

SELF RELIEVING • NON RELIEVING

General Description

A 316 Stainless Steel combination unit for filtration and pressure regulation of compressed air for the offshore, food, pharmaceutical and allied industries.

- 316 Stainless Steel throughout.
- Large flow paths minimise pressure drop.
- Rolling diaphragm design.
- Precision adjustment.

Filter Unit

Large 40 micron standard element with manual or automatic drain for the removal of liquids and solids.

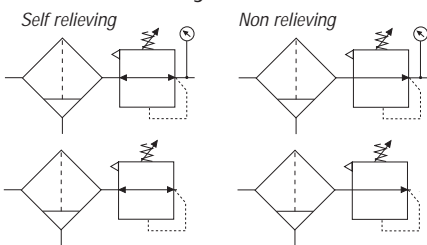
Operating Medium

Gases, air, inert gas, sweet (natural) and sour gases.

Ingress Protection

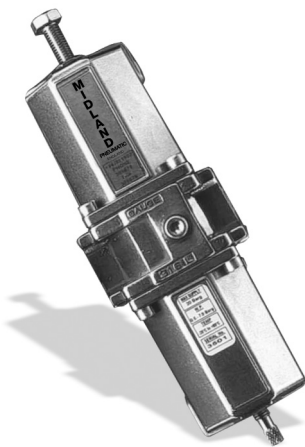
Heavy seas/on deck rating.

Functional Symbols



Technical Data

- Ports NPT (BSP option available)
 - 1/4", 1/2", 3/4"
- Gauge Ports (BSP option available)
 - 1/8" NPT
 - 1/4" NPT (option available)
- Relief/Vent Port
 - 1/8" NPT (Fitted with bug screen)
- Working Temperature
 - Ambient temperature
 - -20°C to +80°C (-4°F to +176°F)
 - Low temperature version
 - -50°C (-58°F) (optional)
- Maximum Inlet Pressure
 - Manual drain - 20 bar (290 psi)
 - Automatic drain - 17 bar (247 psi)
- Regulated Pressure
 - 0.50 to 2 bar (7.2 to 29 psi)
 - 0.50 to 4 bar (7.2 to 58 psi)
 - 0.50 to 8 bar (7.2 to 116 psi)
 - 0.50 to 12 bar (7.2 to 174 psi)
- Maximum Relief Flow at 2 bar (29psi) secondary pressure
 - 0.5cc/sec (0.03 cu in/sec)
- Bowl Retention Capacity
 - 21cc (1.28cu ins)
- Flow capacity
 - 10 bar (145 psi) inlet pressure, 6 bar (87 psi) secondary pressure with 1 bar (14.5 psi) pressure drop
 - 1/4" - 3720 L/min (130 SCFM)
 - 1/2" - 600 L/min (212 SCFM)
- Cv (Kv)
 - 1/4" - 2.4 (34.0)
 - 1/2" - 4.4 (63.0) 3/4" - 5.0 (71.0)



Construction Materials

- Body/Bonnet/Bowl and Internals Stainless Steel AISI 316 S11 to NACE MR-0175
- 40 Micron 316 Stainless Steel (5 & 25 Micron option) Element
- Fluoroelastomer and 316 Stainless Steel Diaphragm and Valve Assembly
- Inconel X750 Valve Spring
- 316 Stainless Steel Adjustment Spring
- Fluoroelastomer Seals
- Acetal resin, stainless steel and Buna N Auto drain

Preferred Models

Model Number	Description	Weight kg (lbs)
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Self Relieving

2FRMSV**2A+	1/4" NPT Filter regulator, manual drain	1.75 (3.86)
2FRASV**2A+	1/4" NPT Filter regulator, automatic drain	2.05 (4.52)
4FRMSV**2A+	1/2" NPT Filter regulator, manual drain	1.75 (3.86)
4FRASV**2A+	1/2" NPT Filter regulator, automatic drain	2.05 (4.52)
6FRMSV**2A+	3/4" NPT Filter regulator, manual drain	1.95 (4.30)
6FRASV**2A+	3/4" NPT Filter regulator, automatic drain	2.25 (4.96)

Non Relieving

Specify model code 'FRN' in place of 'FRM' for manual drain versions.

Specify model code 'FRB' in place of 'FRA' for manual drain versions.

** For regulated pressure add code:

- 0.50 to 2 bar (7.2 to 29 psi) -code 02
- 0.50 to 4 bar (7.2 to 58 psi) -code 04
- 0.50 to 8 bar (7.2 to 116 psi) -code 08
- 0.50 to 12 bar (7.2 to 174 psi) -code 12

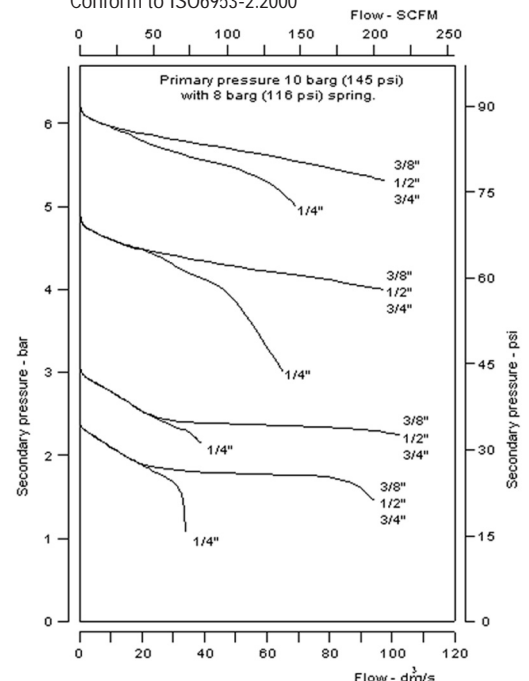
+ For 5 micron element add 05 to model number

For BSP replace '2' in position 9 with '1'

For 1/4" gauge port add 'X' to end of model number

Flow Characteristics

Conform to ISO6953-2:2000



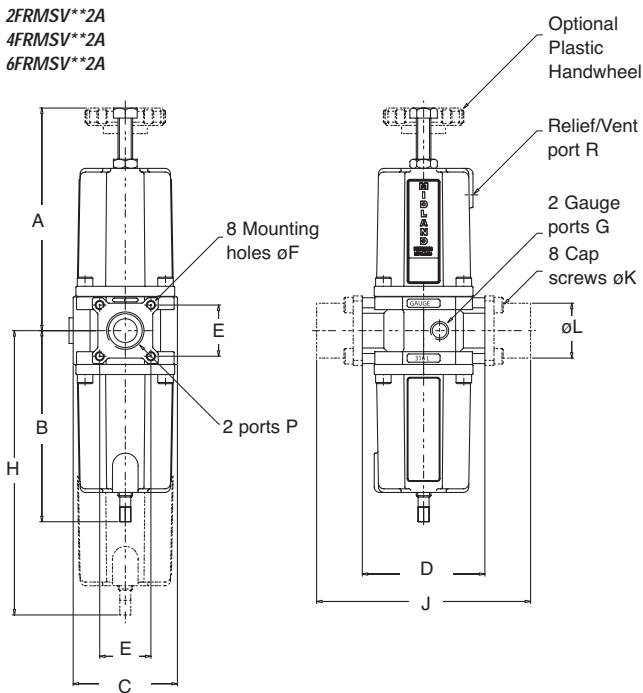
SELF RELIEVING • NON RELIEVING

INSTALLATION DIMENSIONS mm (inches)

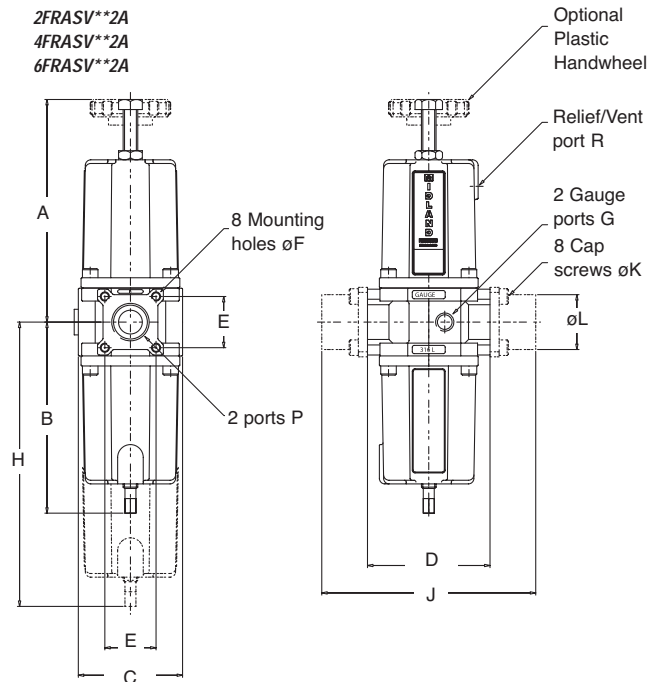
Filter Regulators - Self Relieving and Non Relieving with Manual Drain

Filter Regulators - Self Relieving and Non Relieving with Auto Drain

2FRMSV**2A
4FRMSV**2A
6FRMSV**2A



2FRASV**2A
4FRASV**2A
6FRASV**2A



Model Number	Ports P	Ports G	Port R	A	B	C	D	E	F	H	J	K	L
With manual drain													
2FRMSV**2A	1/4" NPT	1/8" NPT	1/8" NPT	123.5	104	55	67	24	M4	155	-	-	-
	1/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	(2.64)	(0.94)	M4	(6.10)	-	-	-
4FRMSV**2A	1/2" NPT	1/8" NPT	1/8" NPT	123.5	104	55	67	28	M5	155	-	-	-
	1/2" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	(2.64)	(1.10)	M5	(6.10)	-	-	-
6FRMSV**2A	3/4" NPT	1/8" NPT	1/8" NPT	123.5	104	55	-	28	-	155	117	M5	30
	3/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	-	(1.10)	-	(6.10)	(4.61)	M5	(1.18)
With automatic drain													
2FRASV**2A	1/4" NPT	1/8" NPT	1/8" NPT	123.5	141.50	55	67	24	M4	192.50	-	-	-
	1/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	(2.64)	(0.94)	M4	(6.10)	-	-	-
4FRASV**2A	1/2" NPT	1/8" NPT	1/8" NPT	123.5	141.50	55	67	28	M5	192.50	-	-	-
	1/2" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	(2.64)	(1.10)	M5	(6.10)	-	-	-
6FRASV**2A	3/4" NPT	1/8" NPT	1/8" NPT	123.5	141.50	55	-	28	-	192.50	117	M5	30
	3/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(4.09)	(2.17)	-	(1.10)	-	(6.10)	(4.61)	M5	(1.18)

Dimensions for non relieving models are same as self relieving models above.

Dimension H = clearance required below pipe centerline to enable bowl removal.

For optional handwheel, tamper proof cap, gauges and mounting accessories see details on page 3550.6

General Description

A 316 Stainless Steel filter for filtration of compressed air in the offshore, food, pharmaceutical and allied industries.

Large 40 micron standard element with manual or automatic drain for the removal of liquids and solids

- 316 Stainless Steel throughout.
- Large flow paths minimise pressure drop.
- Large stainless steel element.

Operating Medium

Gases, air, inert gas, sweet (natural) and sour gases.

Ingress Protection

Heavy seas/on deck rating

Functional Symbols

Filter with manual drain



Filter with automatic drain



Technical Data

Ports NPT (BSP option available)

- 1/4", 1/2", 3/4"

Gauge Ports (BSP option available)

- 1/8" NPT
- 1/4" NPT (option available)

Automatic Drain Port

- 1/8" NPT

Working Pressure

- Manual drain 20 bar (290 psi)
- Automatic drain 17 bar (247 psi)

Working Temperature

Ambient temperature

- -20°C to +80°C (-4°F to +176°F)

Low temperature version

- -50°C (-58°F) (optional)

Bowl retention capacity

- 21cc (1.28 cu ins)

Flow Capacity

At 7 bar (102 psi) supply pressure,

0.35 bar (5 psi) pressure drop

- 1/4" - 1380 L/min (49 SCFM)
- 1/2" - 2940 L/min (104 SCFM)

Cv (Kv)

- 1/4" - 2.4 (34.0)
- 1/2" - 4.4 (63.0) 3/4" - 5.0 (71.0)



Construction Materials

- Body/Bonnet/Bowl and Internals Stainless Steel AISI 316 S11 to NACE MR-0175
- 40 micron 316 Stainless steel (5 and 225 micron option) element
- Fluoroelastomer Seals

Preferred Models

Model Number	Description	Weight kg (lbs)
2FLMSV202A+	1/4" NPT Filter with manual drain	1.30 (2.86)
2FLASV172A+	1/4" NPT Filter with automatic drain	1.60 (3.53)
4FLMSV202A+	1/2" NPT Filter with manual drain	1.30 (2.86)
4FLASV172A+	1/2" NPT Filter with automatic drain	1.60 (3.53)
6FLMSV202A+	3/4" NPT Filter with manual drain	1.50 (3.31)
6FLASV172A+	3/4" NPT Filter with automatic drain	1.80 (3.97)

+ For 5 micron element add 05 to model number

+ For 25 micron element add 25 to model number

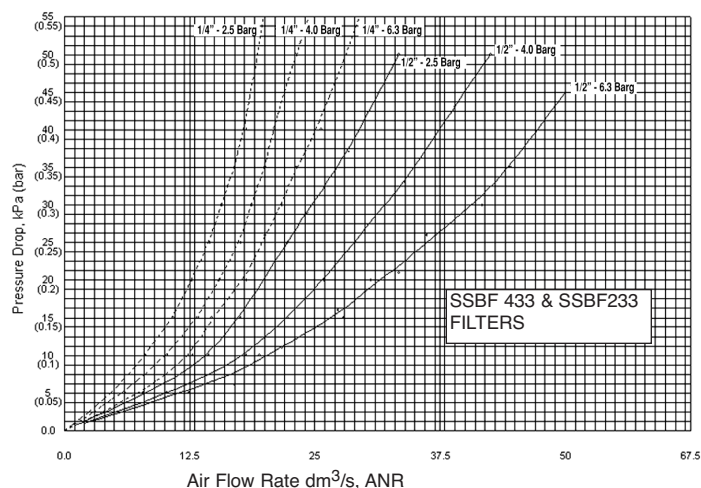
For BSP replace '2' in position 9 with '1'

For 1/4" gauge port add 'X' to end of model number

Flow Characteristics

Conform to ISO6953-2:2000

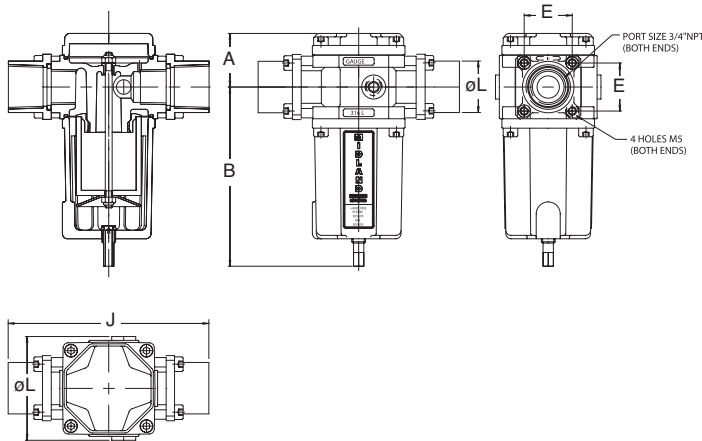
1/4" & 1/2" FILTER



INSTALLATION DIMENSIONS mm (inches)

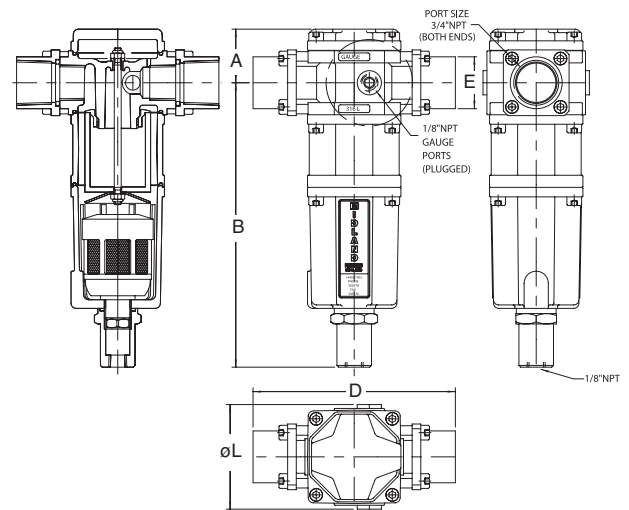
Filters with Manual Drain

2FLMSV202A
4FLMSV202A
6FLMSV202A



Filters with Automatic Drain

2FLASV172A
4FLASV172A
6FLASV172A



Model Number	Ports P	Ports G	A	B	C	D	E	F	H	J	K	L
With manual drain												
2FLMSV202A	1/4" NPT	1/8" NPT	31.2	104.5	55	67	24	M4	155	-	-	-
	1/4" NPT	1/8" NPT	(1.12)	(4.09)	(2.17)	(2.64)	(0.94)	M4	(6.10)	-	-	-
4FLMSV202A	1/2" NPT	1/8" NPT	31.2	104.5	55	67	28	M5	155	-	-	-
	1/2" NPT	1/8" NPT	(1.12)	(4.09)	(2.17)	(2.64)	(1.10)	M5	(6.10)	-	-	-
6FLMSV202A	3/4" NPT	1/8" NPT	31.2	104.5	55	-	28	-	155	117	M5	30
	3/4" NPT	1/8" NPT	(1.12)	(4.09)	(2.17)	-	(2.64)	-	(6.10)	(4.61)	M5	(1.18)
With automatic drain												
2FLASV172A	1/4" NPT	1/8" NPT	31.2	164.5	55	67	24	M4	215.5	-	-	-
	1/4" NPT	1/8" NPT	(1.12)	(6.47)	(2.17)	(2.64)	(0.94)	M4	(8.48)	-	-	-
4FLASV172A	1/2" NPT	1/8" NPT	31.2	164.5	55	67	28	M5	215.5	-	-	-
	1/2" NPT	1/8" NPT	(1.12)	(6.47)	(2.17)	(2.64)	(1.10)	M5	(8.48)	-	-	-
6FLASV172A	3/4" NPT	1/8" NPT	31.2	164.5	55	-	28	-	215.5	117	M5	30
	3/4" NPT	1/8" NPT	(1.12)	(6.47)	(2.17)	-	(1.10)	-	(8.48)	(4.61)	M5	(1.18)

Dimension H = clearance required below pipe centerline to enable bowl removal.
For mounting accessories see details on page 3500.6

SELF RELIEVING • NON RELIEVING

General Description

A 316 Stainless Steel pressure regulator for pressure regulation of compressed gases for the offshore, food, pharmaceutical and allied industries.

- 316 Stainless Steel throughout.
- Large flow characteristics.
- Rolling diaphragm design.
- High relief flow.
- Precision adjustment.
- Full range of accessories

Operating Medium

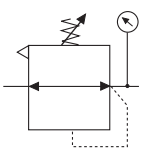
Gases, air, inert gas, sweet (natural) and sour gases.

Ingress Protection

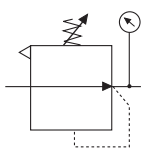
Heavy seas/on deck rating

Functional Symbols

Self relieving



Non relieving



Technical Data

Ports NPT (*BSP option available*)

- 1/4", 1/2", 3/4"

Gauge Ports (*BSP option available*)

- 1/8" NPT
- 1/4" NPT (*option available*)

Relief/Vent Port

- 1/8" NPT (Fitted with bug screen)

Maximum Inlet Pressure

- 20 bar (290 psi)

Regulated Pressure

- 0.50 to 2 bar (7.2 to 29 psi)
- 0.50 to 4 bar (7.2 to 58 psi)
- 0.50 to 8 bar (7.2 to 116 psi)
- 0.50 to 12 bar (7.2 to 174 psi)

Maximum Relief Flow

at 2 bar (29psi) secondary pressure

- 0.5cc/sec (0.03 cu in/sec)

Working Temperature

Ambient temperature

- -20°C to +80°C (-4°F to +176°F)

Low temperature version

- -50°C (-58°F) (optional)

contact customer services for details

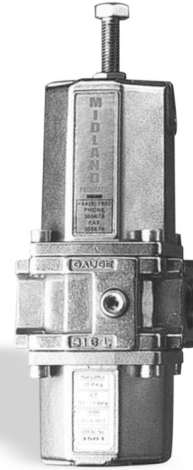
Flow Capacity

10 bar (145 psi) inlet pressure,
6 bar (87 psi) secondary pressure
with 1 bar (14.5 psi) pressure drop

- 1/4" - 3720 L/min (130 SCFM)
- 1/2" - 6000 L/min (212 SCFM)

Cv (Kv)

- 1/4" - 2.4 (34.0)
- 1/2" - 4.6 (65.5) 3/4" - 5.2 (74.0)



Construction Materials

- Body/Bonnet/Bowl and Internals
Stainless Steel AISI 316 S11
to NACE MR-01-75
- Fluoroelastomer and 316
Stainless Steel Diaphragm
and Valve Assembly
- Inconel X750 Valve spring
- Fluoroelastomer Seals
- 316 Stainless Steel
Adjustment Spring

Preferred Models Flow Characteristics

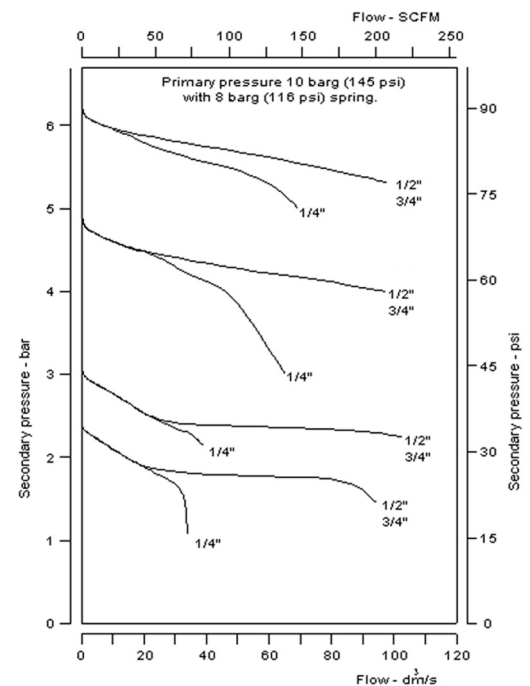
Model Number	Description	Weight kg (lbs)
Self Relieving		
2PRVSV**2A	1/4" NPT Pressure Regulator	1.60 (3.53)
4PRVSV**2A	1/2" NPT Pressure Regulator	1.60 (3.53)
6PRVSV**2A	3/4" NPT Pressure Regulator	1.80 (3.97)
Non Relieving		
2PRNSV**2	1/4" NPT Pressure Regulator	1.60 (3.53)
4PRNSV**2	1/2" NPT Pressure Regulator	1.60 (3.53)
6PRNSV**2A	3/4" NPT Pressure Regulator	1.80 (3.97)

** For regulated pressure add code:

- 0.50 to 2 bar (7.2 to 29 psi) -code 02
- 0.50 to 4 bar (7.2 to 58 psi) -code 04
- 0.50 to 8 bar (7.2 to 116 psi) -code 08
- 0.50 to 12 bar (7.2 to 116 psi) -code 12

- For BSP replace '2' in position 9 with '1'
For 1/4" gauge port add 'X' to end of model number

Conform to ISO6953-2:2000

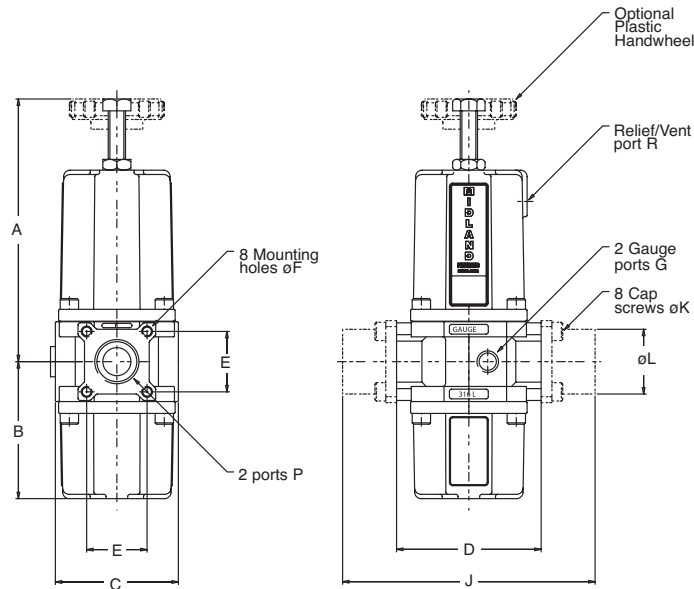


SELF RELIEVING • NON RELIEVING

INSTALLATION DIMENSIONS mm (inches)

Pressure Regulators - Self Relieving and Non Relieving

2PRVSV**2A 2PRNSV**2A
 4PRVSV**2A 4PRNSV**2A
 6PRVSV**2A 6PRNSV**2A



Model Number	Ports P	Ports G	Port R	A	B	C	D	E	F	J	K	L
2PRVSV**2A	1/4" NPT	1/8" NPT	1/8" NPT	123.5	64	55	67	24	M4	-	-	-
	1/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(2.52)	(2.17)	(2.64)	(0.94)	M4	-	-	-
4PRVSV**2A	1/2" NPT	1/8" NPT	1/8" NPT	123.5	64	55	67	28	M5	-	-	-
	1/2" NPT	1/8" NPT	1/8" NPT	(4.86)	(2.52)	(2.17)	(2.64)	(1.10)	M5	-	-	-
6PRVSV**2A	3/4" NPT	1/8" NPT	1/8" NPT	123.5	64	55	-	28	-	117	M5	30
	3/4" NPT	1/8" NPT	1/8" NPT	(4.86)	(2.52)	(2.17)	-	(1.10)	-	(4.61)	M5	(1.18)

Dimensions for non relieving models are same as self relieving models above.

ACCESSORIES

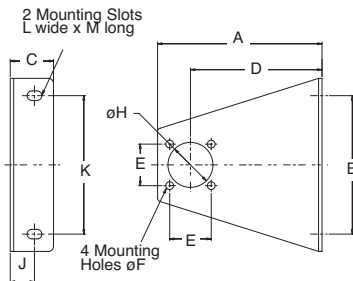
Mounting Bracket

Mounting bracket kit complete with fixing screws

SSF2110-7S (for 1/4" units-short)

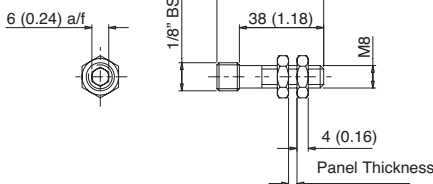
SSF2110-7 (for 1/4" units-long)

SSF4110-7 (for 1/2" and 3/4" units)



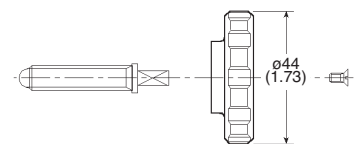
Stud Mounting Kit

Stud mounting kit SSBF238-21



Plastic Handwheel Kit

Plastic handwheel kit SSAF238-23



Model Number	A	B	C	D	E
SSF2110-7S	79(3.11)	100(3.94)	25(0.98)	60(2.36)	24(0.94)
SSF2110-7	95(3.74)	100(3.94)	25(0.98)	76(2.99)	24(0.94)
SSF4110-7	95(3.74)	100(3.94)	25(0.98)	76(2.99)	28(1.10)
J	K				
14(0.55)	80(3.15)				
14(0.55)	80(3.15)				
14(0.55)	80(3.15)				

Pressure Gauge

50mm pressure gauge - glycerine filled
 SSF153N/11GLY (0-11 bar)
 SSF153N/4GLY (0-4 bar)

SSF153N/2GLY (0-2 bar)
 SSF153N/16GLY (0-16 bar)

