#### 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







www.arapneumatik.pl

**ARA Pneumatik Wrocław** 53-012 Wrocław ul. Wyścigowa 38 tel. 71 364 72 80; 82 fax 71 364 72 83 pneumatyka@arapneumatik.pl

ARA Pneumatik Oddział Katowice 40-584 Katowice ul. Dworska 13 tel. 32 779 76 40; 41 fax 32 778 20 93 katowice@arapneumatik.pl

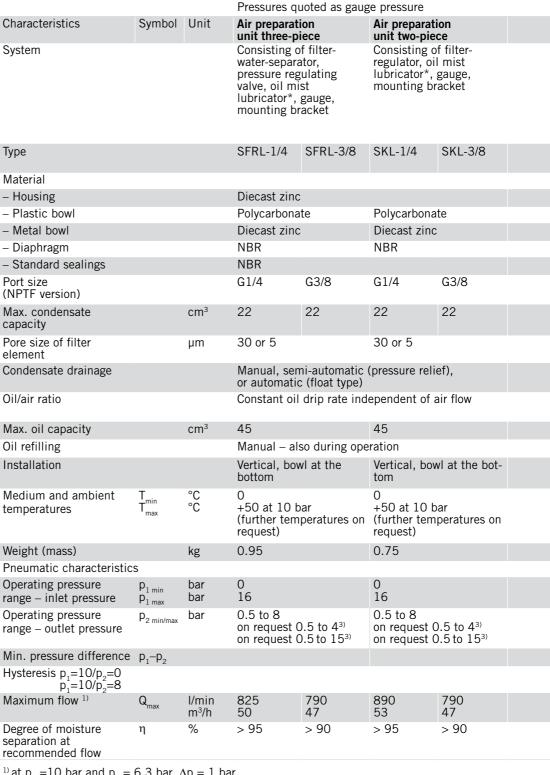


## Air preparation units

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



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

<sup>2)</sup> at 6<sup>1</sup> bar and 25 m/s<sup>2</sup> flow velocity

- <sup>3)</sup> By the use of special springs, the outlet pressure can be precisely regulated in the specified p<sub>2</sub> range
- <sup>4)</sup> Recommended pilot pressure regulating valve MRP-1/8 (see page 9)
- \*)Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm<sup>2</sup>/s at 40°C) or Parker Origa compressed air oil, Order No.: KG6140 (see page 203)



Filter-regulat	or	Filter-water-	separator	Dust filter		Pressure reg	gulating	Pressure regulating valve
Cyclone syste filter elemen with diaphra pressure regi valve (spring with seconda sure relief, h lockable	t combined gm-type ulating loaded) ary pres-	With cyclon and filter ele		With cyclon and dust filt	e system er element	valve Diaphragm- sure regulat (spring load secondary p lief, inlet pr volume com locating ring wheel locka	ing valve ed) with ressure re- essure and pensation, g, hand-	<b>pilot operated</b> Pilot operated piston-type pressure regulator with secondary pressure relief and flow compensation <sup>4</sup> )
SK-1/4	SK-3/8	SF-1/4	SF-3/8	SFD-1/4	SFD-3/8	SR-1/4 (-T)	SR-3/8 (-T)	SRV-1/4
Diecast zinc								
Polycarbonat	0	Polycarbona	to.	Polycarbona	to			
-	le	-		-		-		_
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, sem or automatic	ii-automatic (float type)	(pressure rel	ief),	Manual		-		-
-		-		-		-		-
_		_		_		_		_
Vertical, bow at the botton		Vertical, boy at the botton		Vertical, boy at the botto		In any posit	ion	In any position
0 +50 at 10 ba (further temp on request)		0 +50 at 10 b (further tem on request)		0 +50 at 10 b (further tem on request)		0 +60 at 10 t (further tem 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 On request 0	).5 to 4 <sup>3)</sup> ).5 to 15 <sup>3)</sup>					0.5 to 8 On request On request		-
0.2						0.2		0.2
0.5 0.4						0.5 0.4		0.5 0.4
	3200 192	1440 86	1520 91	1340 80	1620 97	2850 171	3300 198	2200 132
> 95	> 90	> 95	> 90	Only solid p > 99% relat	articles ed 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 lub	ricator	Start valve		
System			flow compensation *)		Poppet valve with integral throttle for slow pressure build-up (e.g. after emer- gency shutdown). At 0.5 x operating pressure the valve switches to full flow.		
Туре			SL-1/4	SL-3/8	SDA-1/4	SDA-3/8	
Material							
– Housing			Diecast zinc				
<ul> <li>Plastic bowl</li> </ul>			Polycarbona	te			
- Metal bowl			Diecast zinc		-		
– Diaphragm			-		_		
- Standard sealings			NBR				
Port size (NPTF version)			G1/4	G3/8	G1/4	G3/8	
Max. condensate capac- ity		cm <sup>3</sup>					
Condensate drainage							
Oil/air ratio			Constant oil independent	drip rate t of air flow	-		
Max. oil capacity		cm <sup>3</sup>	45		-		
Oil refilling			Manual		-		
Installation			Vertical			ion – direct as- r preparation airfit swing	
Medium and ambient temperatures	T <sub>min</sub> T <sub>max</sub>	℃ ℃	0 +50 at 10 b (further tem on request)		0 +60 at 10 b (further tem on request)		
Weight (mass)		kg	0.25		0.35		
Pneumatic characteristic							
Operating pressure range – inlet pressure	$p_{1 \min} \ p_{1 \max}$	bar bar	0 16		2 16		
Maximum flow 1)	$Q_{\max}$	l/min m³/h	1830 110	1880 113	1500 90	1600 96	
Best, recommended op- erating range for the oil mist lubricator	Q <sub>n</sub>	m³/h	0.2–30	0.2–54	-		
Degree of filtration at recommended flow <sup>2)</sup>	η	%	-		-		
Residual oil amount		mg/m <sup>3</sup>	_		_		
1) - t - 10	C 2 1						

 $^{1)}$  at p<sub>1</sub> =10 bar and p<sub>2</sub> = 6.3 bar,  $\Delta p$  = 1 bar, start-stop valve and 3/2 Way shut-off valve: at p<sub>1</sub> = 6.3 bar,  $\Delta p$  = 1 bar  $^{2)}$  at 6 bar and 25 m/s flow velocity

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



Stop valve		Submicrofilter		Activated carbo	on filter	3/2 Way shut-off valve	
3/2 Way poppe pneumatic (P) (E) actuation a exhaust silence	or electrical nd integrated					3/2 Way valve ( direct assembly from the airfit s with coupling k	to any unit wing series,
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 insta	allation notes	Vertical, bowl a	t the bottom	Vertical, bowl a	t the bottom	In any position	

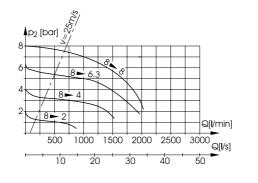
0 +60 at 10 bar (further temperatur on request)	-	0 +50 at 10 bar		0 +60 at 10 bar (further tempera on request)	atures
0.5 (P) 0.8 (E)	(	0.30	0.30	0.25	
2 16 (10 E)		0 16	0 16	0 16	
1500 16 90 96		580 at 6 bar 35	580 at 6 bar 35	4100 246	5300 318
_	-	_	-	_	
-		Over 99.99999% related to 0.01μm	-	-	
_		< 0.01 input conc. 3 mg/m <sup>3</sup>	0.003 ‰ in combination MF	-	

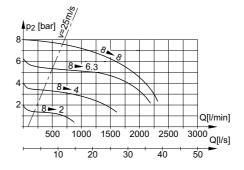
Air preparation unit three-piece/two-piece Type: SFRL-1/4



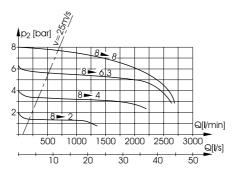
Series airfit swing G1/4, G3/8

Flow characteristics

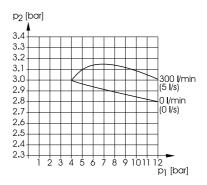




Filter-regulator Type: SK-1/4

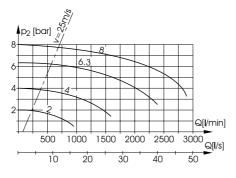


Outlet pressure variation with fluctuation inlet pressure Type: SK-1/4

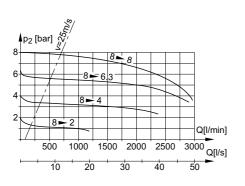


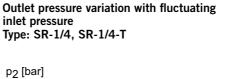
Filter-water-separator Type: SF-1/4

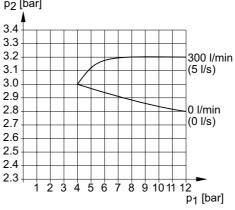




Pressure regulating valve Type: SR-1/4, SR-1/4-T



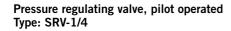


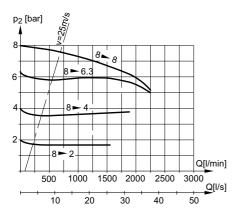


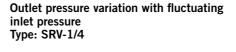
### Air Preparation Units

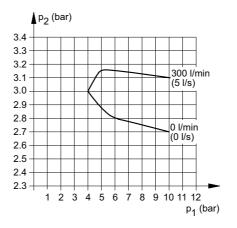
Series airfit swing G1/4, G3/8

Flow characteristics



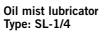








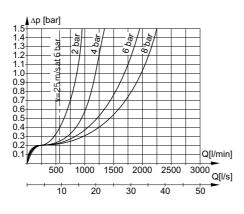
For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

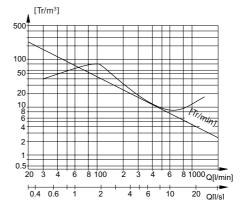




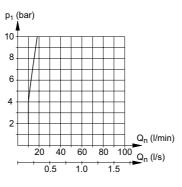
Series airfit swing G1/4, G3/8

Flow characteristics





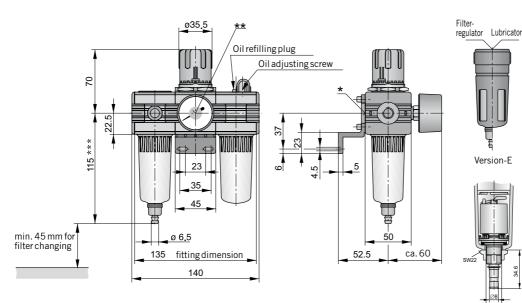
Min. operating conditions Type: SL-1/4





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

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

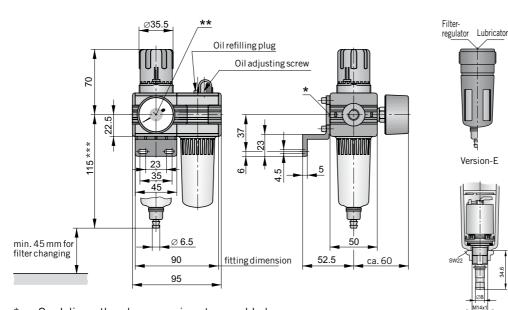


\* On delivery the plug screw is not assembled

\*\* 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

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

Dimensions in mm



Series airfit swing G1/4, G3/8

Dimensions

#### Features:

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

#### **Delivery includes:**

Air preparation unit threepiece:

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

Version-A

Version-A

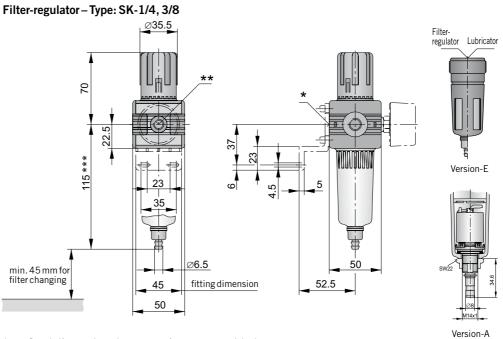
Air preparation unit

- two-piece: Filter-regulator
- Oil mist lubricator Gauge
- Mounting bracket
- Filter-regulator
- Pressure regulating valve: Mounting ring included



Series airfit swing G1/4, G3/8

Dimensions



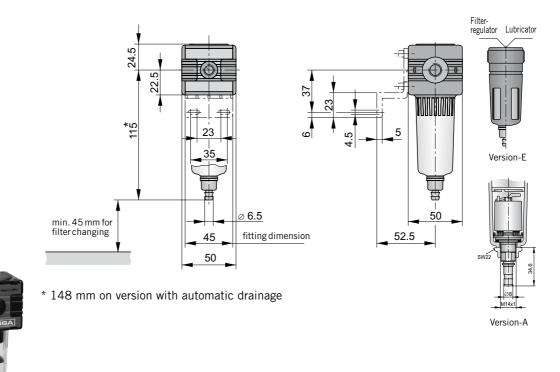
On delivery the plug screw is not assembled

\*\* Two opposite gauge ports G1/8

\*\*\* 148 mm on version with automatic drainage

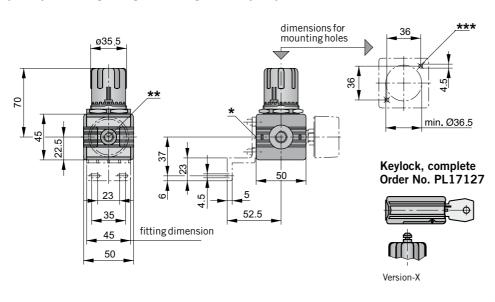
\* Dust filter with extra large filter surface for long service life; developed specifically for use with air dryers

Filter-water-separator – Type: SF-1/4, 3/8 Dust filter – Type: SFD-1/4, 3/8\*



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

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



# Air Preparation Units

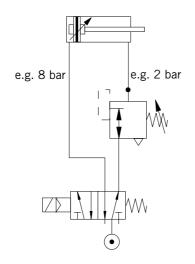
Series airfit swing G1/4, G3/8

Dimensions

- \* 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



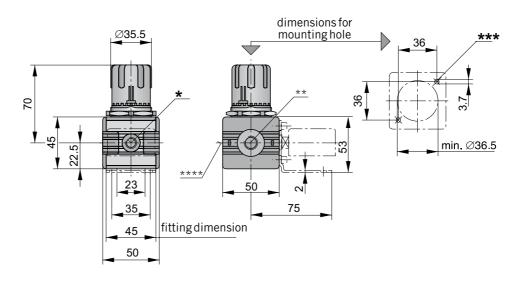
Example: To regulate the pressure in the direction of the stroke, install the regulator as shown in the diagram. The pressure relief uses the full cross-section of the valve, allowing the cylinder to travel at full speed.



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

Series airfit swing G1/4, G3/8

Dimensions

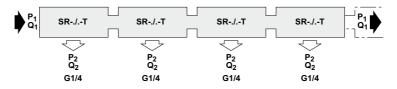


- Gauge ports G1/8 With through  $p_1$  supply port G1/4, G3/8 For self-tapping screw M4, DIN 7500, maximum screw depth: 10 mm

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

\*\*\*\* p<sub>2</sub> port G1/4

Installation instructions for battery mounting

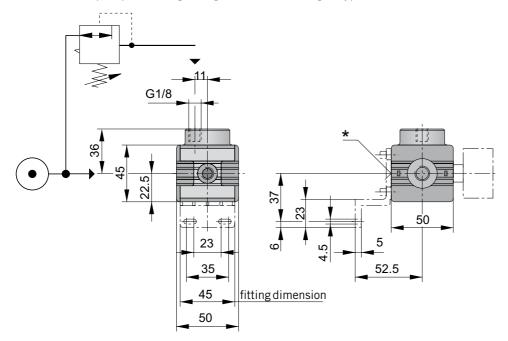




For order instructions see page 37–39, for characteristics see page 22–28, for accessories see page 40, 41

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

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

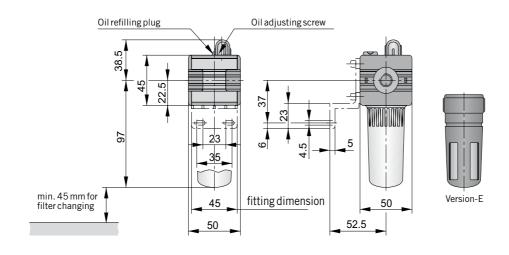


## Air Preparation Units

Series airfit swing G1/4, G3/8

Dimensions

 $^{*}$  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



Series airfit swing G1/4, G3/8

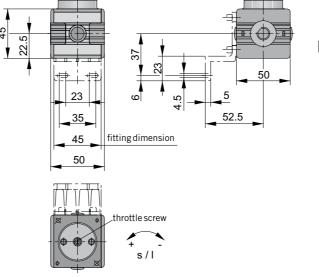
### Dimensions

### 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.

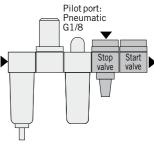
Note: System operation must not be switched on during the starting phase.

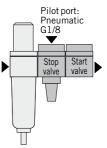
The stop valve is used in conjunction with the soft start valve for exhausting pneumatic circuits.



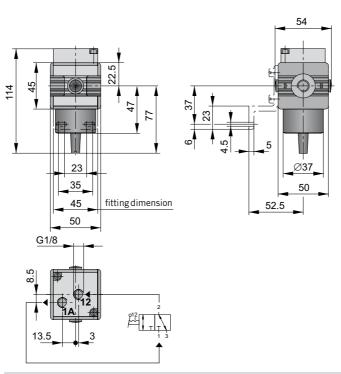
Start valve - Type: SDA-1/4, 3/8

## Installation instructions for start-stop valve





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



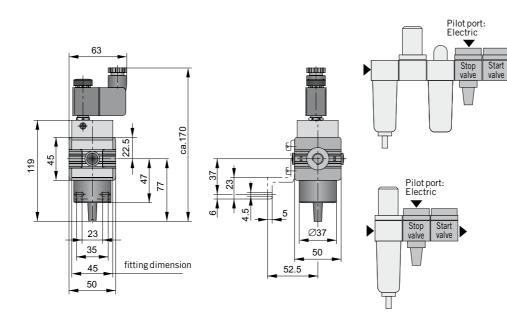
## Venting time (s) in relation to volume

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

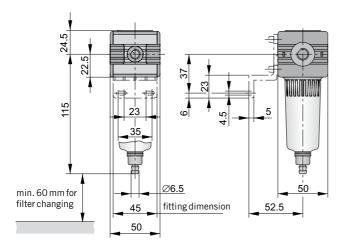


Series airfit swing G1/4, G3/8

Dimensions

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

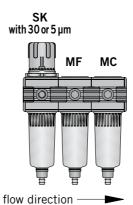
Stop valve - Type: SDR-1/4E, 3/8E (electrically actuated)



Installation procedure

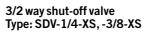
Installation instructions

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

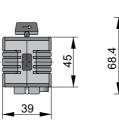


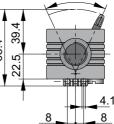
Series airfit swing G1/4, G3/8

Dimensions

### Features:

- Spool type valve3-piece lockable
- Color coded optical position indicator
- Controlled exhaust
- Arrow symbol indicates flow direction





44





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

Description	Symbol	Portsize	Order instruction	
			Туре	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	PB45749-000
		G3/8	SK-3/8	PB 45849-000
with filter element 5 µm		G1/4	SK-1/4-5	PB45749-016
		G3/8	SK-3/8-5	PB45849-016
with semi-automatic drainage		G1/4	SK-1/4-H	PB45749-001
		G3/8	SK-3/8-H	PB45849-001
with automatic drainage		G1/4	SK-1/4-A	PB45749-002
		G3/8	SK-3/8-A	PB 45849-002
with metal bowl (sight glass) $^1$ )		G1/4	SK-1/4-E	PB45749-004
		G3/8	SK-3/8-E	PB 45849-004
Filter-water-separator				
Basic version		G1/4	SF-1/4	PB45149-000
		G3/8	SF-3/8	PB 45249-000
with filter element 5 µm		G1/4	SF-1/4-5	PB45149-016
		G3/8	SF-3/8-5	PB45249-016
with filter element 1 µm		G1/4	SFD-1/4-1	PB45149-070
(dust filter)		G3/8	SFD-3/8-1	PB 45249-070
with semi-automatic drainage		G1/4	SF-1/4-H	PB45149-001
	Ť	G3/8	SF-3/8-H	PB45249-001
with automatic drainage		G1/4	SF-1/4-A	PB45149-002
		G3/8	SF-3/8-A	PB 45249-002
with metal bowl (sight glass) $^{1}$ )		G1/4	SF-1/4-E	PB45149-004
		G3/8	SF-3/8-E	PB45249-004

Series airfit swing G1/4, G3/8

Order instructions

 Versions with metal bowl and automatic drainage on request



Series airfit swing G1/4, G3/8

Order instructions

### Standard versions

Standard versions				
Description	Symbol	Portsize	Order instruction	
			Туре	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
<ul> <li>Special pressure regulating valve for high relief capacity</li> </ul>		G1/4	SR-1/4SO	PB 45449-030
– Pressure regulating valve with through $p_1$ supply port		p <sub>1</sub> -G1/4, through p <sub>2</sub> -G1/4, Output	SR-1/4-T-1/4	PB 45449-100
– Pressure regulating value with through $p_1$ supply port		p <sub>1</sub> -G3/8, through p <sub>2</sub> -G1/4, Output	SR-3/8-T-1/4	PB 45549-100
<ul> <li>Pressure regulating valve, pilot operated</li> </ul>		G1/4	SRV-1/4	PB 45449-070
Oil mist lubricator				
- Basic version		G1/4	SL-1/4	PB46149-000
	$\wedge$	G3/8	SL-3/8	PB 46249-000
- with metal bowl	$ $ $\prec$ $>$	G1/4	SL-1/4-E	PB46149-004
(sight glass)	$\sim$	G3/8	SL-3/8-E	PB 46249-004
Start valve				
– Start valve		G1/4	SDA-1/4	PB47149-100
		G3/8	SDA-3/8	PB 47249-100
Stop valve				
-pneumatically actuated	2 	G1/4	SDR-1/4 P	PB47149-200
		G3/8	SDR-3/8 P	PB 47249-200
-electrically actuated		G1/4	SDR-1/4 E	PB 47149-201
24 V DC		G3/8	SDR-3/8 E	PB 47249-201
-electrically actuated		G1/4	SDR-1/4 E	PB 47149-204
230 V/50 Hz	1 3	G3/8	SDR-3/8 E	PB 47249-204



Standard versions					
Description	Symbol	Portsize	Order instruction		
			Туре	Order No.	
Submicrofilter					
- Basic version		G1/4	MF012-1/4	PB49149-000	
		G3/8	MF012-3/8	PB 49249-000	
- with metal bowl		G1/4	MF012-1/4-E	PB49149-004	
(sight glass)	$\uparrow$	G3/8	MF012-3/8-E	PB 49249-004	
Activated carbon filter					
- Basic version		G1/4	MC012-1/4	PB 49449-000	
		G3/8	MC012-3/8	PB 49549-000	
- with metal bowl		G1/4	MC012-1/4-E	PB 49449-004	
(sight glass)	Ť	G3/8	MC012-3/8-E	PB 49549-004	
3/2 way shut-off valve					
- 3/2 way shut-off valve	2	G1/4	SDV-1/4-XS	PB 46749-101	
- 3/2 way shut-off valve		G3/8	SDV-3/8-XS	PB 46849-101	

Series airfit swing G1/4, G3/8

Order instructions

#### Accessories

Description	For type	Order No.
Mountingkit	Standard	PL16965
Mountingkit	SRT	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	SRX	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 gauges see page 198, 199

For more information see accessories page 40, 41



Series airfit swing G1/4, G3/8

### Accessories – Porting block kit

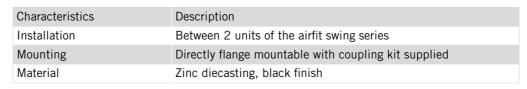
To provide unlubricated air e.g. for air gun

### Versions:

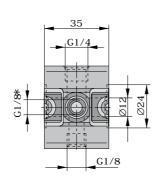
- Standard
- For pressure switch mounting

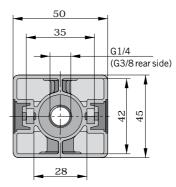
### **Delivery includes:**

1 porting block 1 coupling kit Plug screws



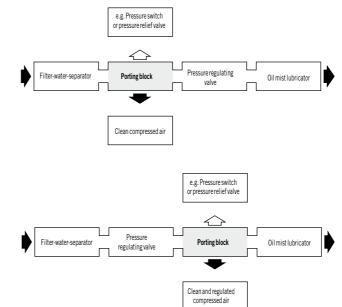
### Dimensions





\*G1/8 thread on both sides

### Installation instructions





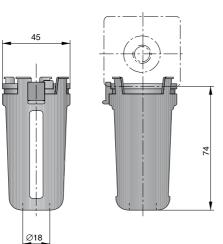
### **Order instructions**

Description	Order instruction		
	Туре	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	

#### Bowl guard kit

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

### Dimensions



# Air Preparation Units

Series airfit swing G1/4, G3/8

Accessories – Bowl guard kit

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

#### **Delivery includes:**

1 bowl guard (with snap mounting)

Dimensions in mm

#### **Order instructions**

Portsize	Order No.	
G1/4, G3/8	PL16970-00	Acce





Order No. PL16965

Gauge Ø40, 0–10 bar, G1/8



Order No. KZ8813



**Coupling kit** 



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



Order No. PL17127

### ${\it Solvent\,resistant\,sight\,glass}$



Order No. PL07233

### Accessories

- Mounting kit
- Coupling kit
- Solvent resistant
  - sight glass
- Keylock
- Gauge



www.arapneumatik.pl

K ARA Pneumatik Oddział Katowice 40-584 Katowice ul. Dworska 13 tel. 32 779 76 40; 41 fax 32 778 20 93

ARA Pneumatik Wrocław

katowice@arapneumatik.pl

53-012 Wrocław ul. Wyścię owa 38 tel. 71 364 72 80; 82 fax 71 364 72 83 pneumatyka@arapneumatik.pl

