

64-3200 Series

Regulators - Pressure Reducing

D64321837X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

150, 1000, 1500 psig / 10.3, 69.0, 103 bar

Outlet Pressure Ranges

30, 60, 100, 150, 200 psig / 2.1, 4.1, 6.9, 10.3, 13.8 bar

Design Proof Pressure

150% of maximum rated

Inboard Leak Rate

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

Operating Temperature

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

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

Vespe® Seat: -40°F to 350°F / -40°C to 177°C

Flow Capacity

$C_v = 1.2$

Decaying Inlet Characteristic

5 per 100 psig / 0.34 per 6.9 bar

MEDIA CONTACT MATERIALS

Body

316L Stainless Steel Electropolish or
316L VAR Stainless Steel Electropolish

Diaphragm

Hastelloy®

Seat Retainer

316 Stainless Steel

Poppet

316 Stainless Steel or Hastelloy®

Valve Seat

Teflon®, Vespe®, PCTFE

Valve Spring

316 Stainless Steel

Remaining Parts

316 Stainless Steel

OTHER

Internal Surface Finish

10 R_a microinch / 0.25 micrometer

Connections

Welded female or male VCR®

Tube stubs

High Purity Internal Connections (H.P.I.C.)

(Internal style of VCR®, compatible with male swivel VCR®)

Cleaning

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

Internal Volume

1/2" fitting / 32 cc

Weight (without gauges)

3.5 lbs / 1.6 kg

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

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

VCR® is a registered trademark of Cajon Co.



TESCOM 64-3200 Series ultra high purity, high flow tied diaphragm pressure reducing regulator offers 10 R_a microinch / 0.25 micrometer surface finish and is available in Hastelloy® trim. Maximum flow rates are up to 31.8 SCFM / 900 SLPM, with inlet pressures of 150, 1000, 1500 psig / 10.3, 69.0, 103 bar and outlet pressures up to 200 psig / 13.8 bar.

Applications

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

Features and Benefits

- Designed for high flow, bulk specialty gas
- Hastelloy® trim option is available
- Positive shut-off seal, tied diaphragm design
- Metal-to-metal diaphragm to body seal for high leak integrity

64-3200 Series Regulator Drawing

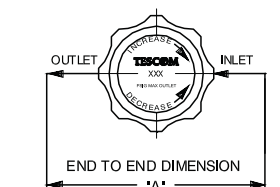


FIGURE A (NO GAUGES)

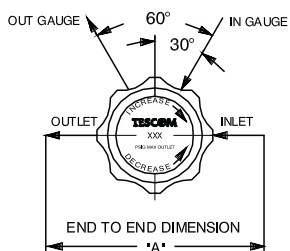


FIGURE B (2 GAUGES)

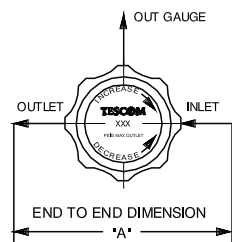


FIGURE C (1 GAUGE)

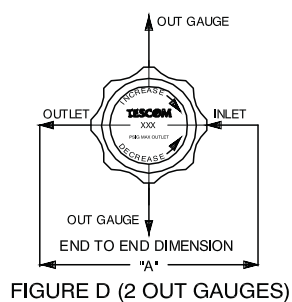
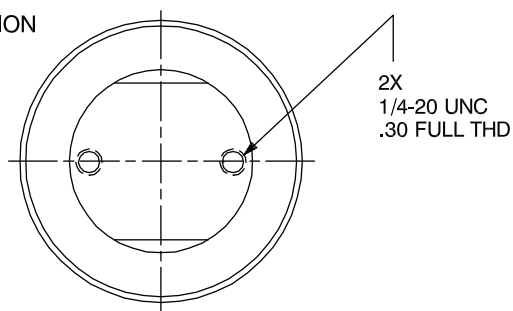
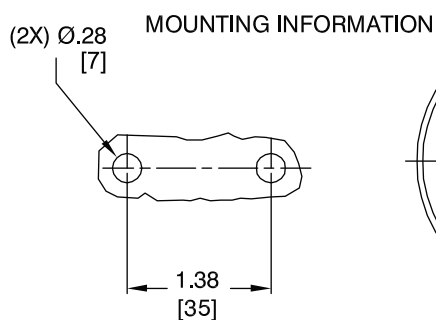
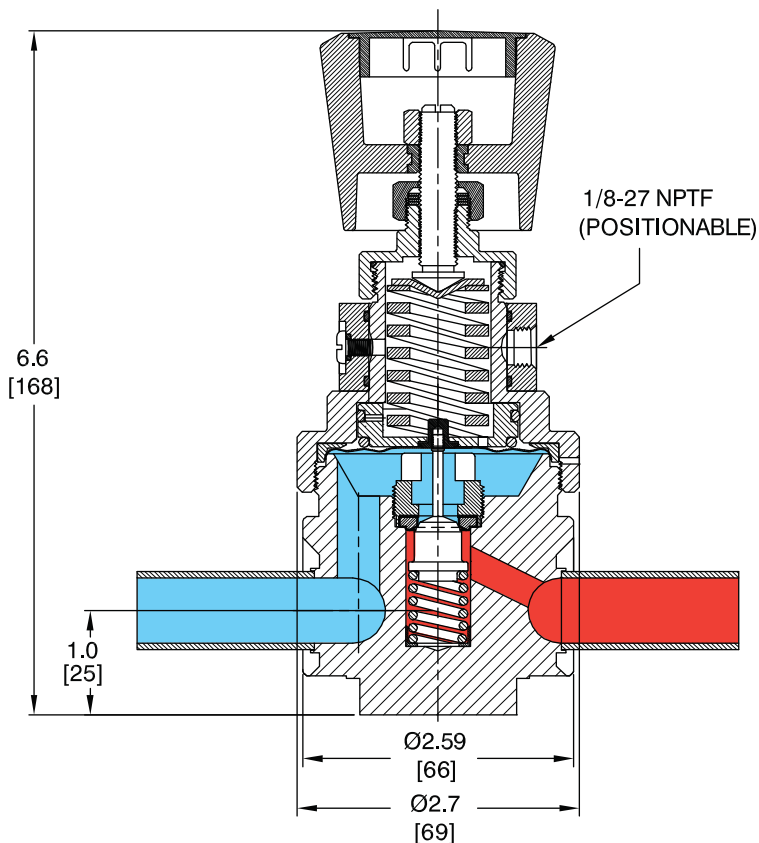


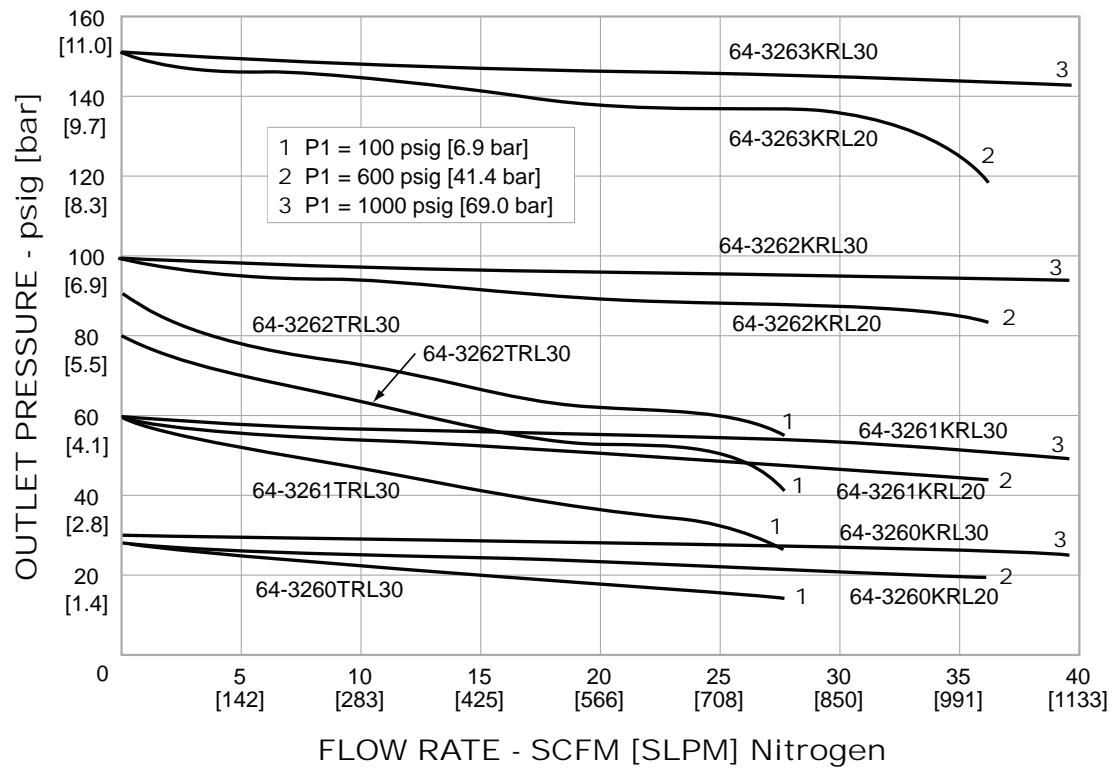
FIGURE D (2 OUT GAUGES)



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

64-3200 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.



64-3200 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:

| 6 | | 3 | K | RL | | 1 | 0 | |
|--|--|---|---|---|------------|---|--|--|
| BASIC SERIES | BODY MATERIAL/ FINISH | OUTLET PRESSURE RANGES | SEAT MATERIAL | INLET AND OUTLET PORT SIZE AND TYPE | 'A' ± .06" | MAXIMUM INLET PRESSURE | GAUGE PORT OPTION | NO. OF GAUGE PORTS (FIGURE) |
| 64-32 | 4 – 316L Stainless Steel Electropolish: 10 R _a ¹ | 0 – 30 psig 2.1 bar | K – PCTFE (1000 or 1500 psig / 69.0 or 103 bar inlet only) T – Teflon® (150 psig / 10.3 bar inlet only) V – Vespel® (1000 or 1500 psig / 69.0 or 103 bar inlet only) | T1 – 1" Tube Ends 5.75" | 5.75" | 316 Stainless Steel Trim 1 – 1500 psig / 103 bar 2 – 1000 psig / 69.0 bar 3 – 150 psig / 10.3 bar Hastelloy® Trim 4 – 1500 psig / 103 bar 5 – 1000 psig / 69.0 bar 6 – 150 psig / 10.3 bar | 0 – None | 0 (Figure A) |
| | 6 – 316L VAR Stainless Steel Electropolish: 10 R _a ² | 1 – 60 psig 4.1 bar 2 – 100 psig 6.9 bar 3 – 150 psig 17.2 bar (1000 or 1500 psig / 69.0 or 103 bar inlet only) 4 – 200 psig 0-13.0 bar (1000 or 1500 psig / 69.0 or 103 bar inlet only) | | T6 – 3/8" Tube Ends 3.70" T7 – 3/4" Tube Ends 5.75" T8 – 1/2" Tube Ends 3.70" RA – 1/4" Male Fixed 3.70" RB – 3/4" Male Swivel 6.30" RC – 3/4" Female Swivel 6.30" RG – 1/4" Male Swivel High Flow 4.27" RK – 1/2" Male Swivel 5.59" RL – 1/2" Female Swivel 5.59" RU – IN Port: 1/4" Male Fixed; OUT Port: 1/4" Female Swivel RV – IN Port: 1/4" Female Swivel; OUT Port: 1/4" Male Swivel RY – IN Port: 1/4" Female High Flow; OUT Port: 1/4" Male Fixed RZ – IN Port: 1/2" Female Swivel; OUT Port: 1/2" Male Swivel SA – 1/4" Male Fixed 4.08" SK – 1/2" Male Swivel 5.21" | | | 1 – 1/4" H.P.I.C. 2 – 1/4" H.P.I.C. 3 – 1/4" H.P.I.C. 4 – 1/4" Male Swivel 5 – 1/4" Male Swivel 6 – 1/4" Male Swivel 7 – 1/4" Female Swivel 8 – 1/4" Female Swivel 9 – 1/4" Female Swivel N – 1/4" Tube Stub P – 1/4" Tube Stub R – 1/4" Tube Stub S – 1/4" Fixed Male T – 1/4" Fixed Male U – 1/4" Fixed Male | 1 (Figure C) 2 (Figure B) 2 (Figure D) 2 (Figure D) 1 (Figure C) 2 (Figure B) 2 (Figure B) 1 (Figure C) 2 (Figure D) 2 (Figure B) 1 (Figure C) 2 (Figure D) 2 (Figure B) 1 (Figure C) 2 (Figure D) |
| <div>1. Per ASTM B 912 2. Per SEMI F19, HP grade</div> | | | | | | | | |

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