



ZIMMERLI  
MESSTECHNIK AG

Since 1974

## PH-1800 Series

Regulators - Pressure Reducing

DPH181980X012

### 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 and 0-300 (Dome load only) psig  
0-1.4, 0-3.4, 0-6.9, 0-10.3, 0-17.2 and 0-20.7 (Dome load only) bar

**Design Proof Pressure**

150% of rated pressure

**Leakage**

Bubble-tight

**Operating Temperature**

-20°F to 300°F / -29°C to 149°C

**Flow Capacity**

$C_v = 10.0$

#### MEDIA CONTACT MATERIALS

**Body**

316L Stainless Steel

**Diaphragm**

Gylon®

**Seat, Main 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 / 0.51, 0.76 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 (approximately)**

35 lbs / 15.9 kg

Gylon® is a registered trademark of Garlock, Inc.

Elgiloy® is a registered trademark of Elgiloy Corp.



TESCOM PH-1800 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 offers gas flows of 5-2000 SCFM / 142-56,634 SLPM. Its Gylon® diaphragm ensures gas purity and integrity.

### Applications

- Clean steam for sanitization
- Vessel headspace pressurization

### Features and Benefits

- Flow capacity  $C_v = 10.0$
- 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 stubs are available
- Soft goods are USP Class VI compliant
- ASME BPE 2009 compliant design

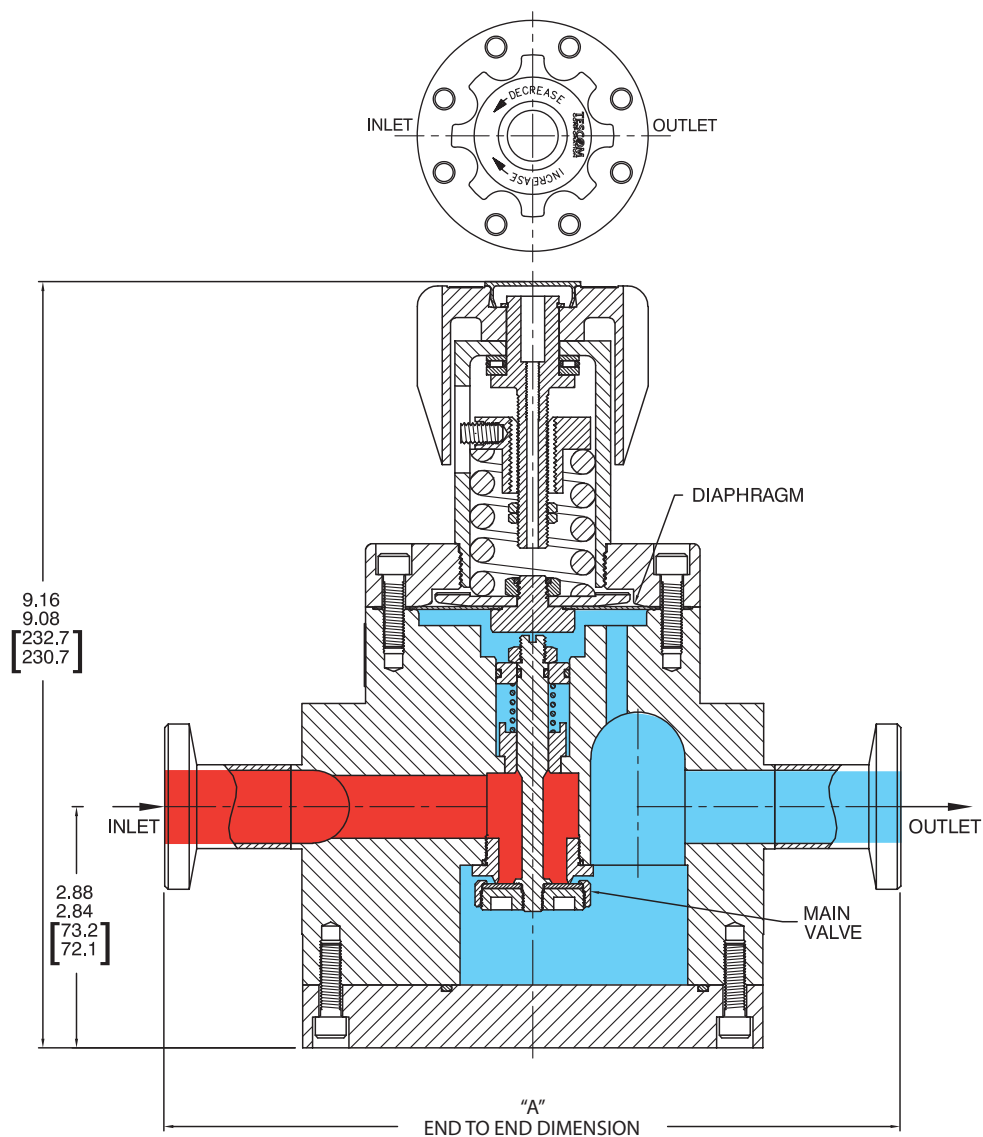
TESCOM™

[www.tescom.com](http://www.tescom.com)

  
**EMERSON™**  
Process Management

## PH-1800 Series Regulator Drawing

SHOWN WITH SANITARY CONNECTIONS



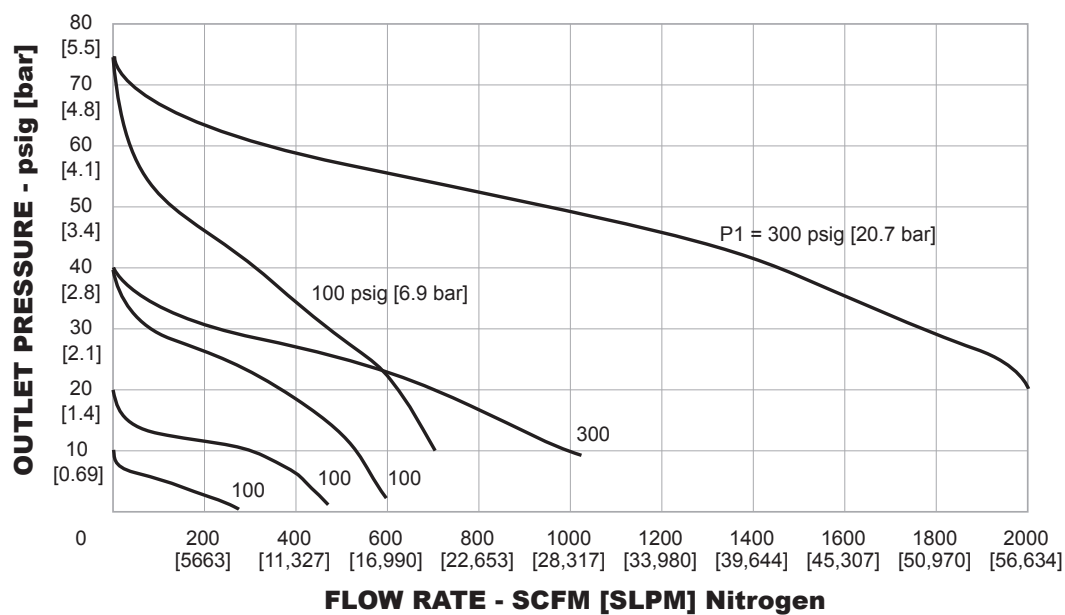
Part No.	Dimension "A"
PH18XXXXXXBBX .....	8.82/8.70
PH18XXXXXXCCX .....	8.82/8.70
PH18XXXXXXDDX .....	8.82/8.70
PH18XXXXXXEEX .....	8.66/8.54

Part No.	Dimension "A"
PH18XXXXXX77X .....	11.56/11.44
PH18XXXXXX88X .....	11.56/11.44
PH18XXXXXXWWX .....	11.56/11.44

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

## PH-1800 Series Regulator Flow Chart


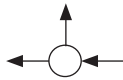
For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on [www.tescom.com](http://www.tescom.com).



## PH-1800 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-18	H	A	1	G	N	B	A	<div> INLET OUTLET GAUGE </div> 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
PH-18	D – Dome load H – Spring load (handknob)	A – 316L Stainless Steel / 20 R <sub>a</sub> SFV1 C – 316L Stainless Steel / 30 R <sub>a</sub> SFV3	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)	G – Diaphragm: Gylon® O-Rings: E.P. Seat: E.P.	N – Non-venting	A – None B – Clean Service Certificate	A – No gauge ports  D – One outlet gauge at 90° 	B – 3/4" Sanitary <sup>1</sup> C – 1" Sanitary D – 1-1/2" Sanitary E – 2" Sanitary 7 – 3/4" Tube <sup>1</sup> 8 – 1" Tube W – 1-1/2" Tube Y – 1/4" HPIC 9 – None

1. Port size limits regulator to C<sub>v</sub> = 6.5



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**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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