



ENGINEERED FOR LIFE

Conoflow

Conoflow® Series GH22 Ratio/Flow Boosting Relay

The Conoflow® GH22 Series Relay is used to boost, amplify or reduce the pneumatic signal of a controller or similar instrument in a predetermined ratio. Using an independent supply of pressure for greater flow volume, the unit relays an instrument signal to a final control element such as a valve actuator.

Standard Specifications

Maximum Supply Pressure: 200 PSIG (1379 kPa)

Maximum Signal Pressure Ratio

(Signal Output):

3:1	150 PSI	(1034 kPa)
2:1	150 PSI	(1034 kPa)
1:1	150 PSI	(1034 kPa)
1:2	75 PSI	(517 kPa)
1:3	50 PSI	(345 kPa)

Flow Capacity: 16 SCFM (0.453 m³/min) with 100 PSIG (690 kPa) Supply Pressure

Sensitivity: 0.05 PSIG (0.345 kPa)

Supply Pressure Effect: 0.05 PSIG (0.345 kPa) for 25 PSI (72 kPa) change in supply pressure

Ambient Temperature Range: -20°F to +150°F (-29°C to +66°C) (with Buna "N" Diaphragm)

Filter Rating: 10 micron (cellulose)

Approximate Shipping Weight: 1.25 lbs (45 kg)

MATERIALS OF CONSTRUCTION

Body: Brass

Bonnet: Aluminum

Diaphragm Assembly: Buna "N"

Nozzle Assembly: Brass Body

Valve Plug: Stainless Steel

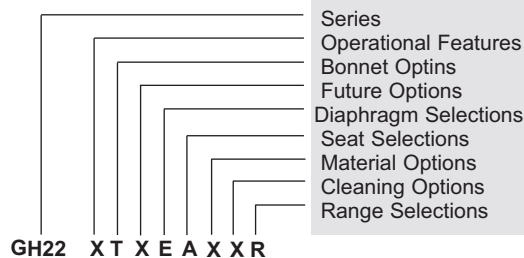
For Certified Dimensional Drawing, refer to A17-12 (GH22)



Ordering Sequence — Select desired option for each category

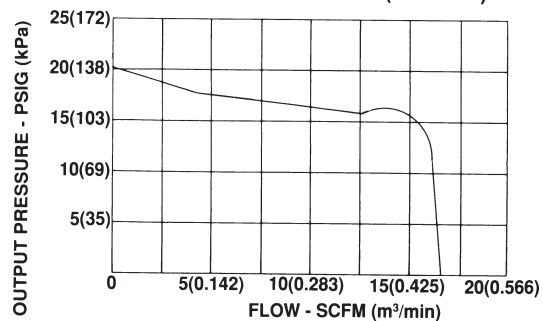
NOTE: 1. Catalog numbers as received must contain twelve (12) characters.

Text Position 1-4	Option Code GH22 GH42	Definition of Character Regulator - Ratio/Booster Regualtor - Ratio/Booster (Soft Seat)
5	X	FUTURE OPTION Absence of Specification
6	T	BONNET OPTIONS Threaded Bonnet - (Standard)
7	X	FUTURE OPTION Absence of Specification
8	E M	DIAPHRAGM SELECTIONS Buna "N" (w/Relief, No Bleed) GH22XTEXXX_ Buna "N" (No Relief, No Bleed)
9	A B C D F X	SEAT SELECTIONS Buna "N" Neoprene Viton Low Leak Nozzle w/Metal Seat GH22 -20cc Air/Min. Low Leak Nozzle w/Metal Seat, >15cc Air/Min. Standard - Unless option code is specified Notes: All GH40 Models are supplied standard w/Buna "N" Soft Seats. If options B or C are required, specify accordingly. GH22 w/Soft Seats are supplied as GH42.
10	X	MATERIAL OPTIONS Absence of Specification
11	A X	CLEANING OPTIONS Cleaned for Oxygen Service Standard - Unless option code is specified
12	R S T W Y	RANGE SELECTIONS 3:1 2:1 1:1 1:2 1:3



Flow Characteristics

FLOW CHARACTERISTICS (TYPICAL)

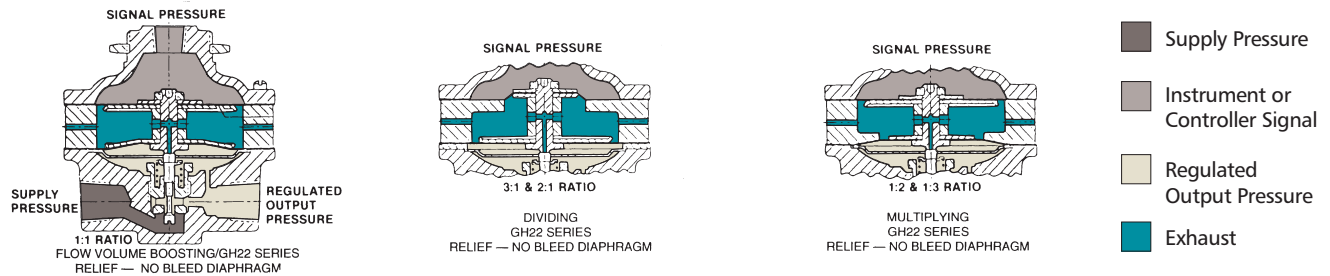


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Principle of Operation

In the 3:1 and 2:1 ratio models the effective area of the top diaphragm is proportionally less than the effective area of the bottom diaphragm. Since force is equal to pressure times area, less output is required to balance the force resulting from a given signal pressure. For example, in the 2:1 ratio model, a signal pressure of 2 PSI (14 kPa) would result in an output pressure of only 1 PSI (7 kPa) since the effective area of the bottom diaphragm is twice that of the top diaphragm.

In the 1:3 and 1:2 ratio models, the effective area of the top diaphragm is proportionally larger than the area of the bottom diaphragm which results in an output pressure proportionately higher than the signal pressure.

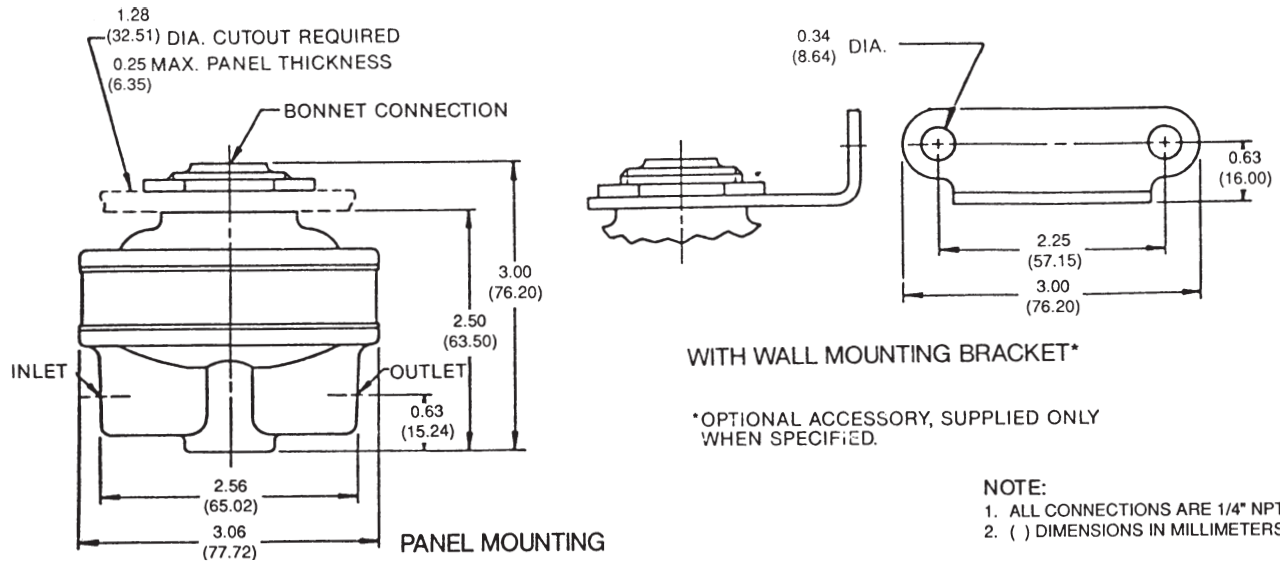


**Flow Volume Boosting/GH22 Series
Relief - No Bleed Diaphragm**

**Dividing/GH22 Series
Relief - No Bleed Diaphragm**

**Multiplying/GH22 Series
Relief - No Bleed Diaphragm**

Dimensional Views



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105 Commerce Way
Westminster, SC 29693
Tel. 864.647.9521
Fax. 864.647.9574
www.conoflow.com