

# 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

**Vespel® 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®, Vespel®, 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

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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.

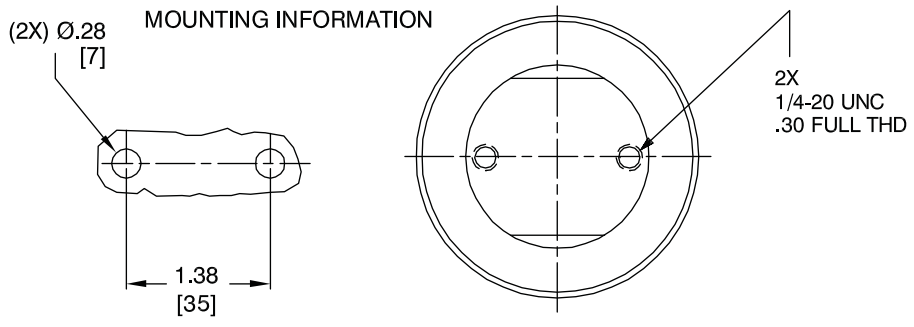
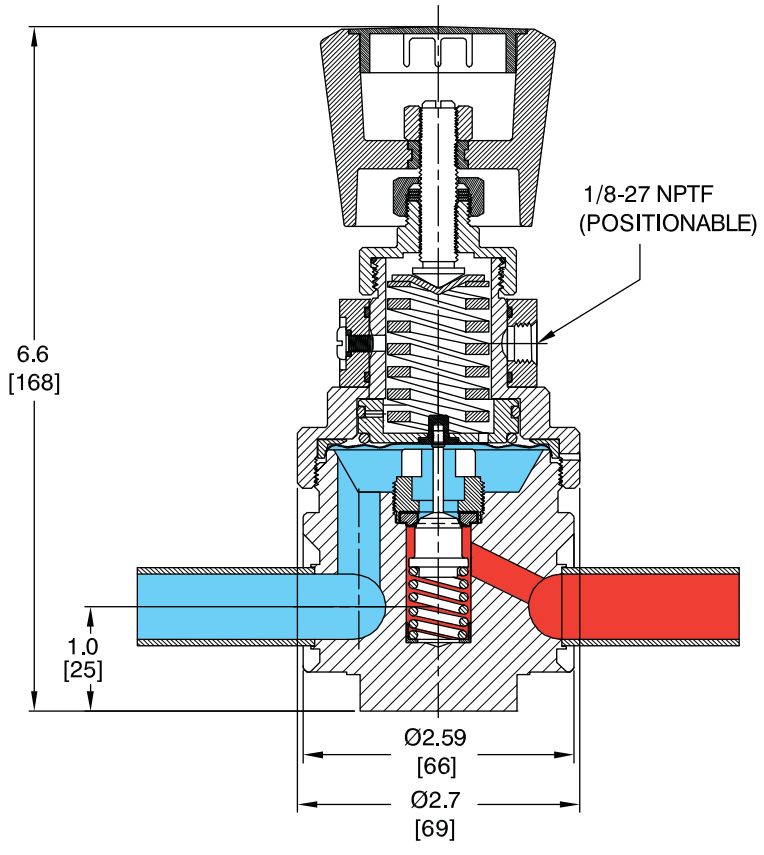
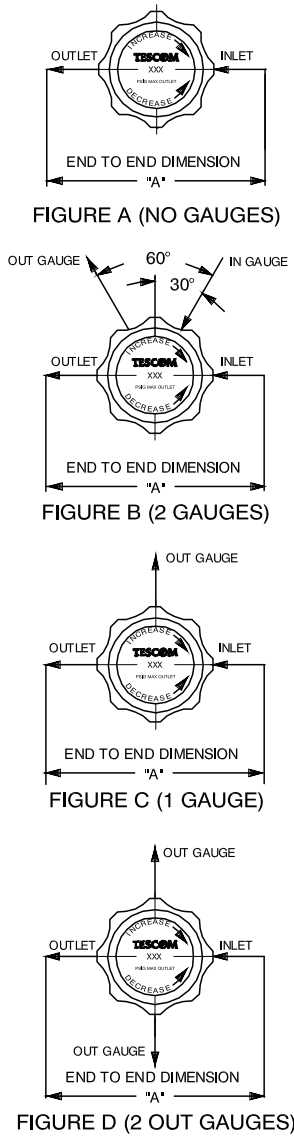
### Applications

- 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

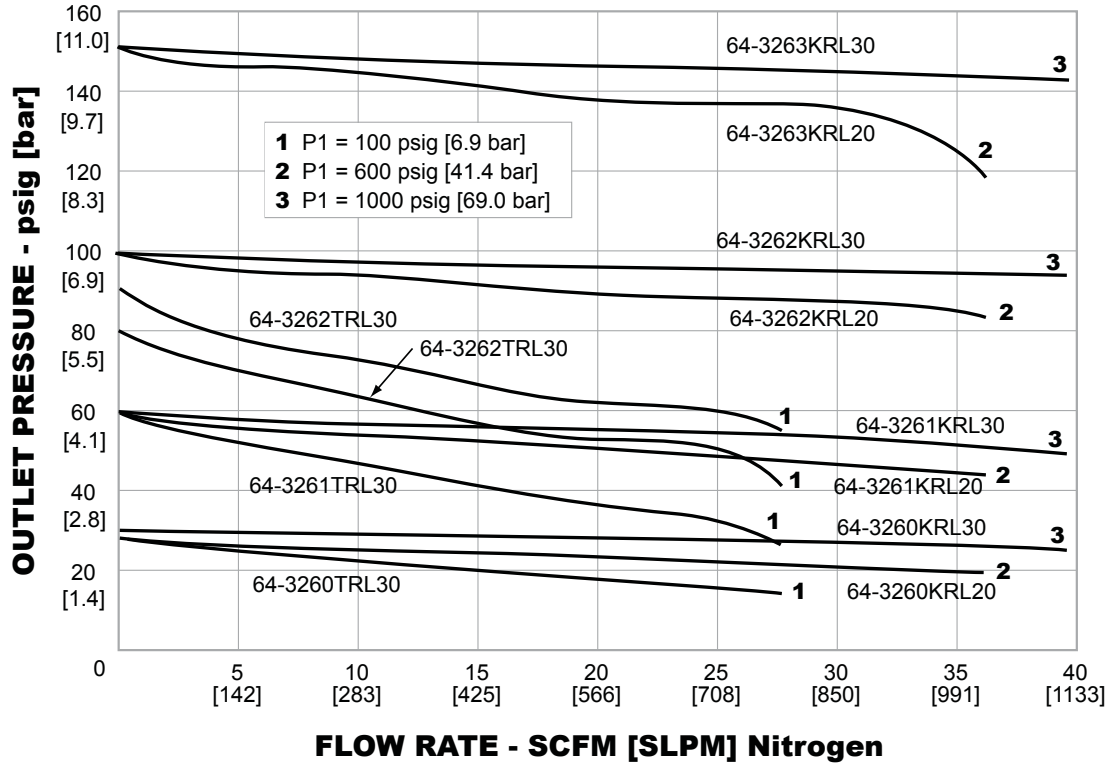
64-3200 Series Regulator Drawing



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](http://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:

64-32	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 <sub>a</sub> <sup>1</sup>	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"	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 <sub>a</sub> <sup>2</sup>	1 – 60 psig 4.1 bar		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 5.59" RV – IN Port: 1/4" Female Swivel; OUT Port: 1/4" Male Swivel 4.27" RY – IN Port: 1/4" Female High Flow; OUT Port: 1/4" Male Fixed 5.59" RZ – IN Port: 1/2" Female Swivel; OUT Port: 1/2" Male Swivel 4.08" SA – 1/4" Male Fixed 5.21" SK – 1/2" Male Swivel			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 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)
	1. Per ASTM B 912 2. Per SEMI F19, HP grade	2 – 100 psig 6.9 bar 3 – 150 psig 17.2 bar 10.3 bar inlet only (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)						