

64-5400 Series

Regulators - Pressure Reducing

D64541987X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

600 psig / 41.4 bar

Outlet Pressure Ranges

30, 60, 100, 150 psig

2.1, 4.1, 6.9, 10.3 bar

Design Proof Pressure

150% maximum rated

Inboard Leak Rate

$< 1 \times 10^{-9}$ atm cc/sec He

Operating Temperature

PCTFE Seat: -40°F to 140°F / -40°C to 60°C

Teflon® PFA Seat: -40°F to 160°F / -40°C to 71°C

Flow Capacity

$C_v = 1.0$

Decaying Inlet Characteristic

2.7 per 100 psig / 0.19 per 6.9 bar

MEDIA CONTACT MATERIALS

Body

316L Stainless Steel Electropolish or

316L VAR Stainless Steel Electropolish

Diaphragm

Hastelloy®

Valve Seat

PCTFE or Teflon® PFA

Seat Retainer

Nitronic 60 Stainless Steel

Stem, Seal, and Remaining Parts

316 Stainless Steel

OTHER

Internal Surface Finish

10 R_a microinch / 0.25 micrometer

Connections

Welded Female or Male VCR®

Tube Stubs

Compression Fittings

Cleaning

DI water electronic grade cleaned and ES 500 Particle Certified for internal electropolish models

Internal Volume

21 cc

Weight (without gauges)

3.5 lbs / 1.6 kg

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

VCR® is a registered trademark of Cajon Co.

Hastelloy® is a registered trademark of Haynes International, Inc.



TESCOM 64-5400 Series high purity pressure reducing regulator provides 316 Stainless Steel with Electropolish, 10 R_a surface finish and Hastelloy® diaphragm design. The 64-5400 Series offers high flow $C_v = 1.0$ and inlet pressure of 600 psig / 41.4 bar with outlet pressures up to 150 psig / 10.3 bar.

Applications

- Bulk Specialty Gas Systems (BSGS)
- 1/2" point-of-use
- Tool hookups
- Gas cabinets

Features and Benefits

- Compact, hand-loaded and pressure reducing
- Low internal volume
- Metal-to-metal diaphragm to body seal for high leak integrity
- 1.3 C_v available upon request

64-5400 Series Regulator Drawing

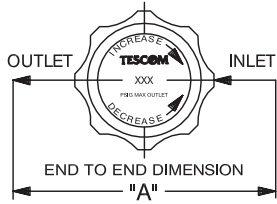


Figure A (no gauges)

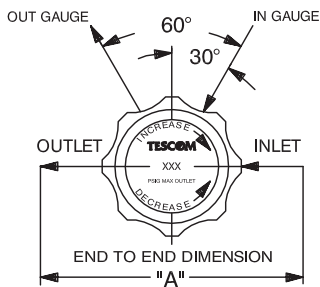


Figure B (2 gauges)

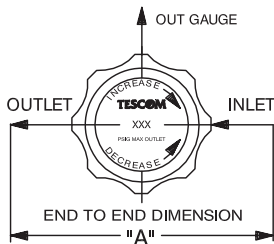
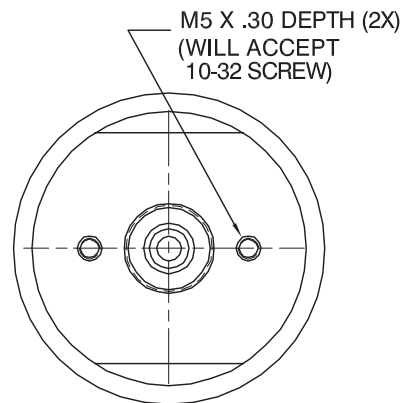
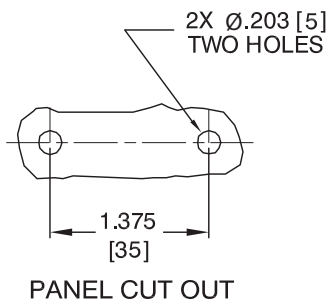
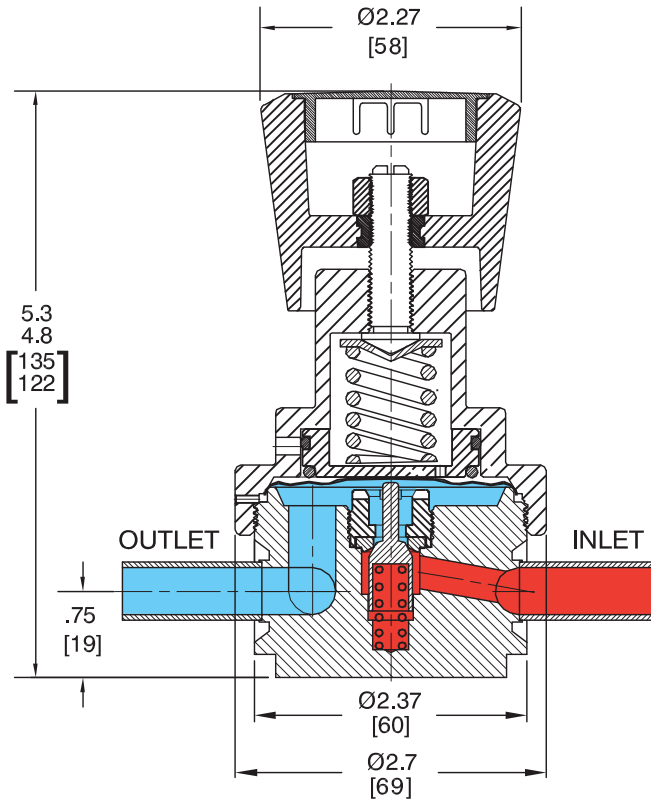


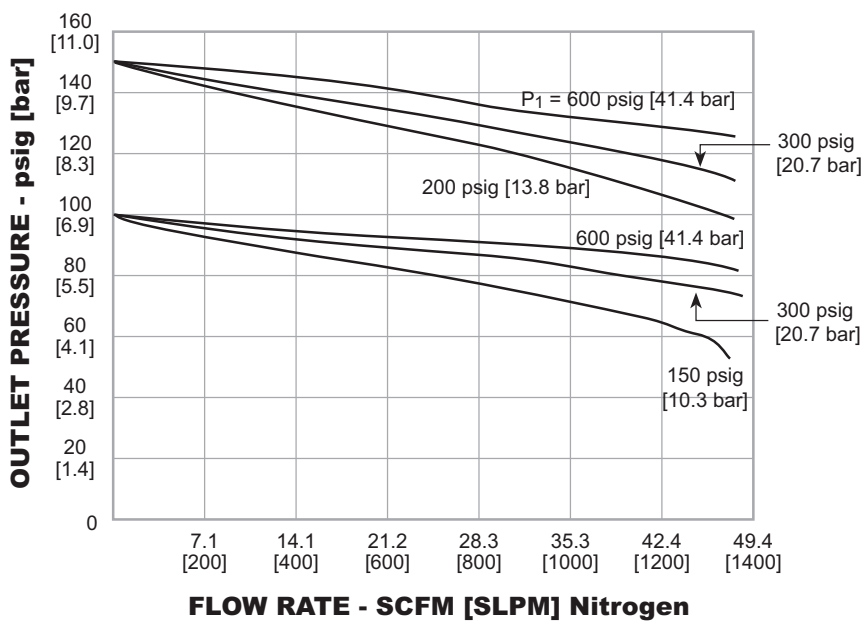
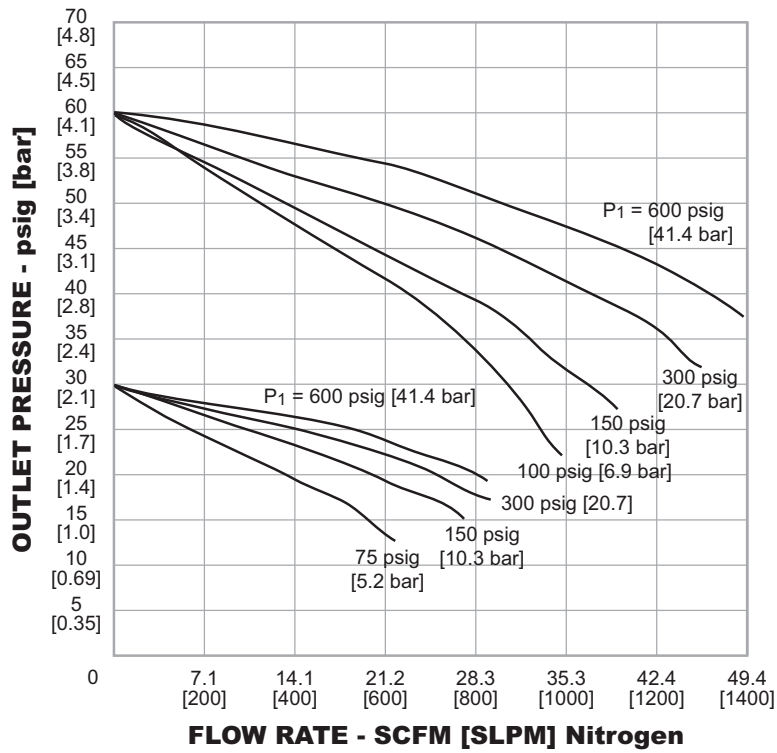
Figure C (1 gauge)



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

64-5400 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.



64-5400 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:

| 64-54 | 6 | 2 | K | T6 | 1 | 0 | | | |
|--------------|---|-------------------|--------------------------|-------------------------------------|-------------------------------------|------------|--------------------------|-------------------|--------------------------------|
| BASIC SERIES | BODY MATERIAL | FINISH | OUTLET PRESSURE | SEAT MATERIAL | INLET AND OUTLET PORT TYPE AND SIZE | 'A' ± .06" | MAXIMUM INLET PRESSURE | GAUGE PORT OPTION | NUMBER OF GAUGE PORTS (FIGURE) |
| 64-54 | 4 – 316L Stainless Steel Electropolish ¹ | 10 R _a | 0 – 30 psig 2.1 bar | K – PCTFE T – Teflon® PFA | T6 – 3/8" Tube Stubs | 3.70 | 1 – 600 psig 41.4 bar | 0 – None | 0 (A) |
| | 6 – 316L VAR Stainless Steel Electropolish ² | 10 R _a | 1 – 60 psig 4.1 bar | | T8 – 1/2" Tube Stubs | 3.70 | | 1 – 1/4" H.P.I.C. | 1 (C) |
| | | | 2 – 100 psig 6.9 bar | | RU – 1/2" Male Swivel | 5.59 | | 2 – 1/4" H.P.I.C. | 2 (B) |
| | | | 3 – 150 psig 10.3 bar | | RW – 1/2" Female Swivel | 5.59 | | | |
| | | | | | C6 – 3/8" Compression Fitting | 6.42 | | | |
| | | | | | C8 – 1/2" Compression Fitting | 6.00 | | | |

1. Per ASTM B 912
2. Per SEMI F19, HP Grade