

# 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

Teflon® and Vespel® 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.

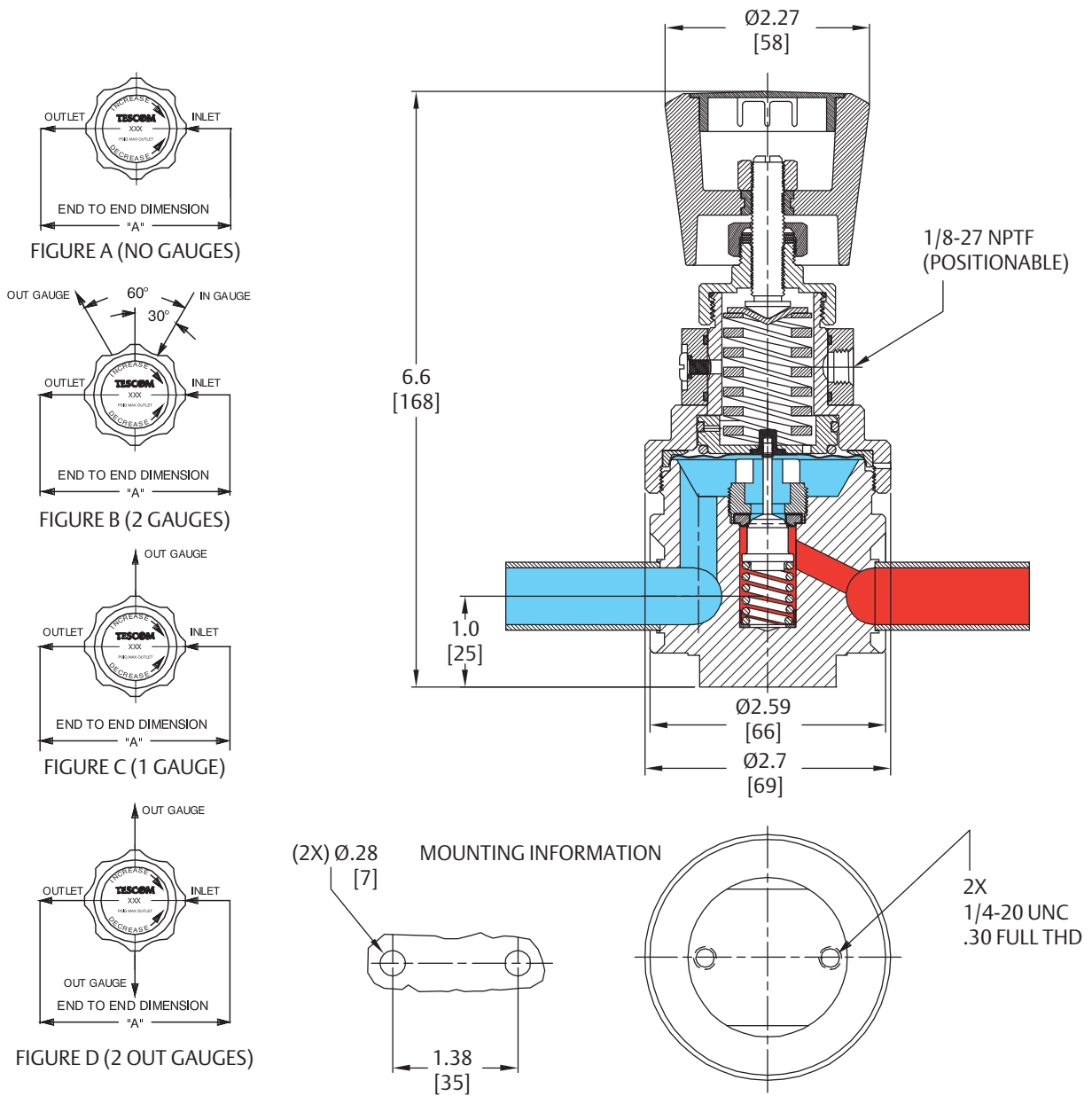
### Applications

- 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
- Captured bonnet

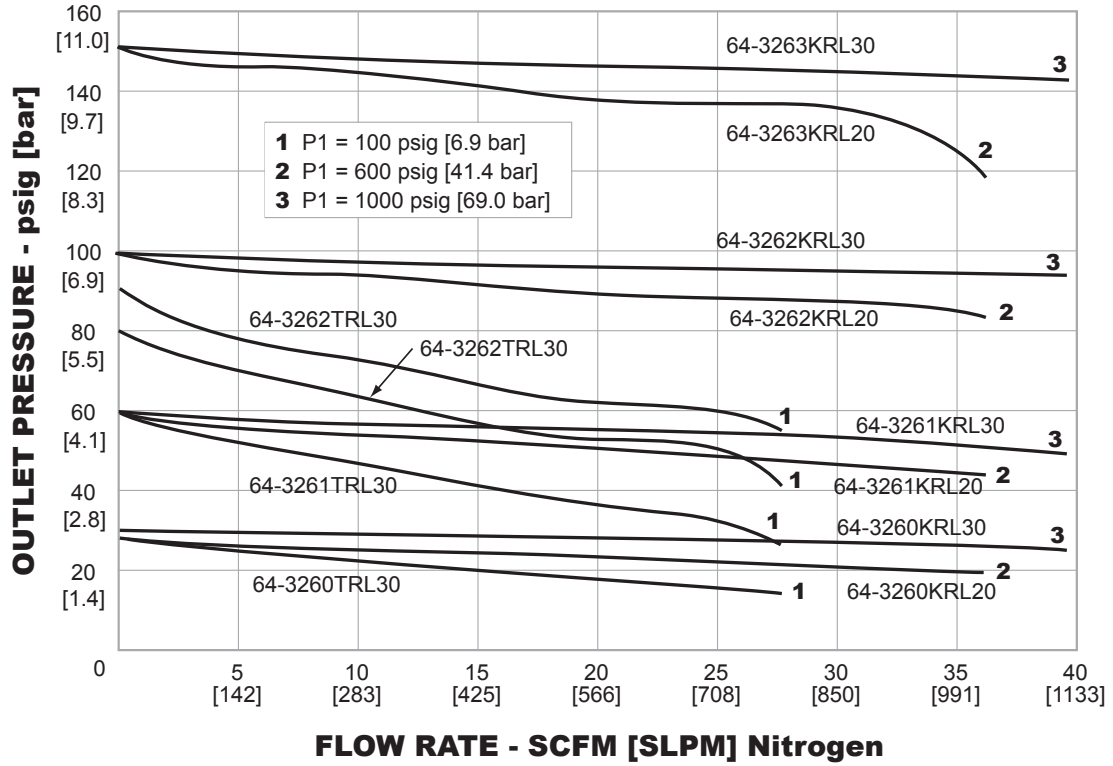
64-3200 Series Regulator Drawing



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)	T1 – 1" Tube Ends	5.75"	316 Stainless Steel Trim	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"		1 – 1500 psig / 103 bar	1 – 1/4" H.P.I.C.
		2 – 100 psig 6.9 bar	T – Teflon® (150 psig / 10.3 bar inlet only)	T7 – 3/4" Tube Ends	5.75"	Hastelloy® Trim	2 – 1/4" H.P.I.C.	2 (Figure B)
		3 – 150 psig 10.3 bar (1000 or 1500 psig / 69.0 or 103 bar inlet only)		RA – 1/4" Male Fixed	3.70"		3 – 150 psig / 10.3 bar	3 – 1/4" H.P.I.C.
		4 – 200 psig 0-13.8-bar (1000 or 1500 psig / 69.0 or 103 bar inlet only)	V – Vespel® (1000 or 1500 psig / 69.0 or 103 bar inlet only)	RB – 3/4" Male Swivel	6.30"	4 – 1500 psig / 103 bar	4 – 1/4" Male Swivel	2 (Figure D)
				RC – 3/4" Female Swivel	6.30"	5 – 1000 psig / 69.0 bar	5 – 1/4" Male Swivel	1 (Figure C)
				RG – 1/4" Male Swivel High Flow	4.27"	6 – 150 psig / 10.3 bar	6 – 1/4" Male Swivel	2 (Figure B)
				RH – 1/4" Female Swivel High Flow	4.27"		7 – 1/4" Female Swivel	2 (Figure D)
				RK – 1/2" Male Swivel	5.59"		8 – 1/4" Female Swivel	1 (Figure C)
				RL – 1/2" Female Swivel	5.59"		9 – 1/4" Female Swivel	2 (Figure B)
				RU – IN Port: 1/4" Male Fixed; OUT Port: 1/4" Female Swivel	3.70"		N – 1/4" Tube Stub	2 (Figure B)
				RV – IN Port: 1/2" Male Swivel; OUT Port: 1/2" Female Swivel	5.59"		P – 1/4" Tube Stub	1 (Figure C)
				RY – IN Port: 1/4" Female High Flow; OUT Port: 1/4" Male Fixed	4.27"		R – 1/4" Tube Stub	2 (Figure D)
				RZ – IN Port: 1/2" Female Swivel; OUT Port: 1/2" Male Swivel	5.59"		S – 1/4" Fixed Male	2 (Figure B)
				SA – 1/4" Male Fixed	4.08"		T – 1/4" Fixed Male	1 (Figure C)
				SK – 1/2" Male Swivel	5.21"		U – 1/4" Fixed Male	2 (Figure D)

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



**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.