



1267AFR Air Filter Regulator

General Instructions

The 1267 Air Filter Regulator is designed for air or gas service. Maximum allowable inlet pressure is 250 psi (17 bar). Operating temperatures are 0°F to 160°F (-18°C to 71°C). The 1267AFR has low capacity internal relief which provides very limited downstream overpressure protection.



The internal relief valve in the 1267AFR does not provide full overpressure protection and is designed for minor seat leakage only. To avoid exceeding outlet pressure limits in service, a pressure-relieving or pressure-limiting device should be provided. Leakage, equipment damage, or personal injury can result from over-pressuring the regulator.

Design and specifications are subject to change without notice.

For latest revision, go to
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NOTE: If you suspect that a product is defective, contact the factory or the SOR® Representative in your area for a return material authorization number (RMA). This product should only be installed by trained and competent personnel.



All SOR instructions, as well as applicable local, state, and federal codes and regulations should be adhered to when performing installation, operation, or maintenance of a regulator. Personal injury, equipment damage, or leakage can occur if the regulator is over-pressured or physically damaged. To avoid physical damage the regulator should be installed in a safe location. The regulator shouldn't be installed in systems that exceed the specified pressure limit of 250 psi (17 bar). If leakage develops, then maintenance is required. Failure to remove the regulator from service immediately may create a hazardous situation.

Installation

- 1 If continuous operation is required during inspection or maintenance, a bypass must be installed.
- 2 Inspect the regulator for any damage, foreign substances, or blockages.
- 3 Clean all pipelines to remove dirt and scale prior to installation.
- 4 Apply pipe compound to the male pipeline threads. Use caution to prevent the sealant from getting inside the regulator.
- 5 Install the regulator as close as possible to the instrument or tool it will be servicing and orient it such that the direction of gas flow is from the "IN" to the "OUT" connection as marked on the body.
- 6 For best drainage, position the drain valve until it is at the lowest point on the drip well housing. Positioning of the drain valve may be improved by rotating the drip well with respect to the body.
- 7 The exhaust port should be kept free and unplugged. Rotating the bonnet relative to the body may change the vent hole orientation. Exhaust may be remotely vented by installing tubing to the 1/4" NPT port ("E" Accessory – Tapped Exhaust).



The 1267AFR may vent some gas to the atmosphere. If integrated into a hazardous system, this vented gas could accumulate and if ignited it could cause personal injury, death, or equipment damage. For use in a hazardous system, the regulator must be vented to a remote and safe location. The vent line or stack opening must be protected from condensation or clogging.

Calibration

- 1 Before turning on air supply, loosen the adjusting screw by rotating it counter-clockwise. Do this until there is no compression in the control spring.
- 2 Apply air supply, and tighten adjusting screw by rotating it clockwise. Tightening the screw will increase the output pressure. Pressure should always be monitored during startup to ensure that the regulator isn't over-pressured.
- 3 Once desired pressure setting is reached, tighten the locknut to maintain the calibration and prevent accidental adjustment.

Maintenance



To avoid personal injury or equipment damage resulting from sudden release of pressure or ignition of accumulated gas, isolate the regulator from the system and bleed all of its internal pressure before attempting maintenance procedures.

TO DRAIN CONDENSATE

- 1 Slowly open the drain valve by turning clockwise.
- 2 Bleed all accumulated liquid and then close the drain valve.

TO CLEAN THE FILTER

- 1 Shut off the supply pressure and relieve all internal pressure from the regulator.
- 2 Drain condensate from the drip well per the above procedure.
- 3 Remove the 4 corner bolts from the bottom of the unit and remove the drip well housing.
- 4 Remove the filter-retaining screw.
- 5 Remove the filter retainer, the filter o-rings, and filter.
- 6 Clean the parts and reassemble in reverse order.

TO CLEAN THE PINTLE ASSEMBLY

- 1 Shut off the supply pressure and relieve all internal pressure from the regulator.
- 2 Drain condensate from the drip well per the above procedure.
- 3 Remove the 4 corner bolts from the bottom of the unit and remove the drip well housing.
- 4 Remove the filter-retaining screw.
- 5 Remove the pintle spring; the pintle and pintle spring will be accessible upon removal of the base.
- 6 Clean the parts as needed; apply a high quality lubricant to all cleaned o-rings.
- 7 Reassemble the parts in reverse order.

TO CLEAN THE DIAPHRAGM ASSEMBLY

- 1 Loosen the adjusting screw until the spring is no longer compressed.
- 2 Remove the 4 bonnet screws and separate the bonnet from the body of the regulator. Remove the spring and spring guide.
- 3 Remove the diaphragm assembly and clean as required.
- 4 Reassemble the parts in reverse order. After placing the diaphragm assembly on the body, push the assembly down to ensure the pintle is seated properly and strokes smoothly.

Specifications

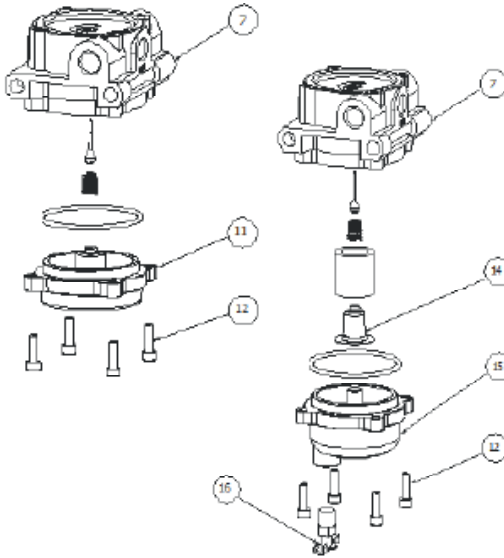
Port Size (Gauge Ports 1/4" NPT)	1/4" NPT	1/2" NPT (High flow capacity)
Cv Values	0.5 at 150 psig supply and 80 psig setpoint	2.5 at 150 psig supply and 80 psig setpoint
Effect of Supply Pressure Variation	Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change	Less than 0.5 psig (0.035 bar) for 25 psig (1.7 bar) change
Weight	1.2 lbs (0.54 kgs)	1.71 lbs (0.78 kgs)
Output Ranges	0-30 psig (0-2 bar), 0-60 psig (0-4 bar), 0-120 psig (0-8 bar)	
Maximum Supply Pressure	250 psig (17 bar)	
Mounting	Pipe, Bracket or Direct (through body mounting holes)	
Filter	40 micron ("F" Accessory – 5 micron)	
Exhaust Capacity	0.1 scfm (3 NI/min) with downstream pressure 5 psig (0.3 bar) above setpoint	
Sensitivity	1 in. wc	
Air Consumption	Less than 5 scfh (2.5 NI/min)	
Temperature Limits	0°F to 160°F (-18°C to 71°C)	
Operating Media	Air, Inert Gas, and Sweet Natural Gas	

Materials

Component	Standard Construction	NACE Construction ("NC" Accessory)
Body	Diecast Aluminum Alloy, Irridite and Baked Epoxy Finish	
Filter	Polyethylene	Phenolic Impregnated Cellulose
Diaphragm	Nitrile Elastomer and Nylon Fabric	Viton
Valve Seat	Nitrile Elastomer	Viton
Other Parts	Brass, Zinc, Plated Steel, and Acetal	316SS, Aluminum, and Heat Treated Plated Steel

Parts List

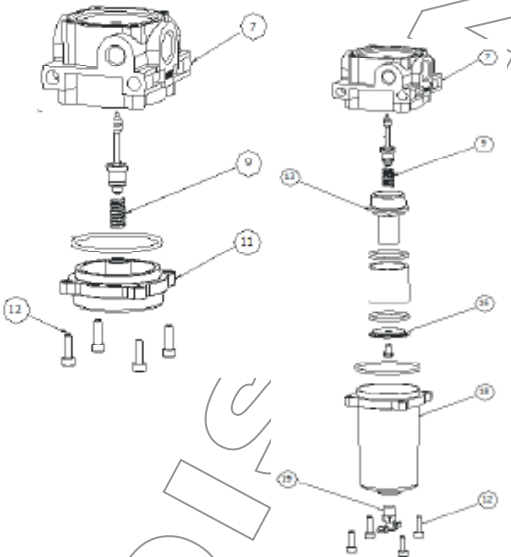
1267AFR-1 (1/4" NPT)



Parts List – 1267AFR-1 (1/4" NPT)

Item	Qty.	Description
7	1	Body
11	1	Base Assembly
12	4	10-24 Dripwell Screw
14	1	Filter Retainer
15	1	Dripwell
16	1	Drain Valve

1267AFR-2 (1/2" NPT)



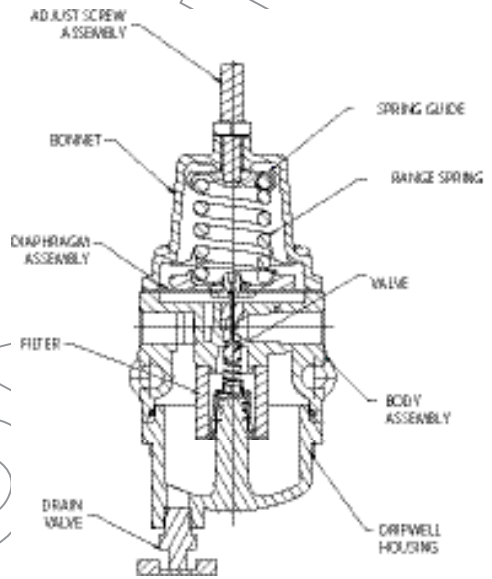
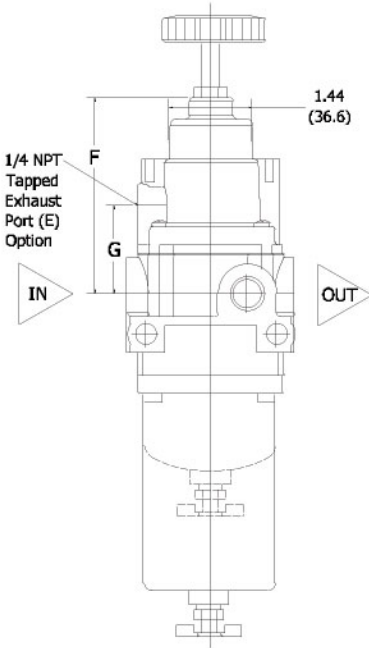
Parts List – 1267AFR-2 (1/2" NPT)

Item	Qty.	Description
7	1	Body
9	1	Valve Spring
11	1	Base Assembly
12	4	10-24 Dripwell Screw
13	1	Collar
16	1	Filter Retainer
17	1	Screw, Retainer
18	1	Dripwell
19	1	Drain Valve

Dimensions

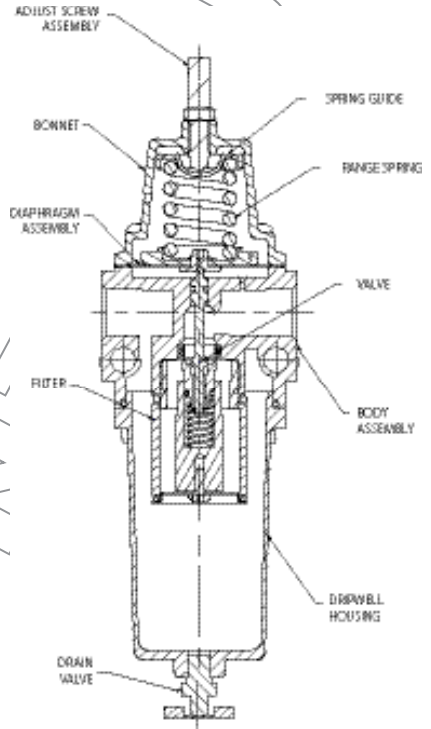
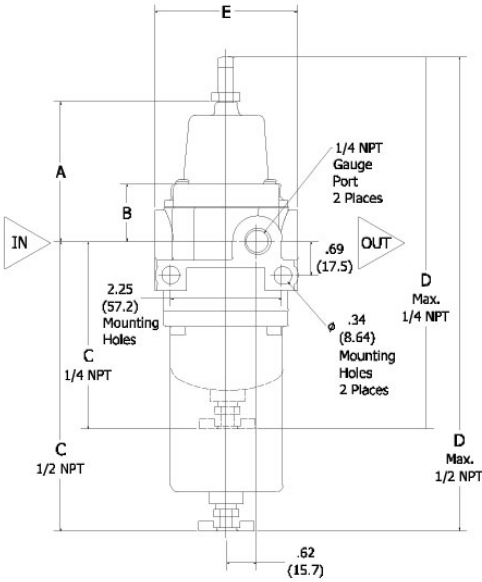
Dimensions shown are for reference only. Linear = in./mm

1267AFR-1 (1/4" NPT)



Port Size (NPT)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)
1/4"	2.66 (67.6)	1.0 (25.4)	3.42 (86.8)	7.15 (181.6)	2.25 (57.2)	3.19 (81.0)	1.22 (31.0)

1267AFR-2 (1/2" NPT)



Port Size (NPT)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)
1/2"	2.83 (71.9)	1.17 (29.7)	6.06 (153.7)	9.78 (248.4)	2.25 (57.2)	3.36 (85.3)	1.39 (35.3)

DISCONTINUED



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