

Regulators - Pressure Reducing

DDHXX1910X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

500 psig / 34.5 bar

Outlet Pressure Ranges0-20, 0-50, 0-100, 0-150, 0-250 psig
0-1.4, 0-3.4, 0-6.9, 0-10.3, 0-17.2 bar**Design Proof Pressure**

150% of rated inlet

Leakage

Bubble-tight

Ambient Operating Temperature

-4°F to 165°F / -20°C to 74°C

Flow Capacity $C_V = 5.0$ **MEDIA CONTACT MATERIALS****Body, Back-cap**

316 Stainless Steel or Brass

Bonnet

303 Stainless Steel or Brass

Diaphragm

Ethylene Propylene or Nylon Reinforced, PTFE

Seat**Main Valve:** Nitrile, Buna-N, Ethylene Propylene, FFKM, Perfluoroelastomer (Chemraz®), FKM (Viton®-A)**Vent:** PCTFE, Polyimide (Vespel®)**O-Rings**

Nitrile, Buna-N, E.P., FFKM, Perfluoroelastomer (Chemraz®), FKM (Viton®-A)

Remaining Parts

300 Series Stainless Steel, Nitronic 60

OTHER**Cleaning**

CGA 4.1 and ASTM G93

Weight**Stainless Steel:** 15 lbs / 6.8 kg**Brass:** 16 lbs / 7.3 kg

Vespel® and Viton® are registered trademarks of E.I. du Pont de Nemours and Company.

Cylon® is a registered trademark of Garlock, Inc.

Chemraz® is a registered trademark of Greentweed.

TESCOM DH-Series single-stage regulator provides a compact size with high flow capability from 5-200 SCFM / 142-5663 SLPM. The large diaphragm and balanced main valve design provide low droop (larger usable flow range) than competitive designs. Available in spring or dome loaded configurations.

Applications

- Purgging, blanketing, high flow inerting, heat treating, and shielding gases
- Performs well at very low pressure differentials such as dewar-supplied processes
- Multi-drop breathing air stations

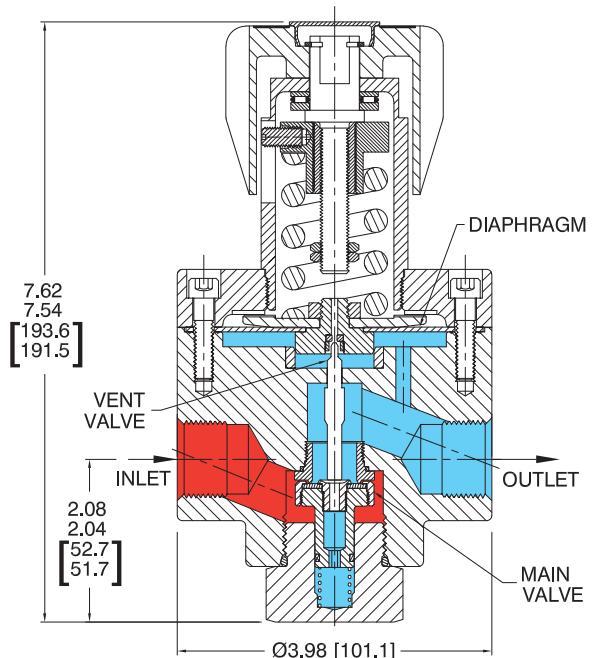
Features and Benefits

- Available in 316 Stainless Steel or Brass
- Accurately regulates pressure up to 250 psig / 17.2 bar for spring load, 300 psig / 20.7 bar for dome load and 500 psig / 34.5 bar for air load (optional)
- Five outlet pressure ranges
- Choice of spring load or dome load (air load is optional)
- Low droop
- Panel mounting is available
- Flanged end connections available

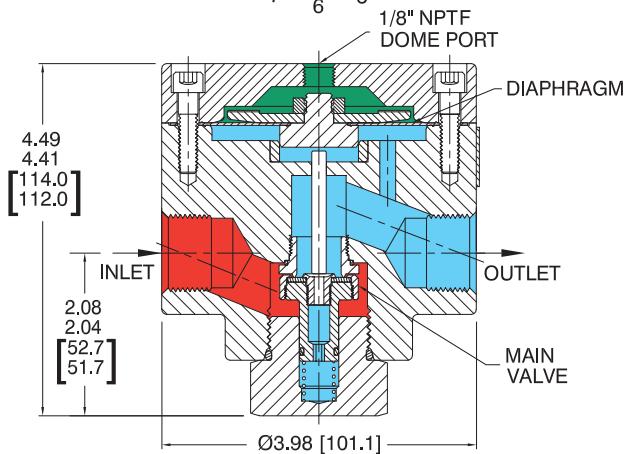
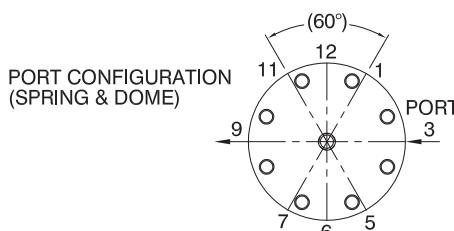
DH SERIES

DH Series Regulator Drawings

SPRING LOAD
(VENTING)

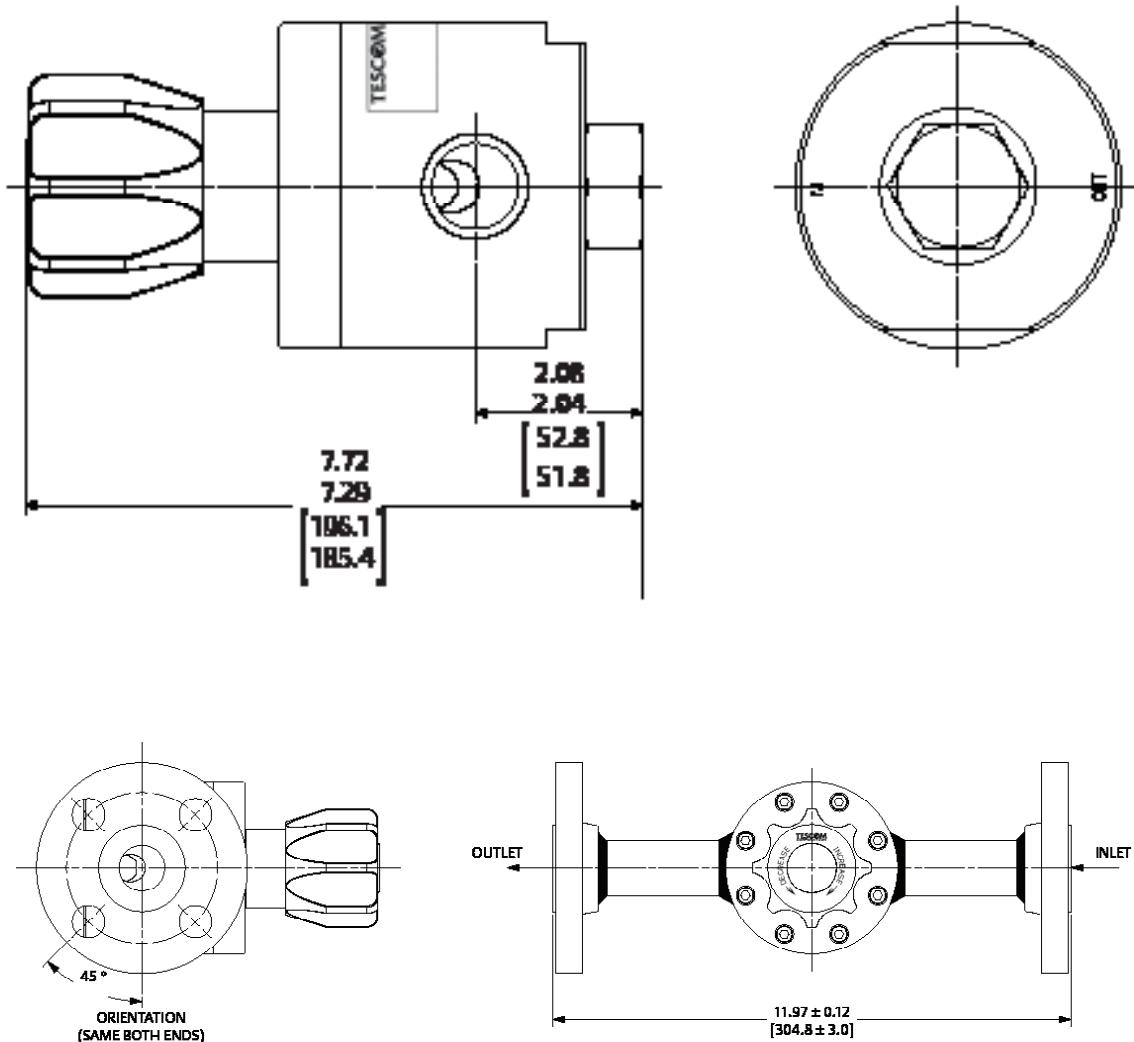


DOME LOAD
(NON-VENTING SHOWN,
VENTING AVAILABLE)



All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

DH Series Regulator with Flanges Drawing

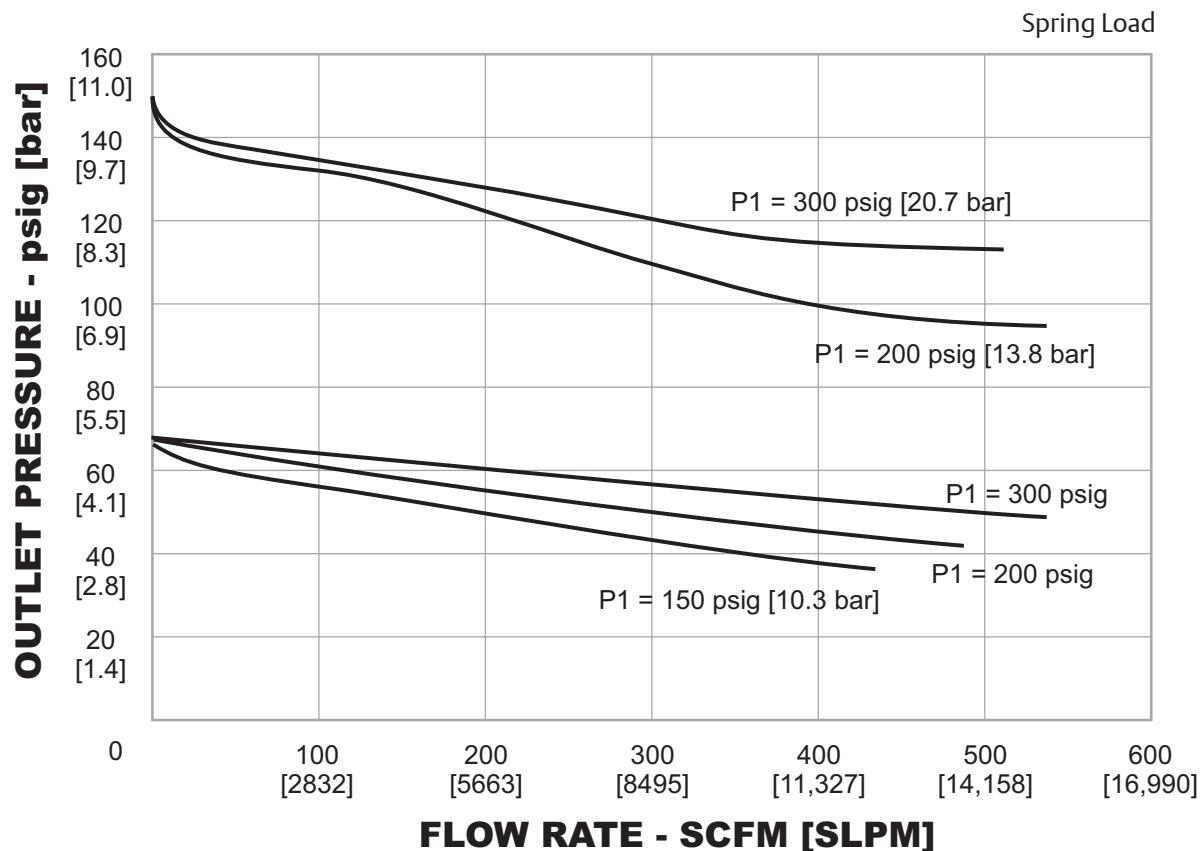


All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

DH SERIES

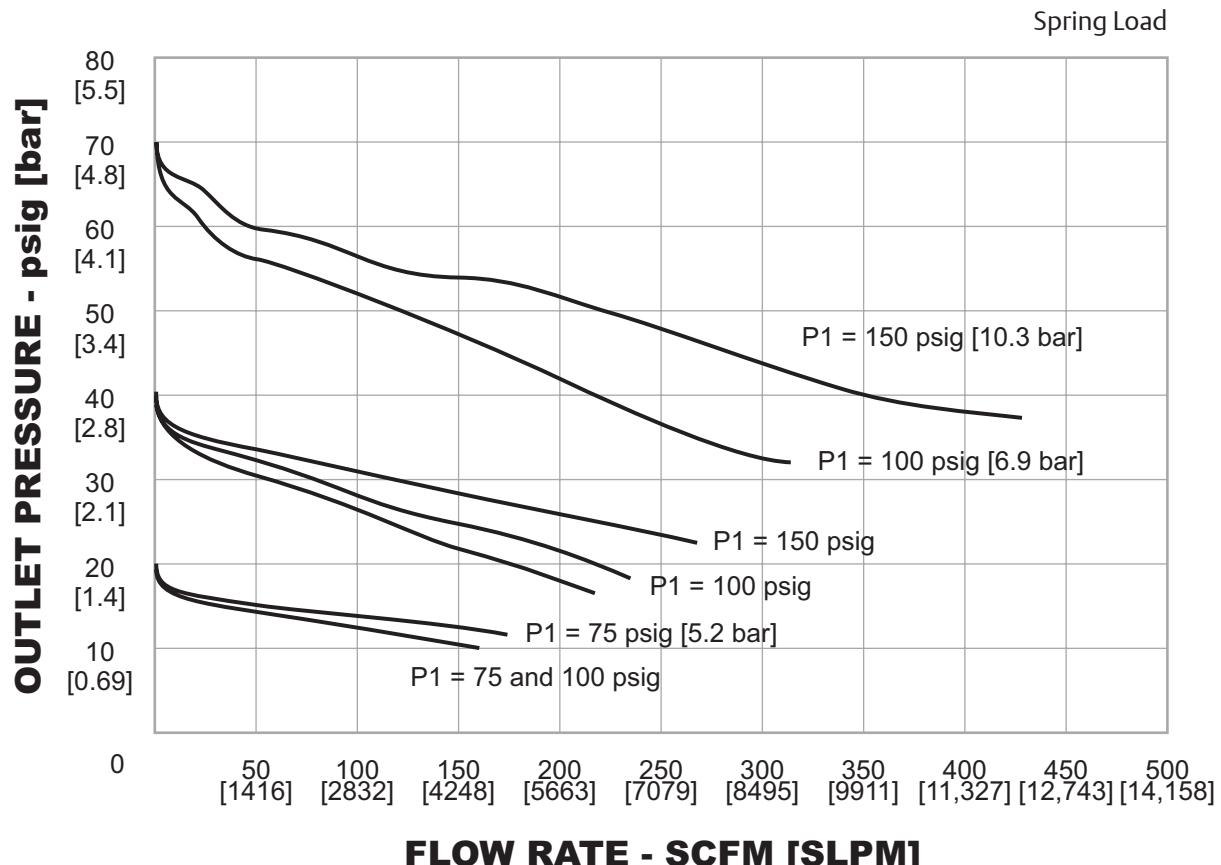
DH Series Regulator Flow Charts

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on www.tescom.com.



DH Series Regulator Flow Charts

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on www.tescom.com.



DH SERIES

DH Series Regulator Part Number Selector

Learn more about common options.
For modifications, repair kits and accessories, contact factory.

Threaded End Connector Part Number Selection:

| DH | | H | 1 | 0 | B | E | V | 9 | A | 4 | 4 | 9 | |
|--------------|--|--------------------------------------|--|---|---------------------------------------|---|---------------------|---|--|---|--|---|--|
| BASIC SERIES | LOAD TYPE | BODY, BONNET, BACK-CAP MATERIAL | OUTLET PRESSURE | O-RING AND VALVE SEAT MATERIAL | DIAPHRAGM MATERIAL | VENT SEAT MATERIAL | OPTIONAL ITEMS | PORTING CONFIGURATION | INLET, OUTLET, GAUGE PORTS | | | | |
| DH | H – Spring Loaded, Handknob W – Spring Loaded, Wrench D – Dome Loaded (available with Cylon® diaphragm only) | 1 – Brass 6 – 316 Stainless Steel | 0 – 0-20 psig 1 – 0-1.4 bar 1 – 0-50 psig 2 – 0-100 psig 3 – 0-150 psig 5 – 0-250 psig D – 0-300 psig 0-20.7 bar (Dome Load only) | B – Nitrile, Buna-N O-Ring Nitrile, Buna-N 90 Durometer E – E.P. O-Ring E.P. 80 Seat M – Chemraz®** O-Ring, Chemraz®** 75 Seat V – FKM (Viton®-A) | E – E.P. Nylon Reinforced G – PTFE | C – PCTFE V – Polyimide (Vespel®) P – Peek N – Non-Venting | C – CCL 9 – None | A – No gauge ports B – 2 gauge ports at 60° D – 1 outlet gauge at 90° L – 2 gauge ports at 90° | H – 1/2" NPTF* C _V = 3.5 3 – 3/4" NPTF 4 – 1" NPTF 9 – None F – 1/4" NPTF (for gauge only) Y – 1/4" HPIC (for gauge only) | | <small>* Crossholes for 1/2" ports limits C_V to 3.5</small> | | |

** FFKM, Perfluoroelastomer (Chemraz®)

Flanged End Connector Part Number Selection:

| DHW | 6 | 0 | B | E | V | A | 3 | 21 | 1 | | |
|--------------|--|--|--|------------------------------|-----------------------------|---------------------------------------|--|--|-------------|-------------------------------------|-------------|
| BASIC SERIES | BODY, PIPE, FLANGE, BONNET BACK-CAP MATERIAL | OUTLET PRESSURE | O-RING AND VALVE SEAT MATERIAL | | OPERATING TEMPERATURE | DIAPHRAGM MATERIAL | VENT SEAT MATERIAL | GAUGE PORT OPTIONS 1/4" NPT | FLANGE SIZE | FLANGE CLASS | FLANGE FACE |
| | | | O-RING | VALVE SEAT | | | | | | | |
| DHW | 6 – 316 SST | 0 – 0-20 psig 1 – 0-50 psig 2 – 0-100 psig 3 – 0-150 psig 5 – 0-250 psig | B – Nitrile, Buna-N | Nitrile, Buna-N 90 Durometer | -20 to 165°F -29 to 74°C | E – E.P. Nylon Reinforced G – PTFE | C – PCTFE* V – Polyimide (Vespel®) P – Peek N – Non-Venting | A – R.H. Inlet No gauge ports B – R.H. inlet, In & Out gauge ports at 60° J – R.H. inlet 2 out gauge ports at 90° | 3 – 1" | 11 – 150# 21 – 300# 41 – 600# | 1 – RF |
| | | 0-3.4 bar 0-6.9 bar 0-10.3 bar 0-17.2 bar | E – E.P. | E.P. 80 | -20 to 200°F -29 to 93°C | | | | | | |
| | | 0-17.2 bar | M – Chemraz®** | Chemraz®** | -20 to 200°F -29 to 93°C | | | | | | |
| | | | V – FKM | FKM | -15 to 200°F -26 to 93°C | | | | | | |
| | | | <small>* The maximum operating temperature for PCTFE vent seat material is 140°F / 60 °C</small> | | | | | | | | |

** FFKM, Perfluoroelastomer (Chemraz®)