CONOFLOW BACK PRESSURE REGULATOR

GH30 Series

The Conoflow Series GH30 Back Pressure Regulator is used to maintain a constant upstream pressure of gas, vapor or liquid. Designed for accurate regulation under low flow conditions, these units are widely used for protection of analysis instrumentation or as a relief valve in supply pressure lines to control devices.

The GH30 Regulator is available in brass/aluminum combination or all stainless steel construction. Buna "N" diaphragms are standard with Teflon/Buna "N"/Teflon used in the stainless steel models for corrosive services. Regulated pressure ranges are 0-3, 5, 15, 25, 35, 50 and 125 PSI (0-21, 35, 103, 241, 345 and 862 kPa). Connections are 1/4" NPT.

These units are backed by Conoflow's years of experience as a leading manufacturer of precision built instruments.

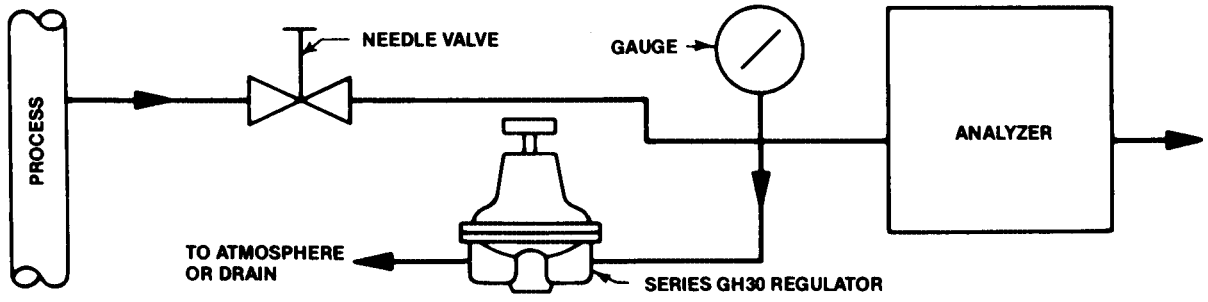
OPTIONS:

ADJUSTMENT:
Handwheel (Standard)
Wrench Knob

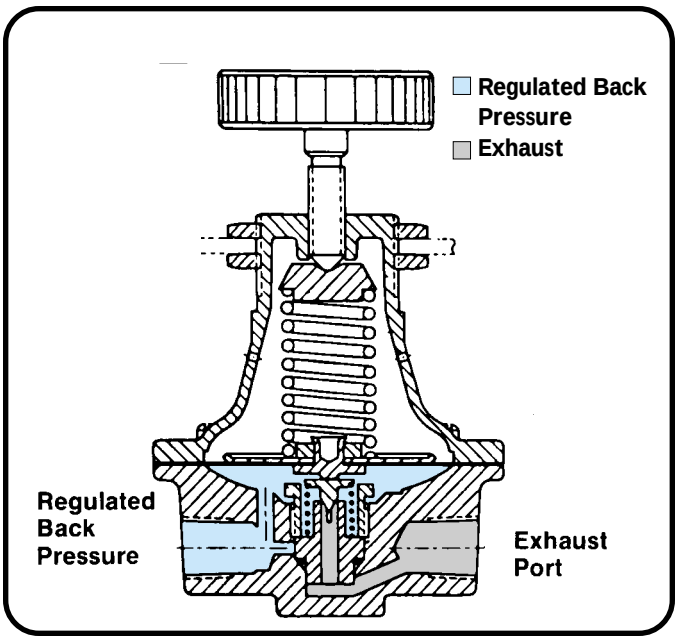
DIMENSIONAL DATA -ADVERTISING DRAWING:

GH30: A17-2

TYPICAL APPLICATION



In the above application, the Conoflow GH30 Back Pressure Regulator is maintaining a constant upstream pressure on the sample stream by relieving the excess pressure prior to its arrival at the analyzer.



GH30 Series
No Bleed - No Relief Diaphragm

PRINCIPLE OF OPERATION

Turning the handwheel changes the force exerted by the range spring on the diaphragm assembly. In equilibrium, the force exerted by the range spring is balanced by the force from back pressure acting underneath the diaphragm assembly. If the back pressure rises above the set pressure, the diaphragm seat is lifted allowing the nozzle plug to open. The excess pressure flows through the exhaust port until the back pressure is reduced to the set point. While the back pressure is at or below the set point, the range spring holds the nozzle plug against its seat, shutting off the flow to the exhaust port.

SPECIFICATIONS

Operating Characteristics	GH30XTHMXXX_	GH30XTHAXKX_	GH30XTHAXSX_
Connections	1/4" NPT		
Regulated Back Pressure Ranges	0-3, 5, 15, 25, 35, 50 and 125 PSI (0-21, 35, 103, 172, 241, 345 and 862 kPa)		
Flow Capacity	See Flow Graphs		
Sensitivity	0.05 PSI (0.345 kPa)		
Ambient Temperature Range	-20°F to +150°F (-29°C to +66°C)		
Approx. Shipping Weight	1-3/4 lbs. (0.79 Kg)	2 lbs. (0.91 Kg)	2 lbs. (0.91 Kg)

MATERIALS OF CONSTRUCTION

Body	Brass	316 St. Stl.	316 St. Stl.
Bonnet	Aluminum	Aluminum	Aluminum
Diaphragm Assembly(1)	Buna "N"	Buna "N" Teflon Faced Process Side Only	Buna "N" Teflon Faced Process Side Only
Nozzle Assembly	Brass Body St. Stl. Plug	302/303 St. Stl.	316 St. Stl.
Range Spring	St. Cad. Plt	St. Cad. Plt.	St. Cad. Plt.

Note: 1. Other diaphragm materials available, consult the factory.

Chart 1. Flow Characteristics. GH30, 0-5 PSI Range

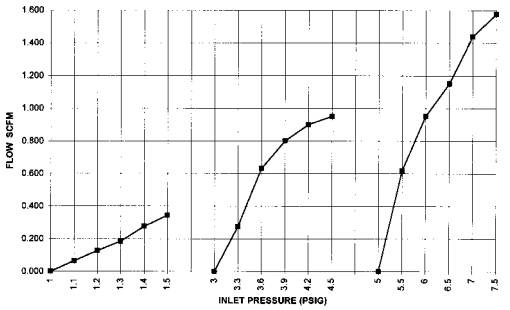


Chart 2. Flow Characteristics. GH30, 0-25 PSI Range

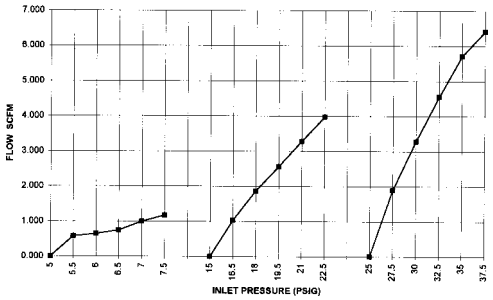


Chart 3. Flow Characteristics. GH30, 0-50 PSI Range

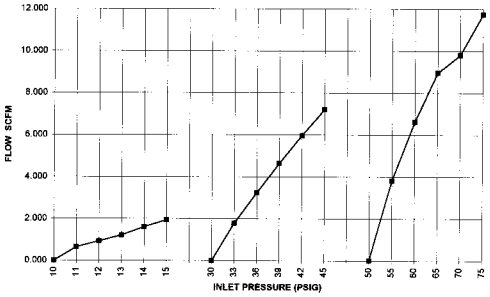
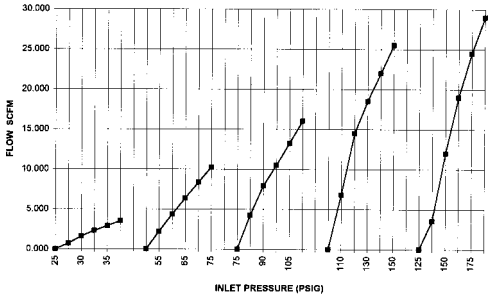


Chart 4. Flow Characteristics. GH30, 0-125 PSI Range

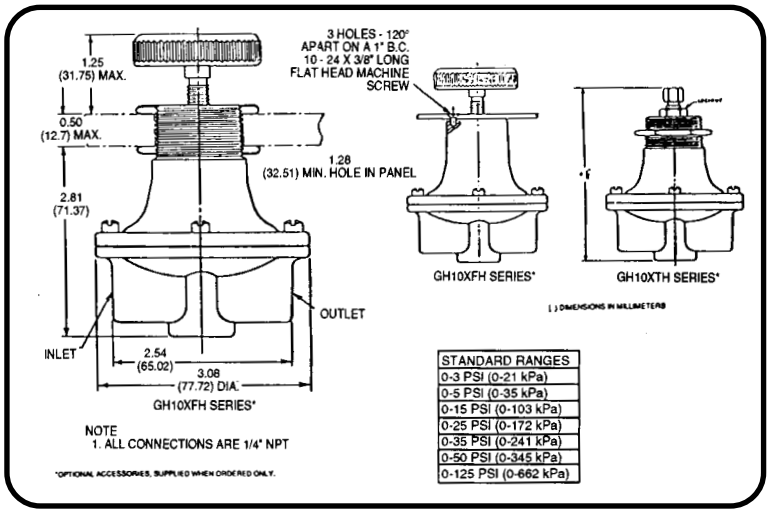


CONTROL ENGINEERING DATA

Control Engineering Data is intended to provide a single source from which one can determine, in detail, the full scope of the product line. In addition to materials of construction and diaphragm selection, it also provides all necessary data, regarding adjustment options and range selections. Control Engineering Data also provides a means of communicating, by way of a code number, which is fully descriptive of the product selection.

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

1-4 Model	GH30 = Regulator - Back Pressure (For Dimensional Data,Refer to Drawing A17-2)
5 Future Options	X = Absence of Specification
6 Bonnet Options	F = Tapped Bonnet for Flush Back Panel Mounting (3 Hole) S = Plain Bonnet T = Threaded Bonnet (Standard)
7 Adjustment Selections	H = Handwheel - (Standard) K = Knob (Wrench Style)
8 Diaphragm Selections	The catalog number(s) listed under each diaphragm option is the standard diaphragm used in that regulator. These options apply to all output ranges of that unit. For non-standard diaphragm price adders, refer to price list CP-5000. A = Teflon (Rubber Backed) Corrosive Service on Process Side (No Bleed, No Relief) GH30XTHAXKX_ and GH30XTHAXSX_ B = Silicone on Glass (No Bleed, No Relief) F = Viton on Nomex (No Bleed, No Relief) M = Buna "N" (No Bleed, No Relief) GH30XTHMXXX_ N = Nordel on Nomex (EPDM) (No Bleed, No Relief) P = Neoprene (No Bleed, No Relief)
9 Future Options	X = Specification
10 Material Options	K = Stainless Steel Construction (302/303 Stainless Steel Internals) S = Stainless Steel Construction (316 Stainless Steel Internals) X = Standard - Unless option code is specified.
11 Cleaning Options	A = Cleaned for Oxygen Service X = Standard - Unless option code is specified.
12 Range Selections	A = 0-5 PSI (0-35 kPa) B = 0-15 PSI (0-103 kPa) C = 0-25 PSI (0-122 kPa) D = 0-35 PSI (0-241 kPa) E = 0-50 PSI (0-345 kPa) G = 0-125 PSI (0-862 kPa) L = 0-3 PSI (0-21 kPa)



For Certified Dimensional Drawing, Refer to A17-2 (GH30)