GVB11/12 SERIES (SNAP-ACTING RELAYS)

Designed for pneumatic systems, Conoflow Series GVB Snap-Acting Relays change ports to switch or lock in secondary air source when the main supply pressure falls below a predetermined set point. In the event of supply or pilot pressure failure, the positive action relay with one common and two inlet or outlet ports will automatically, switch from main to auxiliary supply pressure, lock an actuator in its last position, extend or retract an actuator stem and divert flow or pressure from one device to another. The Series GVB Snap-Acting Relays have an integral pilot which eliminates the extra piping and connections required with other lock-up valves. Compact and lightweight, the relays are easily piped and mounted.

PRINCIPLES OF OPERATION

The pressure at which the relays will actuate can be adjusted at any point between 25 PSI (172 kPa) and 85 PSI (586 kPa). Signal or pilot pressure acting in the upper diaphragm overcomes the force of the spring in the bonnet and permits air to flow into the lower chamber. This pressure buildup forces the spring-loaded spool valve to open common Port "A" to "B". When the pressure drops below the preset point, the exhaust port opens and common Port "A" is switched from "B" to "C" releasing the spring loaded spool valve.

The spool valve will return to its original position ("A" to "B" when the pressure to the pilot is less than or equal to 20% greater than the set point. For example, if the set pressure is 50 PSI (345 kPa), the units will return to its original position when the pressure to the pilot builds up to approximately 60 PSI (414 kPa).

Model GVB12 Relay has two spool sections mounted in tandem with the lower ports designated as "A1", "B1" and "C1".

Standard 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.

Ambient Temperature Range:
0ºF to +150ºF (-18ºC to +66ºC)

Connections:
Sensing Port: 1/8" NPT
All Others: 1/4" NPT

Weight:
GVB11: 1¾ lbs. (0.79 Kg)
GVB12: 2¾ lbs. (1.25 Kg)

Note: 1. Supply (Pilot) pressure must be at least 20% greater than set pressure.

Materials of Construction

Pilot Section: */**
Body and Bonnet: Aluminum
Inner Valve: 3/16" (Cv 0.38)
Range Spring: Steel
Diaphragm: Buna "N"

Valve Section: */**
Body: Brass
Spool: 303 Stainless Steel
Diaphragm: Buna "N"
Bottom Cap: Aluminum

* Stainless Steel Construction available, consult the factory.
** Viton and Silicone Elastomers available, consult the factory.

Ordering Sequence

Select desired option for each category

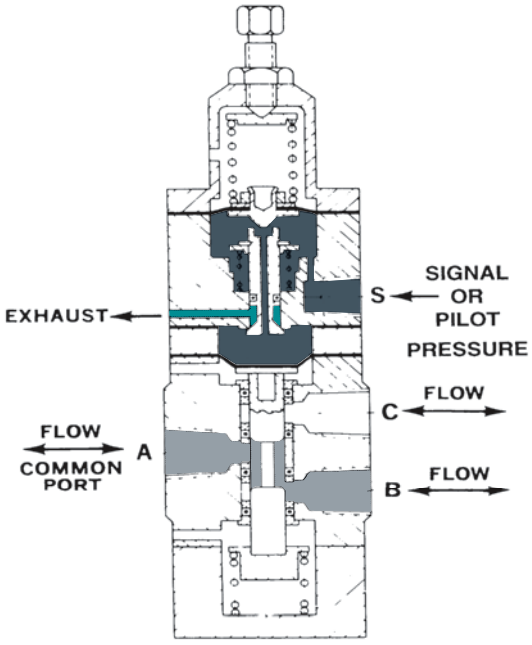
REGULATOR MODEL BREAKDOWN (CEO CODE)

Text Position	Option Code	Definition of Character
1	**GVB11**	Single Stage
	GVB12	Dual Stage
		Options
2	**B**	Buna "N"
	S	Silicone - Low Temperature
	V	Viton

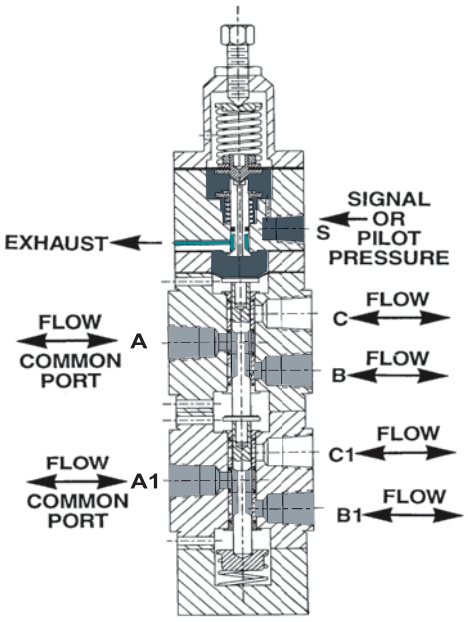
Example

GVB11/12 SERIES (Snap-Acting Relays)

Dimension Specifications

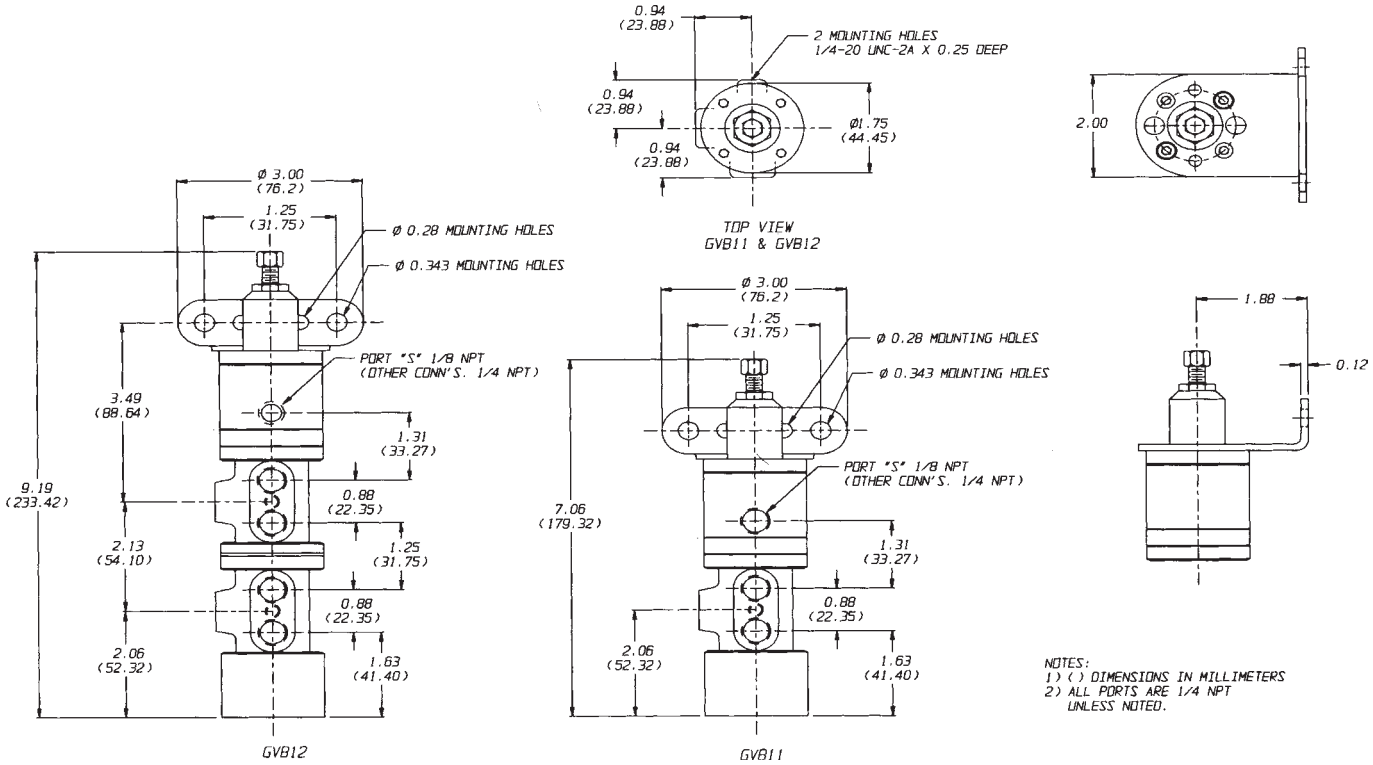


GVB11



GVB12

Supply Pressure
Controlled Air
Exhaust



For Certified Dimensional Drawing, refer to A29-1

105 Commerce Way, Westminster, SC 29693, Ph. 864-647-9521 Fax. 864-647-7620