

Manual Reset Relay

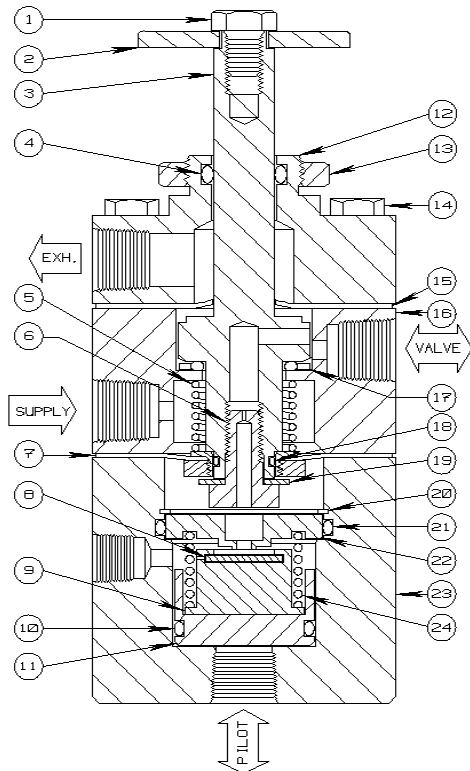
3-Way Two Phase

1/4" FEMALE NPT, 40 PSI MIN-150 MAX PSI PANEL MOUNT
PORTED EXHAUST

Model 11RRS87 STD. SVC., 11RRS89 H2S SVC.



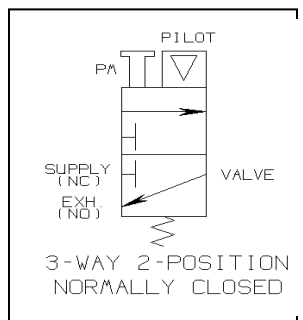
Conforms to the SEP category of the European Pressure Equipment Directive
Issue No. 97/23/EC



The **11RRS87** is a two position, three-way panel mount, normally closed block and bleed, Pilot supply pressure actuated valve. It is designed to establish Supply-to-Valve output pressure with manual **Pull** of the handle. Once the valve handle is pulled and Pilot Supply pressure is applied, the Relay's normal in-service placement will be maintained. A loss of Pilot Supply pressure will block the Supply (inlet) port and exhaust the accumulated operating pressure within the receiving control circuit. To close the valve, **Push** on the valve handle to release downstream pressure.

This type of relay valve is generally referred to as a Two Phase Relay. It is capable of using a lower Pilot supply pressure (30-50 PSI) to maintain the receiving control circuit (generally 50-150 PSI). It is most frequently used to control the open/close operating sequence of a Surface Safety Valve (SSV) or operate a fail closed pneumatic Safety System.

The 11RRS87 also has a special feature that will block the Supply (Inlet) port, whenever master supply pressure decreases below 40 PSI. Manual reset is required after operating instrument supply pressure is restored.



PARTS LIST:

- | | | |
|-------------------|--------------------|------------------|
| 1. Hex Bolt * | 9. Piston Insert | 17. Block Seal * |
| 2. Handle | 10. O Ring * | 18. O Ring * |
| 3. Plunger | 11. Piston | 19. Washer * |
| 4. O Ring * | 12. Exh. Deflector | 20. Snap Ring * |
| 5. Spring * | 13. Panel Nut | 21. O Ring * |
| 6. Orifice Bolt * | 14. Hex Bolt (4) * | 22. Inner Valve |
| 7. Diaphragm * | 15. Top Seal * | 23. Lower Body |
| 8. Viton Seal * | 16. Upper Body | 24. Spring * |

* Indicates parts included in a Repair Kit

Sigma Model Number 11RRS87

1/4" FEMALE NPT, 40 PSI MIN-150 MAX PSI PANEL MOUNT PORTED EXHAUST

Product Specifications

Manual Reset (Operate) Feature: Pull and Hold to Open – Push to Close

Flow Control Application: Normally Closed

Control Function: Three-Way (Block & Bleed) – Two Position Instrument Control

Pressure Rating Body (Control Ports): 150 PSI maximum (10.34 bar)
(Minimum pressure required: 40 PSI)

Pilot Supply Pressure: Normal Operating Pressure 50 PSI

Instrument Supply Service at Control Ports: Pneumatic

Connection Size: 1/4-18 Female N.P.T. (Pilot, Supply, Valve, Exhaust)

Panel Mount: Yes

Panel Hole Cutout Size Required: 1.00 Diameter

Orifice: .250 Diameter

Seal Material: Viton

Component Material (Metal): 316 Stainless Steel

Weight: 5-1/2 Lbs.

Operating Temperature: -20° F to +250° F (-29° C to +121° C)

Overall Dimensions: 6 Height x 2-1/2 Diameter (15.24 cm Height x 6.35 cm Diameter)

Pressure Equipment Directive (PED): This product conforms to the SEP Category of the European P.E.D.

Installation and Maintenance Instructions:

Remove the Hex Bolt (#1), Handle (#2), and Panel Nut (#13). Insert in pre-drilled 1" diameter hole. Replace the Panel Nut, Handle, and Hex Bolt. Sigma recommends the use of appropriate thread sealant for each port connection.

Shelf Position Port Status

Pilot	Pilot Supply Inlet (Use with Block and Bleed Pilots)
Supply Inlet	(Instrument Supply Pressure) normally closed
Valve	Outlet Pressure to Receiving Control Circuit (Open to Exhaust Port)
Exhaust	Depressurizes Receiving Control Circuit

Repair Kit Information

Repair Kits contain all of the Seals and other components typically replaced when repairing the assembly. In order to maintain optimum operating control function.