

# PH-1600 Series

## Regulators - Pressure Reducing

DPH161979X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

**Maximum Inlet Pressure**

300 psig / 20.7 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 pressure

**Leakage**

Bubble-tight

**Operating Temperature**

-20°F to 300°F / -28°C to 148°C

**Flow Capacity**

**1/2" Port Size:**  $C_v = 2.5$

**3/4" Port Size:**  $C_v = 3.5$

**1 and 1-1/2" Port Size:**  $C_v = 5.0$

#### MEDIA CONTACT MATERIALS

**Body**

316L Stainless Steel

**Diaphragm**

Gylon®

**Seat, Valve**

Ethylene Propylene (E.P.)

**O-Rings**

Ethylene Propylene (E.P.)

**Valve Spring**

Elgiloy®

**Remaining Parts**

316 Stainless Steel

#### OTHER

**Internal Surface Finish**

20  $R_a$ , 30  $R_a$  microinch / 0.63, 0.80 micrometer

**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**

16 lbs / 7 kg

VCR® is a registered trademark of Cajon Co.

Gylon® is a registered trademark of Garlock, Inc.

Elgiloy® is a registered trademark of Elgiloy Specialty Metals.



TESCOM PH-1600 Series is part of our Pharmpure™ product line. This high purity, high flow single-stage regulator offers a compact, USP Class VI and BPE compliant design suitable for biotech and pharmaceutical applications. This regulator provides gas flows up to 400 SCFM / 11,320 SLPM. Its Gylon® diaphragm ensures gas purity and integrity.

#### Applications

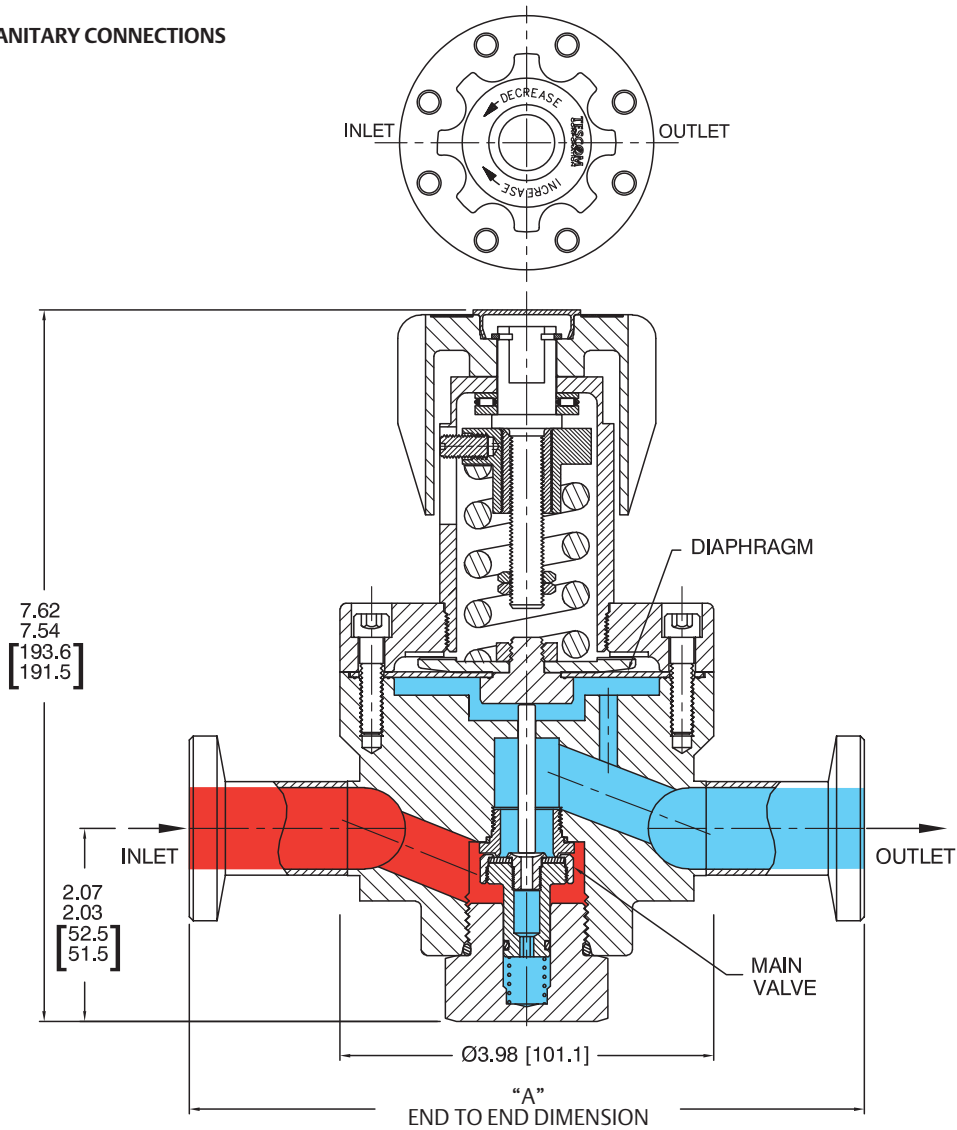
- Clean steam for sanitization
- Vessel headspace pressurization

#### Features and Benefits

- Up to  $C_v = 5.0$  flow capacity
- Gylon® diaphragm
- Low droop, high flow
- Five outlet pressure ranges
- Accurately regulates pressures up to 250 psig / 17.2 bar
- Welded sanitary connections and tube ends are available
- Soft goods USP Class VI compliant
- BPE 2009 compliant design

PH-1600 Series Regulator Drawing

SHOWN WITH SANITARY CONNECTIONS

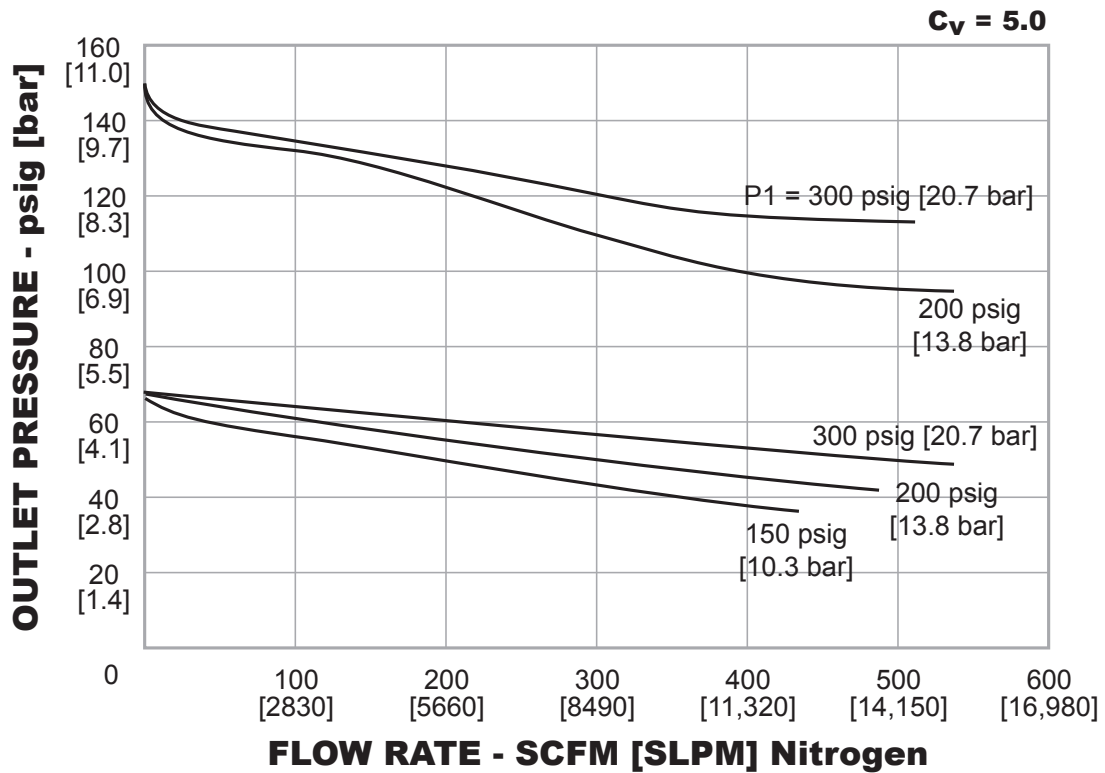
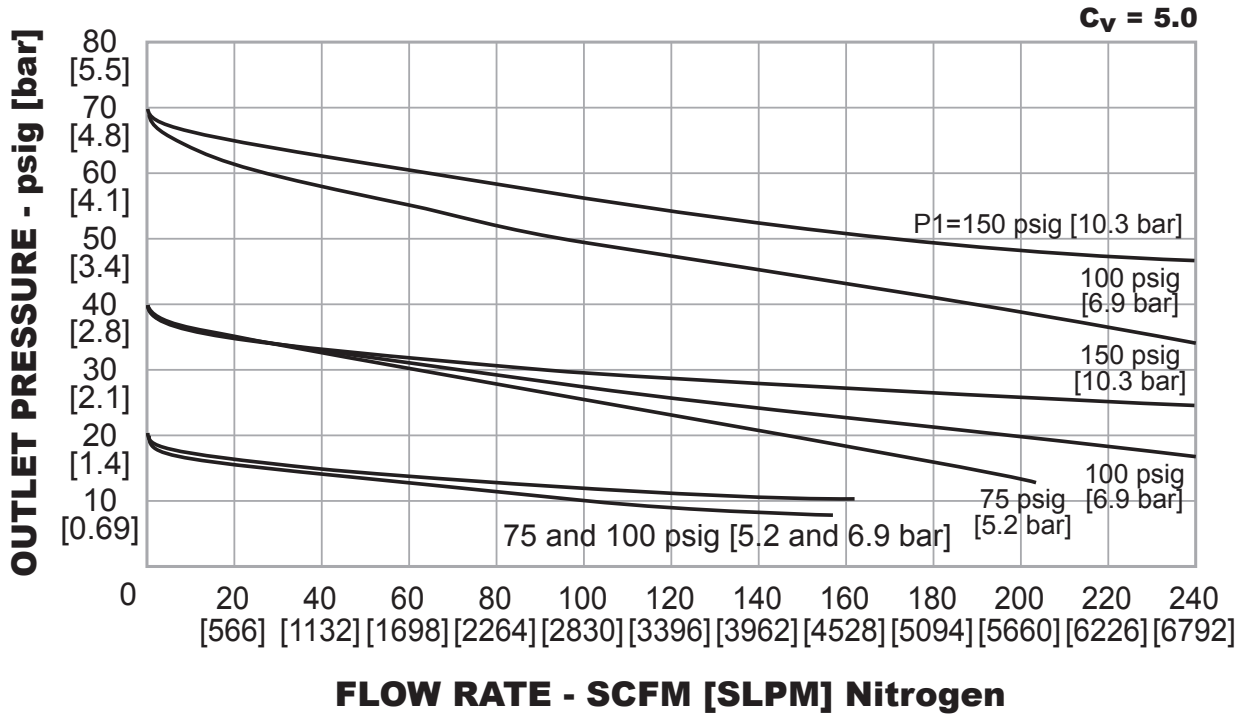


PART NUMBER	DIMENSION "A"	PART NUMBER	DIMENSION "A"
PH16XXXXXXAAX	7.25 / 7.13	PH16XXXXXX66X	9.91 / 9.79
PH16XXXXXXBBX	7.25 / 7.13	PH16XXXXXX77X	9.91 / 9.79
PH16XXXXXXCCX	7.25 / 7.13	PH16XXXXXX88X	9.91 / 9.79
PH16XXXXXXDDX	7.19 / 7.07	PH16XXXXXXWWX	9.91 / 9.79

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

### PH-1600 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).




Note: Flow curves shown with 1" ports. Smaller ports will limit the maximum flow reached. Additional flow curves are available, please consult TESCOM.

## PH-1600 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:

								INLET	OUTLET	GAUGE
								↓	↓	↓
PH16	H	A	1	G	N	B	A	D	D	9
BASIC SERIES	LOAD TYPE	BODY MATERIAL / BODY SURFACE FINISH	OUTLET PRESSURE	SOFT GOODS	VENT SEAT	CERTIFICATE OF CONFORMANCE	GAUGE PORT CONFIGURATION	INLET, OUTLET AND GAUGE PORTS		
PH16	D – Dome load	A – 316L Stainless Steel / 20 R <sub>a</sub> SFV1	0 – 0-20 psig 0-1.4 bar	<b>G – Diaphragm:</b> Gylon® <b>O-rings:</b> E.P. <b>Seat:</b> E.P.	N – Non-Venting	A – None B – Clean Service Certificate	A – No gauge ports 	A – 1/2" Sanitary <sup>1</sup> B – 3/4" Sanitary <sup>2</sup> C – 1" Sanitary D – 1-1/2" Sanitary 6 – 1/2" Tube <sup>1</sup> 7 – 3/4" Tube <sup>2</sup> 8 – 1" Tube W – 1-1/2" Tube Y – 1/4" HPIC 9 – None		
	H – Spring load, handknob		1 – 0-50 psig 0-3.4 bar							
	W – Spring load, wrench adjust	C – 316L Stainless Steel / 30 R <sub>a</sub> SFV3	2 – 0-100 psig 0-6.9 bar							
			3 – 0-150 psig 0-10.3 bar							
			5 – 0-250 psig 0-17.2 bar							
			1. Port size limits regulator to C <sub>v</sub> = 2.5 2. Port size limits regulator to C <sub>v</sub> = 3.5							



**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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