

# PH-2200 Series

## Regulators - Pressure Reducing

DPH221972X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

**Maximum Inlet Pressure**

150 psig / 10.3 bar

**Outlet Pressure Ranges****Spring (handknob)**

0-10, 0-25, 0-50, and 0-100 psig  
0-0.69, 0-1.7, 0-3.4, and 0-6.9 bar

**Spring Bias and Dome**

0-100 psig / 0-6.9 bar (See Part Number Selector for more details)

**Design Proof Pressure**

150% maximum rated

**Leakage**

**Internal:** Bubble-tight

**External:** designed to meet  $< 2 \times 10^{-8}$  atm cc/sec He

**Operating Temperature (media only)**

**Teflon® Seat:** -40°F to 165°F / -40°C to 74°C

**PEEK-OPTIMA® or PEEK-Classix® Seat:** -40°F to 400°F / -40°C to 204°C

**Flow Capacity**

$C_v = 0.06, 0.15, \text{ and } 0.24$

#### MEDIA CONTACT MATERIALS

**Body**

316L Stainless Steel

**Seat**

Teflon®, PEEK-OPTIMA®, PEEK-Classix®

**Friction Sleeve**

**Inner:** Teflon®

**Outer:** 316 Stainless Steel

**Valve Guide**

316 Stainless Steel

**Diaphragm**

316 Stainless Steel

**Seat Retainer**

Nitronic 60

**Remaining Parts**

316 Stainless Steel

#### OTHER

**Connections**

Sanitary Fittings

Tube Ends

High Purity Internal Connections (H.P.I.C.) (gauge port only)

**Cleaning**

CGA 4.1 and ASTM G93, Clean Service Certificate of Conformance available

**Weight (approximately)**

2.0 lbs / 0.9 kg

Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.

PEEK-OPTIMA® is a registered trademark of Invibio Ltd.

PEEK-Classix® is a registered trademark of Invibio Ltd.



TESCOM PH-2200 Series is part of our Pharmpure™ product line. This high purity single-stage regulator offers a compact, USP Class VI and BPE compliant design suitable for specialty, corrosive, and pyrophoric gases of  $< 5$  SCFM / 142 SLPM. Diffusion-resistant metal diaphragm seal ensures gas purity and integrity.

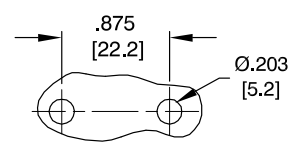
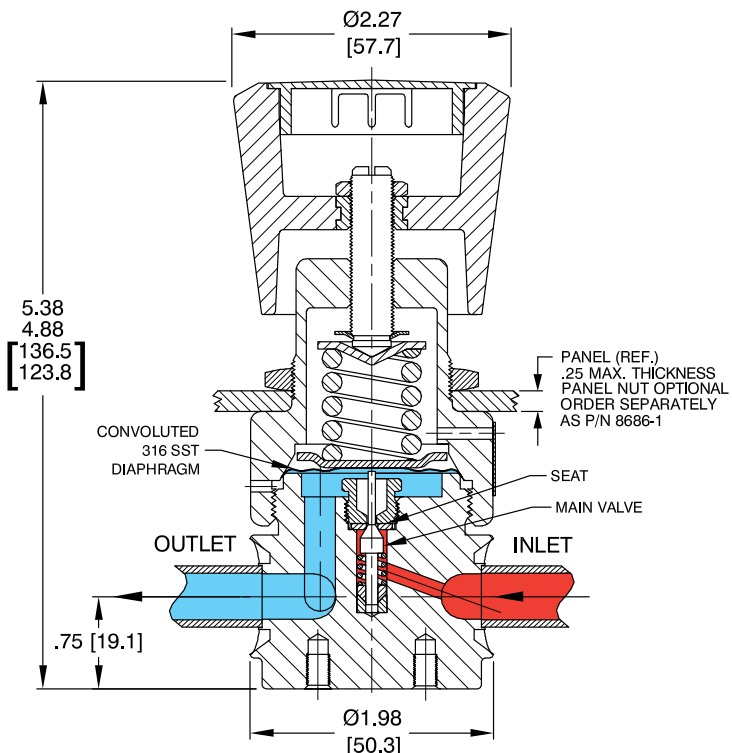
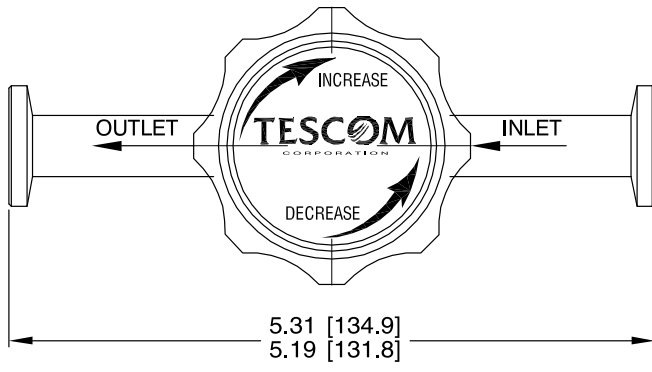
### Applications

- Sparge gases
- Clean steam for sanitization
- Transfer panels
- Low flow specialty gas

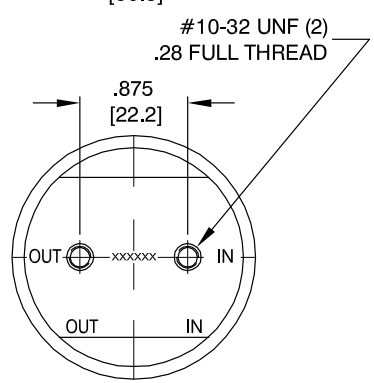
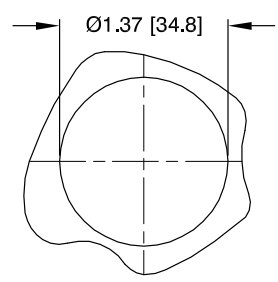
### Features and Benefits

- 316L Stainless Steel barstock regulator body design
- FDA/USP compliant designs are available
- Clean Service Certification of Compliance is available: Includes actual material certification, weld records, and bill of materials
- 15 or 32  $R_a$  microinch / 0.38 or 0.81 micrometer body surface finish is standard
- Precise pressure control
- Gauge port is available
- ASME BPE 2009 compliant design

PH-2200 Series Regulator Drawing



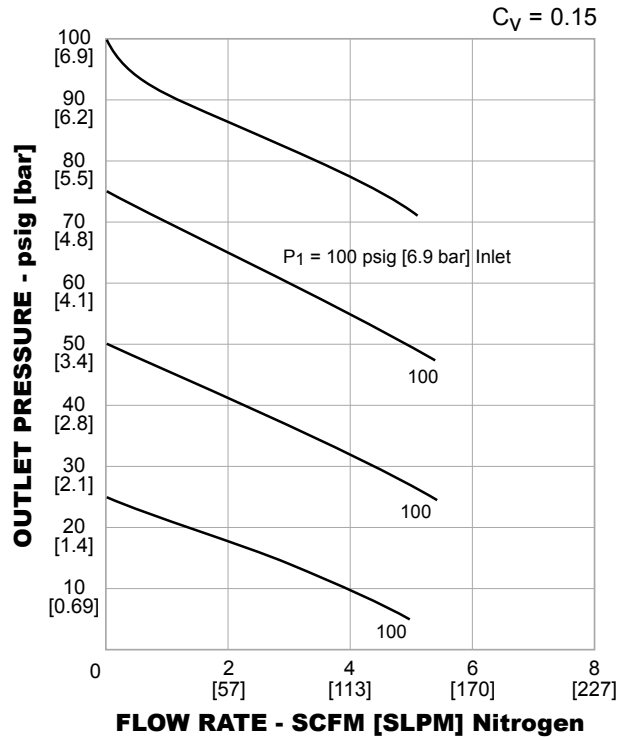
PANEL CUT-OUTS



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

## PH-2200 Series Regulator Flow Charts

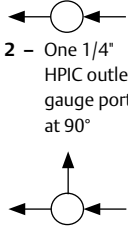
For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on [www.tescom.com](http://www.tescom.com).



## PH-2200 Series Regulator Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

PH-22	A				2	8	8	1	0	B	
BASIC SERIES	BODY MATERIAL	BODY SURFACE FINISH	SEAT MATERIAL	VALVE SPRING	LOAD TYPE	OUTLET PRESSURE	INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE WALL THICKNESS	FLOW CAPACITY	GAUGE PORT OPTIONS	CERTIFICATE OF CONFORMANCE
PH-22	A – 316L Stainless Steel	15 R <sub>a</sub>	Teflon®	316 Stainless Steel	0 – Spring	0-10 psig 0-0.69 bar	8 – Sanitary 9 – Tube	6 – 3/8" (Tube Only) 0.375" OD x 0.035" wall	1 – C <sub>v</sub> = 0.06 2 – C <sub>v</sub> = 0.15 4 – C <sub>v</sub> = 0.24		A – None B – Clean Service Certification
					1 – Spring	0-25 psig 0-1.7 bar					
	B – 316L Stainless Steel	15 R <sub>a</sub>	Arlon® (PEEK)	Elgiloy®	2 – Spring	0-50 psig 0-3.4 bar	8 – 1/2" 0.500" OD x 0.065" wall				
					3 – Spring	0-100 psig 0-6.9 bar					
	C – 316L Stainless Steel	32 R <sub>a</sub>	Teflon®	316 Stainless Steel	4 – Spring Bias	0-100 psig 0-6.9 bar					
					5 – Spring Bias	0-100 psig 0-100 psig / 0-6.9 bar					
	D – 316L Stainless Steel	32 R <sub>a</sub>	Arlon® (PEEK)	Elgiloy®	6 – Dome	0-100 psig 0-6.9 bar					



**WARNING!** Do not attempt to select, install, use or maintain this product until you have read and fully understood the *TESCOM Safety, Installation and Operation Precautions*.

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