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 Ranges
0-20, 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

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Gylon® is a registered trademark of Garlock, Inc.
Chemraz® is a registered trademark of Greentweed.

DOME LOADED

SPRING LOADED

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

- Purging, 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

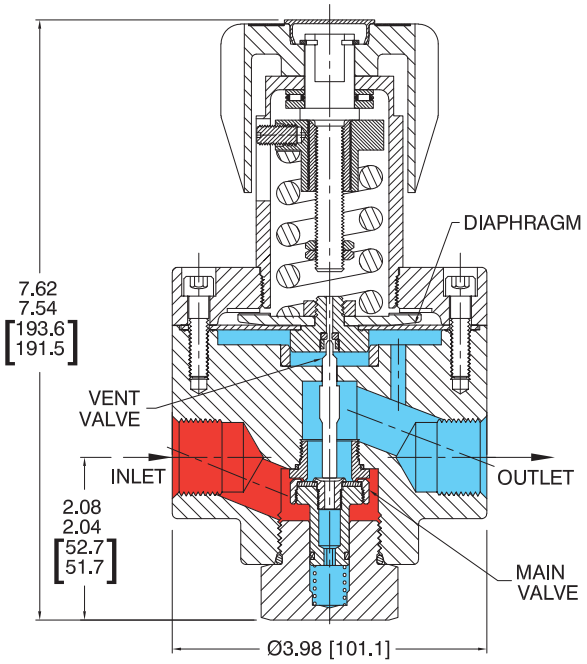
Features and Benefits

- 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

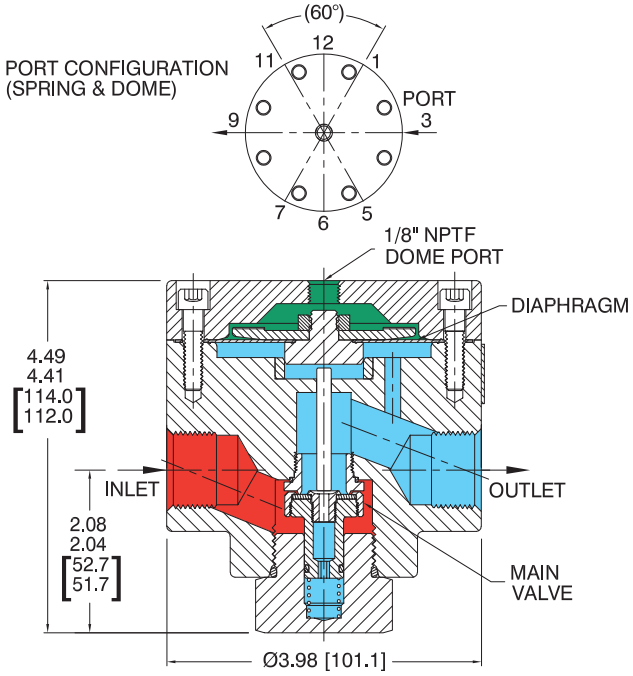
DH SERIES

DH Series Regulator Drawings

SPRING LOAD (VENTING)

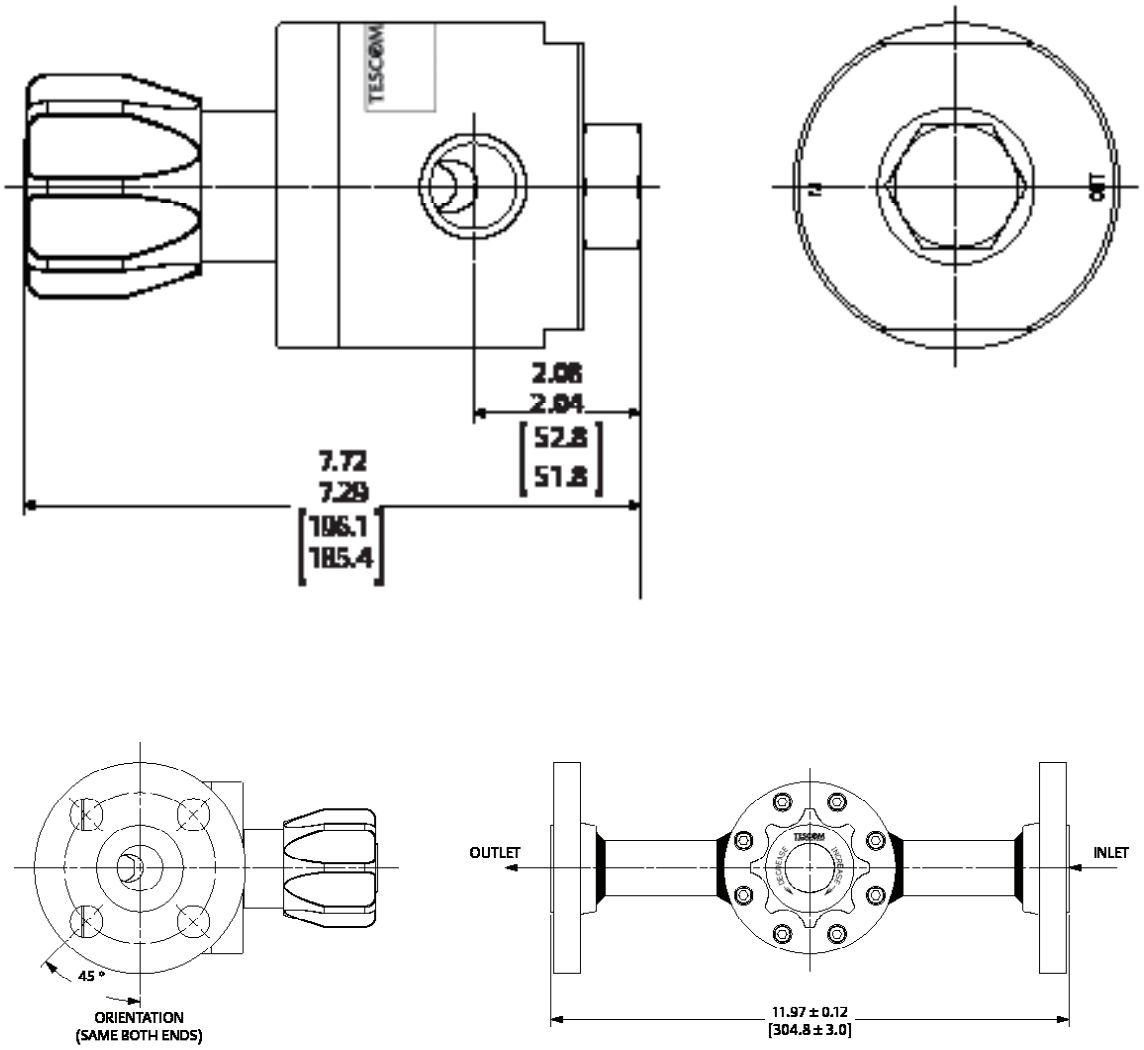


DOME LOAD (NON-VENTING SHOWN, VENTING AVAILABLE)



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

DH Series Regulator with Flanges Drawing



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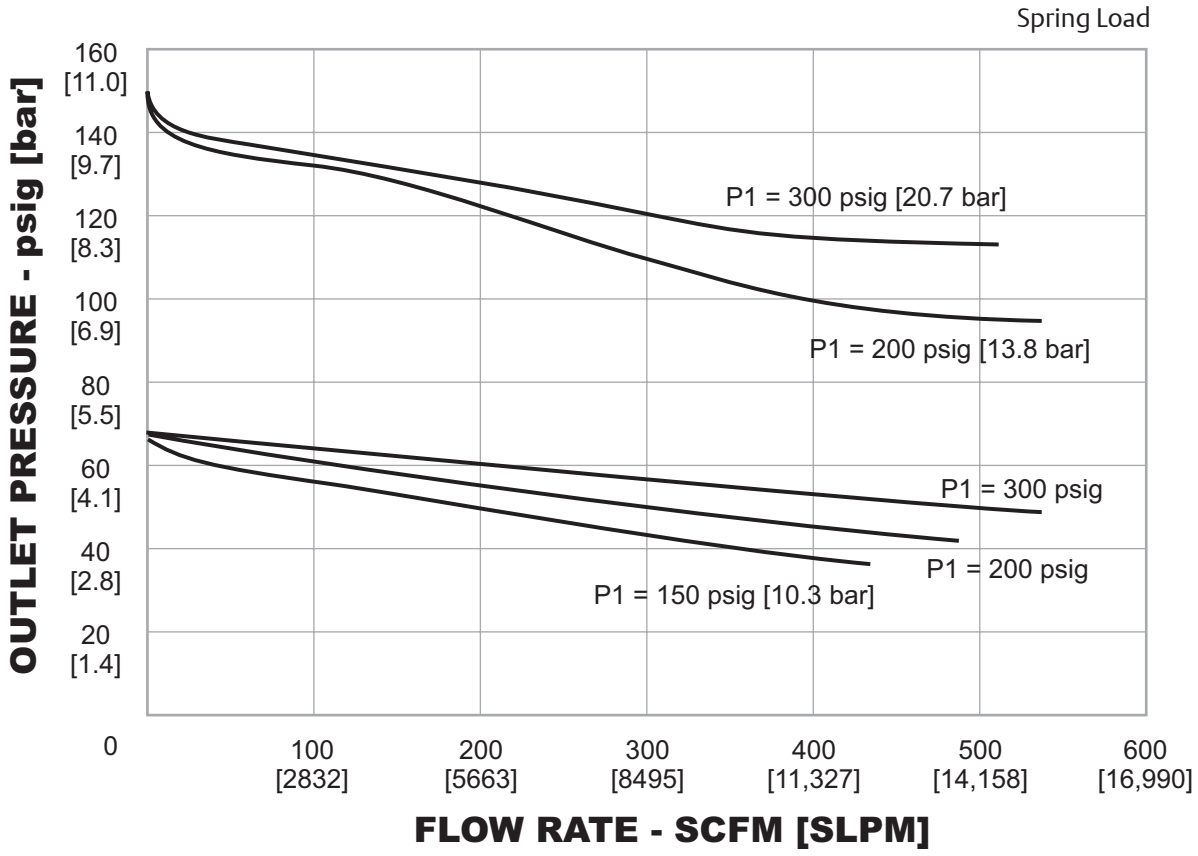
DH SERIES

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.



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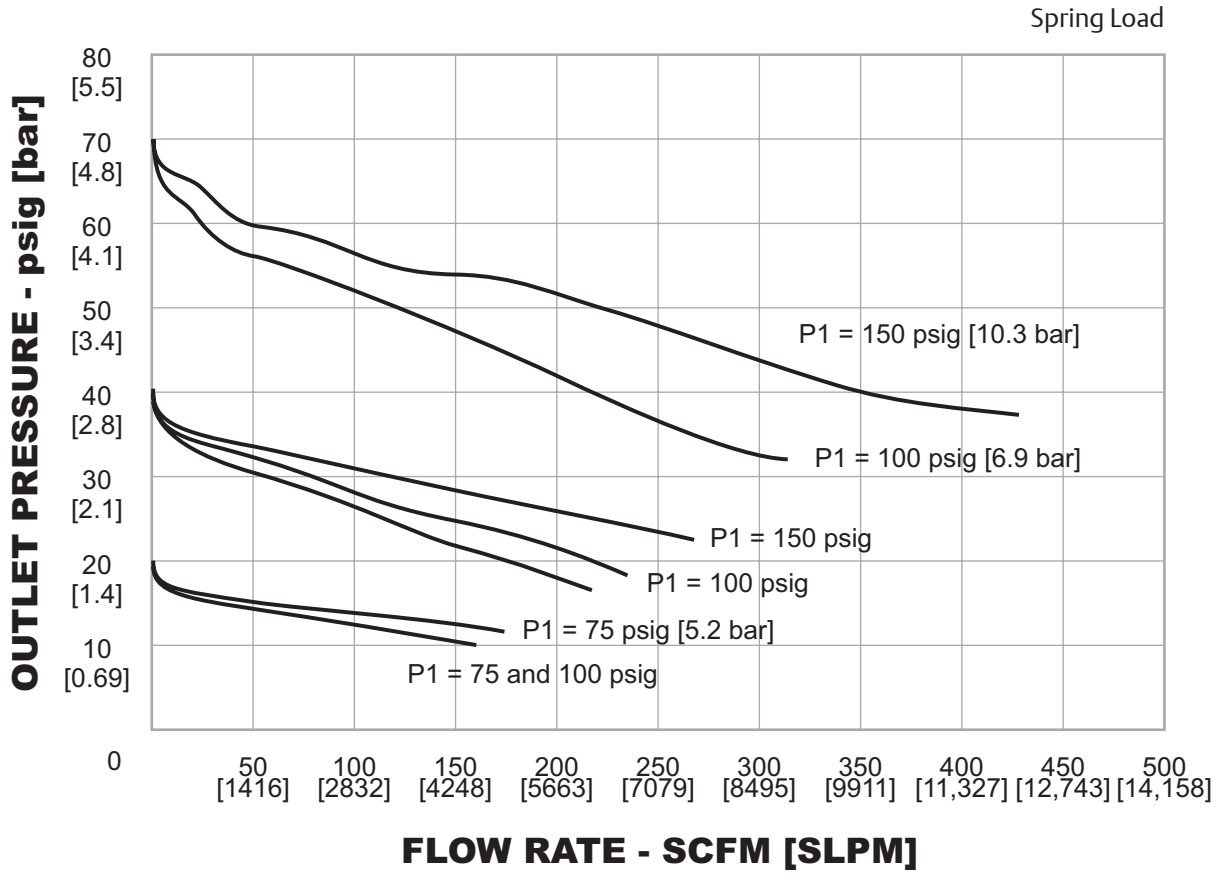

DH SERIES

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 (INLET)	4 (OUTLET)	9 (GAUGE)

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 Gylon® diaphragm only)*	**1** – Brass **6** – 316 Stainless Steel	**0** – 0-20 psig 0-1.4 bar **1** – 0-50 psig 0-3.4 bar **2** – 0-100 psig 0-6.9 bar **3** – 0-150 psig 0-10.3 bar **5** – 0-250 psig 0-17.2 bar **D** – 0-300 psig 0-20.7 bar *(Dome Load only)*	**B** – Nitrile, Buna-N O-Ring Nitrile, Buna-N 90 Durometer Seat **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° ** Crossholes for 1/2" ports limits C_V to 3.5*	**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)

** 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 TEMPE-RATURE	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 0-1.4 bar **1** – 0-50 psig 0-3.4 bar **2** – 0-100 psig 0-6.9 bar **3** – 0-150 psig 0-10.3 bar **5** – 0-250 psig 0-17.2 bar	**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
			E – E.P.	E.P. 80	-20 to 200°F -29 to 93°C						
			M – Chemraz®**	Chemraz®**	-20 to 200°F -29 to 93°C						
			V – FKM	FKM	-15 to 200°F -26 to 93°C						

** The maximum operating temperature for PCTFE vent seat material is 140°F / 60 °C*

** FFKM, Perfluoroelastomer (Chemraz®)