CONOFLOW AIRPAK® FILTER REGULATORS

GFH85 Series

Conoflow's GFH Series Airpak® Filter-Regulators are widely used to provide clean, regulated air pressure to instruments and controls, automatic machinery and other pneumatic devices.

The GFH85 Series units are constructed of aluminum and have a maximum supply pressure rating of 250 PSI (1724 kPa). These units come standard with a 35 micron filter (10 and 40 micron filters optional) and are available in three regulated pressure ranges of 0-25, 0-60 and 0-125 PSI (0-172, 0-414 and 0-862 kPa). An easily adjustable handwheel is standard with wrench knob and tamperproof and preset versions available.

The GFH85 incorporates three 1/4" NPT connections. The additional porting allows for installation of a gauge for monitoring output pressure. This unit can be line or through body mounted.

These Airpaks® are designed for reliability with an absolute minimum of maintenance. The characteristics are a result of Conoflow's high standard of manufacturing and years of experience as a leading producer of pneumatic instrumentation.

OPTIONS:

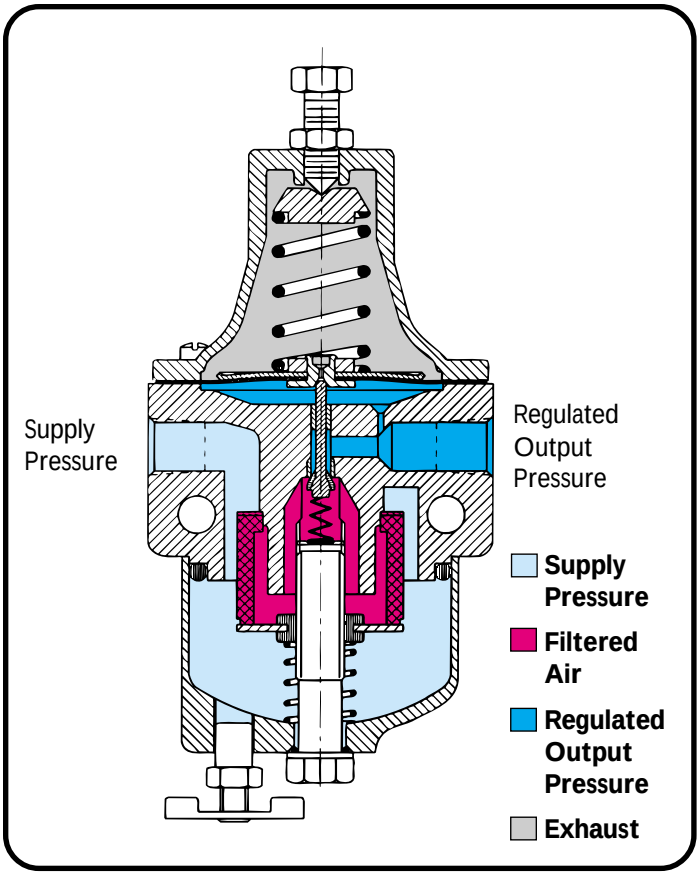
PRESSURE GAUGES:
2" Diameter - Steel, Brass or Stainless Steel Case
Ranges: 0-30, 0-60 and 0-160 PSI (0-207, 0-414, and 0-1103 kPa)

MOUNTING:
Bolt Through - Standard (O-Ring and Gasket Mounting Kits Available)
Line - All Variations
Flush-back panel mounted (3-hole) (Optional)

ADJUSTMENT:
Knob - Optional
Handwheel - Standard
Preset - Factory output setting CAN be field adjusted
Tamperproof - Factory output setting CANNOT be field adjusted

DIMENSIONAL DATA - ADVERTISING DRAWING:

GFH85: A17-80



GFH85 - Relief-No Bleed/Soft Seat Nozzle

PRINCIPLE OF OPERATION

Turning the adjusting screw 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 the output pressure acting underneath the diaphragm assembly.

An unbalance between the output pressure and the range spring force causes a corresponding reaction in the diaphragm and nozzle assemblies. If the output pressure rises above the set pressure, the diaphragm seat is lifted from the plug, venting the excess pressure to atmosphere until equilibrium is reached. If the output pressure drops below the set pressure, the unbalanced force from the range spring acts through the diaphragm assembly unseating the nozzle plug. This allows supply pressure to flow through the nozzle to the downstream port increasing the output pressure. The output pressure increases until it balances the force on the diaphragm assembly by the range spring. At equilibrium, the plug assumes a position which supplies the required flow while maintaining the output pressure at the set pressure.

Flow Graph

Consult the Factory for Flow Performance on This Regulator

SPECIFICATIONS

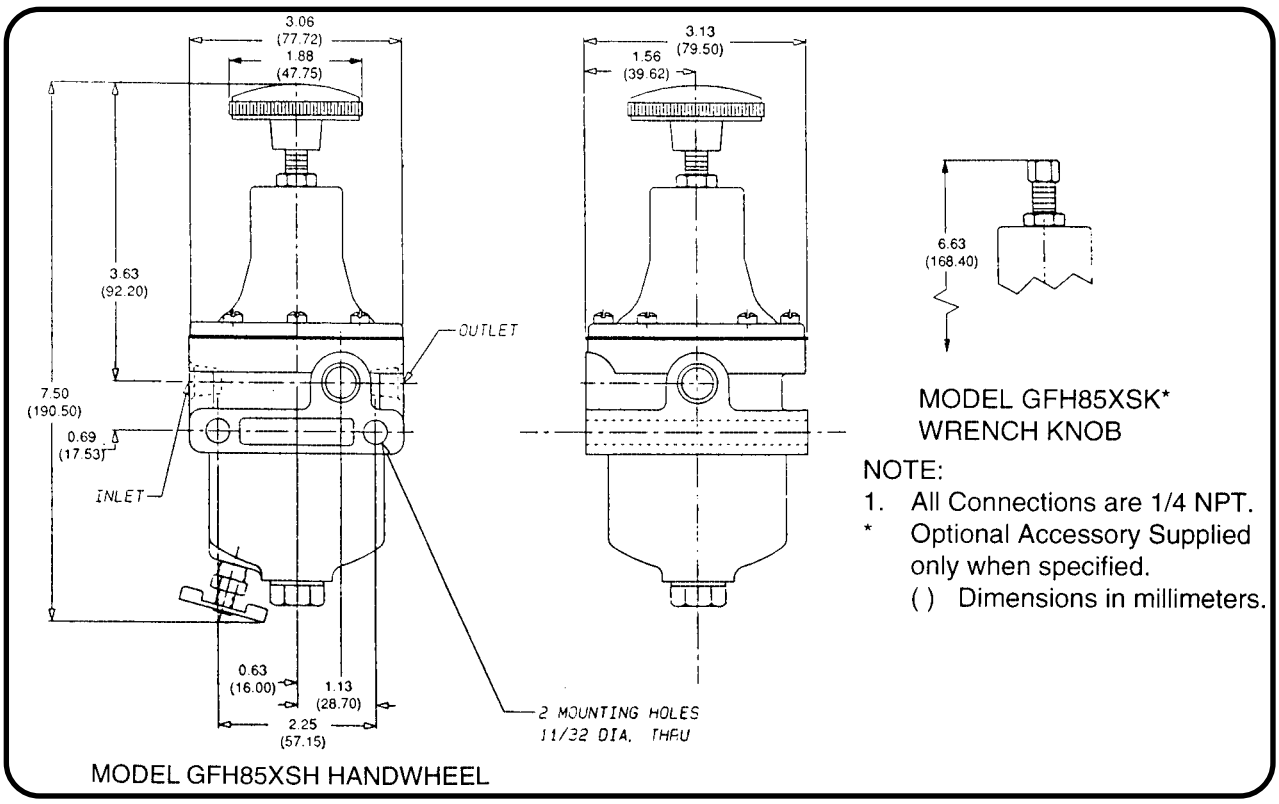
OPERATING CHARACTERISTICS

Regulated Output Pressure Ranges:
0-25, 60 and 125 PSI (0-172, 414 and 862 kPa)
Maximum Supply Pressure:
250 PSI (1724 kPa) (all variations)
Flow Capacity [100 PSI (690 kPa) Supply]:
20 SCFM (0.566 m^3/min)
Sensitivity: 0.1 PSI (0.689 kPa)
Supply Pressure Effect:
0.3 PSI (2.07 kPa) for 25 PSI (172 kPa) change in supply pressure
Ambient Temperature Range:
-20°F to +150°F (-29°C to +66°C)
Filter Rating: 35 micron (Polypropylene)(See Note1)
Connections: 1/4" NPT (Three Port)
Approx. Shipping Weight: 1-3/4 lbs. (0.79 Kg)

NOTE:
1. Optional Filters: 10 micron - Cellulose
40 micron - Stainless Steel

MATERIALS OF CONSTRUCTION

Body: Aluminum
Bonnet: Aluminum
Nozzle Assembly: Brass Body w/Buna "N" Seat
Diaphragm Assembly: Buna "N" nylon reinforced
Range Spring: Zinc Plated Carbon Steel



For Certified Dimensional Drawing, refer to A17-80

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, diaphragm selection and filtering capabilities, 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.

1-5 Models

GFH85 = Airpak® - Filter, Regulator Combination (Replaces GFH80) (Aluminum Construction) - Bolt-Thru Mounting

6 Filter Options

A = Filter - Cellulose (10 Micron)
B = Filter - Stainless Steel (40 Micron - Cleaned for Oxygen Service)
C = Filter - Stainless Steel (40 Micron)
X = Filter - Polypropylene (35 Micron) (Standard)
NOTE: For non-standard filter adders, refer to price list CP-5000

7 Bonnet Type

F = Tapped Bonnet for Flush-Back Panel Mounting
S = Plain Bonnet
T = Threaded Bonnet (Standard)
NOTE: For non-standard bonnet adders, refer to price list CP-5000

8 Adjustment Selections

H = Handwheel
K = Knob (Wrench Style) (Standard)
P = Preset (Factory output setting CAN be field adjusted) (See Notes 1 and 2)
NOTES: 1. When option "P" is specified, refer to price list CP-5000 for price adder.
2. Customer must specify desired output setting, supply pressure and flow.
3. For tamperproof GFH85 order under the following catalog number. Refer to price list CP-5000 for details.
GFH85XS1194 20 PSI (138 kPa)
GFH85XS1195 25 PSI (172 kPa)
GFH85XS1196 5-25 PSI (35-172 kPa)
GFH85XS1197 5-60 PSI (35-414 kPa)
— See Note 2

9 Diaphragm Selections

E = Buna "N" (w/Relief, No Bleed) (Standard)
M = Buna "N" (No Bleed, No Relief)

10 Gauge Selections

A = Gauge (Brass Case)
G = Gauge (Steel Case)
S = Gauge (Stainless Steel Case)
X = Absence of Specification - No Gauge (Standard)
NOTES: 1. The gauge will be shown as a separate line item on the order acknowledgment. The letter will be removed from the catalog number, unless otherwise specified.
2. All gauges are supplied with brass bourdon tubes.

11 Filter Bowl Options

1 - Standard

12 Range Selections

C = 0-25 PSI (0-172 kPa)
F = 0-60 PSI (0-414kPa)
G = 0-125 PSI (0-862 kPa)