



Keeping the World Flowing
for Future Generations



Model 25

Reversing Relay

The Fairchild Model 25 Reversing Relay provides an output which will decrease in direct proportion to an increase in input pressure.

Features and Benefits

- High strength, deep convolution compensating diaphragm
- Bottom pressure balancing chamber with a diaphragm
- Floating seal ring
- Balances undesirable relief seat forces
- Ensures balanced supply seat forces
- Protects stabilizing chamber from effect of high relief flows

Operating Principles

The Model 25 Reversing Relay is designed for applications requiring an output that equals a manually preset spring load minus a variable signal pressure. This high quality unit combines excellent sensitivity with unusually high flow capacity.

The Model 25 is ideally suited for a variety of precision control applications, including converting direct acting valves to reverse action, controlling opposite acting valves from a single transmitter, and cushioning cylinder loads.

The basic mathematical expression for the Model 25 is $PO = K - PS$ where PO is output pressure, PS is signal pressure and K is the spring constant.

Specifications

Maximum Supply Pressure

- 250 psig, [17.5 BAR], (1750 kPa)

Flow Capacity

- 40 SCFM (68 m³/HR) @ 100 psig, [7.0 BAR], (700 kPa) supply, 20 psig, [1.5 BAR], (150 kPa) setpoint

Exhaust Capacity

- 11 SCFM (18.7 m³/HR) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above setpoint

Signal or Output Pressure

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

Supply Pressure Effect

- Less than 0.1 psig, [.007 BAR], (.7 kPa) for 100 psig, [7.0 BAR], (700 kPa) change in supply pressure

Sensitivity

- Less than 1/8" (.32 cm) water column

Mounting

- Pipe or Panel

Ambient Temperature Limits

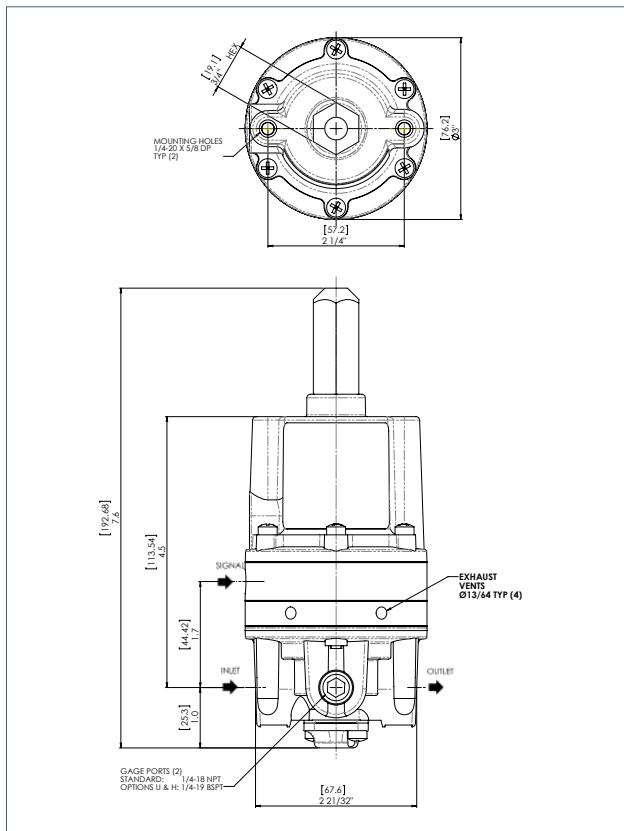
- -40 to +200 °F, (-40 to 93.3 °C)

Materials of Construction

- Body: Aluminum
Trim: Aluminum, Stainless Steel, Brass
Diaphragms: Buna N and Dacron

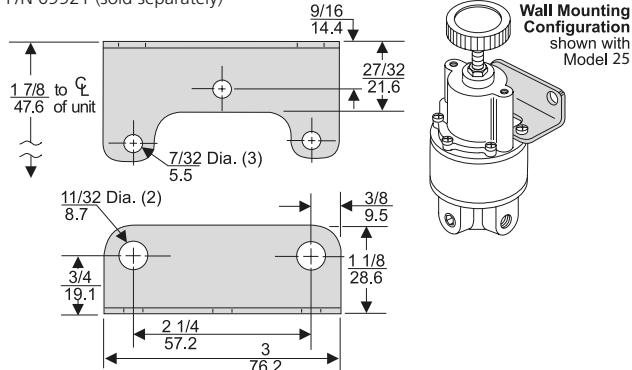


Dimensions



Mounting Bracket Kit

P/N 09921 (sold separately)



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PUB103-069-00
Issue 09/20

Product Code

254 2 2 E

Pressure Range

psig	[BAR]	(kPa)
2 = 0-10	[0-0.7]	(0-70)
3 = 0.5-30	[0.03-2]	(3-200)
4 = 1-60	[0.1-4]	(10-400)
6 = 2-150	[0.15-10]	(15-1000)

Pipe Size

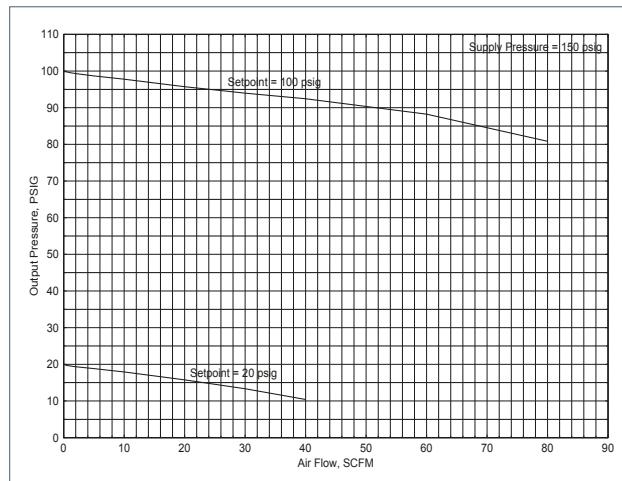
2 = 1/4" NPT
3 = 3/8" NPT
4 = 1/2" NPT

Options

E = Tapped Exhaust
H = BSPP (Parallel) ¹
J = Fluorocarbon Elastomers
U = BSPT (Tapered)

¹ BSPP Threads in Inlet & Outlet Ports only. Others BSPT.

Flow Characteristics (Model 25462)



Service Kit

A Service Kit is available for the Model 25 Reversing Relay, refer to the *Fairchild Installation, Operation and Maintenance Instructions*, IS-30000025.

Rotork plc, Bath, UK
tel +44 (0)1225 733200
email mail@rotork.com

Fairchild Industrial Products
3920 West Point Blvd
Winston-Salem, NC 27103
tel +1 (336) 659-3400
fax +1 (336) 659-9323
email: US-WVS-CS@Rotork.com