

Model M11 Low Pressure Pneumatic Regulator

Features

- Sensitivity of 0.05" WC for Precision Control in low pressure applications
- Relief Valve provides high exhaust flows
- Optional Low Bleed seat minimizes air consumption.
- An Aspirator Tub compensates for downstream pressure drop under flow conditions



Model M11

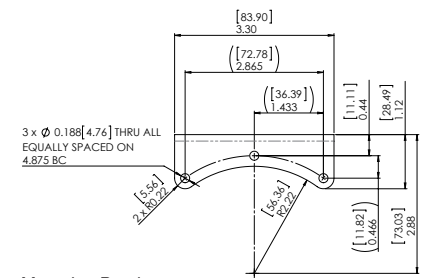
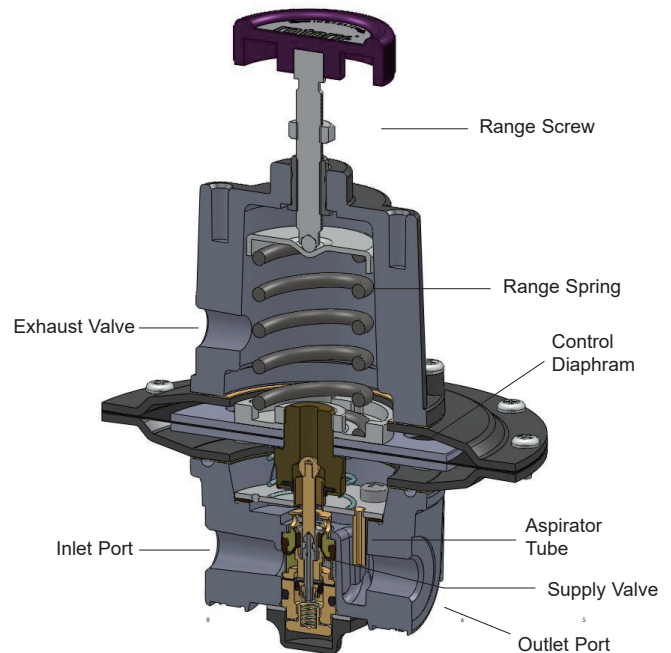
The Model 11 Pneumatic Precision Regulator is a regulator that precisely controls a set pressure.

Operating Principles

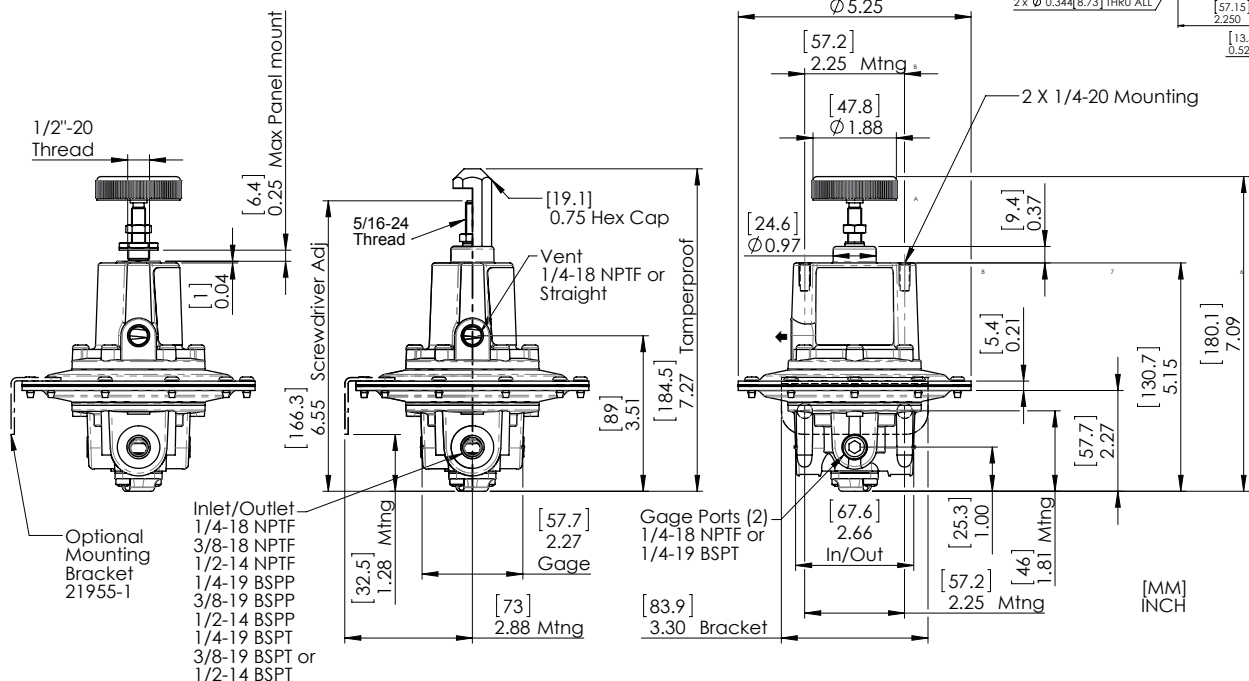
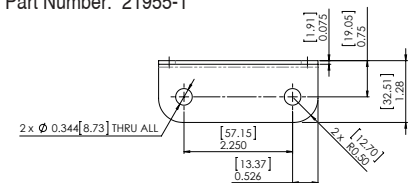
When you adjust the Range Screw to a specific setpoint, the Range Spring exerts a downward force against the top of the Control Diaphragm. This downward force opens the Supply Valve. Output pressure flows through the Outlet Port and the Aspirator Tube to the Control Chamber where it creates an upward force on the bottom of the Control Diaphragm.

When the setpoint is reached, the force of the Range Spring that acts on the top of the Control Diaphragm balances with the force of output pressure that acts on the bottom of the Control Diaphragm and closes the Supply Valve.

When the output pressure increases above the setpoint, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve, and output pressure exhausts through the Vent on the side of the unit until it reaches the setpoint.



Mounting Bracket
Part Number: 21955-1

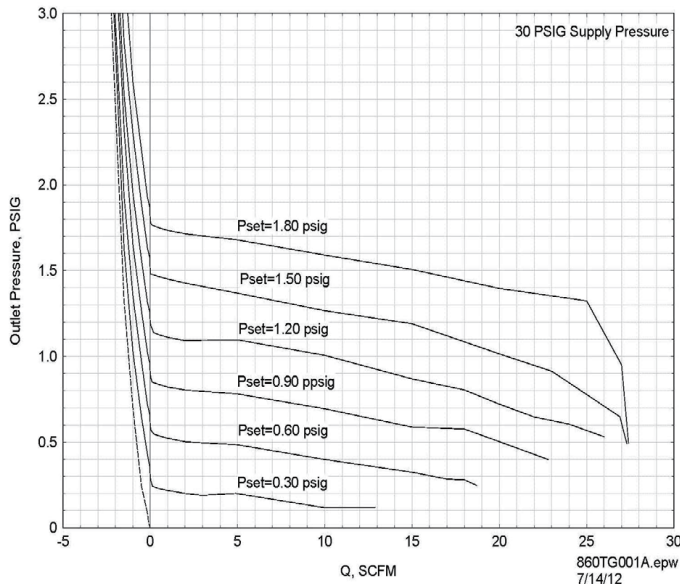


Model M11 Low Pressure Pneumatic Regulator

Technical Information

Catalog Information

Flow Characteristics
Model 11, 0-2 PSIG Range



Model M11

Specifications

Flow Capacity

20 SCFM (34 m³/HR) @ 100 psig, [7 BAR], (700 kPa) supply and 1.0 psig setpoint

Exhaust Capacity

0.5 SCFM (0.85 m³/HR) where downstream pressure is 0.1 psig, [0.007 BAR], (0.7 kPa) above 1.0 psig setpoint

Maximum Supply Pressure

150 psig, [10 BAR], (1000 kPa)

Supply Pressure Effect

<0.01 psig for 100 psig change in supply

Sensitivity

0.05" Water Column

Ambient Temperature

-40°F to +200°F, (-40°C to 93.3°C)

Materials of Construction

Body and Housing.....Aluminum
Diaphragm.....Nitrile or Fluorocarbon
Trim.....Zinc Plated Steel, Stainless Steel

Catalog Number

11 1

Pressure Ranges:

0-0.5 psi.....(0-34 mbar).....
0-2 psi.....(0-138 mbar).....
0-4 psi.....(0-275 mbar).....
0-6 psi.....(0-413 mbar).....
0-12 psi.....(0-827 mbar).....

1
2
3
4
5

Inlet/Outlet Port Size:

1/4".....
3/8".....
1/2".....

2
3
4

Port Thread:

NPTF.....
BSPT.....
BSPP.....

N
U
H

Elastomer

Nitrile.....
Fluorocarbon.....

N
J

Actuator

Knob.....
Screw Adjust.....
Tamper Proof.....

K
S
T

Relief

Low Bleed.....
Non Relieving.....
Relieving, Normal Bleed.....

B
N
R

Vent

Straight.....
Tapped (1/4" NPT, BSPT).....

S
E

Mounting

Bonnet (2 X 1/4-20 UNC).....
Panel (1/2-20 UNF).....

B
P