



Engineered for life

Enidine / Conoflow

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WARNING

Conoflow products are designed and manufactured using materials and workmanship required to meet all applicable standards. The use of these products should be confined to services specified and/or recommended in the Conoflow catalogs, instructions, or by Conoflow application engineers.

To avoid personal injury or equipment damage resulting from misuse or misapplication of a product, it is necessary to select the proper materials of construction and pressure-temperature ratings which are consistent with performance requirements.

INSTRUCTION AND MAINTENANCE MANUAL Models GVB11 / GVB12 Snap-Acting Relays

SPECIFICATIONS

- Set Pressure:** 25 to 85 psi (172 to 586 kPa)
- Maximum Relay Valve Pressure:** 150 psi (1034 kPa)
- Maximum Signal Port Pressure:** 100 psi (690 kPa)
- Relay Valve Port Diameter:** 3/16" (4.76 mm) (Cv=0.38)
- Max Pilot Air Consumption:** 3.1 scfh (1.5 lpm) when operating in "A" to "B" circuit mode.
- Temperature Range:** 0 to 150 °F (-18 to 66 °C)

PRINCIPLE OF OPERATION

The pressure at which the relay valve(s) will actuate can be adjusted to any point between 25 psi (172 kPa) and 85 psi (586 kPa) by turning the adjusting knob (1). To increase the pressure setting, turn the adjusting knob (1) clockwise. The signal pressure (port S) acting on the upper diaphragm subassembly (3) overcomes the force of the spring (15) in the bonnet (14) and permits air to flow into the lower chamber. This pressure build-up forces the spring loaded spool valve (23) to open common port "A" to selected port "B". When the pressure drops below the preset point, the exhaust port opens and common port "A" is switched from the "B" select port to the "C" select port by releasing the spring loaded spool valve (23).

The spool valve (23) will return to its original position ("A" to "B") when the pressure to the signal port (S) is approximately 20% greater than the pressure setting (set point). For example, if the set pressure is 50 psi (345 kPa), the unit will return to its original position when the pressure to the pilot signal port is increased to approximately 60 psi (414 kPa). If the Snap Acting Relay is seldom activated, it should be manually cycled periodically to maintain its performance.

Summary of operating modes:

Signal Port (S) Pressure	Resultant Circuit
Less than Set Point	"A" to "C"
20% more than Set Point	"A" to "B"

INSTALLATION

The signal port (port S) is 1/8" NPT. All other connections are 1/4" NPT. The snap acting relay is factory adjusted to activate when signal pressure to port S falls below 40 psi (276 kPa).

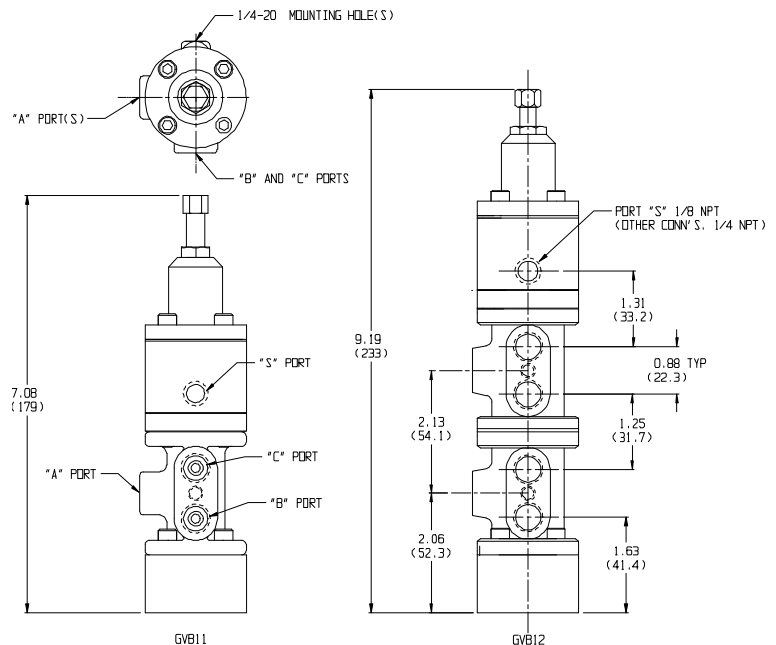
The snap acting relay can be mounted in any position. For mounting, the snap acting relay can be pipe mounted, or secured by the 1/4-20 tapped holes (opposed from the "B" and "C" port) on the relay valve body.

MAINTENANCE

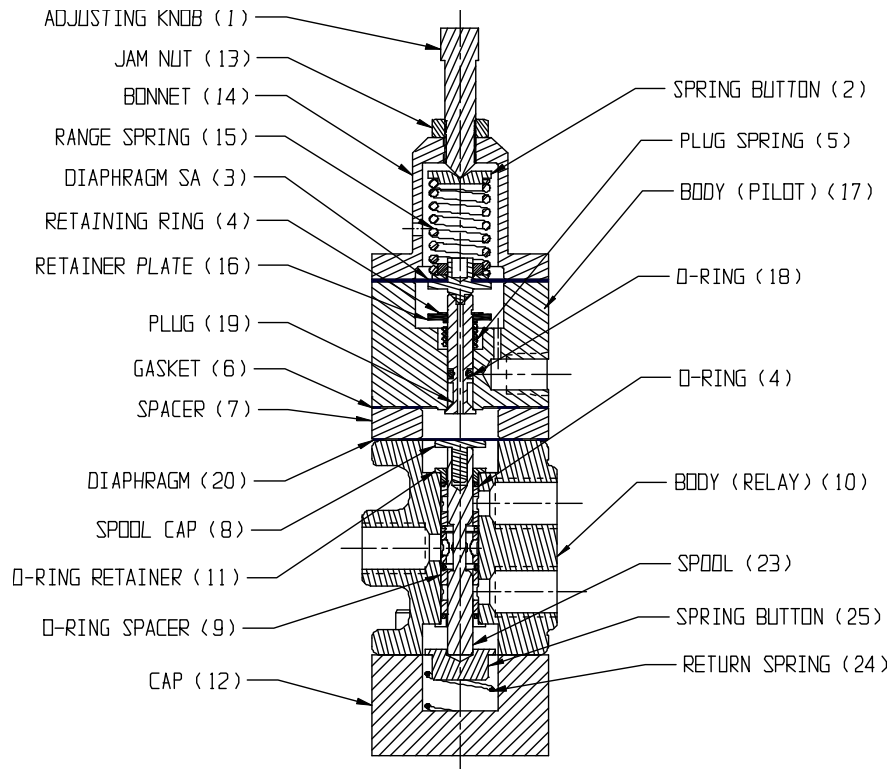
Under normal operating conditions, no maintenance is necessary. If required, the diaphragm sub-assembly (3) and diaphragm (20) can be replaced by removing the four (4) socket head cap screws (27) holding the bonnet (14) to the valve body (17). Reassembly torque is 25 in-lb.

ORDERING INSTRUCTIONS

When ordering replacement parts and spare parts, specify the complete model number, serial number and description from the product nameplate. This information will permit positive identification and rapid processing of the order.



Note: For certified dimensional drawing, refer to A29-1.



ITEM	DESCRIPTION	GVB11AB	GVB12AB	P/N
1	KNOB	1	1	G6017750
2	SPRING BUTTON	1	1	G6005789
3	DIAPHRAGM SA	1	1	G6006092
4	RETAINING RING	1	1	G6076376
5	SPRING	1	1	G6386755
6	GASKET	1	1	G6026215
7	SPACER	1	1	G6005771
8	SPOOL CAP	1	2	G6005821
9	O RING SPACER	2	4	G6005854
10	BODY (VALVE)	1	2	G6005912
11	O RING RETAINER	2	4	G6005847
12	CAP	1	1	G6005938
13	NUT, HEX JAM	1	1	G6900212
14	BONNET	1	1	G6005763
15	SPRING	1	1	G6025811
16	SPRING RETAINING PLATE	1	1	G6005797
17	BODY (PILOT)	1	1	G6005748
18	O-RING	1	1	G6076574
19	PLUG	1	1	G6005755
20	DIAPHRAGM	1	1	G6025852
21	O RING SPACER	1	2	G6005862
22	O-RING	4	8	G6386764
23	SPOOL	1	2	G6005839
24	SPRING	1	1	G6026009
25	SPRING BUTTON	1	1	G6005920
NOT SHOWN	SCREEN	3	6	G6072649
NOT SHOWN	SHCS 10-32 X 2-1/4	4	4	G6900168
NOT SHOWN	SHCS 10-32 X 1/2	4	8	G6900176
NOT SHOWN	NAMEPLATE	1	1	G6385605

Items 3, 6, 11, 18, 20, and 22 can be purchased together as repair kit p/n G6385319 for GVB11AB, or p/n G6385320 for GVB12AB.