

# 15 Series

## Regulators - Pressure Reducing

D15XX1858X012

### 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**

130 and 150 psig / 9.0 and 10.3 bar

**Design Proof Pressure**

150% maximum rated

**Certified Maximum Inboard Leak Rate**

**Diaphragm:**  $1 \times 10^{-9}$  atm cc/sec He

**Seat:**  $1 \times 10^{-6}$  atm cc/sec He

**Operating Temperature**

-20°F to 150°F / -29°C to 65°C

**Flow Capacity**

**Diaphragm:**  $C_v = 8.0$

**Bellows:**  $C_v = 14.0$



#### MEDIA CONTACT MATERIALS

**Body**

316L Stainless Steel

**Diaphragm or Bellows**

316L Stainless Steel

**Seat**

PCTFE or Teflon®

**Seal**

Viton®

**Remaining Parts**

316L Stainless Steel

#### OTHER

**Connections**

Tube extensions

**Cleaning**

DI water electronic grade cleaned

**Weight**

55 lbs / 24.9 kg

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

Supplied mounting holes must be used for attachment of regulator to a support structure. Support structure for tube extensions, components or accessories attached to regulator is the responsibility of the system integrator.

TESCOM 15 Series is designed for ultra high flow applications of up to 28,300 SLPM. The 15 Series is an ultra high purity, 10  $R_a$ , bulk gas pressure reducing regulator. Inlet of 300 psig / 20.7 bar, outlet up to 150 psig / 10.3 bar. Electronically controlled option is available.

#### Application

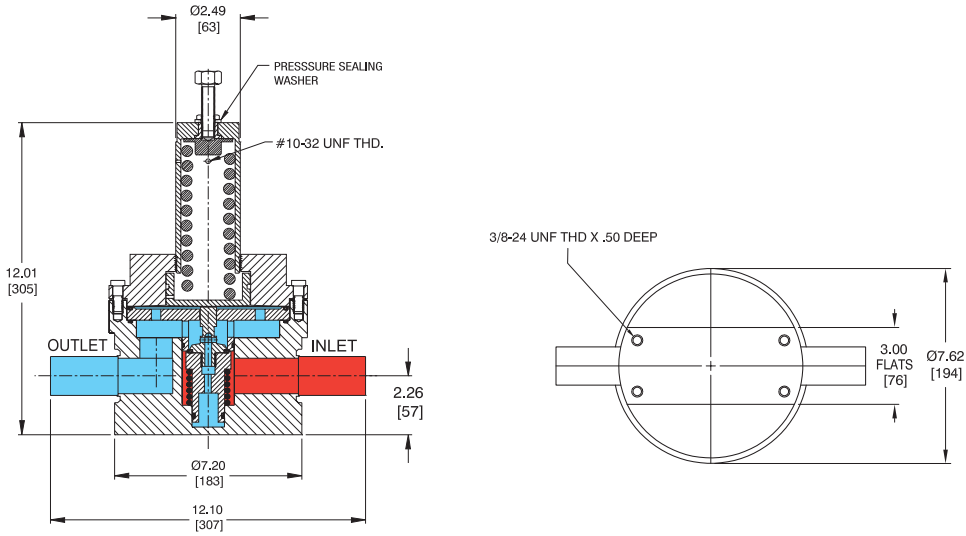
- Facility Bulk Gas Delivery

#### Features and Benefits

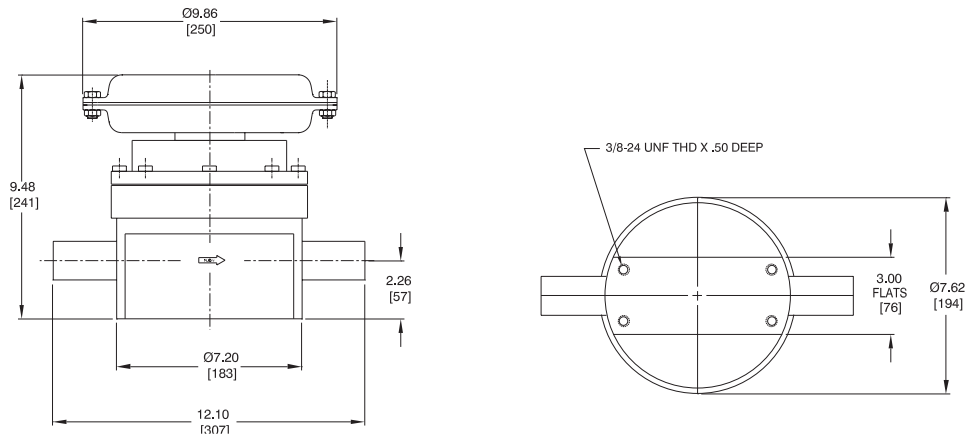
- Diaphragm sensing element maintains very accurate downstream pressure
- 10  $R_a$  microinch internal surface finishes with full internal electropolish
- 316L Stainless Steel bar stock construction
- Two loading options available: Spring/wrench-adjust and air-actuated
- Two sensing options available: Diaphragm and bellows (bellows sensing element expands flow capability beyond 1200 SCFM / 33,960 SLPM)
- Compatible with ER5000 Electronic Controller

15 Series Regulator Drawing

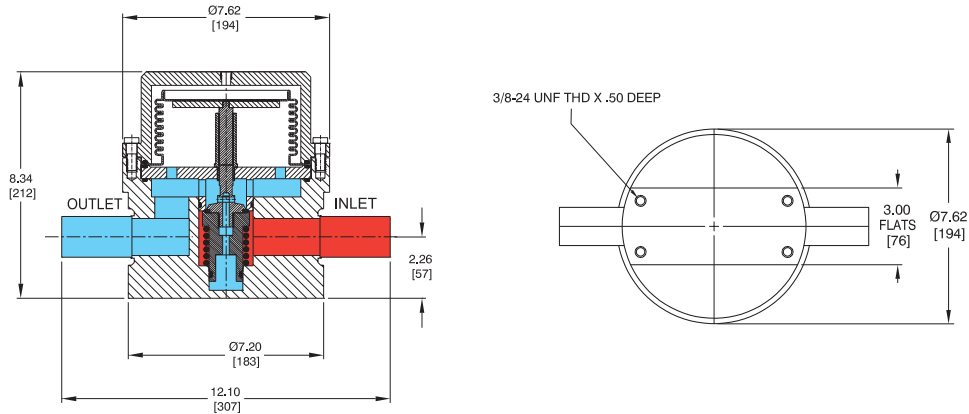
SPRING LOADED - DIAPHRAGM SENSED



AIR ACTUATED - DIAPHRAGM SENSED



AIR ACTUATED - BELLOWS SENSED

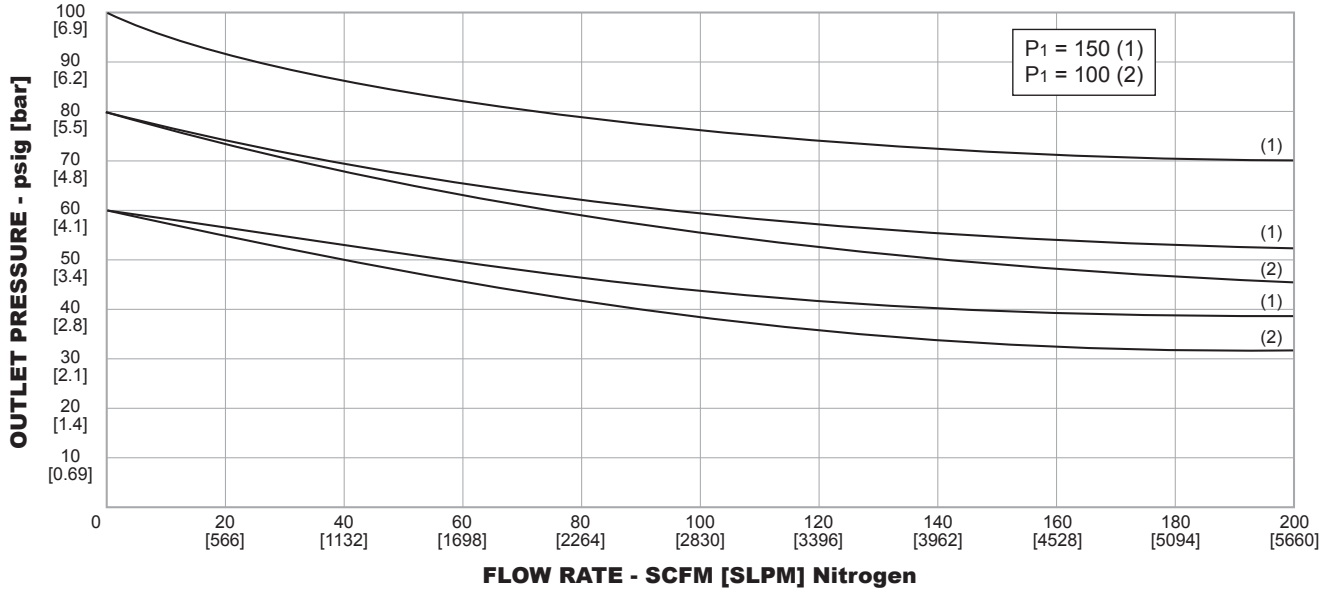


All dimensions are reference & nominal  
Metric [millimeter] equivalents are in bracket

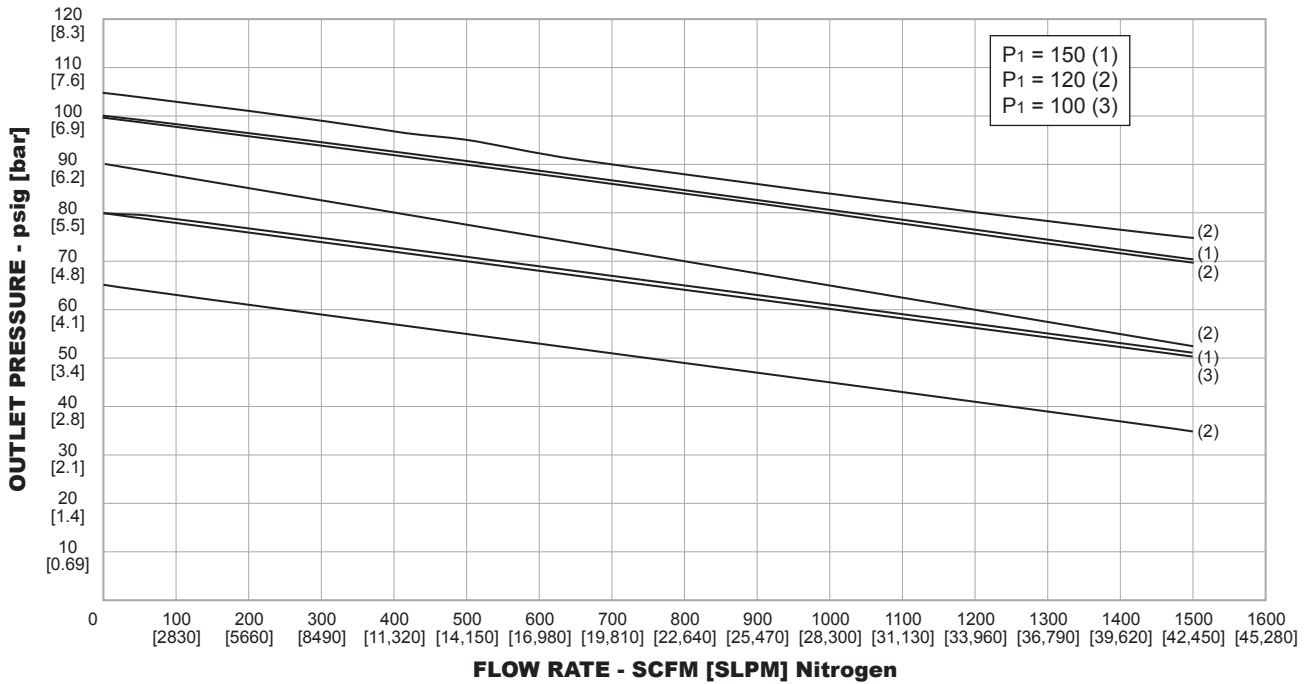
## 15 Series Regulator Flow Charts

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).

### SPRING LOADED - DIAPHRAGM SENSED AND AIR ACTUATED - DIAPHRAGM SENSED



### AIR ACTUATED - BELLOWS SENSED



## 15 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:*

15	1	2	T	V	1	66	Z	
BASIC SERIES	INLET PRESSURE	OUTLET PRESSURE	SEAT MATERIAL	SEAL MATERIAL	ADJUSTMENT METHOD	INLET AND OUTLET PORT SIZE AND TYPE	END-TO-END DIMENSIONS	OPTIONS (choose only one)
15	1 – 300 psig 20.7 bar	1 – 150 psig 10.3 bar  2 – 130 psig 9.0 bar	K – PCTFE  T – Teflon®	V – Viton®	1 – Spring Loaded Diaphragm Sensed  2 – Air Actuated Diaphragm Sensed  3 – Air Actuated Bellows Sensed	UU – 3/4" Tubes  VV – 1" Tubes  66 – 1-1/2" Tubes  SS – 2" Tubes	12.10"  12.10"  12.10"  12.10"	Z – None  T – Test Report (typical)  C – Certification of Conformance



**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*.

D15XX1858X012 © 2014 Emerson Process Management Regulator Technologies, Inc. All rights reserved. 09/2014.  
 Tescom, Emerson Process Management, and the Emerson Process Management design are marks of one of the Emerson Process Management group of companies. All other marks are the property of their respective owners.