type PRE-U)
– Current controlled (Type PRE-I)
– 3 pressure ranges
– With actual value output
– With EMC mass

Symbol



Color code
1 = brown
2 = white
3 = blue
4 = black
5 = gray

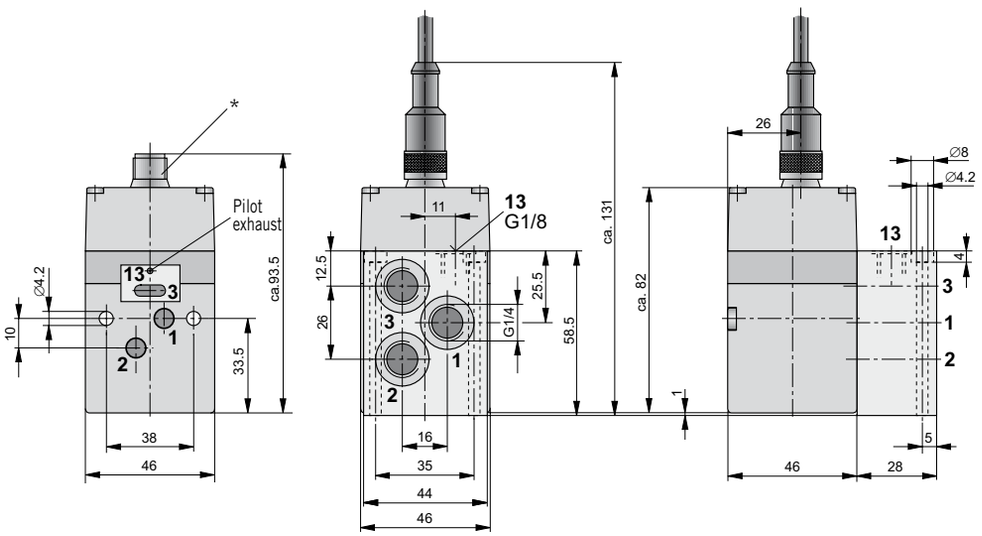
Connection diagram



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

Version with 5 PIN connector M12 x 1, straight

without base plate **with single base plate**



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

For order instructions see page 144, for characteristics see page 144–150,
for accessories see page 155, 156

Dimensions in mm

Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno plus
G1/4, NW 6

Dimensions

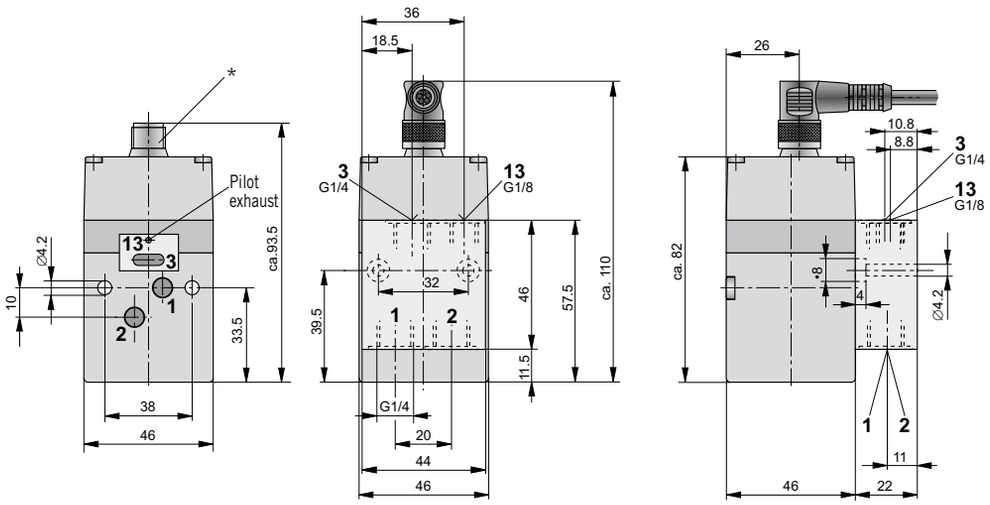
Versions:

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

Connection plates

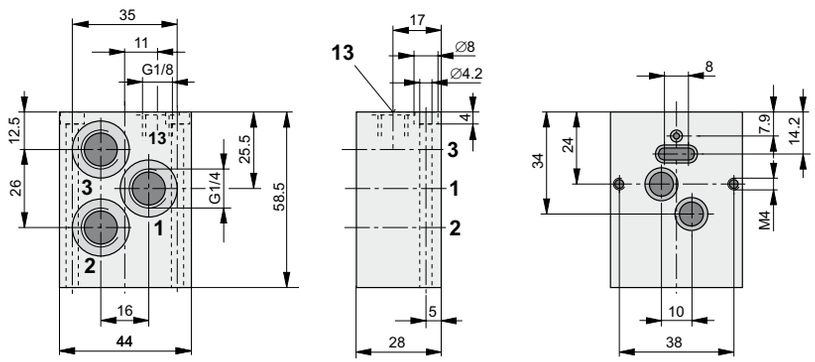
Version with 5 PIN connector M12 x 1, elbow

without base plate **with single base plate**

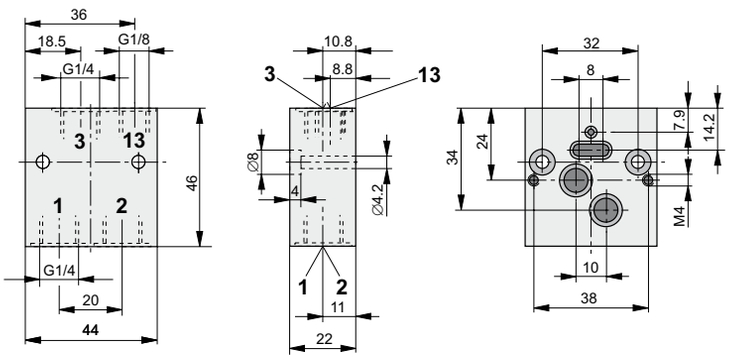


* Connection for 5-pole plug M12 x 1 (PS12316-A, PS12317-A)

Single base plate – Port size G1/4, straight



Single base plate – Port size G1/4, sidewise



For order instructions see page 156, for characteristics see page 144–150,
for accessories see page 155, 156

Dimensions in mm

Electronically controlled proportional pressure regulating valves

with
PIEZO control

Series tecno plus
G1/4, NW 6

Order instructions

Configurable, electronically controlled proportional pressure regulating valve – tecno plus

Order No.	PS	1	2	0	1		-		-	0			

Version	
00	Voltage
01	Current 4–20 mA

Pressure range	
020	2 bar
060	6 bar
100	10 bar

Type variation	
0	Standard

Flange	
0	Without flange
1	Straight G1/4
3	Sidewise G1/4

Connection cable	
0	Without cable
1	Cable, straight
2	Cable, elbow

Accessories

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

Overview

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

Membrane dryers

Series airfit dry G1/2

– with/without patented purge air regulation

Membrane dryers

Series airfit dry G1/2

– with/without patented purge air regulation

Characteristics

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

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Description		
System			Drying by highly selective, water-permeable membrane (hollow fibers) based on partial pressure difference between inside and outside of membrane. With pipe for return flow; with/ without patented purge air regulation		
Type			CDM10-1/2-R CDM10-1/2-CR	CDM15-1/2-R CDM15-1/2-CR	
Material					
– Housing			Diecast zinc		
– Pipe for membrane bundle and return flow			Aluminum		
– Standard sealings			NBR		
Port size			G 1/2	G 1/2	
Installation			In any position	In any position	
Medium and ambient temperatures	T_{min} T_{max}	°C °C	+2 +60	+2 +60	
Medium			Filtered air [3]	Filtered air [3]	
Weight (mass)		kg	3.3 Type CR: 3.6	3.3 Type CR: 3.6	
Pneumatic characteristics					
Operating pressure range	p_{min} p_{max}	bar bar	5 16	5 16	
Max. flow rate at compressed air inlet [1]	$Q_{inlet/max}$	l/min m³/h	560 Type CR: 560 33 33	840 Type CR: 840 50 50	
Pressure dewpoint reduction [1]	Δt_{pd}	°C	20	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°C, t_{pd1} = 35°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

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

Membrane dryers

Series airfit dry G1/2

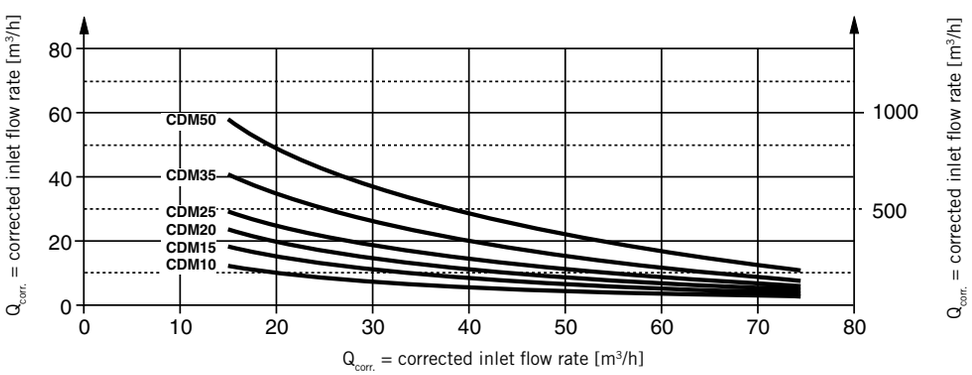
– with/without patented purge air regulation

Characteristics

			Drying by highly selective, water-permeable membrane (hollow fibers) based on partial pressure difference between inside and outside of membrane. Without pipe for return flow (= 2nd membrane level), with/without patented purge air regulation	
	CDM20-1/2-R CDM20-1/2-CR	CDM25-1/2-R CDM25-1/2-CR	CDM35-1/2-S CDM35-1/2-CS	CDM50-1/2-S CDM50-1/2-CS
	Diecast zinc			
	Aluminum			
	NBR			
	G 1/2	G 1/2	G 1/2	G 1/2
	In any position	In any position	In any position	In any position
	+2 +60	+2 +60	+2 +60	+2 +60
	Filtered air [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 HOERBIGER – fitting airfit comfort series



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

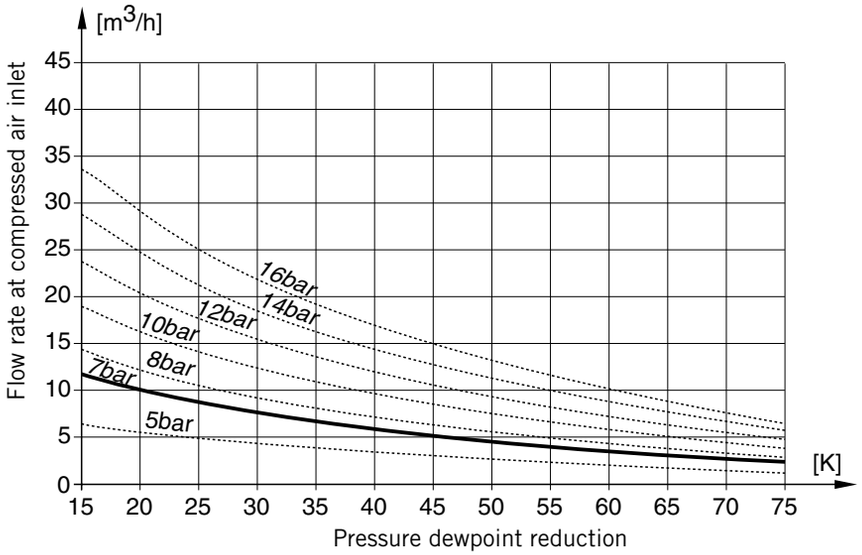
Membrane dryers

Series airfit dry G1/2

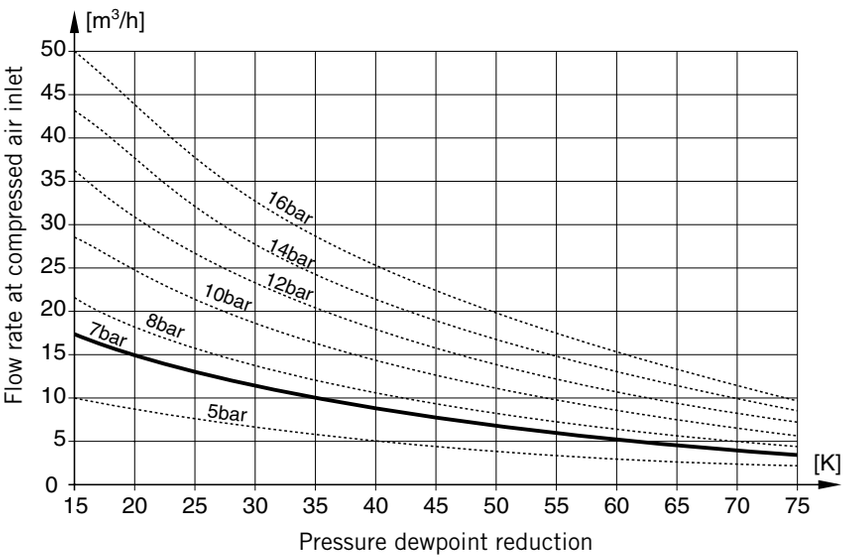
– with/without patented purge air regulation

Flow rate in relation to pressure dewpoint reduction and inlet pressure

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



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



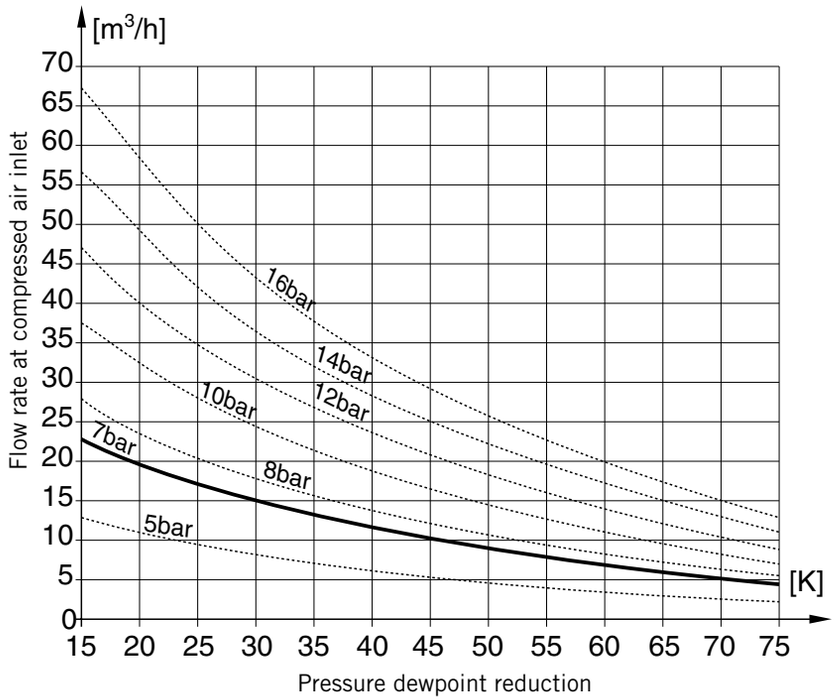
Membrane dryers

Series airfit dry G1/2

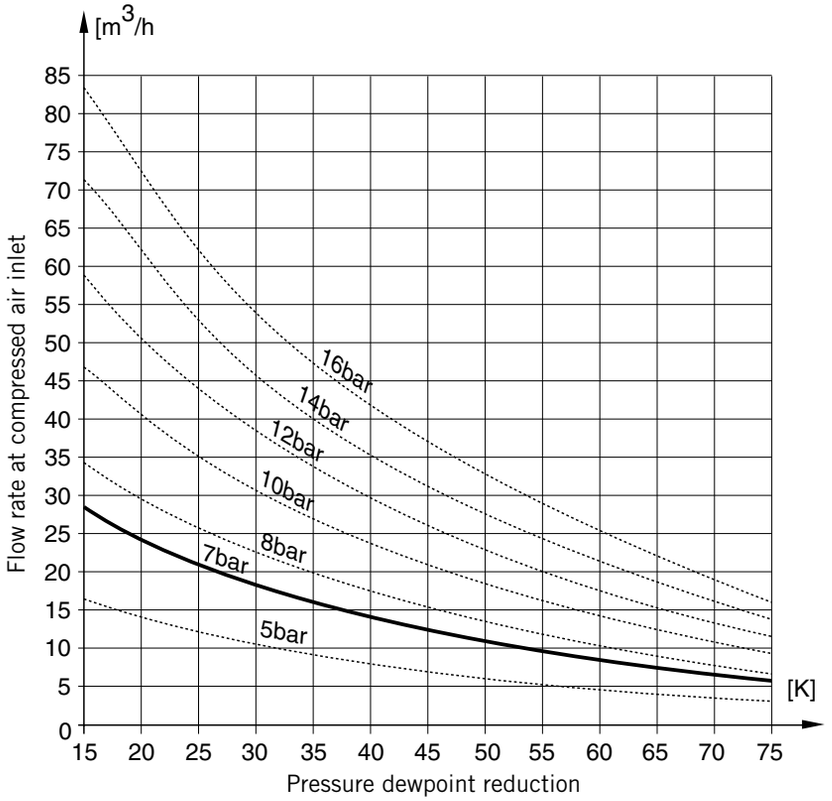
– with/without patented purge air regulation

Flow rate in relation to pressure dewpoint reduction and inlet pressure

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



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



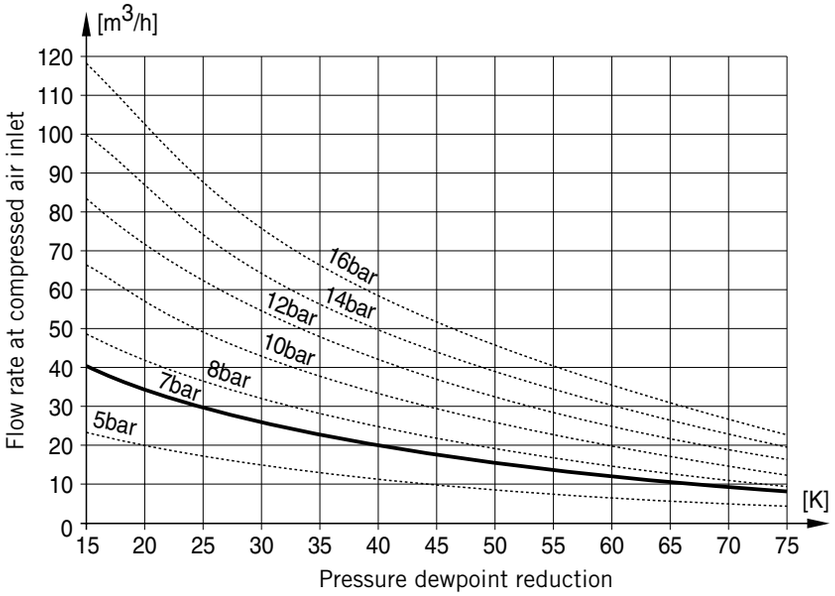
Membrane dryers

Series airfit dry G1/2

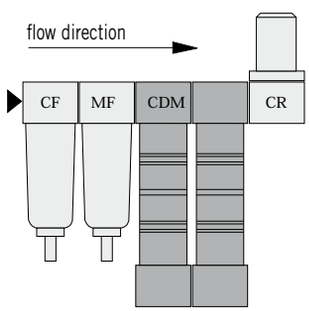
– with/without patented purge air regulation

Flow rate in relation to pressure dewpoint reduction and inlet pressure

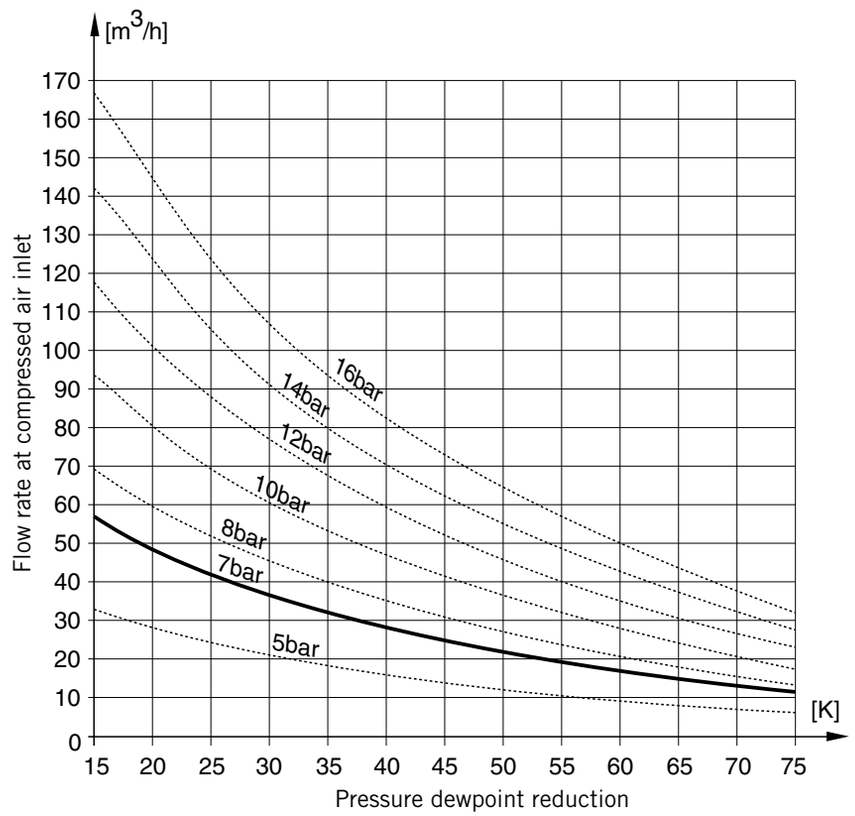
Type: CDM35-1/2-R, CDM35-1/2-CR



Installation instruction
(recommended assembly order)
Type: CDM..-1/2-R/CR
Type: CDM..-1/2-S/CS



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

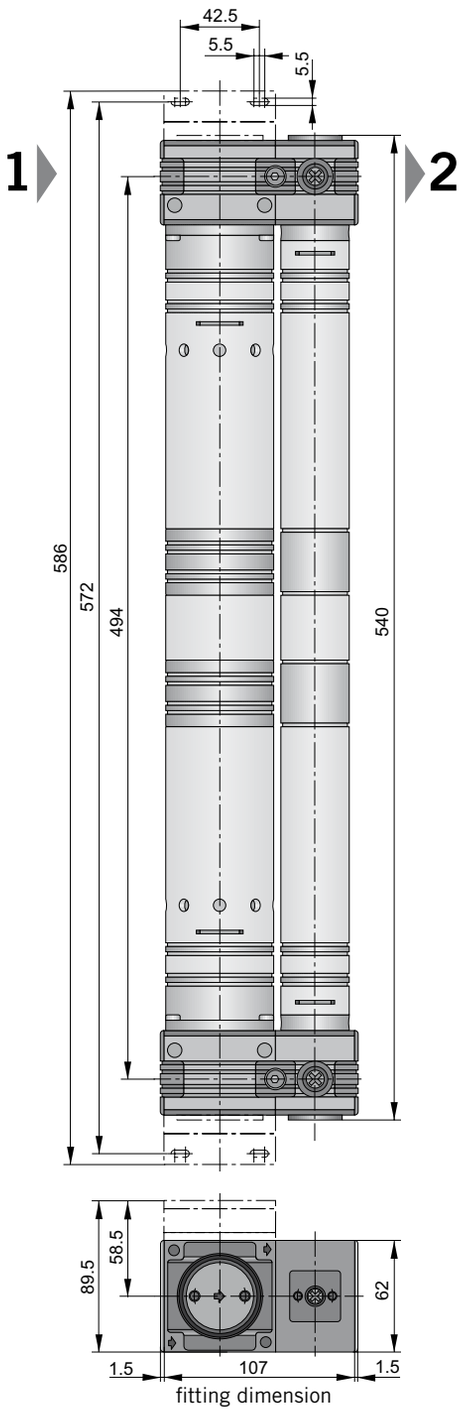


Membrane dryers

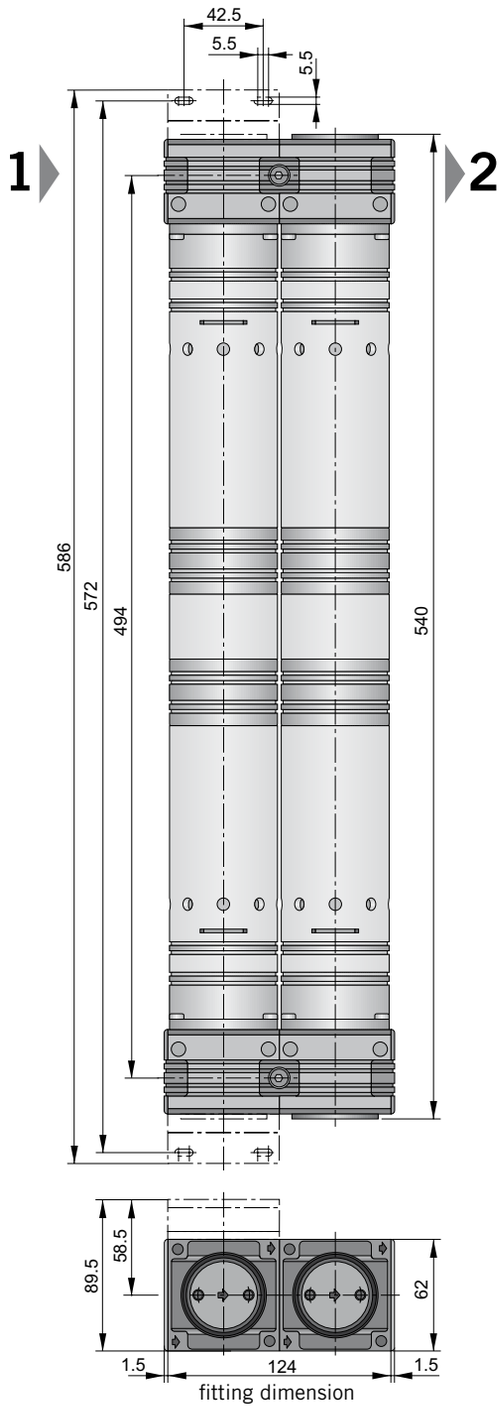
Series airfit dry
G1/2

Dimensions

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



Type: CDM35/50-1/2-S



1 = P-inlet
2 = P-outlet

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

For order instructions see page 166, for characteristics see page 158–162

Dimensions in mm

Membrane dryers

Series airfit dry G1/2

Order instructions

Standard versions

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

Accessories

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

* 2 kits per mounting recommended

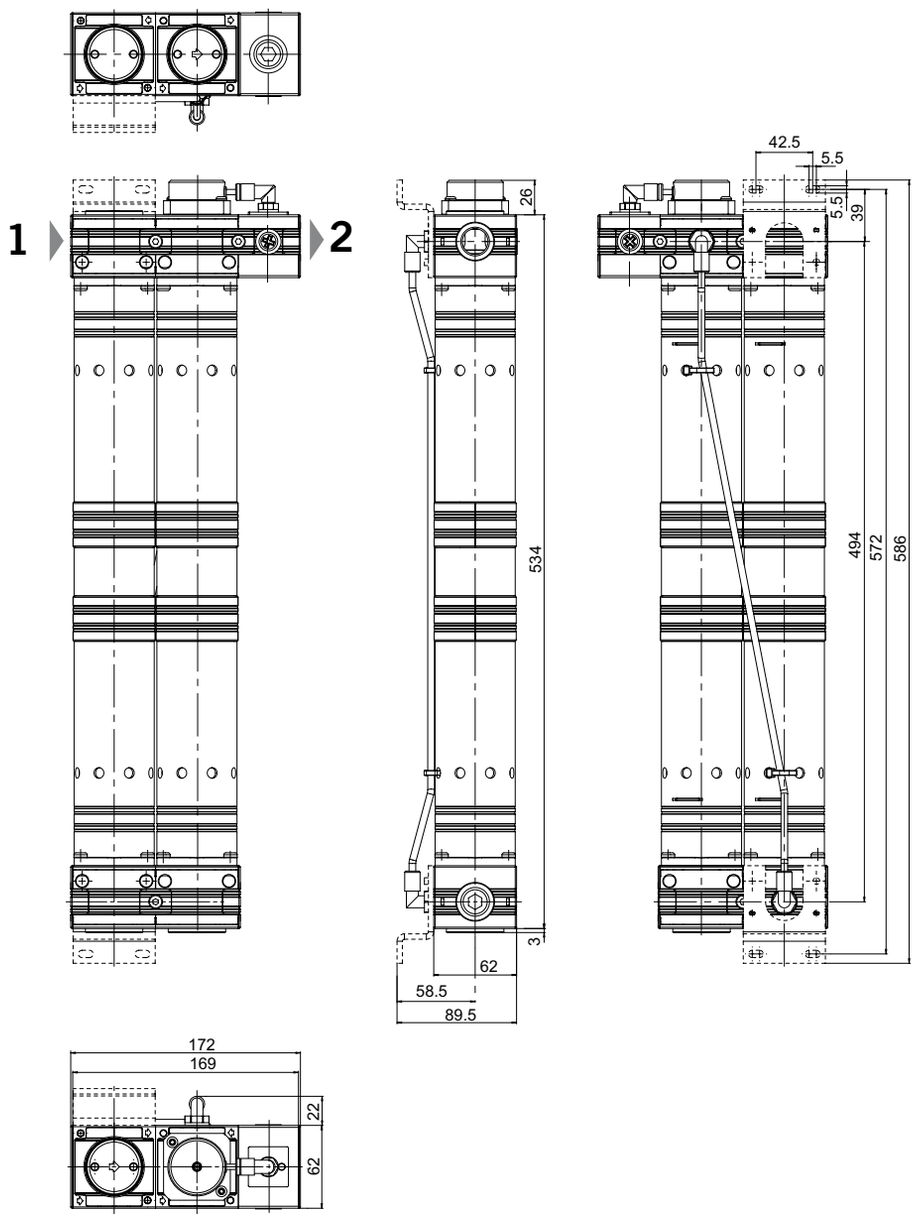
For more information see page 79

Type: CDM35/50-1/2-CS

Membrane dryers

Series airfit dry G1/2

Dimensions



1 = P-inlet
2 = P-outlet

For order instructions see page 166, for characteristics see page 158–162

Dimensions in mm

Membrane dryers

Series airfit dry G1/2

Order instructions

Standard versions

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

Accessories

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

* 2 kits per mounting recommended

For more information see page 79

Special units

– *For high pressure ranges*
– *For special temperature ranges*
– *For special media*

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Filter-water-separator Pressure range up to max. 30 bar	168-171	172	167, 168
Pressure regulating valve Pressure range up to max. 40 bar	168-171	173	167, 168
Low-pressure regulating valve	168-171	174	167, 168
Pressure regulating valve -40 to +80°C	168-171	173	167, 168
Pressure regulating valve -40 to +80°C	168-171	173	167, 168
Filter-regulator -40 to +80°C	168-171	172	167, 168
Pressure regulating valve Brass version For panel mounting	168-171	175	167, 168
Pressure regulating valve (water regulator)	168-171	175	167, 168
Pressure regulating valve for weight compensation	168-171	175	167, 168
Precision pressure regulating valve	168-171	176	167, 168
Filter-regulator for small capacity compressors (for direct mounting onto compressor's receiver)	168-171	176	167, 168

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 bar**
For series			airfit swing	airfit swing	airfit comfort	airfit swing
Type			SK-1/4-5D	SR-1/4-SO	CR-1/2-SO	SF-1/4-D-SO
Port size			G1/4	G1/4	G1/2	G1/4
Max. condensate capacity		cm^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	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	η	%	95	–	–	
Own air usage	Q	l/min	–	–	–	

[1)] At p_1 =10 bar and p_2 = 6.3 bar, Δp = 1 bar
[3)] At p_1 = 6.3 bar, Δp = 1 bar

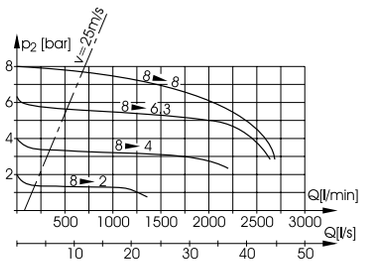
	Pressure regulating valve $p_{max.}$ **= 40 bar**	**Pressure regulating valve for panel mounting**		**Pressure regulating valve for water applications**		**Low-pressure regulating valve**		**Pressure regulating valve for weight compensation**		**Filter-regulator for small capacity compressors**		**Precision 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-08-8[2]
	G1/4	G1/8	G1/4	G1/8	G1/4	G1/8	G1/4	G1/4	G3/8	p_1 = G3/8 A p_2 = G1/4I		G1/4	G1/4	G1/4
	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	30		–	–	–
	–	–	–	–	–	–	–	–	–	Permanent		–	–	–
	In any position	In-line mounting, panel mounting Ø to DIN 43696 (30.3 $^{+0.2}$ mm)		In-line mounting, wall mounting with bracket, panel mounting Ø to DIN 43696 (30.3 $^{+0.2}$ 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 Ø jet.
[4] Corresponds to 25 m/s with NW8 mm bore.
[5] At p_1 = 5 bar and p_2 = 2 bar

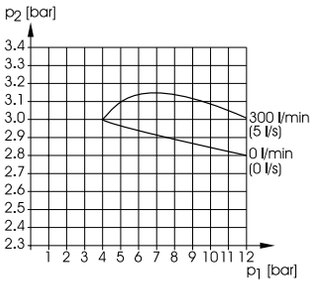
Special units

Flow characteristics

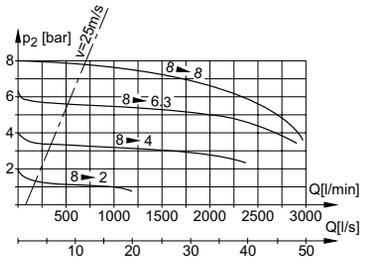
Filter-regulator – Type: SK-1/4-5D (-40°C to +80°C)



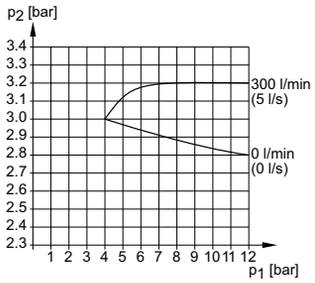
Outlet pressure variation with fluctuating inlet pressure



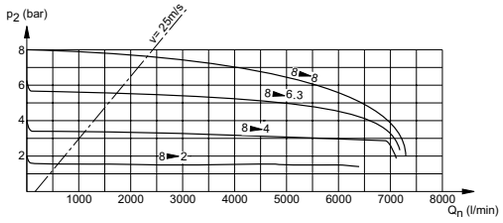
Pressure regulating valve Type: SR-1/4 -SO (-40°C to +80°C) Type: SR-1/4 -SO (0 to 40 bar)



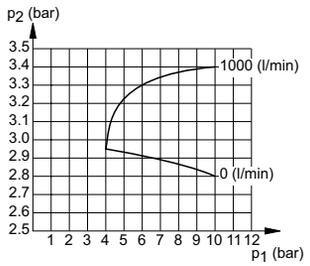
Outlet pressure variation with fluctuating inlet pressure



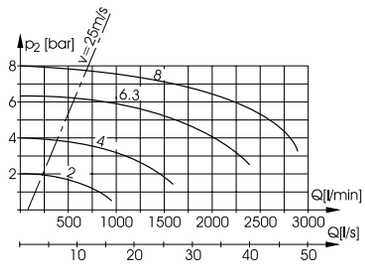
Pressure regulating valve – Type: CR-1/2 -SO (-40°C bis +80°C)



Outlet pressure variation with fluctuating inlet pressure



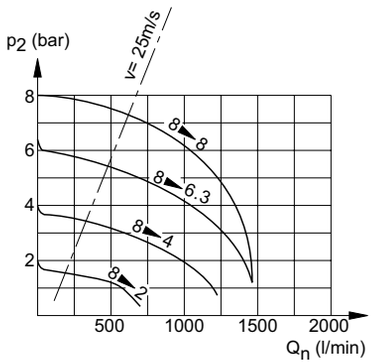
Filter-water-separator – Type: SF-1/4-D-SO (0 to 30 bar)



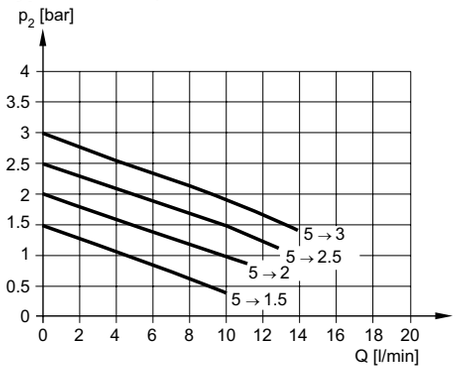
Special units

Flow characteristics

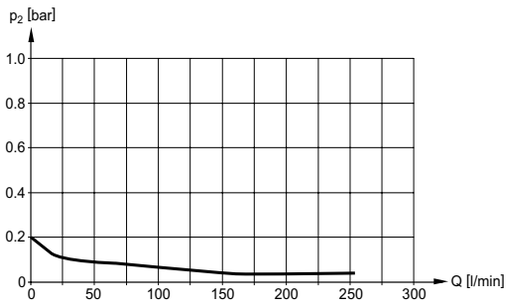
Pressure regulating valve – Type: MRS-08



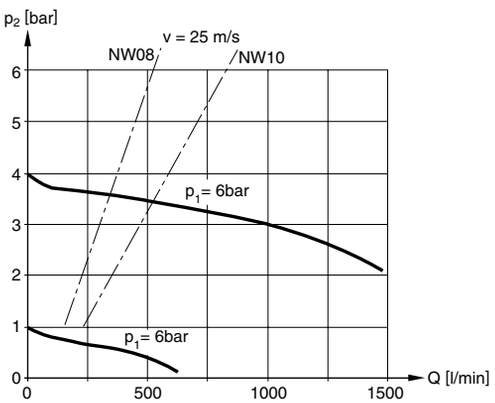
Pressure regulating valve for use with water
Type: WRP-06, WRP-08



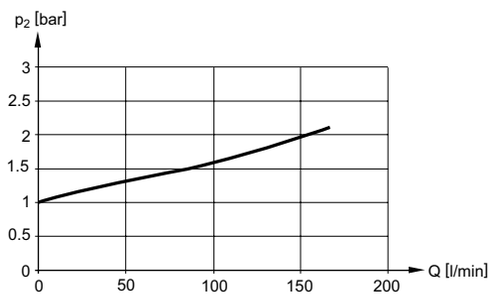
Low-pressure regulating valve
Type: MRP-06-SO, MRP-08-SO



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

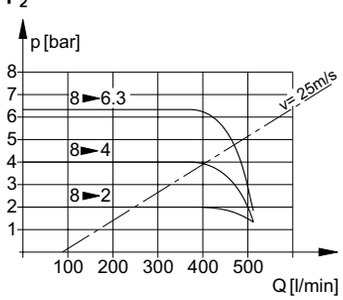


Exhaust flow (from 2→3)

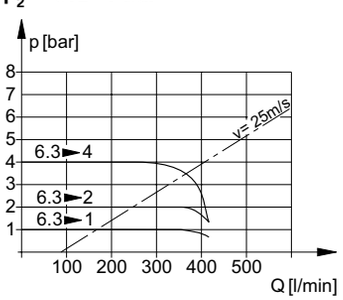


Precision pressure regulating valve

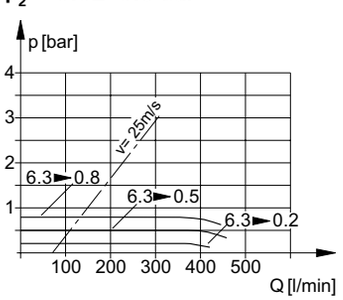
Type: XRP-08-8
p_2 = 0.5–8 bar



Type: XRP-08-4
p_2 = 0.1–4 bar



Type: XRP-08-08
p_2 = 0.02–0.8 bar



Special units

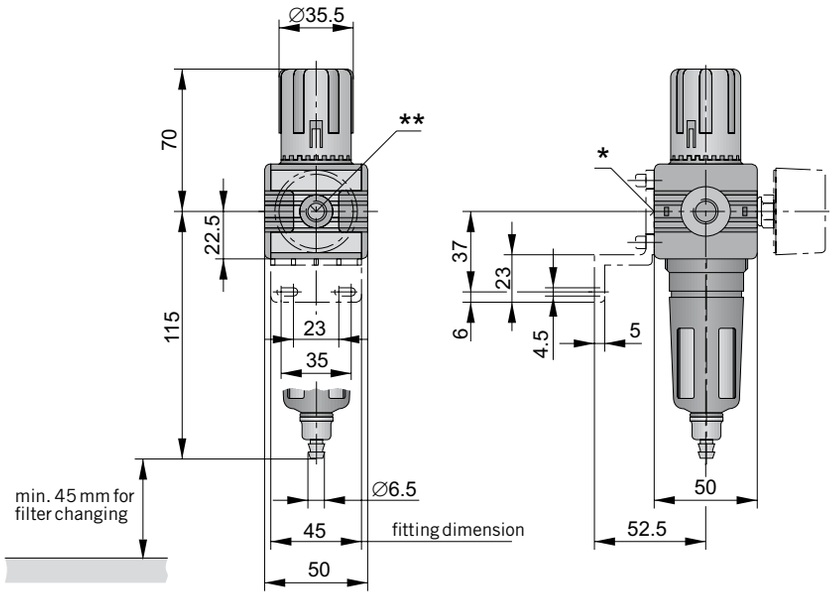
Dimensions

Filter-regulator

Series airfit swing G1/4

Quick, easy filter change with Quick-Snap system

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

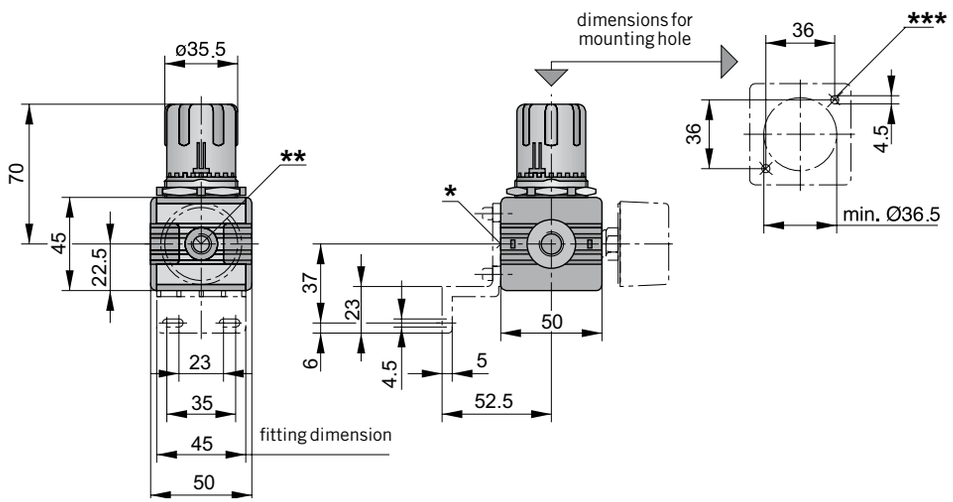


* On delivery the plug screw is not assembled.
** Two opposite gauge ports G1/8

Pressure regulating valve

Series airfit swing G1/4

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



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

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

Dimensions in mm

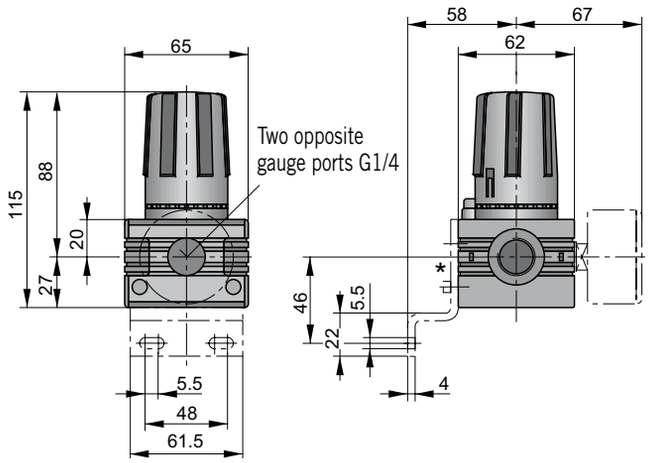
Special units

Dimensions

Pressure regulating valve

Series airfit comfort G1/2

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



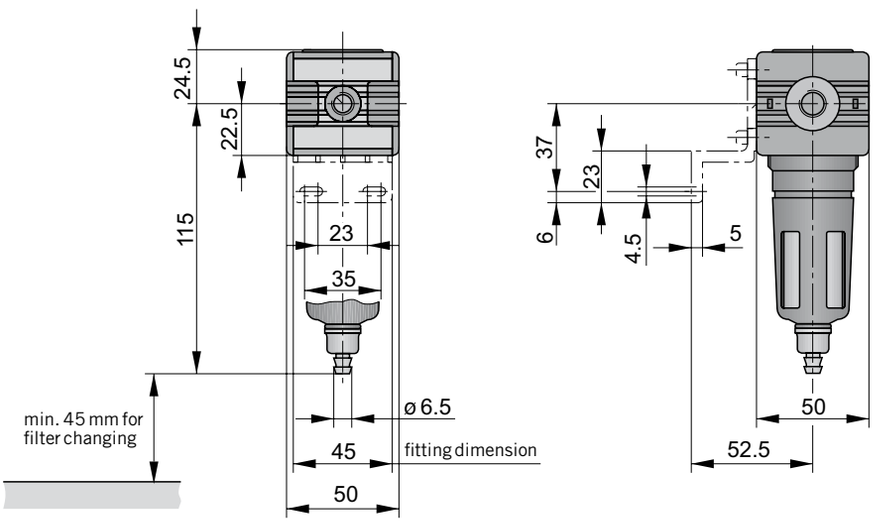
* On delivery the plug screw is not assembled.

Filter-water-separator

Series airfit swing G1/4

Quick, easy filter change with Quick-Snap system

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



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

Dimensions in mm

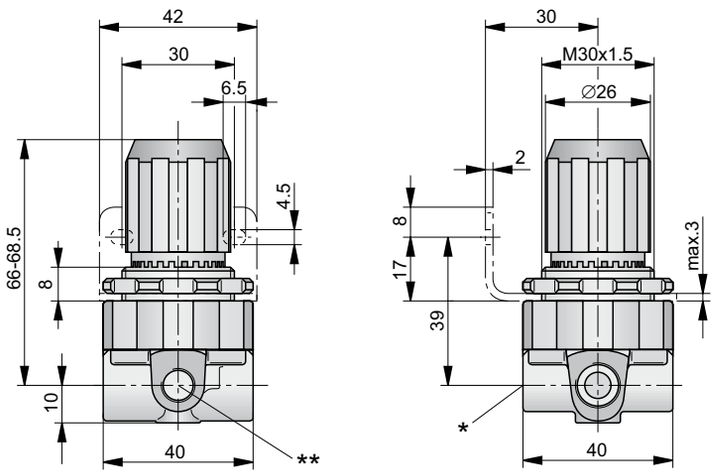
Special units

Dimensions

Pressure regulating valve

Series airfit light G1/8, G1/4

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



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

Pressure regulating valve

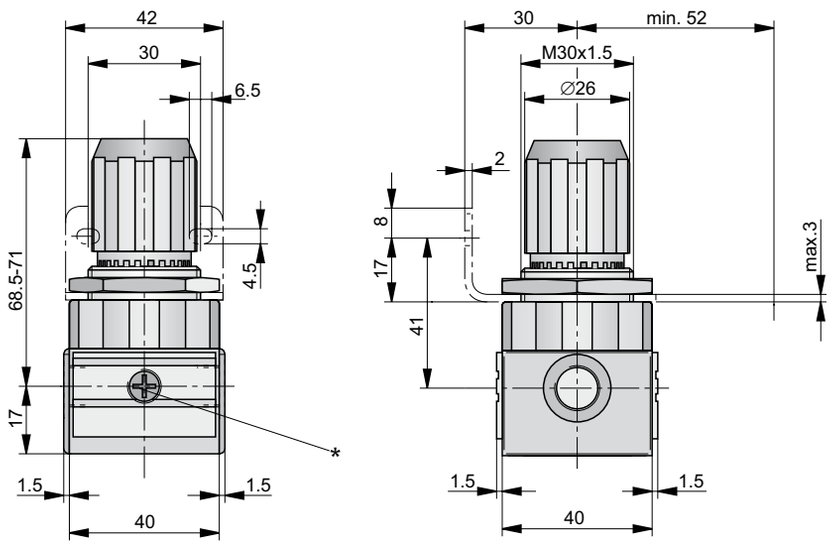
Series airfit light G1/8, G1/4

For use with water and drinking water

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

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

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



* On delivery the two plug screws are not assembled.

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

Dimensions in mm

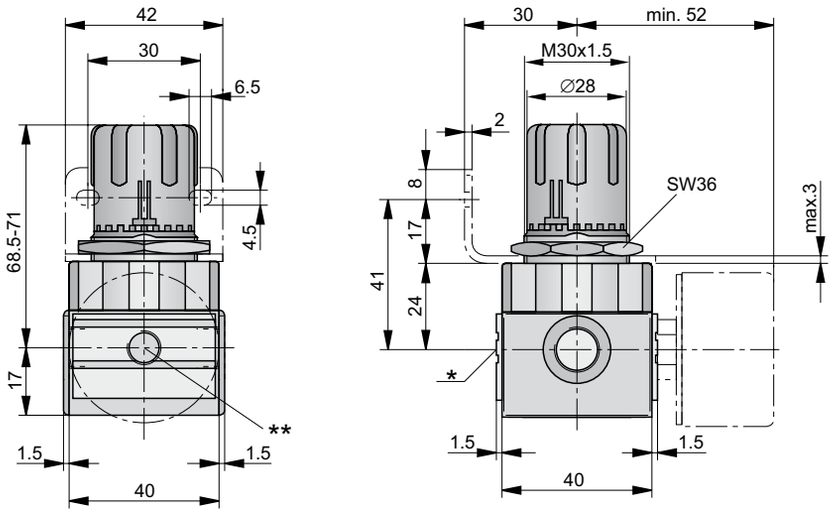
Special units

Dimensions

Pressure regulating valve

Series airfit light G1/8, G1/4

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

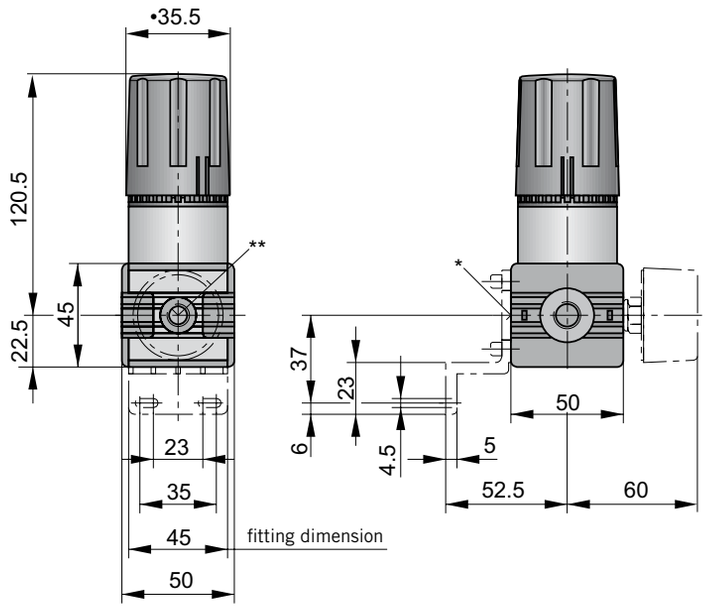


* On delivery the plug screw is not assembled.
** Two opposite gauge ports G1/8

Pressure regulating valve

Series airfit swing G1/4, G3/8

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



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

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

Dimensions in mm

Special units

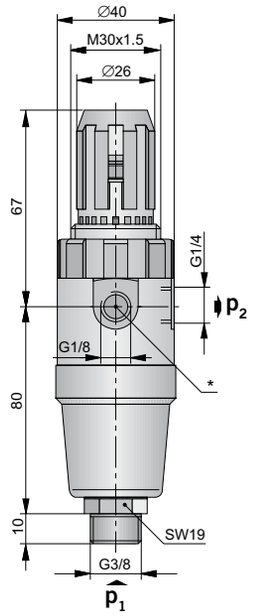
Dimensions

Filter-regulator

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

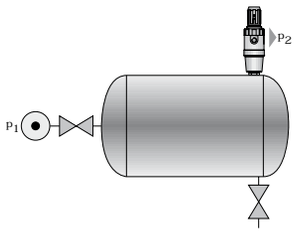
– Robust filter-regulator for direct mounting onto compressor's receiver.

Filter-regulator – Type: MFRS-08



* Gauge port G1/8

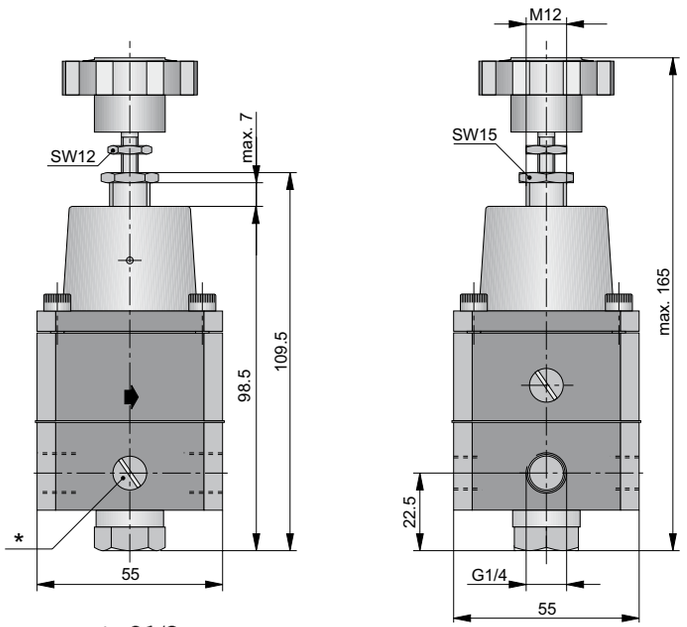
Installation instruction



Precision pressure regulating valve

G1/4

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



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

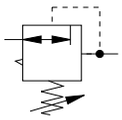
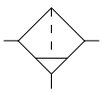
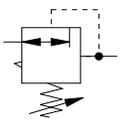
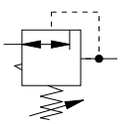
For order instructions see page 176, for characteristics see page 168–171, for accessories see page 177

Dimensions in mm

Special units

Order instructions

Special units

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

Accessories

The order data for the accessories can be found under the respective series	
airfit light	see page 17–19
airfit swing	see page 39–41
airfit comfort	see page 75–79

Injection lubricator system

Series oilfit
G1/4 to G1

– Injection lubricator elements and combinations for individual and group activation

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.	180, 181, 184	185	189
Single-point injection lubricator combination, type LUBE, with compressed oil inlet at lubricator element; for direct installation in pipelines	180, 181, 184	185	189
Single-point injection lubricator combination, type LB, with oil feed via external pneumatic signal	180, 181	186	189
Three-point injection lubricator combination, type LB, oil feed via external pneumatic signal	180, 181	186	189
Three-point injection lubricator combination, type LB, with separate oil feed via three external pneumatic signals	180, 181	186	189
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	182, 183	187	189
Single-point injection lubricator element, type L10e, with external compressed oil outlet; without reservoir	182, 183	187	189
Single-point injection lubricator element, type L, with air inlet at the top and bottom; without reservoir	182, 183	188	189
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)	182, 183	188	189
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)	182, 183	188	189
Single-point injection lubricator element, type LUI, with internal compressed oil outlet in fitted converter; for direct installation in pipelines; without reservoir	180, 181	187	189
Accessories, converter, oil reservoir, intersection elements, injection inlets, oil reservoir, atomizer	184, 190-194	190-194	195

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		mm^2/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 m^3/h	550 33	850 51	1900 114	3500 210	5000 300
Own air usage [2]	Q_n	m^3/h	0.36				
Minimum flow at 6 bar	Q_{min}	m^3/h	9				
Reservoir capacity		cm^3	250				
Oil feed per stroke		mm^3	3–30 adjustable, factory adjustment 30 mm^3/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 33	850 51	1900 114	3500 210	5000 300	–	–	–	550 33	850 51	1900 114	3500 210	5000 300		
	0.36					–			0.36						
	9					–	–	–	9						
	250					250			250						
	3–30 adjustable, factory adjustment 30 mm^3/stroke					3–30 adjustable, factory adjustment 30 mm^3/stroke			3–30 adjustable, factory adjustment 30 mm^3/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 mm^3/stroke	3–30 adjustable factory adjustment 30 mm^3/stroke	3–30 adjustable factory adjustment 30 mm^3/stroke	–					

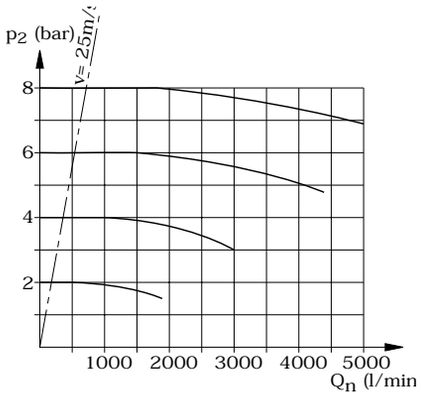
Injection lubricator system

Series oilfit

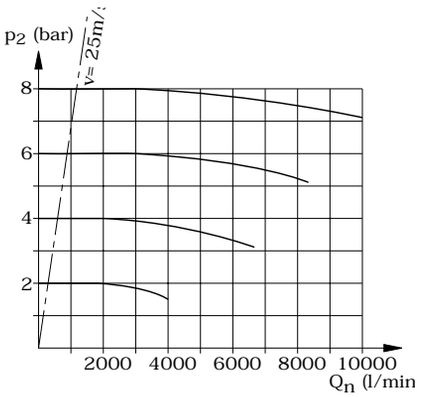
Flow characteristics

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

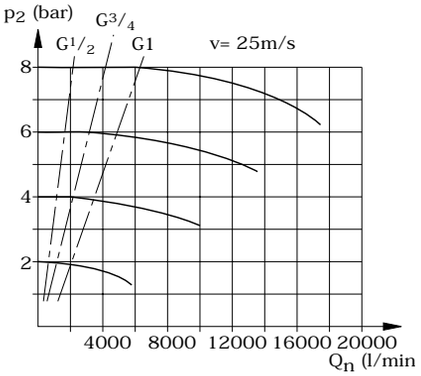
Port size G1/4



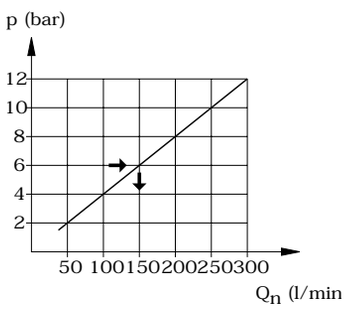
Port size G3/8



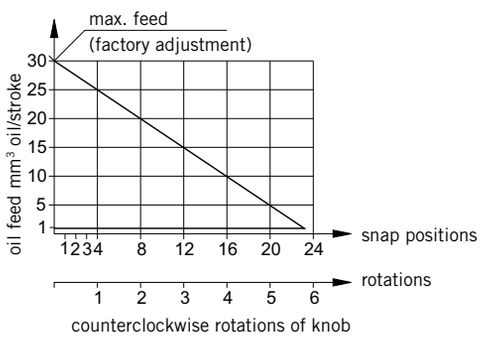
Port size G1/2, G3/4, G1



Minimum flow



Adjustment of oil feed

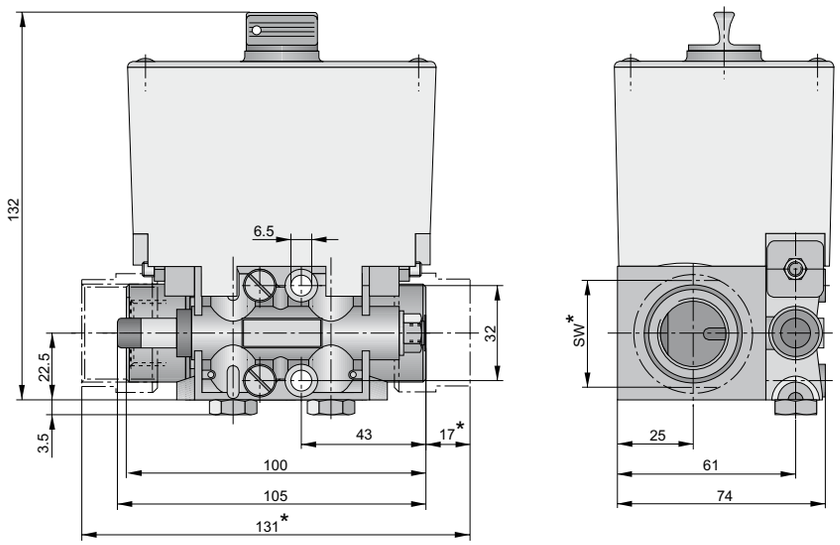


Injection lubricator system

Series oilfit

Dimensions

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

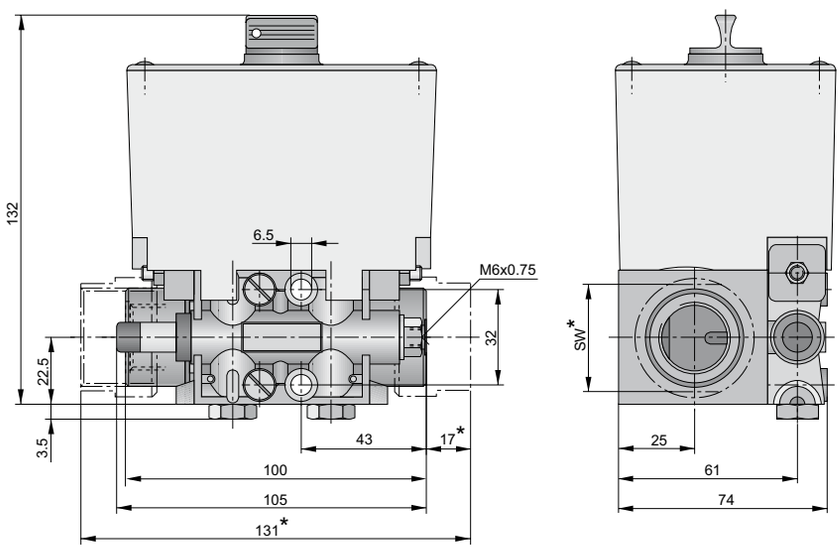


* Only for LUBI-20 SW=36
LUBI-25 SW=41

Injection lubricator combination
Type: LUBI-..

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

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



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

Injection lubricator combination
Type: LUBE-..

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

For order instructions see page 195, for characteristics see page 180–184,
for accessories see page 190–195

Dimensions in mm

Injection lubricator system

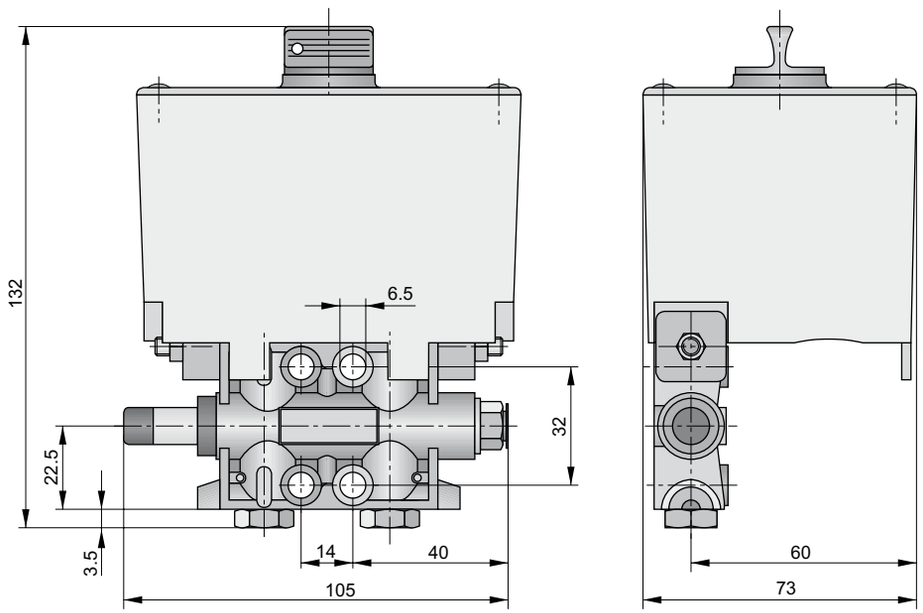
Series oilfit

Dimensions

Injection lubricator combination
Type: LB11

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

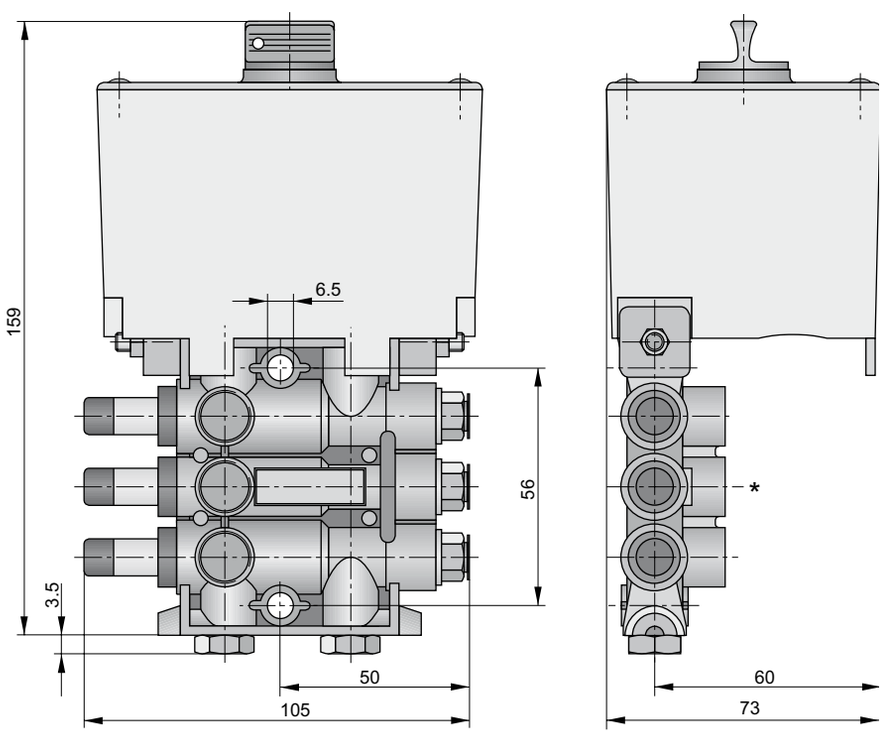
Type: LB11



Injection lubricator combination
Type: LB31, LB33

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

Type: LB31, LB33



* 3 lateral connections G1/8 only with type LB33

For order instructions see page 195, for characteristics see page 180–184, for accessories see page 190–195

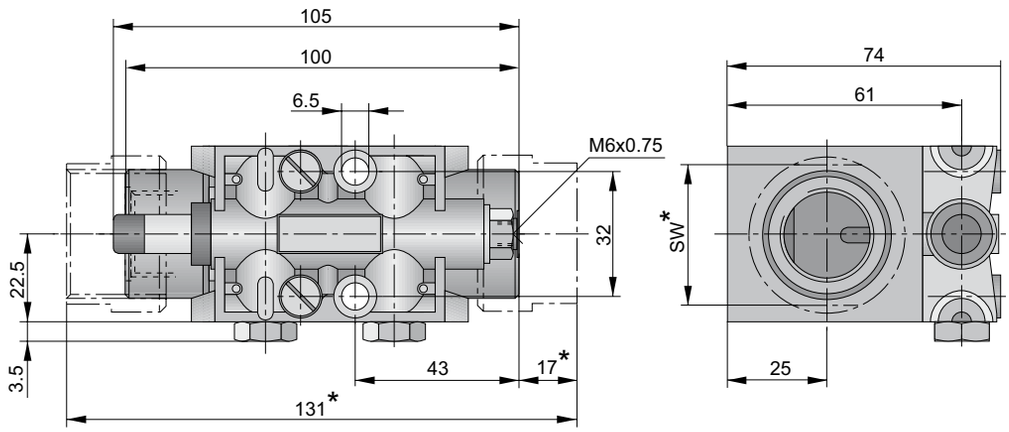
Dimensions in mm

Injection lubricator system

Series oilfit

Dimensions

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

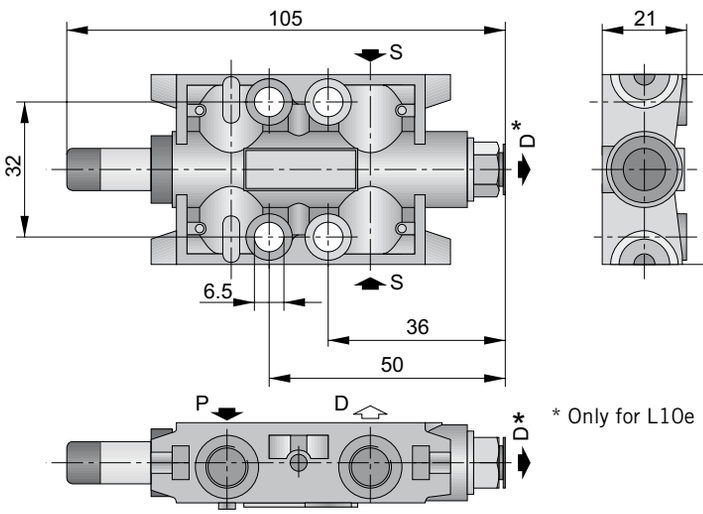


* Only for LUI-20 SW=36
LUI-25 SW=41

Injection lubricator combination type: LUI

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

Type: L10i, L10e



* Only for L10e

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.

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

For order instructions see page 195, for characteristics see page 180–184, for accessories see page 190–195

Dimensions in mm

Injection lubricator system

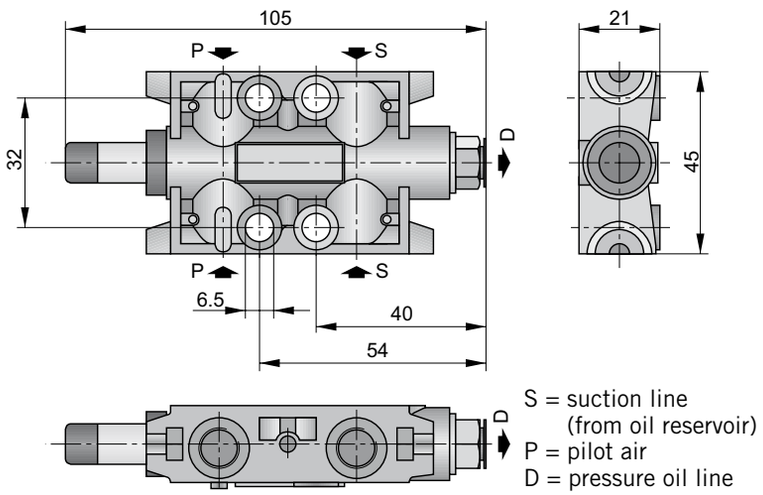
Series oilfit

Dimensions

Injection lubricator elements
Type: L11, L31, L33

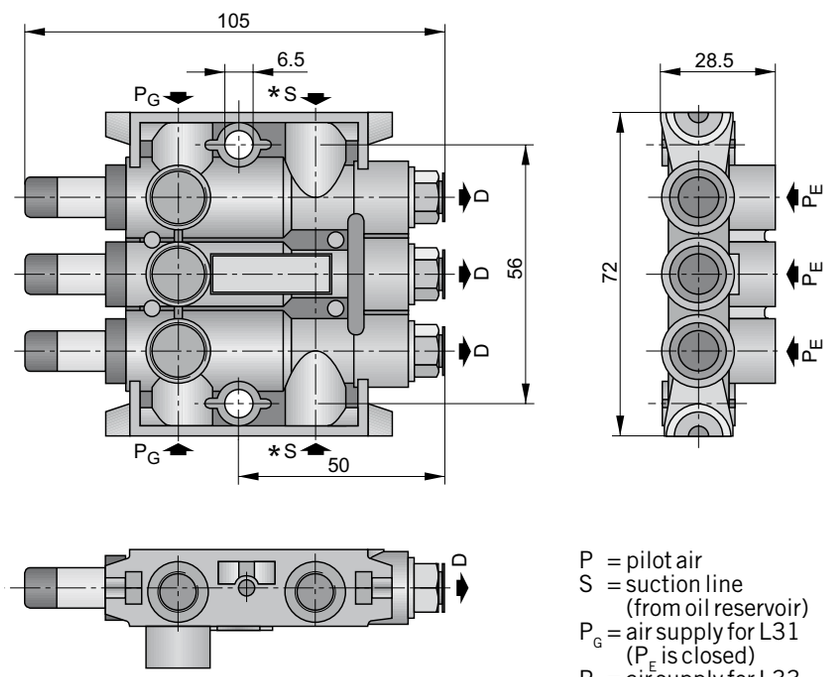
Lubricator elements for flanging to the reservoir or for extending a lubricator combination

Type: L11



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

Type: L31, L33



P = pilot air
S = suction line (from oil reservoir)
P_G = air supply for L31 (P_E is closed)
P_E = air supply for L33 (P_G is closed)
D = pressure oil line

* Oil return line may be required

For order instructions see page 195, for characteristics see page 180–184, for accessories see page 190–195

Dimensions in mm

Injection lubricator system

Series oilfit

Order instructions

Standard versions

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

For accessories see page 190–195

Injection lubricator system

Series oilfit

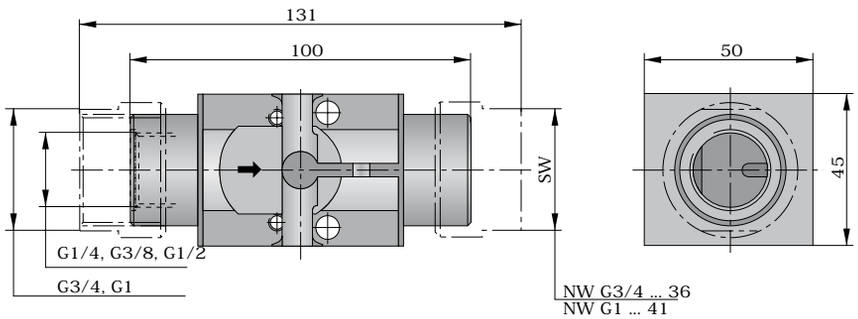
Accessories

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



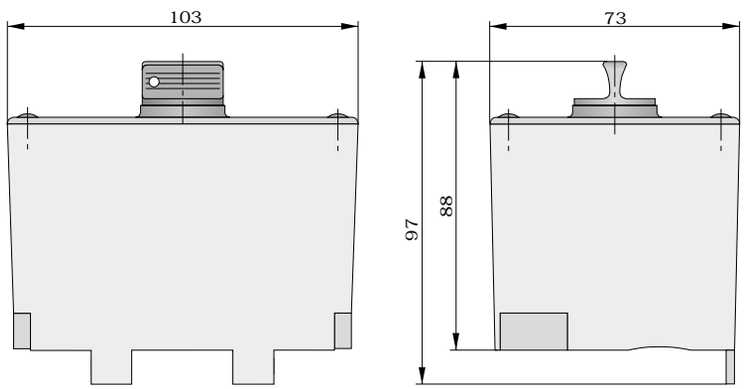
Oil reservoir

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)

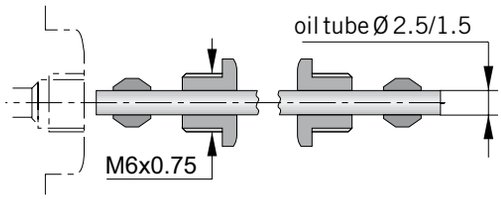
Oil reservoir Type: Bi



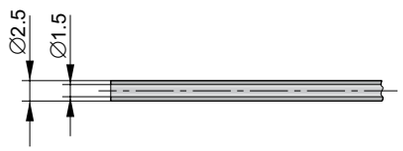
For order instructions see page 195, for characteristics see page 180–184,
for accessories see page 190–195

Dimensions in mm

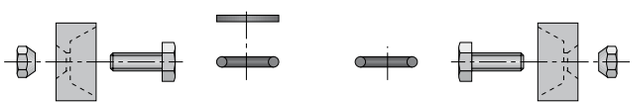
Connection kit, 12 parts – Type: A



Oil tube – Type: S



Coupling kit – Type: K



Special oil for lubricators, VG32 to ISO 3448

Order No. KY8786
For more information see page 203

For order instructions see page 195, for characteristics see page 180–184,
for accessories see page 190–195

Dimensions in mm

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.

Injection lubricator system

Series oilfit

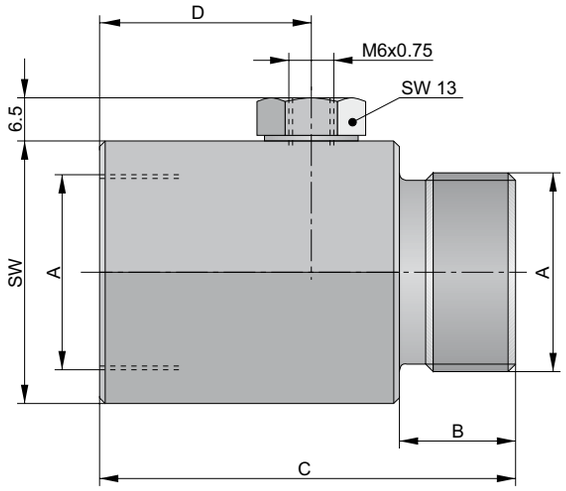
Accessories

Dimensions

Air connection with oil injector

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

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



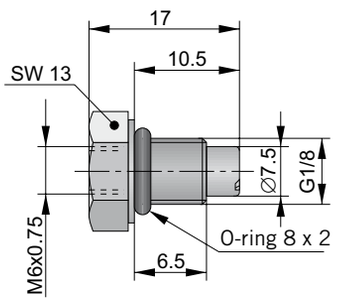
Dimension table

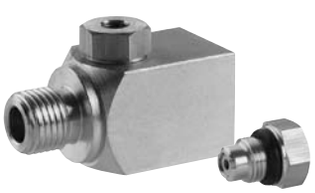
Type	A	B	C	D	SW
E-06	G1/8	8	35	17	22
E-08	G1/4	12	45	22	22

Oil injector, single

Oil injector with check valve for pressure oil line.

Oil injector, single – Type: E_o





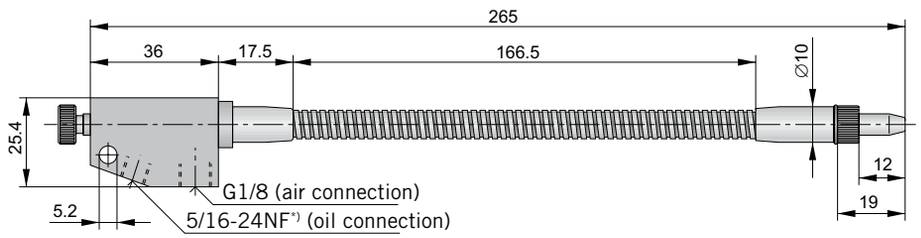
For order instructions see page 195, for characteristics see page 180–184, for accessories see page 190–195

Dimensions in mm

Characteristics – Atomizer

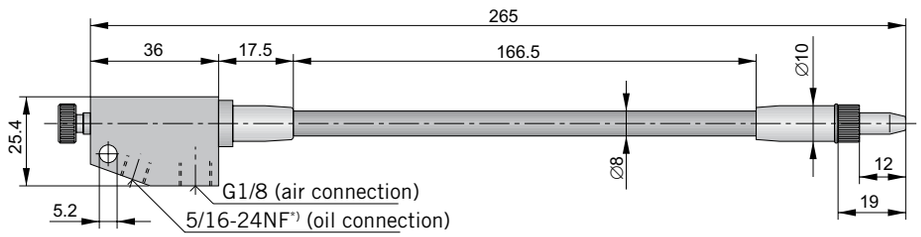
Adjustment of oil feed	With setting screw in the back of the housing
Oil connection	G1/8 for discharge element E_0
Air connection	G1/8
Spray angle	Conical

Flexible atomizer – Type: B-101



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

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 195, for characteristics see page 180–184,
for accessories see page 190–195

Dimensions in mm

Atomizer

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

Versions:
– Flexible atomizer
– Rigid atomizer

Injection lubricator system

Series oilfit

Accessories

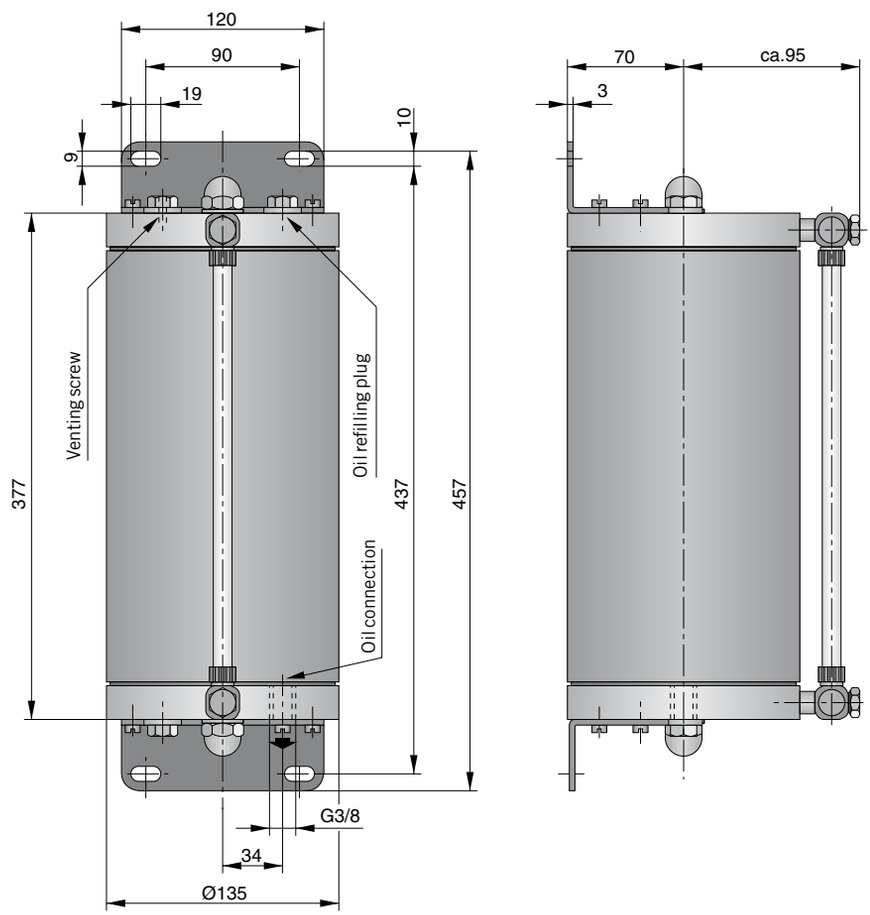
Dimensions

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 195, for characteristics see page 180–184, for accessories see page 190–195

Dimensions in mm

Injection lubricator system

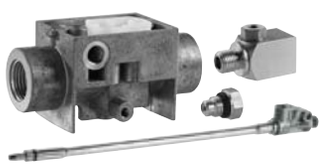
Series oilfit

Order instructions

Accessories

Accessories

Description	Port size	Order instructions	
		Type	Order No.
Converter	G1/4	U-08	PL 08144
	G3/8	U-10	PL 08109
	G1/2	U-15	PL 08110
	G3/4	U-20	PL 08111
	G1	U-25	PL 08112
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 203			KY8786
Oil injector	G1/8	E_0	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



Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Gauges	–	198, 199	198, 199
Exhaust filter-silencer	188	101	101
Pressure relief valves	190	202	202
Special oil for oil mist lubricators	191	–	203

Air preparation accessories

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

Air preparation accessories

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

– *with center rear connection (standard)*

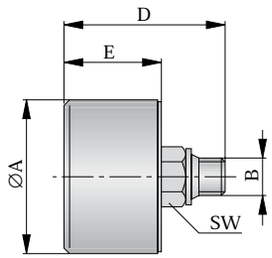
Dimensions, Order instructions

Material:
Housing – black polymer
Face – acrylic glass

Scale:
Double scale in bar/psi

Delivery includes:
1 gauge
1 sealing ring

Gauge, center rear connection

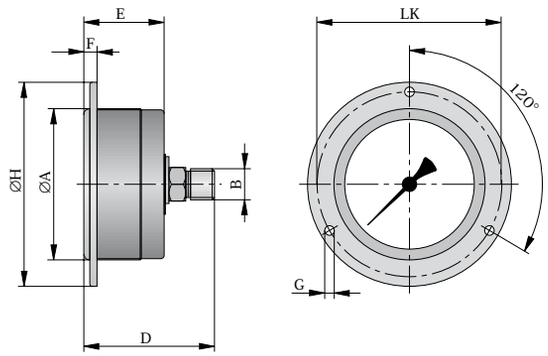


Order instructions, dial range and dimension table

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

Dimensions in mm

Gauge with front ring for panel mounting, center rear connection



Order instructions, dial range and dimension table

Order instruction		Dial range (bar)	Dimensions								
Type	Order No.		ØA	B	D	E	$F_{max.}$	ØG	ØH	ØLK	SW
111.16.40.10	KZ 8822	0–10	40	G1/8	45	27	7	3.6	61	51	14
111.16.50.10	KZ 8823	0–10	50	G1/8	48	27	7	3.6	71	60	14

Dimensions in mm

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

Air preparation accessories

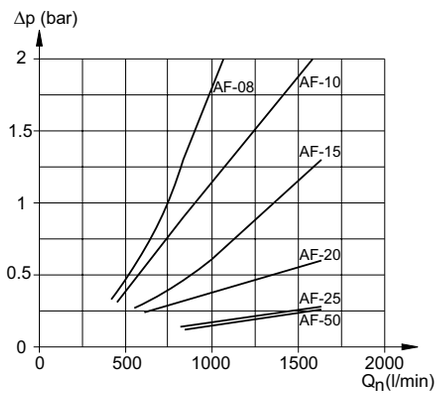
Exhaust filter (silencer) Series AF G1/4 – G2

Characteristics

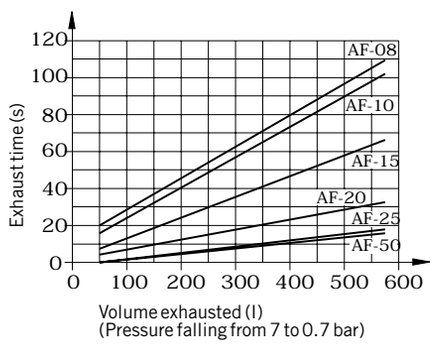
Pressures quoted as gauge pressure

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	G11/4	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	η	%	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

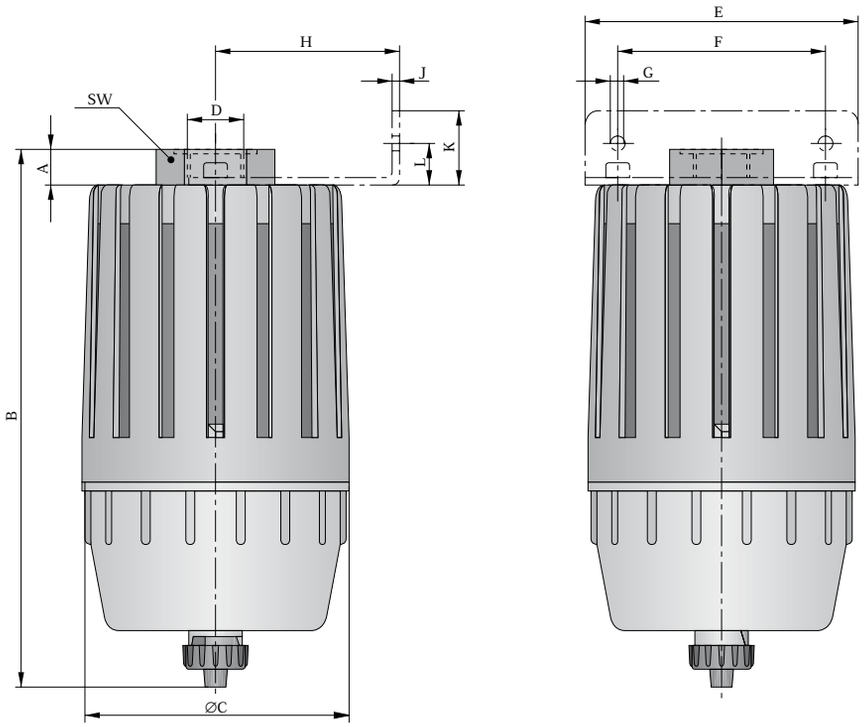


Exhaust capacity



Dimensions in mm

Exhaust filter – Type: AF-..



Air preparation accessories

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

Dimensions Order instructions

Exhaust filter

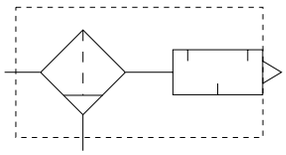
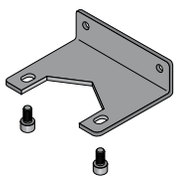
Exhaust filter-silencers clean the exhaust air of pneumatic equipment and reduce the exhaust noise created by sudden expansion.

- 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	G11/4	93	70	5.5	62	1.5	25	13	55
AF-50	73	311	110	G2	93	70	5.5	62	1.5	25	13	55

Order instructions

Description	Symbol	Port size	Order instructions	
			Type	Order No.
Exhaust filter		G1/4	AF-08	PB 35149-000
		G3/8	AF-10	PB 35249-000
		G1/2	AF-15	PB 35349-000
		G3/4	AF-20	PB 35449-000
		G1	AF-25	PB 35549-000
		G11/4	AF-32	PB 36949-000
		G2	AF-50	PB 35049-000
Mounting kit (bracket and screws)		To G1/4, G3/8	AF-08/10	KG6045
		To G1/2, G3/4	AF-15/20	KX9132
		To G1 – G2	AF-25/32/50	KX9133

Air preparation accessories

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

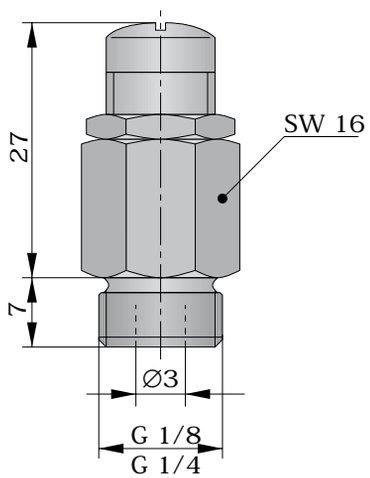
Pressure relief valve

With adjustable opening pressure.

Opening pressure range:
1–4 bar
3–7 bar

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

Pressure relief valve – Type: USV-..



Order instructions

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

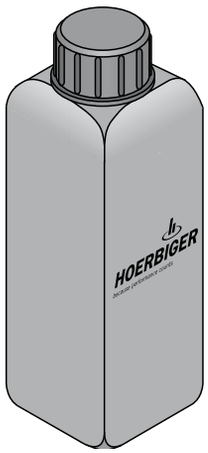
Dimensions in mm

Air preparation accessories

Special oil for oil mist lubricator

Viscosity VG15

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 15 in line with DIN51519 40°C 17.5 mm^2/s 100°C 3.6 mm^2/s When using below freezing point (0°C) it is necessary to consult us.
Contents	100 ml
Order No:	**KG6140**



Sales Offices Worldwide

AE – United Arab Emirates
Dubai
Tel: +971 4 8875600
parker.me@parker.com

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Austria, Wiener Neustadt
(Europa Oriental)
Tel: +43 (0)2622 23501 970
parker.easteurope@parker.com

AT – Austria, Wiener Neustadt
Parker Origa Pneumatik GmbH
Tel: +43 (0)2622 26071-269
info-origa-at@parker.com

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LX – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BR – Brazil, Cachoeirinha RS
Tel: +55 51 3470 9144

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

CH – Switzerland, Etoy
Tel: +41 (0) 21 821 02 30
parker.switzerland@parker.com

CH – Switzerland, Otelfingen
Parker Origa AG
Tel +41 (0)44 846 6860
info-origa-ch@parker.com

CL – Chile, Santiago
Tel: +56 2 623 1216

CN – China, Shanghai
Tel: +86 21 5031 2525

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 33 00 01
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

FR – France, Courtaboef Cedex
Parker Origa SAS
Tel +33 1 69 29 22 00
info-origa-fr@parker.com

GR – Greece, Atenas
Tel: +30 210 933 6450
parker.greece@parker.com

HK – Hong Kong
Tel: +852 2428 8008

HU – Hungary, Budapest
Tel: +36 1 220 4155
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IN – India, Mumbai
Tel: +91 22 6513 7081-85

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

IT – Italy, Pioltello (MI)
Parker Origa SRL
Tel +39 02 92 16 65 53
info-origa-it@parker.com

JP – Japan, Fujisawa
Tel: +(81) 4 6635 3050

KR – Korea, Seúl
Tel: +82 2 559 0400

KZ – Kazakhstan, Almaty
Tel: +7 7272 505 800
parker.easteurope@parker.com

LV – Latvia, Riga
Tel: +371 6 745 2601
parker.latvia@parker.com

MX – Mexico, Apodaca
Tel: +52 81 8156 6000

MY – Malaysia, Subang Jaya
Tel: +60 3 5638 1476

MY – Malaysia, Penang
Parker Origa Sdn Bhd
Tel +60 4 508 10 11
info-origa-sg@parker.com

NL – Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NL – Netherlands, SL Moerdijk
Parker Origa B.V.
Tel +31 168 356 600
info-origa-nl@parker.com

NO – Norway, Ski
Tel: +47 64 91 10 00
parker.norway@parker.com

NO – Norway, Drammen
Parker Origa AS
Tel +47 3 288 08 40
info-origa-se@parker.com

NZ – New Zealand
Mt Wellington
Tel: +64 9 574 1744

PL – Poland, Varsovia
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucarest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SE – Sweden, Kungsör
Parker Origa AB
Tel +46 227 411 00
info-origa-se@parker.com

SG – Singapore
Tel: +65 6887 6300

SG – Singapore
Parker Origa PTE Ltd.
Tel. +65 6483 2959
info-origa-se@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SI – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TH – Thailand, Bangkok
Tel: +662 717 8140

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

UA – Ukraine, Kiev
Tel +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Gloucester
Parker Origa Ltd.
Tel +44 8700 600655
info-origa-gb@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

US – United States of America, Cleveland
Tel: +1 216 896 3000

US – United States of America
Parker Origa Corporation
Tel +1 630 871 830-0
info-hous-sales@parker.com

VE – Venezuela, Caracas
Tel: +58 212 238 5422

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

P-A4P006E April 2009

© 2009 Parker-Origa GmbH - All rights, errors, and changes reserved

Parker-Origa GmbH
Industriestr. 8
70794 Filderstadt, Deutschland
Tel. +49 7185 17030
Fax +49 7158 64870
www.parker-origa.com

ARA®
PNEUMATIK
53-012 Wrocław tel. 71 364 72 82
ul. Wyścigowa 38 fax 71 364 72 83
www.arapneumatik.pl