

Air Preparation Products

- **Filters, Regulators, Lubricators**
- **Silencers, Accessories**



Please
see also:
E425 Extension,
FRL-Series
MD3™ & MD4™

For reliable line conditioning, choose ROSS®

Filters, Regulators, and Lubricators

Almost any pneumatic system will function better, and for a longer time, with properly "conditioned" air. In fact, many system components, such as air cylinders and motors, may be vulnerable to significant damage from dirty or unlubricated air. Other devices require a carefully maintained, consistent line pressure. Yet others will malfunction or fail due to excess water vapor

in the line. These are a few of the cases where filters, regulators, lubricators, and other devices are called on to prepare, or "condition", compressed air. All such devices are available in single-function units, but they are more often installed in combinations to perform several conditioning functions at once.

Detailed documentation on electrically controlled proportional regulators is available on request.

FRL Combinations

Easy assembly and installation.

Rugged and reliable construction makes ROSS FRLs economical and trouble-free system components.

Standard ROSS filter elements are rated at 5 microns. Most other brands allow particles up to 40 microns to pass right through. A 40-micron particle is 500 times as big as a 5-micron particle.

Automatic filter drains open to discharge accumulated liquids. ROSS strongly recommends their use.



Available with O-ring-sealed modular connectors up to G 1 ports, and for piped connections to G 2

Choose a combination of the standard filter, regulator, and lubricator, or mix and match specialized units to meet special requirements.

ROSS lubricators are available in **sight-feed** design. Port sizes range from G 1/8 to G 2.

ROSS standard regulators monitor and control air pressure with a very high degree of accuracy. For applications requiring even greater precision, there are models that can hold the pressure to within 0.2 bar throughout the entire flow range.

Mounting brackets and nuts for panel mounting available.

Coalescing filters available to remove 99.98% of oil and particles larger than 0.01 micron. Equipped with differential pressure gauge to indicate life of filter element. Use with 5-micron pre-filter.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

The ROSS line of air preparation products is grouped in the following five series of increasing flow capacity:

S-Series.

For air flows to 850 l/min.
Port sizes G 1/8, G 1/4 and G 3/8.

M-Series.

For air flows to 7300 l/min.
Port sizes G 3/8, G 1/2.

P-Series.

For air flows to 7300 l/min.
Port sizes G 1/2.

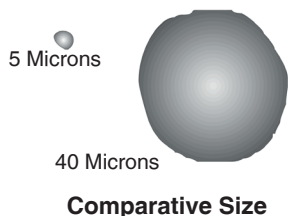
K-Series.

For air flows to 19000 l/min.
Port sizes G 3/4 and G 1.

H-Series.

For air flows > 40000 l/min.
Pipe sizes G 1-1/4 through G 2. Connection of units only by pipe nipples.

FILTRATION. ROSS conventional filters have 5-micron ratings compared to the usual industry standard 40-micron rating. 40-micron particles have 500 times the volume of 5-micron particles, so it's easy to see why ROSS filters clean best.



ROSS coalescing filters remove 99.98% of oil from the air as well as solids as small as 0.01 micron. A filter as fine as this should be preceded by a conventional 5-micron filter to prolong its service life. K- and H-Series coalescing filters have built-in differential pressure gauges to show when the coalescing element must be changed.

FILTER DRAINS. Most ROSS filters are available with either manual or automatic drains. *ROSS strongly recommends the use of automatic drains.* This ensures better filter performance and simplifies maintenance, especially of filters in inaccessible locations.

PRESSURE REGULATORS: Both piston-types and diaphragm-types are available. All models are self-relieving and give accurate and consistent pressure regulation. H-Series pressure regulators also offer reverse-flow regulators for special applications.

LUBRICATORS ("Sight feed"-System). These are oil mist lubricators with flow compensation (number of

oil drops per minute is constant). Air flowing through the lubricator creates a pressure drop in the unit when passing a variable restrictor. A riser tube brings the oil up to a sight-feed dome where it then drips into the air stream. This is a self-adjusting system because the amount of oil added to the air is in proportion to the air flow. The oil flow can be regulated through an adjustment screw.

CONSOLIDATED FILTER & REGULATOR. A filter and a regulator consolidated into a single space-saving assembly is available in all sizes except the H-Series. In addition, pre-assembled, "tailor-made" combinations of filter, regulator, and lubricator units are available for all series.

We reserve the right to introduce technical modifications.

Spare Part Information. Consult ROSS EUROPA® or your nearest ROSS® Service Point for Details.

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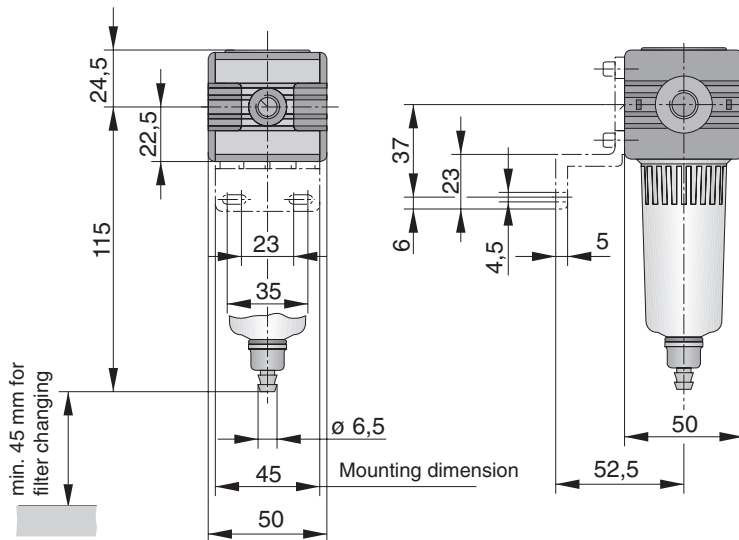
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IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32



G 1/8 to G 3/8 Flow to 850 l/min



Standard Filters have a 5-micron-rated filter element for particulate and liquid removal. Both automatic and manual drain models are available.

Coalescing Filters are designed for low-air-flow equipment, e.g., air instruments and air logic circuits that use no more than 200 l/min. Filter elements remove 99.98% per cent of oil, and particulates larger than 0.01 microns.

REPLACEMENT FILTER ELEMENT	
Element Rating	Part Number
5 µm	16796-5R

Standard FILTERS

Port Size	Flow* (l/min)	Automatic Drain Models		Manual Drain Models	
		Plastic Bowl**	Metal Bowl	Plastic Bowl**	Metal Bowl
G 1/8	300	C5021H1007	C5022H1007	C5011H1007	C5012H1007
G 1/4	550	C5021H2007	C5022H2007	C5011H2007	C5012H2007
G 3/8	850	C5021H3027	C5022H3027	C5011H3026	C5012H3026

Coalescing FILTERS

G 1/8	200	—	—	C5031H1008	C5032H1008
G 1/4	200	—	—	C5031H2008	C5032H2008
G 3/8	200	—	—	C5031H3028	C5032H3028

*Recommended flow at p = 6.3 bar and 25 m/s.

**Metal bowl guard available

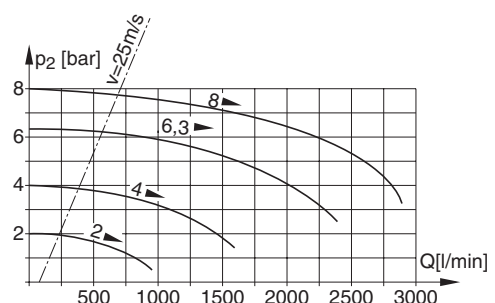
STANDARD SPECIFICATIONS

Ambient/Media Temperature: -30° to +60°C.

Pressure Range: 0 to 16 bar.

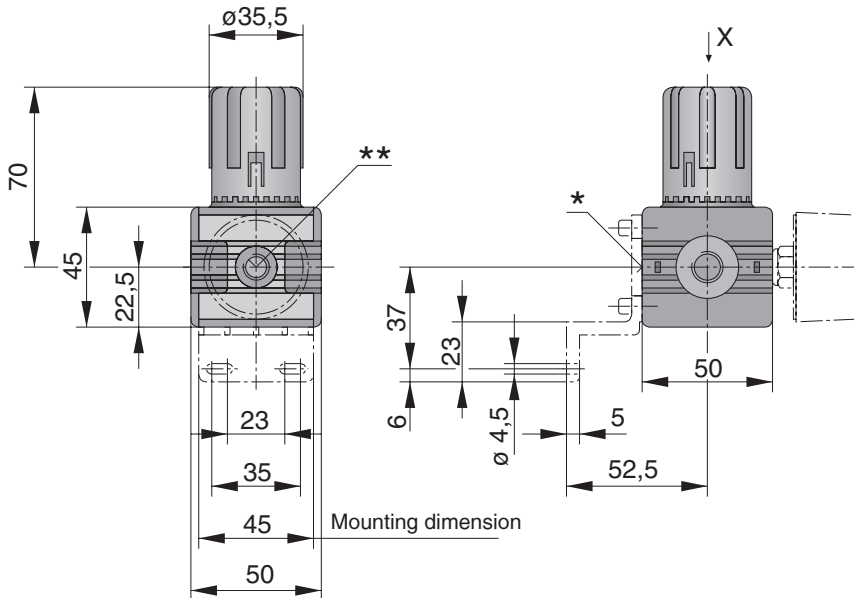
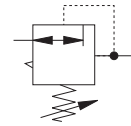
Weight: 0.25 kg.

G 1/4 Standard Filter



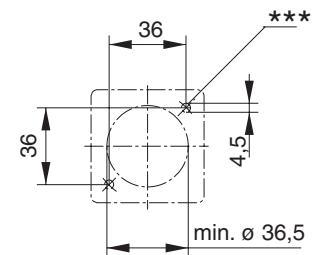
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/8 to G 3/8
Flow to 850 l/min



S-Series Pressure Regulators feature secondary pressure relief and diaphragm design for fast cycling pneumatic valves and cylinders. These units are designed for modular installation, but also have threaded ports for installation with conventional pipe fittings.

View X
 Dimensions for mounting hole.



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

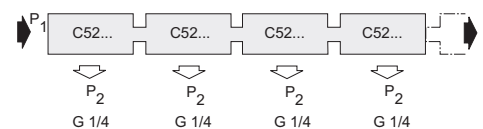
Standard REGULATORS

Port Size	Flow Rating* (l/min)	Regulated Pressure		
		0.5 – 4 bar	0.5 – 8 bar	0.5 – 15 bar
G 1/8	300	C5212H1015	C5211H1015	C5214H1015
G 1/4	500	C5212H2015	C5211H2015	C5214H2015
G 3/8	850	C5212H3015	C5211H3015	C5214H3015

REGULATORS for Manifold Mounting

G 1/4	500	C5212H2322	C5211H2322
G 3/8	850	C5212H3322	C5211H3322

Installation Instructions for Manifold Mounting



*Recommended flow at $p = 6.3$ bar and 25 m/s

G 1/4 Standard Regulator

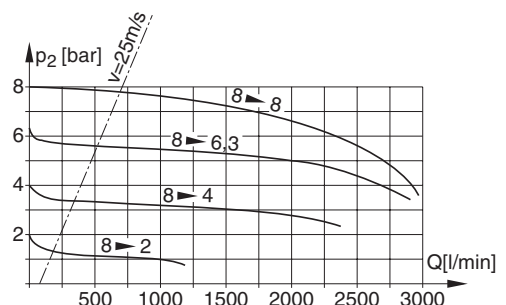
STANDARD SPECIFICATIONS

Ambient/Media Temperature: -30° to +60°C.

Gauge Ports: Front and back; G 1/8.
 Please refer to Page 30.

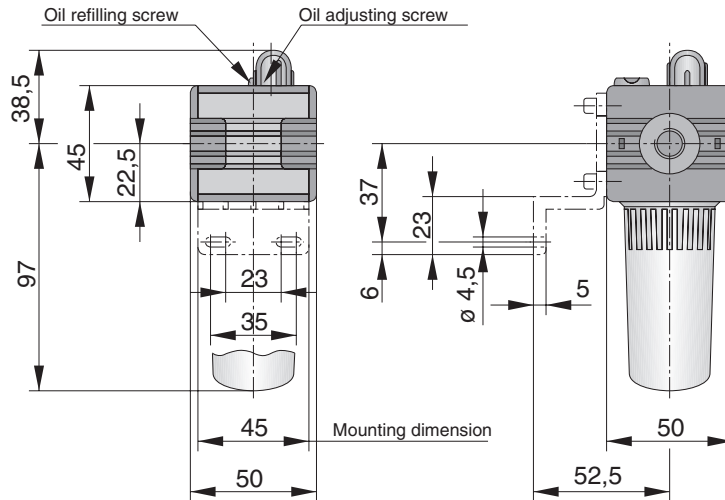
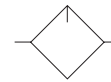
Maximum Inlet Pressure: 16 bar.

Weight: 0.3 kg.



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/8 to G 3/8
Flow to 850 l/min



Oil mist lubricator with flow compensation (number of oil drops per minute is constant). Oil reservoir can be filled under pressure.

Port Size	Flow* (l/min)	Model Numbers		Reservoir (ml)
		Plastic Bowl**	Metal Bowl	
G 1/8	300	C5111H1007	C5112H1007	60
G 1/4	550	C5111H2007	C5112H2007	60
G 3/8	850	C5111H3027	C5112H3027	60

*Recommended flow at $p = 6.3$ bar and 25 m/s.

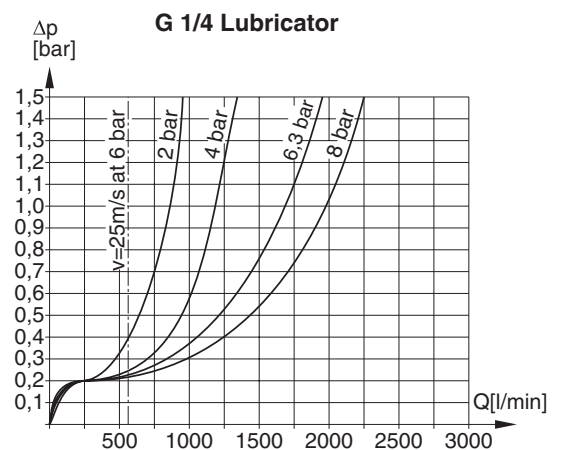
**Metal bowl guard available.

STANDARD SPECIFICATIONS

Ambient/Media Temperature: -10° to $+60^{\circ}\text{C}$.

Pressure Range: 0 to 16 bar.

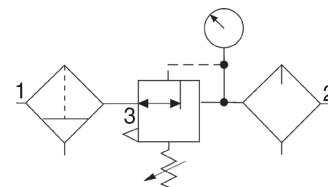
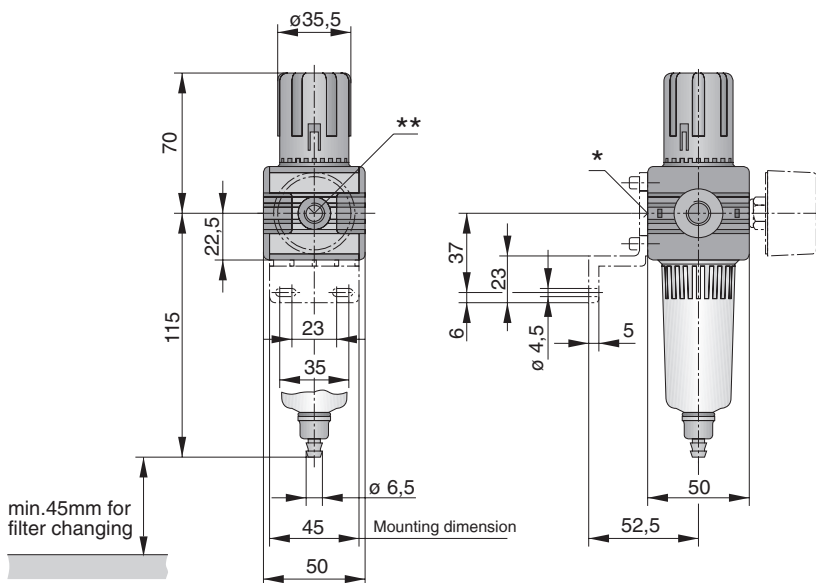
Weight: 0.25 kg.



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/8 to G 3/8

Flow to 850 l/min



STANDARD SPECIFICATIONS

Ambient/Media Temperature:
-30° to +60°C.

Max. Inlet Pressure: 16 bar.

Regulated Pressure: 0.5 to 8 bar
(for other ranges, contact ROSS).

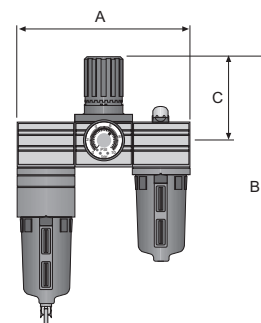
* On delivery the plug screw is not assembled.

** Two opposite gauge ports G 1/8.

Consolidated FILTER & REGULATOR (Diaphragm; Weight: 0.35 kg)

Port Size	Flow (l/min)	Automatic Drain		Manual Drain	
		Plastic Bowl***	Plastic Bowl***	Plastic Bowl***	Metal Bowl
G 1/8	300	C5321H1042	C5321H1022	C5322H1021	
G 1/4	550	C5321H2042	C5321H2022	C5322H2021	
G 3/8	850	C5321H3042	C5321H3022	C5322H3021	

Gauge included. ***Metal bowl guard available.



Combination FILTER & REGULATOR (Weight: 0.55 kg)

Port Size	Automatic Drain		Manual Drain		Dimensions (mm)		
	Plastic Bowl***	Plastic Bowl***	Plastic Bowl***	Metal Bowl	A	B	C
G 1/8	C5321H1037	C5321H1036	C5322H1035		95	185	70
G 1/4	C5321H2037	C5321H2036	C5322H2035		95	185	70
G 3/8	C5321H3037	C5321H3036	C5322H3035		95	185	70

Gauge included. ***Metal bowl guard available.

Combination FILTER & LUBRICATOR (Weight: 0.5 kg)

Port Size	Automatic Drain	Manual Drain	Manual Drain	Dimensions (mm)	Dimensions (mm)	Dimensions (mm)
	Plastic Bowl***	Plastic Bowl***	Metal Bowl	A	B	C
G 1/8	C5311H1012	C5311H1011	C5312H1011	95	115	38.5
G 1/4	C5311H2012	C5311H2011	C5312H2011	95	115	38.5
G 3/8	C5311H3012	C5311H3011	C5312H3011	95	115	38.5

Gauge included. ***Metal bowl guard available.

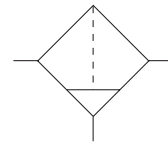
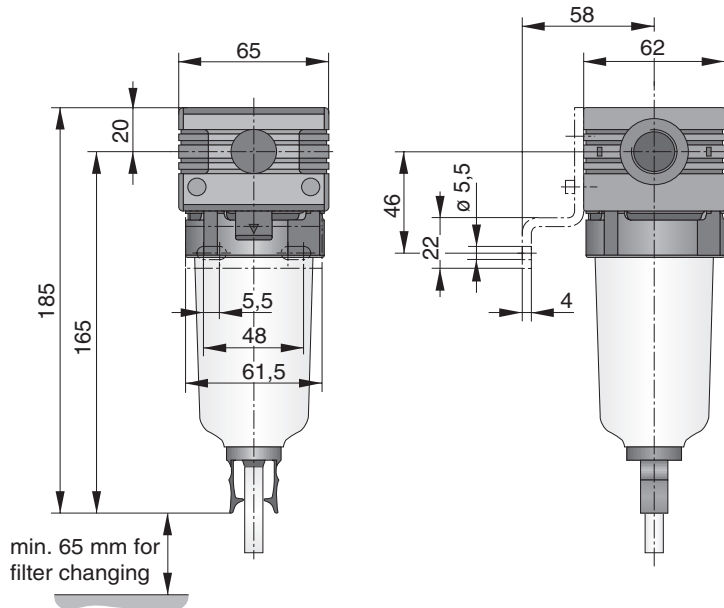
Combination FILTER, REGULATOR & LUBRICATOR (Weight: 0.95 kg)

Port Size	Automatic Drain	Manual Drain	Manual Drain	Dimensions (mm)	Dimensions (mm)	Dimensions (mm)
	Plastic Bowl***	Plastic Bowl***	Metal Bowl	A	B	C
G 1/8	C5331H1006	C5331H1005	C5332H1005	140	185	70
G 1/4	C5331H2006	C5331H2005	C5332H2005	140	185	70
G 3/8	C5331H3006	C5331H3005	C5332H3005	140	185	70

Gauge included. ***Metal bowl guard available.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/8 to G 1/2 Flow to 1900 l/min



Standard Filters have a 5-micron-rated filter element for particulate and liquid removal. ROSS strongly recommends to use models with automatic drain as manual draining of the bowl is often overlooked.

Dust Filters have extra large filter surfaces for long uptime. They are designed to remove particles to the size of 1 micron from the airflow. We recommend using such a filter when driers are in operation.

REPLACEMENT FILTER ELEMENT	
Element Rating	Part Number
5 µm	17468-5R

Standard-FILTERS

Port Size	Flow* (l/min)	Automatic Drain Models		Manual Drain Models	
		Plastic Bowl**	Metal Bowl	Plastic Bowl**	Metal Bowl
G 3/8	850	C5021H3007	C5022H3007	C5011H3006	C5012H3006
G 1/2	1900	C5021H4007	C5022H4007	C5011H4007	C5012H4007

DUST FILTERS (1 µm)

G 1/2	1900	—	—	C5011H4900	—
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*Recommended flow at p = 6.3 bar and 25 m/s.

**Metal bowl guard available.

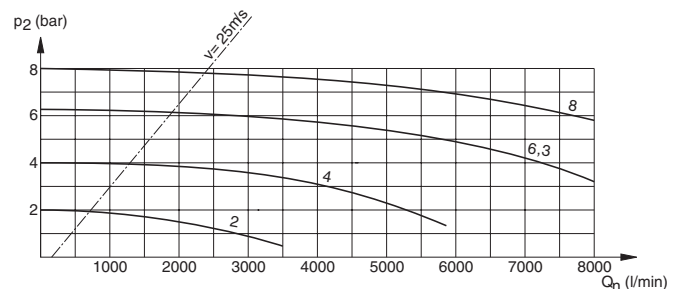
SPECIFICATIONS

Ambient/Media Temperature: 0° to 60°C.

Pressure Range: 0 to 16 bar.

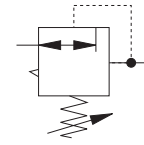
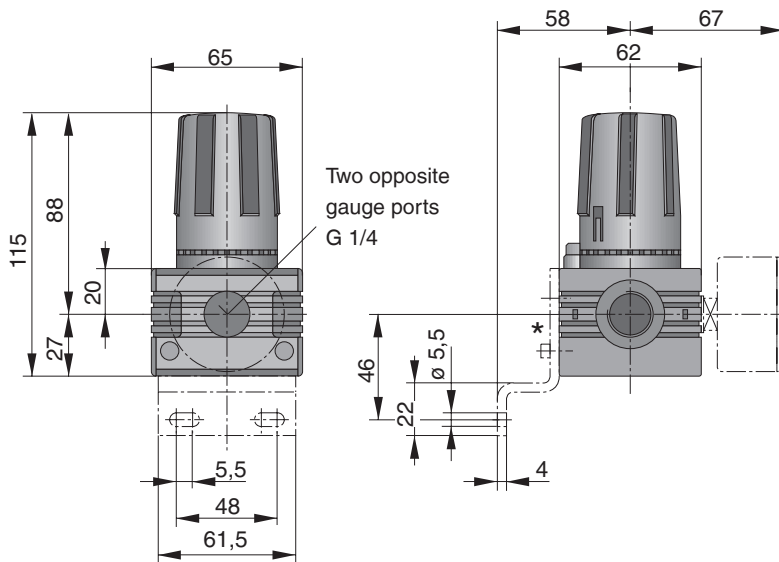
Weight: 0.55 kg.

G 1/2 Standard Filter



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/8 to G 1/2
Flow to 1900 l/min



M-Series Pressure Regulators feature secondary pressure relief and diaphragm design for fast cycling pneumatic valves and cylinders. These units are designed for modular installation, but also have threaded ports for installation with conventional pipe fittings.

*On delivery the plug screw is not assembled.

Standard REGULATORS

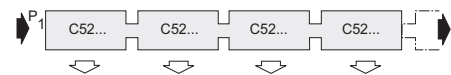
Port Size	Flow* (l/min)	Regulated Pressure			
		0.5 – 4 bar	0.5 – 8 bar	0.5 – 10 bar	0.5 – 16 bar
G 3/8	850	C5212H3005	C5211H3005	C5213H3005	–
G 1/2	1900	C5212H4005	C5211H4005	C5213H4005	C5214H4005

REGULATORS for Manifold Mounting

G 1/2	1900	C5212H4322
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Installation Instructions for Manifold Mounting

*Recommended flow at $p = 6.3$ bar and 25 m/s.



G 1/2 Regulator

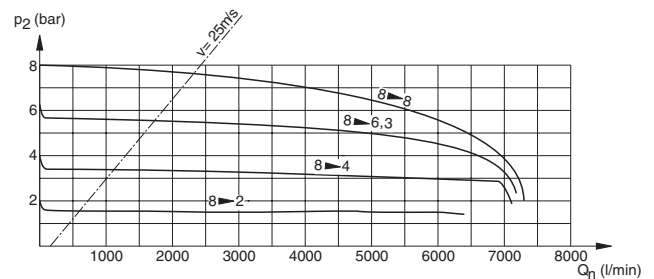
SPECIFICATIONS

Ambient/Media Temperature: 0° to 60°C.

Gauge Ports: Front and back; G 1/4.
 Please refer to Page 30.

Maximum Inlet Pressure: 16 bar.

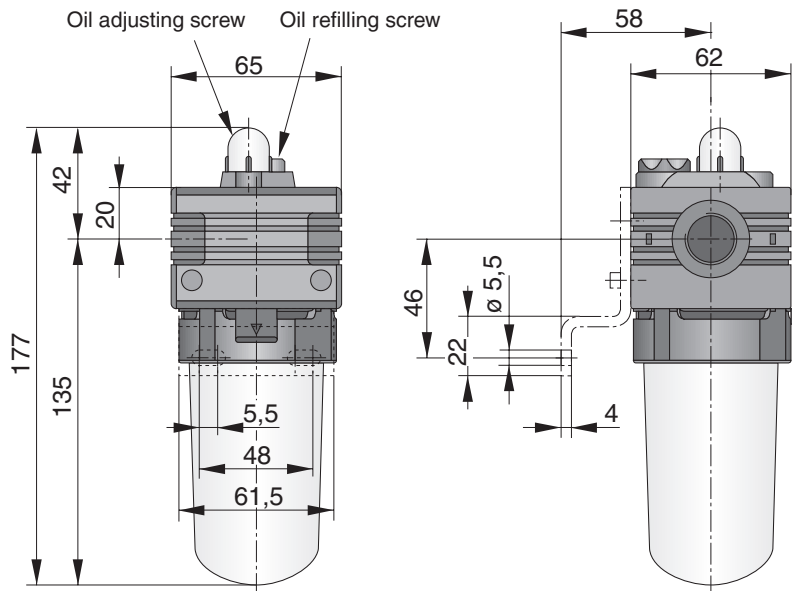
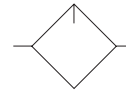
Weight: 0.55 kg.



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/8 to G 1/2

Flow to 1900 l/min



Oil mist lubricator with flow compensation (number of oil drops per minute is constant). Oil reservoir can be filled under pressure.

Port Size	Flow* (l/min)	Model Numbers		Reservoir (ml)
		Plastic Bowl**	Metal Bowl	
G 3/8	850	C5111H3007	C5112H3007	120
G 1/2	1900	C5111H4007	C5112H4007	120

*Recommended flow at $p = 6.3$ and 25 m/s.

**Metal bowl guard available.

SPECIFICATIONS

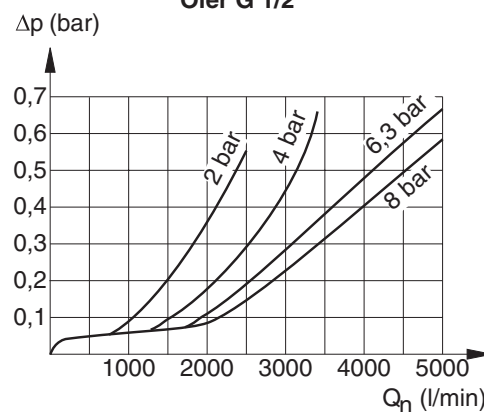
Ambient/Media Temperature: 0° to 60°C .

Pressure Range: 0 to 16 bar.

Weight: 0.55 kg.

G 1/2 Lubricator

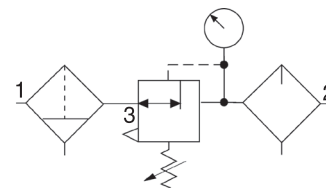
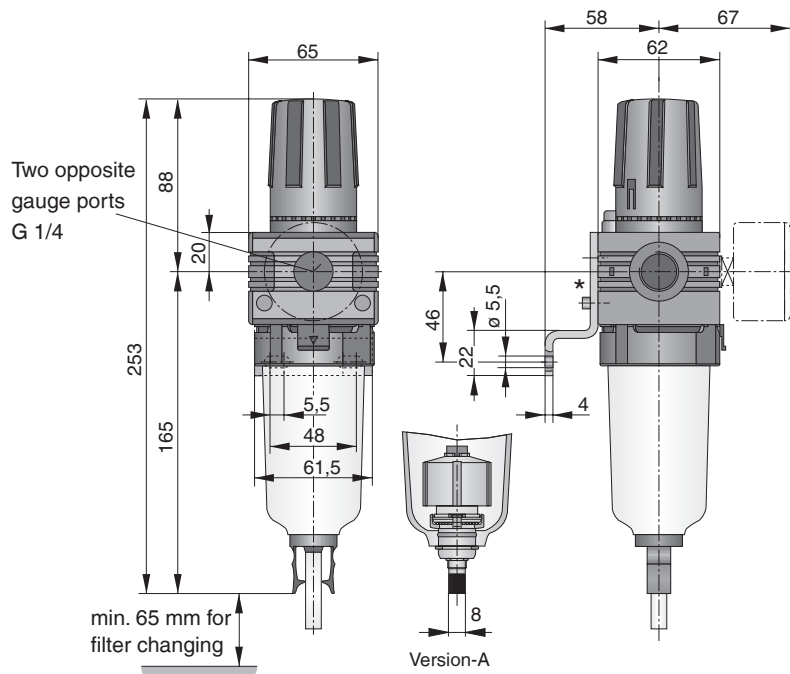
Öler G 1/2



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/8 to G 1/2

Flow to 1900 l/min



SPECIFICATIONS

Ambient/Media Temperature: 0° to 60°C.

Maximum Inlet Pressure: 16 bar.

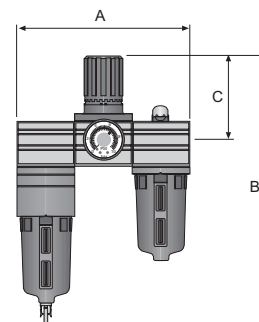
Regulated Pressure: 0.5 to 8 bar
(for other ranges, contact ROSS).

*On delivery the plug screw is not assembled.

Consolidated FILTER & REGULATOR (Weight: 0.75 kg)

Port Size	Flow (l/min)	Automatic Drain		Manual Drain	
		Plastic Bowl**	Metal Bowl	Plastic Bowl**	Metal Bowl
G 3/8	850	C5321H3052	C5322H3051	C5321H3062	C5322H3061
G 1/2	1900	C5321H4052	C5322H4051	C5321H4062	C5322H4061

Gauge included. **Metal bowl guard available.



Combination FILTER & REGULATOR (Weight: 1.1 kg)

Port Size	Automatic Drain		Manual Drain		Dimensions (mm)		
	Plastic Bowl**	Metal Bowl	Plastic Bowl**	Metal Bowl	A	B	C
G 3/8	C5M11H3110	C5M11H3210	C5M11H3310	C5M11H3410	127	253	88
G 1/2	C5M11H4110	C5M11H4210	C5M11H4310	C5M11H4410	127	253	88

Gauge included. **Metal bowl guard available.

Combination FILTER & LUBRICATOR (Weight: 1.1 kg)

G 3/8	C5M11H3101	C5M11H3202	C5M11H3301	C5M11H3402	127	207	84
G 1/2	C5M11H4101	C5M11H4202	C5M11H4301	C5M11H4402	127	207	84

Gauge included. **Metal bowl guard available.

Combination FILTER, REGULATOR & LUBRICATOR (Weight: 1.85 kg)

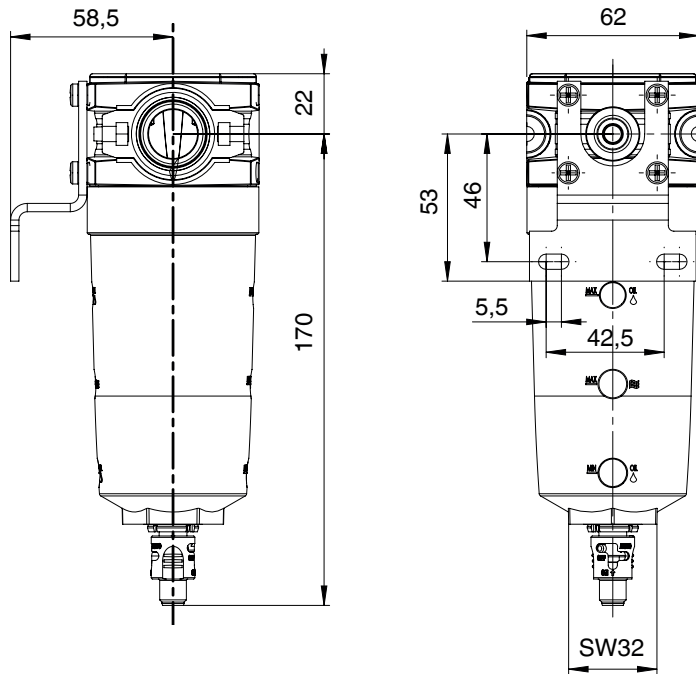
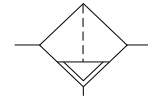
G 3/8	C5M11H3111	C5M11H3212	C5M11H3311	C5M11H3412	189	253	88
G 1/2	C5M11H4111	C5M11H4212	C5M11H4311	C5M11H4412	189	253	88

Gauge included. **Metal bowl guard available.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/2

Flow to 3300 l/min



New!

P-Series FRL components consist of ultra-light Technopolymer. As compared to conventional Series in metal design, these models have 45% less weight. They provide optimum protection against corrosion, so that they can be used in rough environments under tough conditions.

Standard Filters have a 5-micron-rated filter element for particulate and liquid removal. ROSS strongly recommends to use models with automatic drain as manual draining of the bowl is often overlooked.

Dust Filters have extra large filter surfaces for long uptime. They are designed to remove particles to the size of 1 micron from the airflow. We recommend using such a filter when driers are in operation.

Standard-FILTERS

Port Size	Flow* (l/min)	Automatic Drain Models Plastic Bowl	Combined Manual/ Semi-Automatic Drain Models Plastic Bowl
G 1/2	3300	C5021P4007	C5011P4007
DUST FILTER (1 µm)			
G 1/2	3300	—	C5011P4900

*Recommended flow at p = 6.3 bar and 0.5 bar pressure drop.

REPLACEMENT FILTER ELEMENT	
Element Rating	Part Number
1 µm	P3XKA00ESE-R
5 µm	P3XKA00ES10-R

SPECIFICATIONS

Ambient/Media Temperature

Automatic Drain: -10° to +60°C.

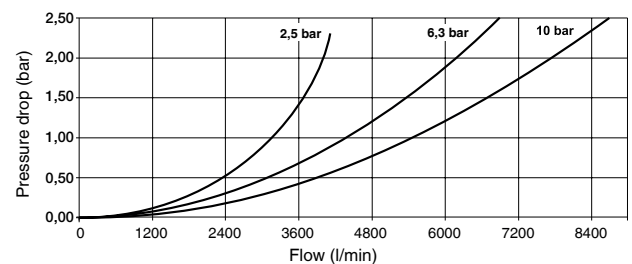
Manual/Semi-Automatic Drain: -40° to +60°C.

For temperatures below 2°C absolutely dry air must be used to prevent formation of ice.

Pressure Range: 0 to 16 bar.

Weight: 0.32 kg.

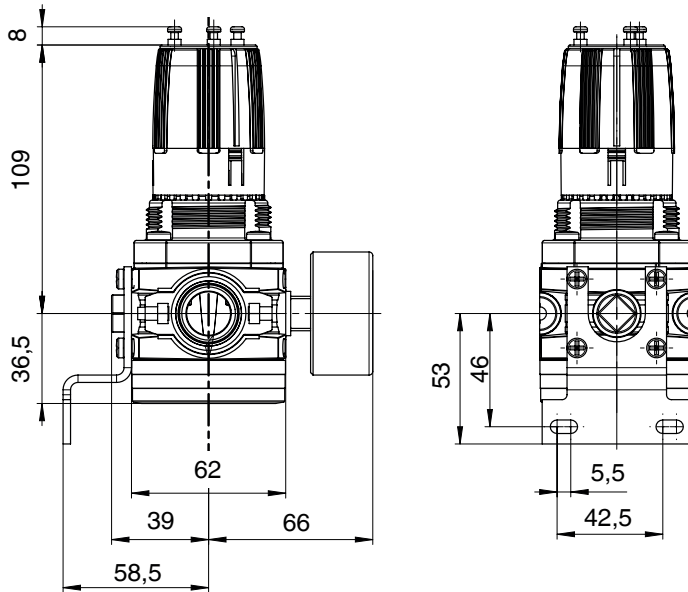
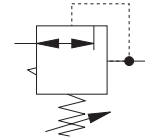
G 1/2 Standard-FILTER



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/2

Flow to 7300 l/min



New!

P-Series FRL components consist of ultra-light Technopolymer. As compared to conventional Series in metal design, these models have 45% less weight. They provide optimum protection against corrosion, so that they can be used in rough environments under tough conditions.

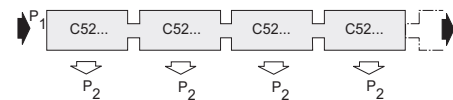
P-Series Pressure Regulators feature secondary pressure relief and diaphragm design for fast cycling pneumatic valves and cylinders. These units are designed for modular installation, but also have threaded ports for installation with conventional pipe fittings.

Standard REGULATORS

Port Size	Flow* (l/min)	Regulated Pressure		
		0.5 – 4 bar	0.5 – 8 bar	0.5 – 16 bar
G 1/2	7300	C5212P4005	C5211P4005	C5214P4005

*Flow at 10 bar inlet pressure. 6.3 bar target pressure and 1 bar pressure drop.

Installation Instructions for Manifold Mounting



SPECIFICATIONS

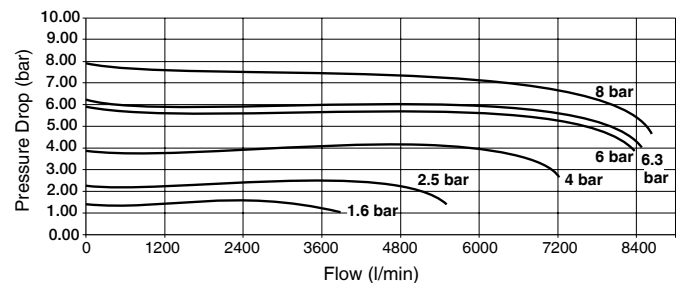
Ambient/Media Temperature: -40° to +60°C.
For temperatures below 2°C absolutely dry air must be used to prevent formation of ice.

Gauge Ports: Front and back; G 1/4.
Please refer to Page 30.

Maximum Inlet Pressure: 16 bar.

Weight: 0.41 kg.

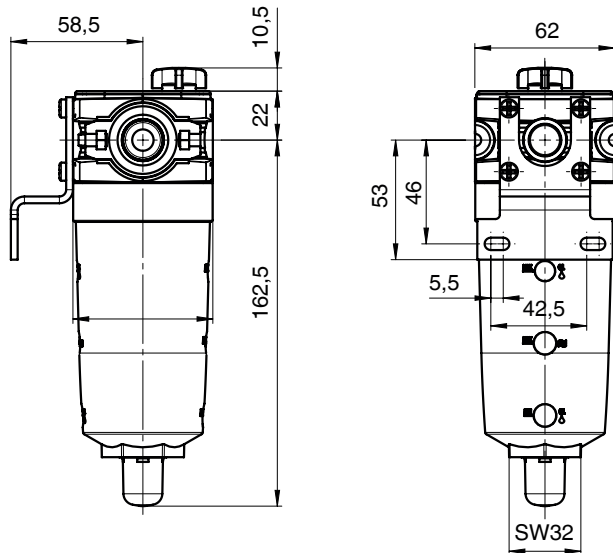
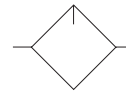
G 1/2 Regulator



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/2

Flow to 4700 l/min



New!

P-Series FRL components consist of ultra-light Technopolymer. As compared to conventional Series in metal design, these models have 45% less weight. They provide optimum protection against corrosion, so that they can be used in rough environments under tough conditions.

Oil mist lubricator with flow compensation (number of oil drops per minute is constant). Oil reservoir can be filled under pressure.

Proportional lubrication over a wide flow range.

Self-adjusting system (no oil drop adjustment required).

Port Size	Flow * (l/min)	Model Number**	Reservoir (ml)
G 1/2	4700	C5111P4007	90

*Flow at 6.3 bar inlet pressure and 0.5 bar pressure drop. **Lubricator with plastic bowl.

SPECIFICATIONS

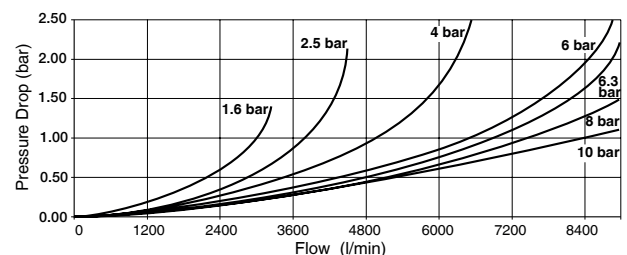
Ambient/Media Temperature: -10° to +60°C.

For temperatures below 2°C absolutely dry air must be used to prevent formation of ice.

Pressure Range: 0 to 16 bar.

Weight: 0.30 kg

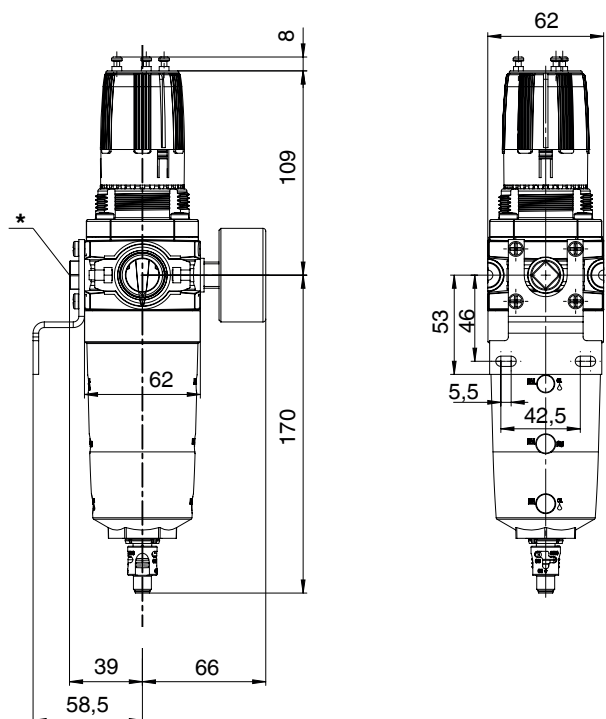
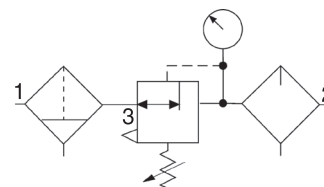
G 1/2 Lubricator



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1/2

Flow to 6650 l/min



*Two opposite gauge ports G 1/4

New!

P-Series FRL components consist of ultra-light Technopolymer. As compared to conventional metal Series, these models have 45% less weight. They provide optimum protection against corrosion, so they can be used in rough environments under tough conditions.

SPECIFICATIONS

Ambient/Media Temperature

Automatic Drain: -10° to +60°C.
Manual/Semi-Automatic Drain: -40° to +60°C.

For temperatures below 2°C absolutely dry air must be used to prevent formation of ice.

Maximum Inlet Pressure: 16 bar.

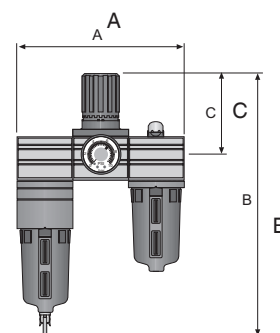
Regulated Pressure: 0.5 to 8 bar (for other ranges, contact ROSS).

All models on this page have plastic bowls.

Consolidated FILTER & REGULATOR (Weight: 0.5 kg)

Port Size	Flow (l/min)	Automatic Drain	Combined Manual/Semi-Automatic Drain
G 1/2	6650	C5321P4052	C5321P4062

Gauge included.



Combination FILTER & REGULATOR (Weight: 0.75 kg)

Port Size	Automatic Drain	Combined Manual/Semi-Automatic Drain	Dimensions (mm)		
			A	B	C
G 1/2	C5M11P4110	C5M11P4310	124	287	117

Gauge included.

Combination FILTER & LUBRICATOR (Weight: 0.65 kg)

G 1/2	C5M11P4101	C5M11P4301	124	195	32,5
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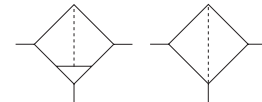
Combination FILTER, REGULATOR & LUBRICATOR (Weight: 1.1 kg)

G 1/2	C5M11P4111	C5M11P4311	186	287	117
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Gauge included.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/4 to G 1 Flow to 11400 l/min



Standard Filter Dust Filter
Submicro Filter

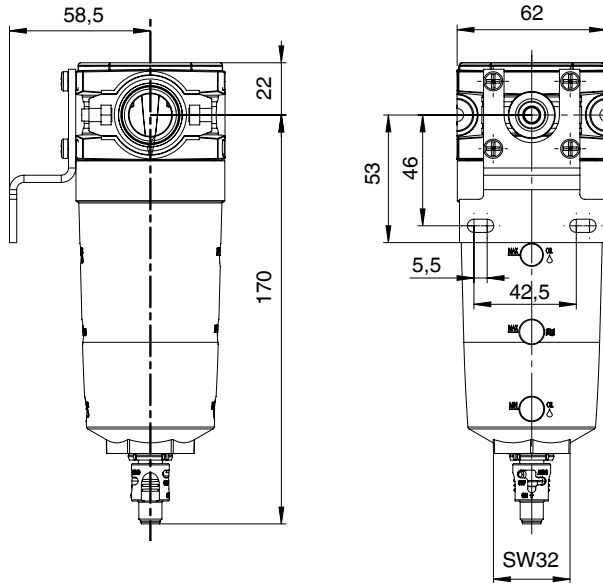


Illustration: Standard Filter

Standard Filters have a 5 µm rated filter element for particulate and liquid removal. ROSS strongly recommends to use models with automatic drain, as manual draining of the bowl is often overlooked.

Dust Filters feature an extra large filter surface for long service life. They have a 1 µm rated filter element for particulate and liquid removal. It is recommended to use these filter models with air dryers.

Submicro Filters have a 0.01 µm rated filter element for particulate and liquid removal. For new models pressure drop is approximately 0.1 bar.

Choose between modular installation or conventional piping.

REPLACEMENT FILTER ELEMENTS	
Element Rating	Part Number
0.01 µm	19154R
1 µm	19153R
5 µm	19029-5R

STANDARD FILTER (5 µm)

Port Size	Flow* (l/min)	Automatic Drain Metal Bowl	Manual Drain Metal Bowl
G 3/4	10400	C5022K5005	C5012K5006
G 1	11400	C5022K6005	C5012K6006

DUST FILTER (1 µm)

G 3/4	10400	-	C5012K5900
G 1	11400	-	C5012K6900

SUBMICRO FILTER (0.01 µm)

G 3/4	3850	-	C5032K5018
G 1	3850	-	C5032K6018

*Max. value at $p_1 = 10$ bar and $\Delta p = 1$ bar

STANDARD SPECIFICATIONS

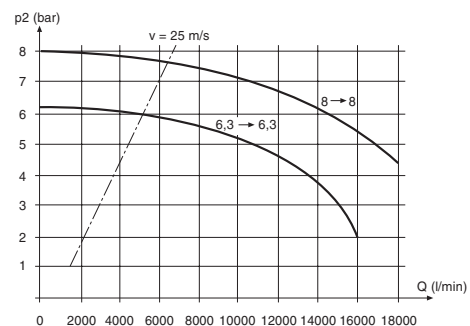
Ambient/Media Temperature: -40° to +60°C.

Dust Filter, Submicro Filter and Filter with Automatic Drain: -10° to +60°C.

Pressure Range: 0 to 17.5 bar.

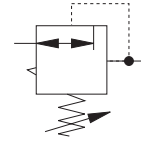
Weight: 0.9 kg (Submicro Filter: 1.5 kg).

G 1 Standard Filter

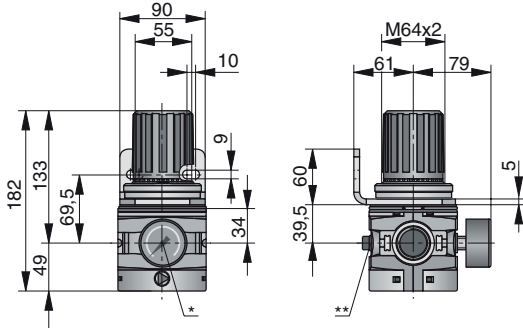


IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/4 to G 1 Flow > 20000 l/min



Standard Regulator

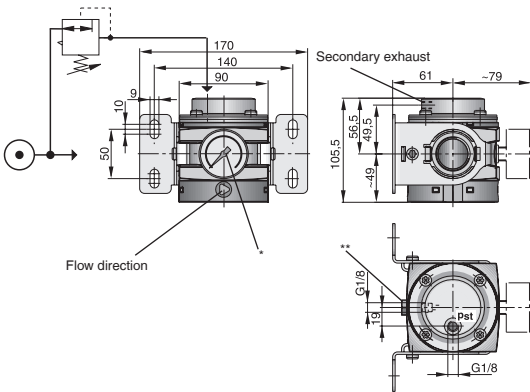


Standard Regulators feature secondary pressure relief and diaphragm design for high air flow and low pressure drop. Units are designed for modular installation, but also have threaded ports for installation with conventional pipe fittings.

Remote Pilot Regulators use any small regulator to provide remote adjustment, and ensure accurate pressure control. Diaphragm design.

Remote Pilot Regulator

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



STANDARD SPECIFICATIONS

Ambient/Media Temperature: -40° to +60° C.

Gauge Ports: Front and back; G 1/4

Maximum Inlet Pressure: 17.5 bar.

Standard REGULATORS (Weight: 1.2 kg)

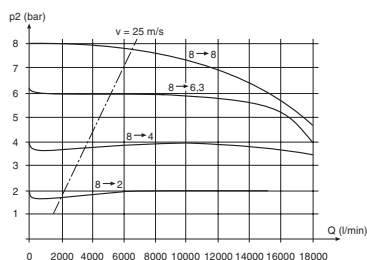
Port Size	Flow Rating* (l/min)	Regulated Pressure			
		0.5 – 4 bar	0.5 – 6 bar	0.5 – 12 bar	0.5 – 17.5 bar
G 3/4	14600	C5212K5017	C5210K5017	C5213K5017	C5214K5017
G 1	> 20000	C5212K6017	–	C5213K6017	C5214K6017

Remote Pilot REGULATORS (Weight: 1.2 kg)

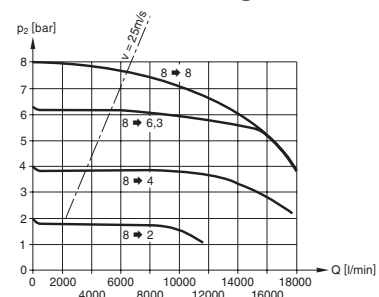
Port Size	Flow Rating* (l/min)	Regulated Pressure
		0.5 – 17.5 bar
G 3/4	> 20000	C5211K5007
G 1	> 20000	C5211K6007

*Max. value at $p_1 = 10$ bar at $p_2 = 6.3$ bar and $\Delta p = 1$ bar

G 1 Standard Regulator

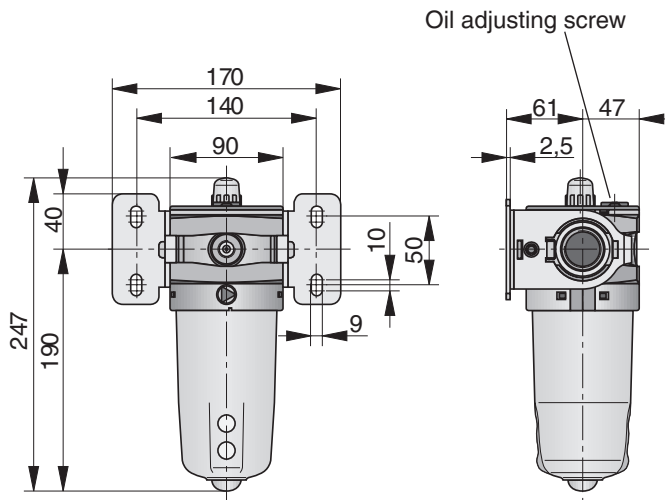
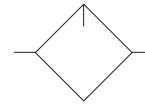


G 1 Remote Pilot Regulator



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/4 to G 1
Flow to 17700 l/min



Sight-feed-type lubricators with flow volume compensation (number of oil drops remains constant). The oil reservoir can be filled under pressure.

Port Size	Flow* (l/min)	Metal Bowl	Reservoir (ml)
G 3/4	16000	C5112K5008	500
G 1	17700	C5112K6008	500

*Max. value at $p_1 = 10$ bar and $\Delta p = 1$ bar.

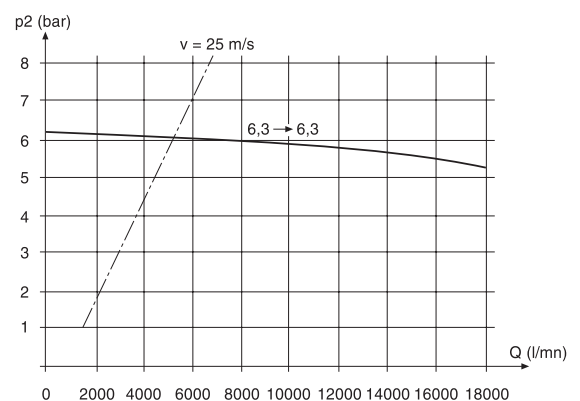
STANDARD SPECIFICATIONS

Ambient/Media Temperature: -10° to +60°C.

Pressure Range: 0 to 17.5 bar.

Weight: 0.8 kg.

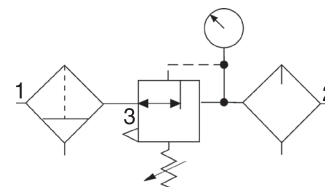
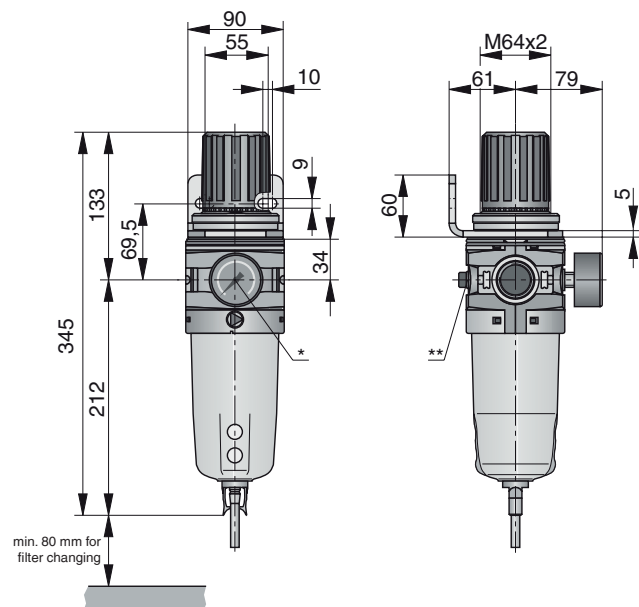
G 1 Lubricator



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 3/4 to G 1

Flow to 19000 l/min



STANDARD SPECIFICATIONS

Ambient/Media Temperature: -40° to +60°C.

Filter with Automatic Drain: -10° to +60°C.

Regulated Pressure: 0.5 to 12 bar.

Maximum Inlet Pressure: 17.5 bar.

*Two opposite gauge ports, G 1/4.

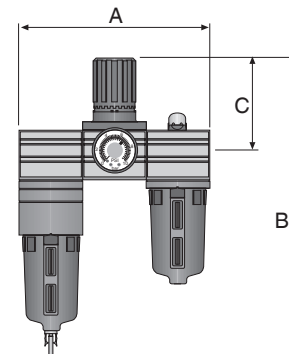
**On delivery the plug screw is not assembled.

Consolidated FILTER & REGULATOR (Diaphragm) (Weight: 1.5 kg)

Port Size	Flow* (l/min)	Automatic Drain	
		Metal Bowl	Metal Bowl
G 3/4	13200	C5322K5071	C5322K5011
G 1	19000	C5322K6071	C5322K6011

Gauge included.

*Max. value at $p_1 = 10$ bar at $p_2 = 6.3$ bar and $\Delta p = 1$ bar



Combination FILTER & REGULATOR (Weight: 1.8 kg)

Port Size	Automatic Drain Metal Bowl	Manual Drain Metal Bowl	Dimensions (mm)		
			A	B	C
G 3/4	C5F11K5220	C5F11K5420	180	345	133
G 1	C5F11K6220	C5F11K6420	180	345	133

Gauge included.

Combination FILTER & LUBRICATOR (Weight: 1.7 kg)

G 3/4	C5F11K5202	C5F11K5402	180	269	57
G 1	C5F11K6202	C5F11K6402	180	269	57

Gauge included.

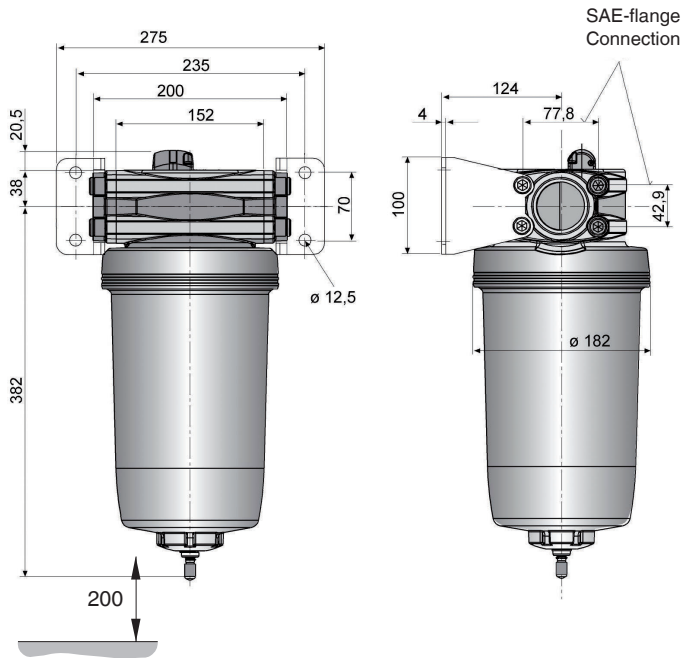
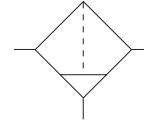
Combination FILTER, REGULATOR & LUBRICATOR (Weight: 3.3 kg)

G 3/4	C5F11K5222	C5F11K5422	270	345	133
G 1	C5F11K6222	C5F11K6422	270	345	133

Gauge included.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1-1/2 to G 2
Flow > 40000 l/min



Standard Filters have a 5-micron-rated filter element for particulate and liquid removal.

Type:

- Filter-Water-Separator with cyclone system and filter element.

REPLACEMENT FILTER ELEMENT	
Element Rating	Part Number
5 µm	18643-5R

Standard FILTERS

Port Size	Flow* (l/min)	Automatic Drain Metal Bowl
G 1-1/2	> 40000	C5022H8018
G 2	> 40000	C5022H9018

*Max. value at $p_1 = 6$ bar and $\Delta p = 1$ bar

SPECIFICATIONS

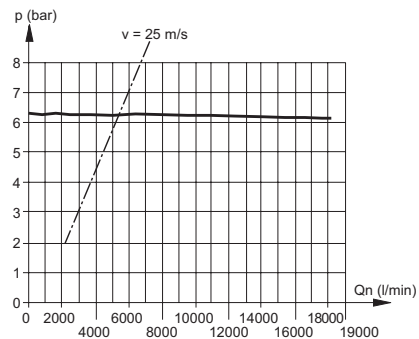
Ambient/Media Temperature: -10° to +60°C (-40° on request).

Maximum Inlet Pressure: 0 to 17.5 bar.

With automatic drain, inlet pressure must be at least 1 bar.

Weight: 6.3 kg.

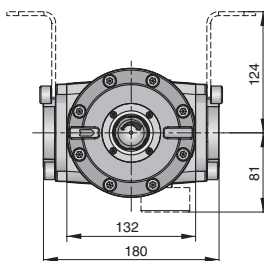
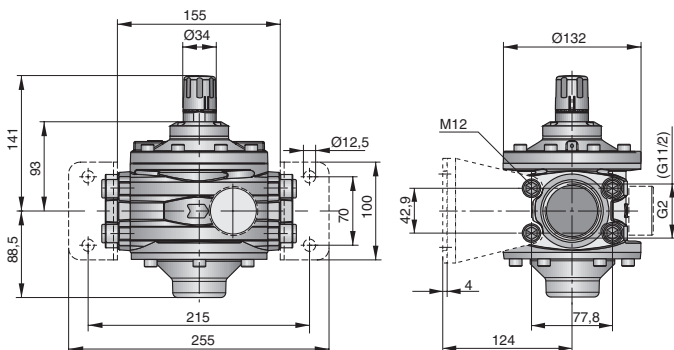
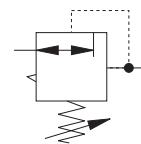
Standard Filter



(Inlet Pressure: 7 bar)

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1-1/2 to G 2
Flow > 40000 l/min



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

Pressure Regulator: Pilot operated diaphragm-type pressure regulator with secondary pressure relief and flow compensation.

Type:

- manual control
- remote control with external pilot pressure regulator
- precise regulation

Standard REGULATORS

Port Size	Flow* (l/min)	Regulated Pressure	
		0.5 – 8 bar	0.5 – 16 bar
G 1-1/2	> 40000	C5211H8017	C5214H8017
G 2	> 40000	C5211H9017	C5214H9017

Remote Pilot REGULATORS

G 1-1/2	> 40000	–	C5214H8007
G 2	> 40000	–	C5214H9007

*Max. value at $p_1 = 10$ bar at $p_2 = 6.3$ bar and $\Delta p = 1$ bar

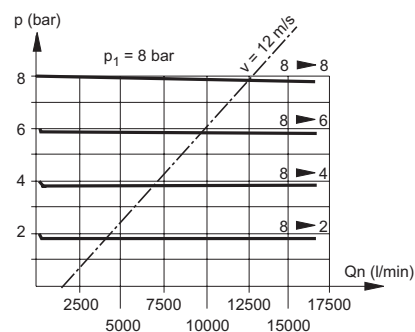
STANDARD SPECIFICATIONS

Ambient/Media Temperature: -10° to +60°C
 (-40° on request).

Gauge Ports: Front & back; G 1/4.
 Please refer to Page 30.

Maximum Inlet Pressure: 0 to 17.5 bar.

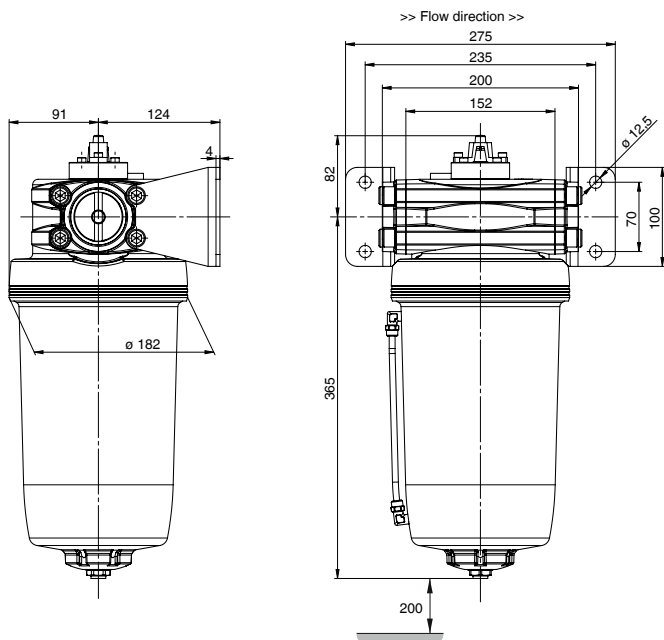
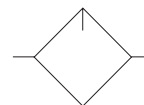
Weight: ca. 3.5 kg.



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

G 1-1/2 to G 2

Flow > 40000 l/min



Type:

- Flanged models, G 1-1/2 or G 2 (BSPP & NPT)
- Robust aluminum die cast design
- Proportional oil delivery
- Large oil reservoir

Lubricator

Port Size	Flow* (l/min)	Model Number	Reservoir cm ³
G 1-1/2	> 40000	C5112H8009	max. 4250
G 2	> 40000	C5112H9009	max. 4250

*Flow rate at 6.3 bar inlet pressure and 0.5 bar pressure drop.

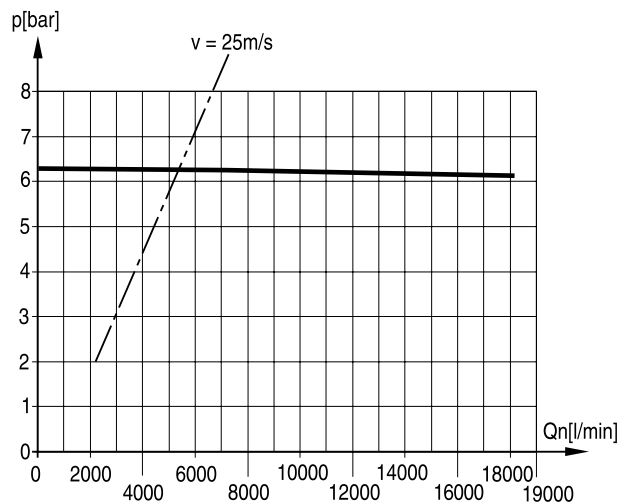
SPECIFICATIONS

Ambient / Media Temperature: -10° to +60°C (-40° on request).

For temperatures below 2°C absolutely dry air must be used to prevent formation of ice.

Pressure Range: 0 to 17.5 bar.

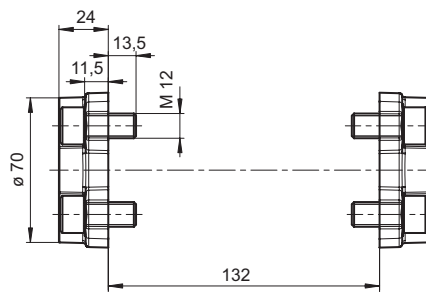
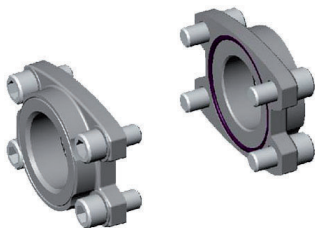
Weight: appr. 6.5 kg.



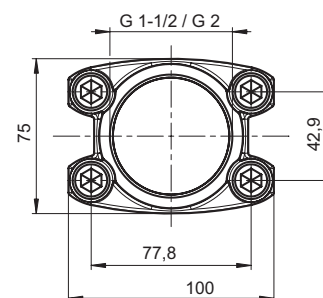
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

Flange Kit

Model Number: 18660R - G 1-1/2
18662R - G 2

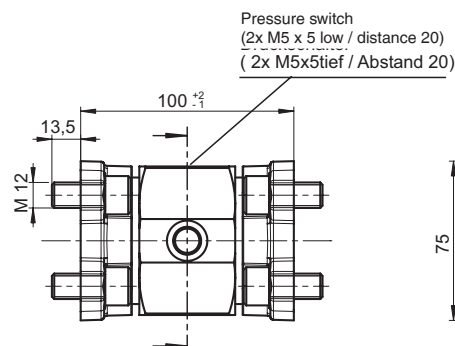
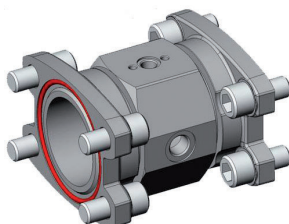


Dimensions - mm

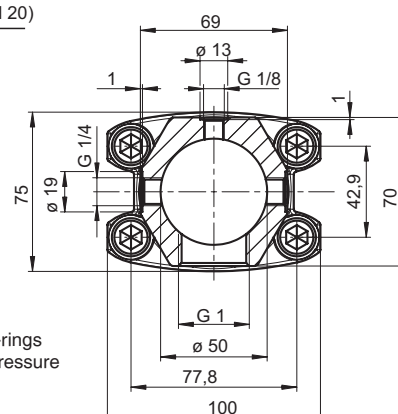


Extra Port Kit

Model Number: 18779R



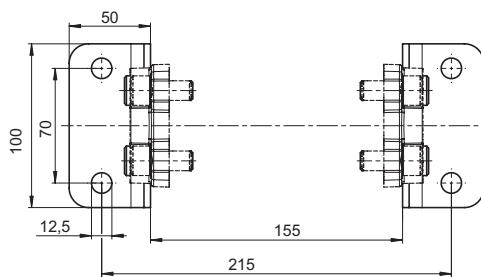
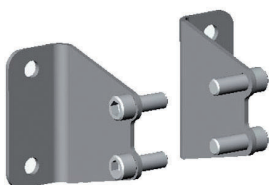
Dimensions - mm



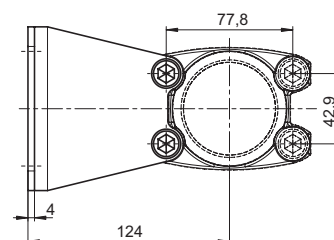
G 1/8, G 1/4 and G 1 locking screws as well as o-rings 65 x 2.5 (2x) and o-ring 10 x 1.5 (for flangeable pressure switch) are included.

Mounting Bracket

Model Number: 18672R

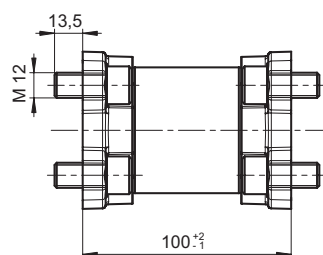
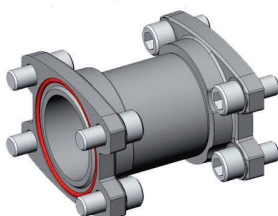


Dimensions - mm

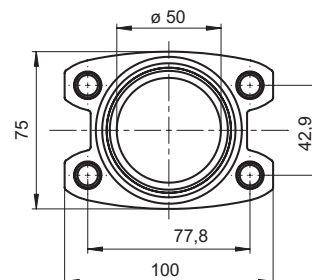


Connector Kit

Model Number: 18735R



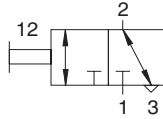
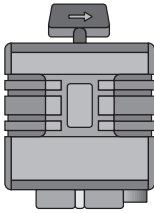
Dimensions - mm



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

3/2-Way Shutoff Valves, Manually operated

S-, M-, K and P-Series
G 1/4 to G 1



S-, M and P-Series

- Spool-type valve / no overlap
- Lockable (3- or 4 fold, respectively)
- Color-coded optical position indicator
- Mounting orientation: any position

K-Series

- Ball-type valve
- Position indicator
- Mounting orientation: any position

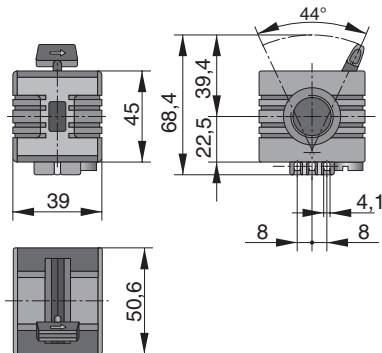
Series	Port Size	Press. Range	Temperature Range	Flow* (l/min)	Model Number	Weight (kg)
S	G 1/4	0 to 16 bar	0° to +60°C	550	46749-101R	0,25
	G 3/8			850	46849-101R	
M	G 3/8	0 to 16 bar	0° to +60°C	850	56849-000R	0,40
	G1/2			1900	56949-000R	
K	G 3/4	0 to 17,5 bar	-40° to +60°C	>20000**	6320G-000R	1,20
	G 1			>20000**	6330G-000R	
P	G 1/2	0 to 16 bar	-10° to +60°C	full flow	P3XVA14LSN	0,3

*Recommended flow at p = 6.3 bar and 25 m/s.

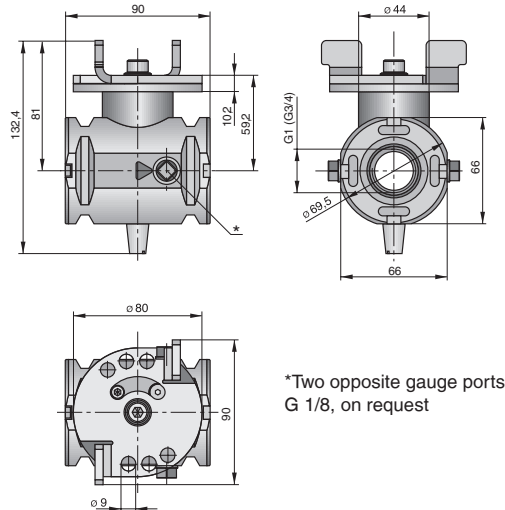
**Max. value at p₁ = 10 bar and Δp = 1 bar

Dimensions - mm

S-Series

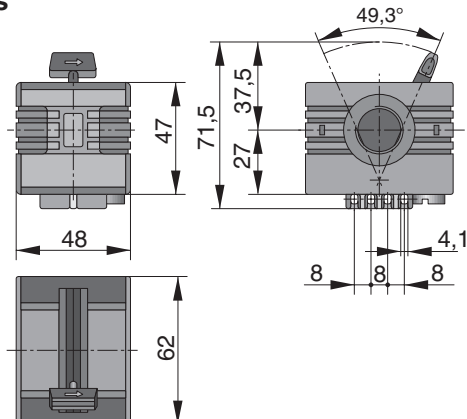


K-Series

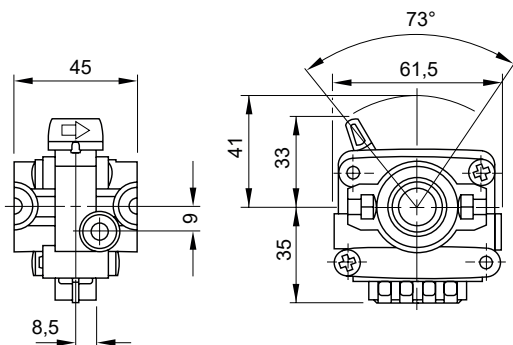


*Two opposite gauge ports G 1/8, on request

M-Series

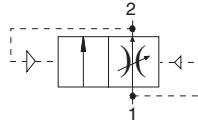
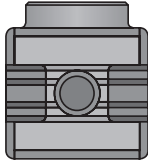


P-Series



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

2/2-Way-Pressure Buildup Valves



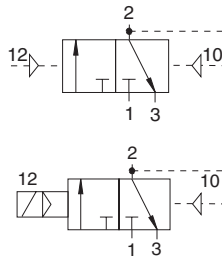
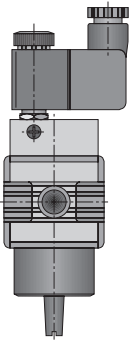
STANDARD SPECIFICATIONS

- Poppet valve, automatic
- At 0.5 x operating pressure the valve switches to full flow
- Mounting orientation: any position
- Pressure buildup time adjustable
- Weight: 0.35 kg

Port Size	Pressure Range (bar)	Temperature Range	Flow* (l/min)	Model Numbers
G 1/4	2 to 16	0° to +60° C	550	47149-100R
G 3/8			850	47249-100R

*Recommended flow at p = 6.3 bar and 25 m/s.

3/2-Way-Shutoff- and Exhaust Valves



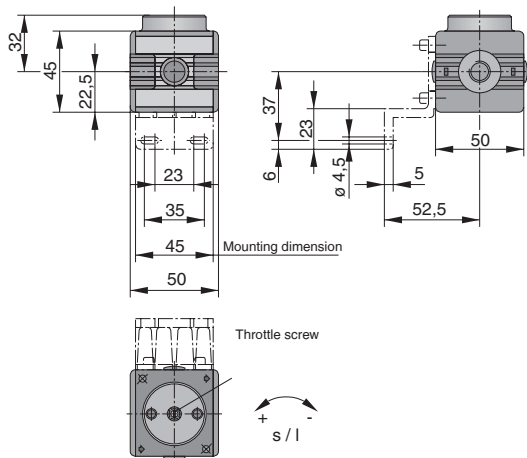
STANDARD SPECIFICATIONS

- Poppet valve
- Mounting orientation: any position
- Silencer integrated
- Weight: 0.5 kg (pneum.)
0.8 kg (electr.)

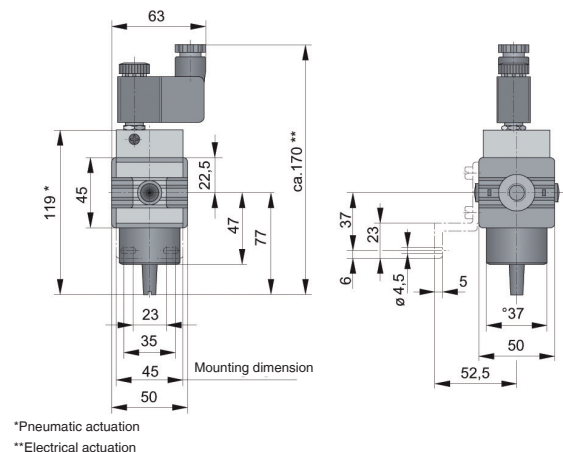
Port Size	Pressure Range (bar)	Temperature Range	Flow* (l/min)	Model Numbers		Voltage
				Pneumatic	Electric	
G 1/4	2 to 16 (pneumatic)	0° to 60° C	550	47149-200R	47149-201R	24=
					47149-204R	220V/50Hz
G 3/8	2 to 10 (electric)		850	47249-200R	47249-201R	24=
					47249-204-R	220V/50Hz

*Recommended flow at p = 6.3 bar and 25 m/s.

2/2-Way-Pressure Buildup Valve Dimensions - mm

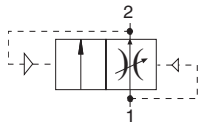
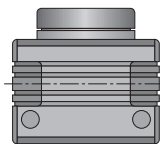


3/2-Way-Shutoff- and Exhaust Valve Dimensions - mm



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

2/2-Way-Pressure Buildup Valves



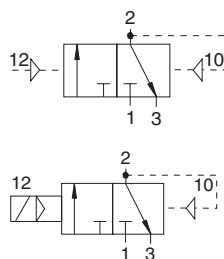
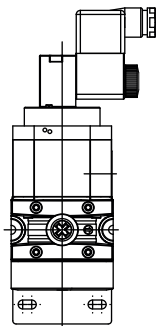
STANDARD SPECIFICATIONS

- Poppet valve, automatic
- At 0.5 x operating pressure the valve switches to full flow
- Mounting orientation: any position
- Pressure buildup time adjustable
- Weight: 0.6 kg

Port Size	Pressure Range (bar)	Temperature Range	Flow* (l/min)	Model Numbers
G 3/8	2 to 16	0° to +60° C	850	57249-100R
G 1/2			1900	57349-100R

*Recommended flow at p = 6.3 bar and 25 m/s.

3/2-Way-Shutoff- and Exhaust Valves



STANDARD SPECIFICATIONS

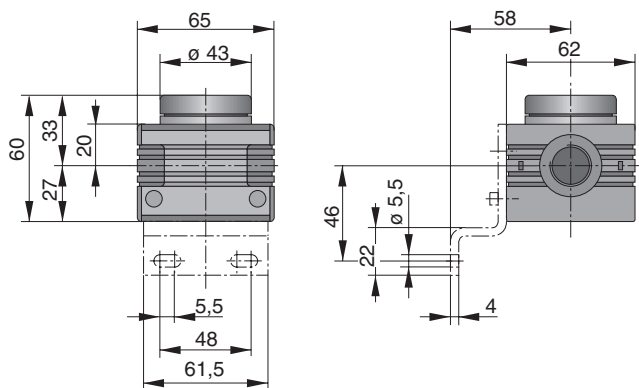
- Poppet valve
- Mounting orientation: any position
- Silencer: please order separately
- Weight: 0.7 kg (pneum.)
0.8 kg (electr.)

Coupling Kit for FRL M-Series: **P3XKA00CB**

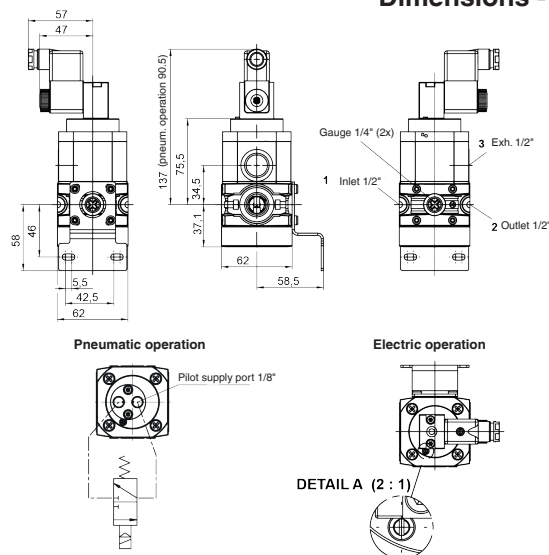
Port Size	Pressure Range (bar)	Temperature Range	Flow* (l/min)	Model Number		Voltage
				Pneumatic	Electric	
Series M 1/2"	2 to 16	-10° to +60°C	4800	0G3XDA14PPN	0G3XDA14SCNA2SN 0G3XDA14SCNA4JN	24V/DC 230V/AC

*Typical flow at p = 6.3 bar and $\Delta p = 1$ bar.

2/2-Way-Pressure Buildup Valve Dimensions - mm



3/2-Way-Shutoff- and Exhaust Valve Dimensions - mm



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

3/2-Way-Pressure Buildup, Pneumatic or Electrical Operation



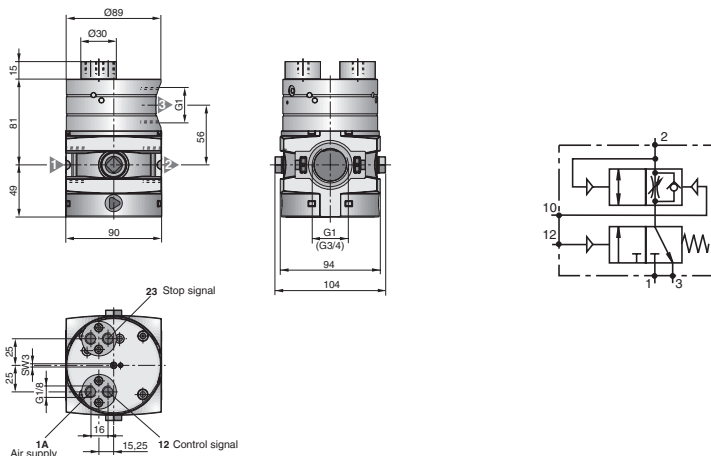
STANDARD SPECIFICATIONS

- Poppet valve
- At 0.5 x operating pressure the valve switches to full flow
- Mounting orientation: any position
- Pressure buildup time adjustable
- Weight: 1.4 kg
- Electrical voltage: 24 volt

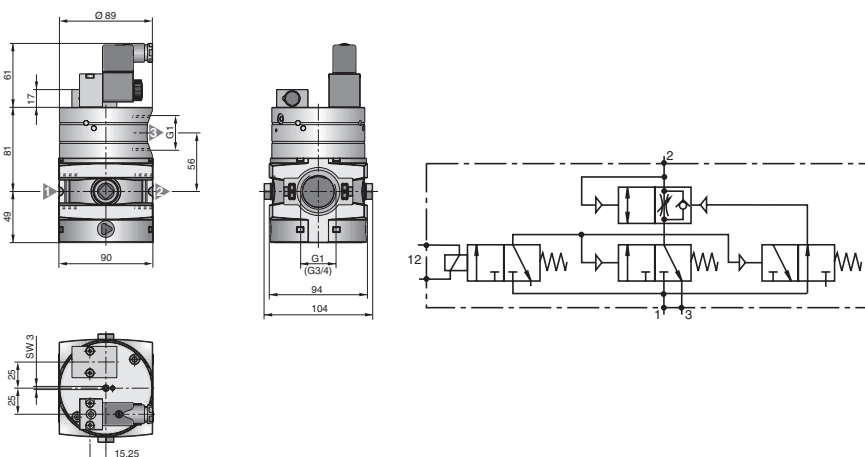
Port Size	Press. Range (bar)		Temperature Range	Flow* (l/min)	Model Number	
	Pneum.	Electr.			Pneumatic	Electric
G 3/4	2 - 17.5	2 - 10	-10° to +60° C	10500	63049-000R	63049-001R
G 1				12000	63149-000R	63149-001R

*Max. value at $p_1 = 10$ bar at $p_2 = 6.3$ bar and $\Delta p = 1$ bar

Pneumatic Operation Dimensions - mm



Electrical Operation Dimensions - mm



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32


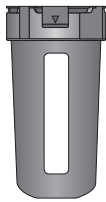
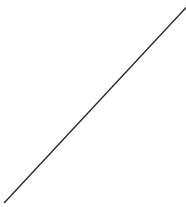
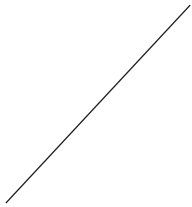
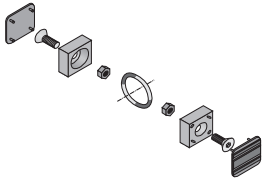
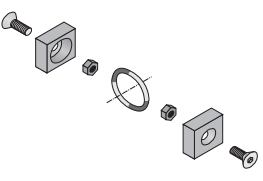
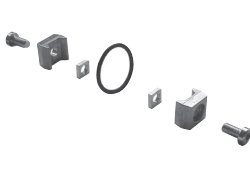

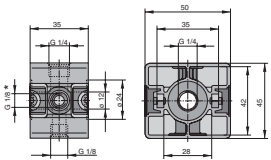
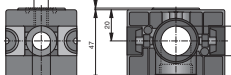
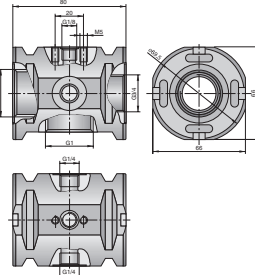
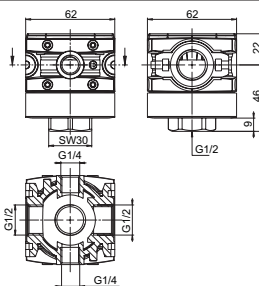
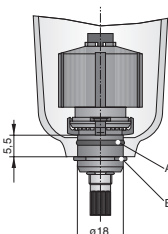

Accessories

S-, M-, K- and P-Series

G 1/8 to G 1

	Model Numbers			
	S G 1/8 - G 3/8	M G 3/8 - G 1/2	K G 3/4 - G 1	P G 1/2
Bowl Guard Kit	16970R	17680R	—	—
Coupling Kit	16959R	17608R	18987-0GR	P3XKA00CB
Mounting Bracket (for dimensions please refer to product drawings)	16965R	17518R	18988-0GR	P3XKA00MW-R
Porting Block Kit (Coupling Kit included)	16969R	17609R	18986R	P3XMA1V0N-R
Drain valve (fully automatic)	19640R	19560R		19430-R
Locking Device (Key included)	17127R*			

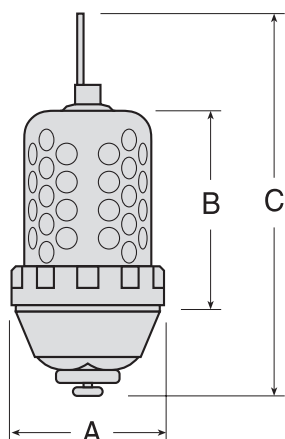
* Only to be used for specifically configured regulator type. Consult ROSS.

Metal Bowl Guard				
Coupling Kit				
Porting Block Kit (Dimensions - mm)				
Drain Valve (fully automatic)		<p>Installation procedure:</p> <ol style="list-style-type: none"> 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. 		
Locking Device (Key included)	 <p>This locking device provides a convenient means of protecting lockable regulator and filter-regulator units from tampering.</p>			

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

External Drains, Silencer/Reclassifiers

Automatic External Drains



For use where severe condensate problems exist. These external drains are available for H-Series filters, but they can also be used to drain water separators, drain legs, or compressor receiver tanks.

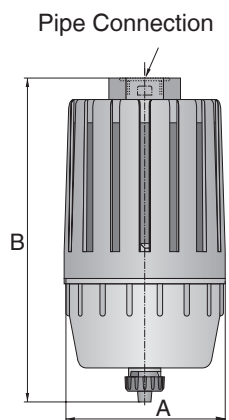
When liquid is present, it is drained regardless of air flow, and there is no loss of air. Discharge rate is approximately 20 litres per minute (at 7 bar).

Port Size	Model Numbers		Dimensions (mm)			Weight (kg)
	Plastic Bowl**	Metal Bowl	A	B	C	
1/4" *	5057B2001	5058B2001	89	106	211	1.2

*Use H-Series Filters.

**Metal guard available.

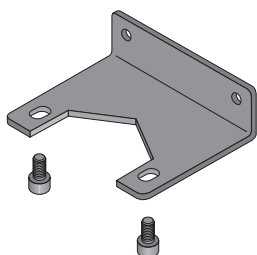
Silencer/Reclassifiers



These are integral silencer and oil-separation devices. When installed at the exhaust ports of pneumatic valves, they capture over 90 per cent of the exhausted lubricants. They also reduce exhaust noise substantially. These units help to meet requirements for noise and oil mist control and have been approved globally by a number of reputed manufacturers. ROSS silencer/reclassifiers are used on valve-cylinder applications and on air tools with piped exhausts.

Port Size	Model Numbers	Dim.(mm)		Weight (kg)
		A	B	
G 1/4	C5055H2009	ø 77	130	0.3
G 3/8	C5055H3009	ø 77	130	0.3
G 1/2	C5055H4009	ø 90	180	0.6
G 3/4	C5055H5009	ø 90	180	0.6
G 1	C5055H6009	ø 110	254	1.1
G 1-1/4	C5055H7009	ø 110	270	1.1
G 2	C5055H9009	ø 110	311	1.2

MOUNTING KIT (Bracket and Screws)



Port Size	Model Number
G 1/2 / G 3/4	9132R
G 1 / G 2	9133R



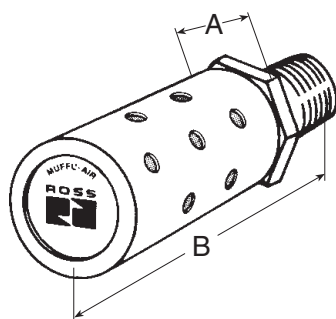
Port Size	Model Number
G 3/4 / G 1	18990R

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

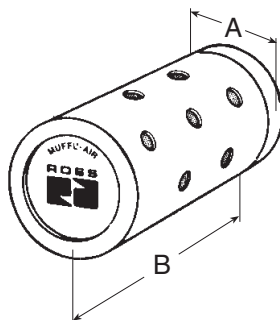
MUFFL-AIR®-Silencers & Pressure Gauges

R 1/8 to R 2-1/2

k_v : 1.7 to 57



Male Threads



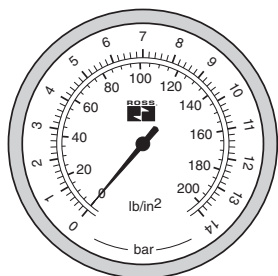
Female Threads

ROSS MUFFL-AIR® silencers substantially reduce exhaust noise levels at the workplace, yet produce little back pressure. Non-clogging design.

Pressure Range: up to 20 bar.

Port Size	Average k_v -value	Model Numbers	Threads	Dimensions (mm)		Weight (kg)
				A	B	
R 1/8	1.7	D5500A1003	male	21	56	0.1
R 1/4	1.7	D5500A2003	male	21	56	0.1
R 3/8	1.7	D5500A3013	male	21	56	0.1
	5.0	D5500A3003	male	32	96	0.2
R 1/2	6.1	D5500A4003	male	32	96	0.2
R 3/4	6.1	D5500A5013	male	32	96	0.2
	13	D5500A5003	male	51	145	0.7
R 1	16	D5500A6003	male	51	142	0.7
R 1-1/4	16	D5500A7013	male	51	142	0.7
	32	D5500A7001	female	64	149	1.0
R 1-1/2	33	D5500A8001	female	64	149	1.0
R 2	44	D5500B9001	female	77	185	1.6
R 2-1/2	57	D5500A9002	female	102	173	1.6

Pressure Gauges: Centre back mounting.
Male pipe threads.



Port Size*	Model Numbers**	Pressure Range (bar)	Case Diam. (mm)	Weight (kg)
G 1/8	W5400A1002	0 - 11	42	0.09
G 1/4	W5400A2010	0 - 4	55	0.15
	W5400A2011	0 - 14	55	0.15
	W5400A2012	0 - 21	55	0.15

* Centre back mounting, male pipe threads.

** For NPT threads, delete Prefix "W" from Model Number. Example: 5400A2011.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on Pages 31 and 32

CAUTIONS, WARNINGS



Although air line lubrication is not required for most ROSS® valves, other mechanisms in the system may need such lubrication. When a lubricator is used it should be supplied only with oils which are compatible with the materials used in the valves for seals and poppets. Generally speaking, these are petroleum base oils with oxidation inhibitors, and an aniline point between 82°C and 104°C and viscosity VG 32 according to ISO 3448 (32 mm²/s at 40°C), or lighter. Oils with phosphate type

additives, such as zinc dithiophosphate, must be avoided because they can harm polyurethane valve components. **WARNING:** Hydraulic and synthetic oils may not be used for air line lubrication.

The best oils to use in pneumatic systems are those specifically compounded for air line lubricator service.

CAUTIONS on the Use of Polycarbonate Plastic Bowls

Use only with Compressed Air. Filters and lubricators with polycarbonate plastic bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. The use with or injection of certain hazardous fluids in the system (e.g. alcohol or liquified petroleum gas) could be harmful to the plastic bowl or result in a combustible condition or hazardous leakage. Before using with a fluid other than air, or for non-industrial applications, or for life support systems, consult ROSS.

Use Metal Bowl Guard When Supplied. A metal bowl guard is supplied with all but the smallest bowls, and must always be used to minimize danger from fragmentation in the event of failure of a plastic bowl.

Avoid Harmful Substance. Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack plastic bowls and can cause bowl failure. Do not use with or near these materials. When a bowl becomes dirty, replace the bowl or wipe it with a clean dry cloth. Immediately replace any plastic bowl which is crazed, cracked, or deteriorated.

Substances HARMFUL to Polycarbonate Plastic Bowls

Acetaldehyde	Carbon disulfide	Ethylene dichloride	Phosphorous trichloride
Acetic acid	Carbon tetrachloride	Ethylene glycol	Propionic acid
Acetone	Caustic potash solution	Formic acid	Pyridine
Acrylonitrile	Caustic soda solution	Freon (refrigerant & propellant)	Sodium hydroxide
Ammonia	Chlorobenzene	Gasoline (high aromatic)	Sodium sulfide
Ammonium fluoride	Chloroform	Hydrazine	Styrene
Ammonium hydroxide	Cresol	Hydrochloric acid	Sulfuric acid
Ammonium sulfide	Cyclohexanol	Lacquer thinner	Sulfural chloride
Anaerobic adhesives & sealants	Cyclohexanone	Methyl alcohol	Tetrachloräthan
Antifreeze	Cyclohexene	Methylene chloride	Tetrahydronaphtalene
Benzene	Dimethyl formamide	Methylone salicylate	Thiophene
Benzoic acid	Dioxane	Milk of lime (CaOH)	Toluene
Benzyl alcohol	Ethane tetrachloride	Nitric acid	Turpentine
Brake fluids	Ethyl acetate	Nitrobenzene	Xylene
Bromobenzene	Ethyl ether	Nitrocellulose lacquer	Perchlorethylene
Butyric acid	Ethylamine	Phenol	
Carbolic acid	Ethylene chlorohydrin	Phosphorous hydroxil chloride	

Trade Names of Substances HARMFUL to Polycarbonate Plastic Bowls

• Atlas Perma-Guard • Buna N • Cellulube #150 & #220 • Crylex #5 cement • Eastman 910 • Garlock 98403 (polyurethane)
• Haskel 568-023 • Hilgard's hil phene • Houghton & Co. oil 1120, 1130, 1055 • Houtosafe 1000 • Kano Kroil • Keystone penetrating oil #2 • Loctite 271, 290, 601 • Loctite Teflon sealant • Marvel Mystery Oil • Minn. Rubber 366Y • National Compound N11 Nylock VC-3 • Parco 1306 Neoprene • Permabond 910 • Petron PD287 • Prestone • Pydraul AC • Sears Regular Motor Oil • Sinclair oil "Lily White" • Stauffer Chemical FYRQUEL 150 • Stillman SR 269-75 (polyurethane) • Stillman SR 513-70 (neoprene) • Tannergas • Telar • Tenneco anderol 495 & 500 oils • Titon • Vibra-tite • Zerex

IMPORTANT NOTE: Because we cannot list all substances harmful to polycarbonate plastic, consult the petrochemical industry for further information.

CAUTIONS, WARNINGS



PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure that all sources of energy are turned off, the entire pneumatic system is shut off and exhausted, and all power sources are locked out (ref.: EN 1037).
2. All ROSS products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any installation can be tampered with or need servicing after installation, persons responsible for the safety of others or the care of equipment must check every installation on a regular basis and perform all necessary maintenance.
3. All applicable instructions should be read and complied with before using any fluid power system in order to prevent harm to persons or equipment. In addition, overhauled or serviced valves must be functionally tested prior to installation and use.
4. Each ROSS product should only be used within its specification limits. In addition, use only ROSS parts to repair ROSS products.

WARNING: Failure to follow these directions can adversely affect the performance of the product or result in the potential for human injury or damage to property.

FILTRATION and LUBRICATION

5. Dirt, scale, moisture, etc. are present in virtually every air system. Although some valves are more tolerant of these contaminants than others, best performance will be realized if a filter is installed to clean the air supply, thus preventing contaminants from interfering with the proper performance of the equipment. ROSS recommends a filter with a 5-micron rating for normal applications.
6. All standard ROSS filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Do not fail to use the metal bowl guard, where provided, to minimize danger from high pressure fragmentation in the event of bowl failure. Do not expose these products to certain fluids, such as alcohol or liquefied petroleum gas, as they can cause bowls to rupture, creating a combustible condition, hazardous leakage, and the potential for human injury or damage to property. Immediately replace a crazed, cracked, or deteriorated bowl. When bowl gets dirty, replace it or wipe it with a clean dry cloth.
7. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum based oils

with oxidation inhibitors, an aniline point between 82°C and 104°C, and an ISO 32, or lighter, viscosity. Avoid oils with phosphate type additives which can harm polyurethane components, potentially leading to valve failure which risks human injury, and/or damage to property.

We strongly recommend to use only oils in your pneumatic system which are specifically compounded for air line lubricator service.

AVOID INTAKE / EXHAUST RESTRICTION

8. Do not restrict the air flow in the supply line. To do so could reduce the pressure of the supply air below the minimum requirements for the valve and thereby cause erratic action.
9. Do not restrict a valve's exhaust port as this can adversely affect its operation. Exhaust silencers must be resistant to clogging and must have flow capacities at least as great as the exhaust capacities of the valves. Contamination of the silencer can result in reduced flow and increased back pressure.

WARNING: ROSS expressly disclaims all warranties and responsibility for any unsatisfactory performance or injuries caused by the use of the wrong type, wrong size, or an inadequately maintained silencer installed with a ROSS product.

POWER PRESSES

10. Mechanical power presses (ref.: EN 692) and other potentially hazardous machinery using a pneumatically controlled clutch and brake mechanism must use a press control double valve with a monitoring device. A double valve without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All double valve installations involving hazardous applications should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.

ENERGY ISOLATION / EMERGENCY STOP

11. Per specifications and regulations, ROSS L-O-X® valves and L-O-X® valves with EEZ-ON® operation products are defined as energy isolation devices (ref.: EN 1037), **NOT AS EMERGENCY STOP DEVICES.**



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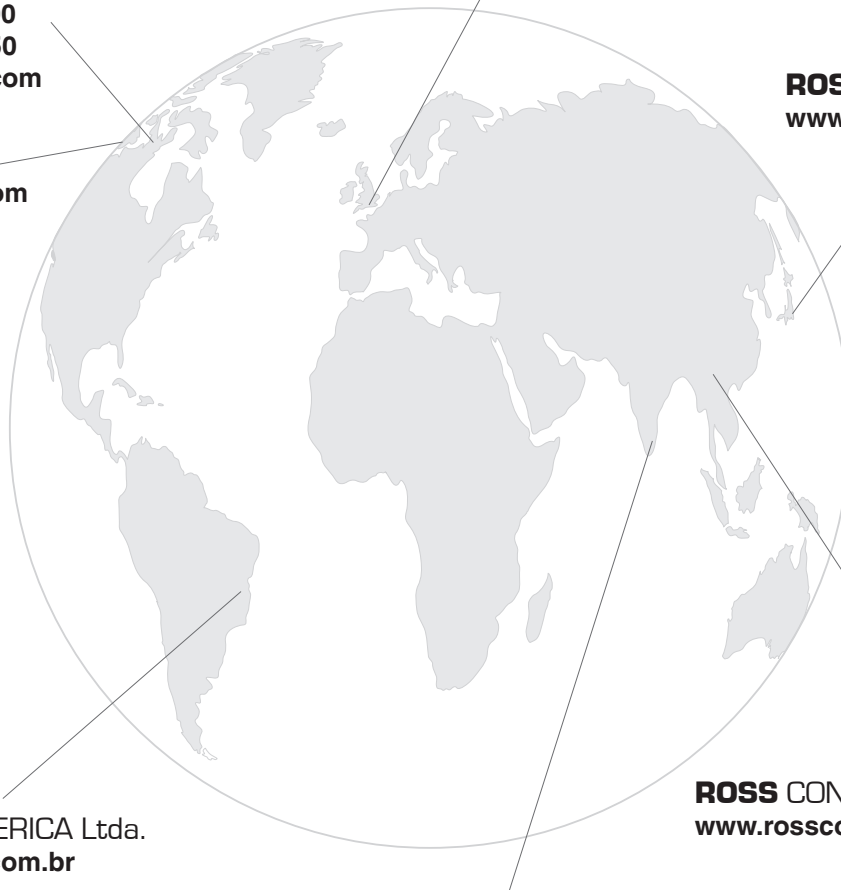
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WARRANTY

Products manufactured by ROSS are warranted to be free of defects in material and workmanship for a period of one year from the date of purchase. ROSS' obligation under this warranty is limited to repair or replacement of the product or refund of the purchase price paid solely at the discretion of ROSS and provided such product is returned to ROSS freight prepaid and upon examination by ROSS is found to be defective. This warranty shall be void in the event that product has been subject to misuse, misapplication, improper maintenance, modification or tampering. The warranty expressed above is in lieu of and exclusive of all other warranties and ROSS expressly disclaims all other warranties either expressed or implied with respect to merchantability or fitness for a particular purpose. ROSS makes no warranty with respect to its products meeting the provisions of any governmental occupational safety and/or health laws or regulations. In no event shall ROSS be liable to purchaser, user, their employees or others for incidental or consequential damages which may result from a breach of the warranty described above or the use or misuse of the products. No statement of any representative or employee of ROSS shall extend the liability of ROSS as set forth herein.