

Specifications

For other materials or modifications, please consult TESCO M.

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

$C_v = 1.2$

MEDIA CONTACT MATERIALS

Body

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

Diaphragm

Nickel Alloy (Hastelloy®)

Seat Retainer

316 Stainless Steel

Poppet

316 Stainless Steel or Nickel Alloy (Hastelloy®)

Valve Seat

PTFE, Polyimide (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

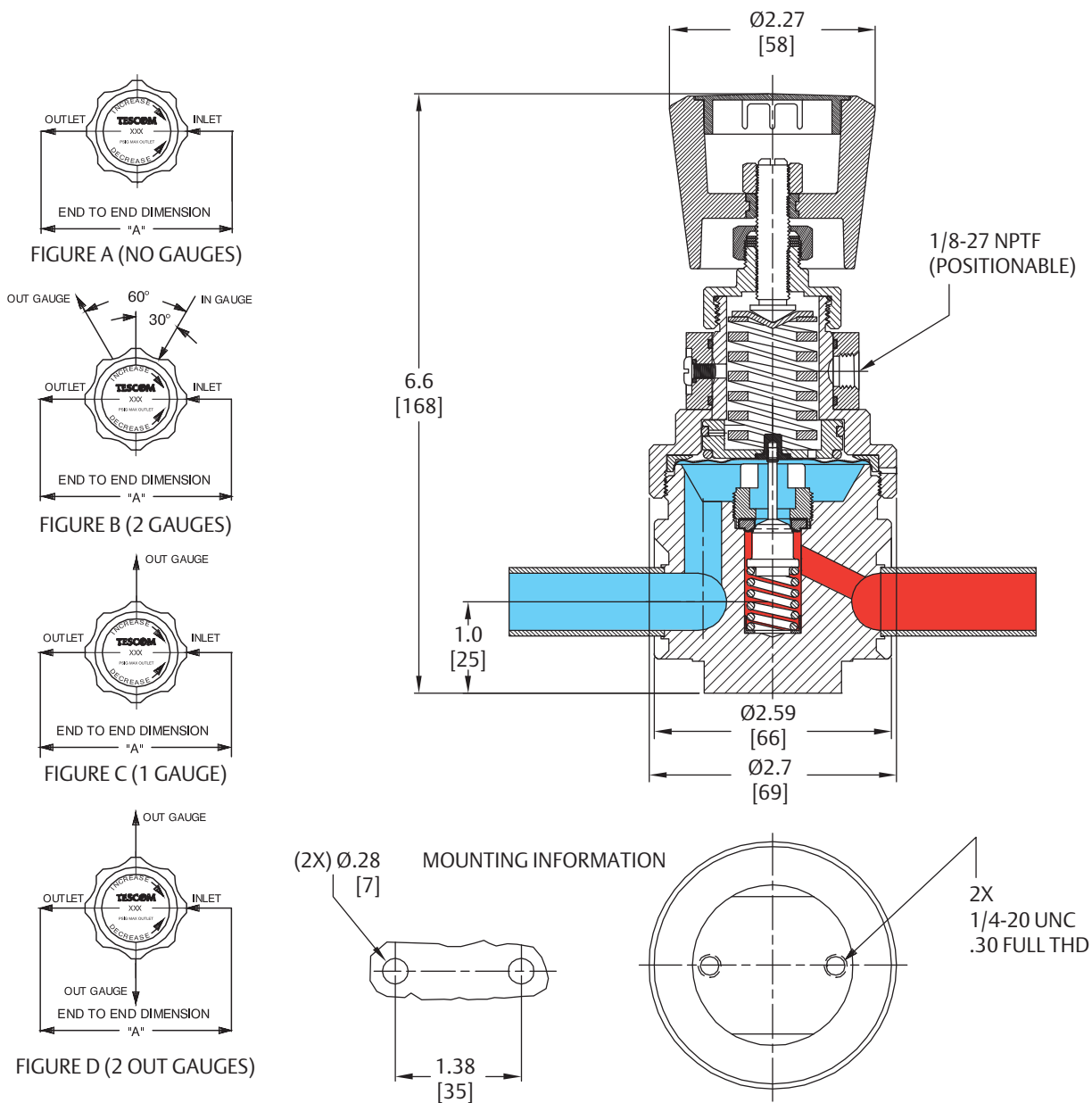
NOTE:

When choosing a regulator and control pressure, decaying inlet characteristic must be considered when the supply pressure is expected to change. The decaying inlet characteristic of a pressure reducing regulator is commonly known as the increase in control pressure due to the decrease in supply pressure. It is important to make sure this effect does not cause the control pressure to exceed the pressure rating of the unit's outlet or that of the downstream system.

For more information on decaying inlet, please refer to the Technical Information section of the product catalog and/or contact the TESCO M customer support further assistance.

64-3200 SERIES

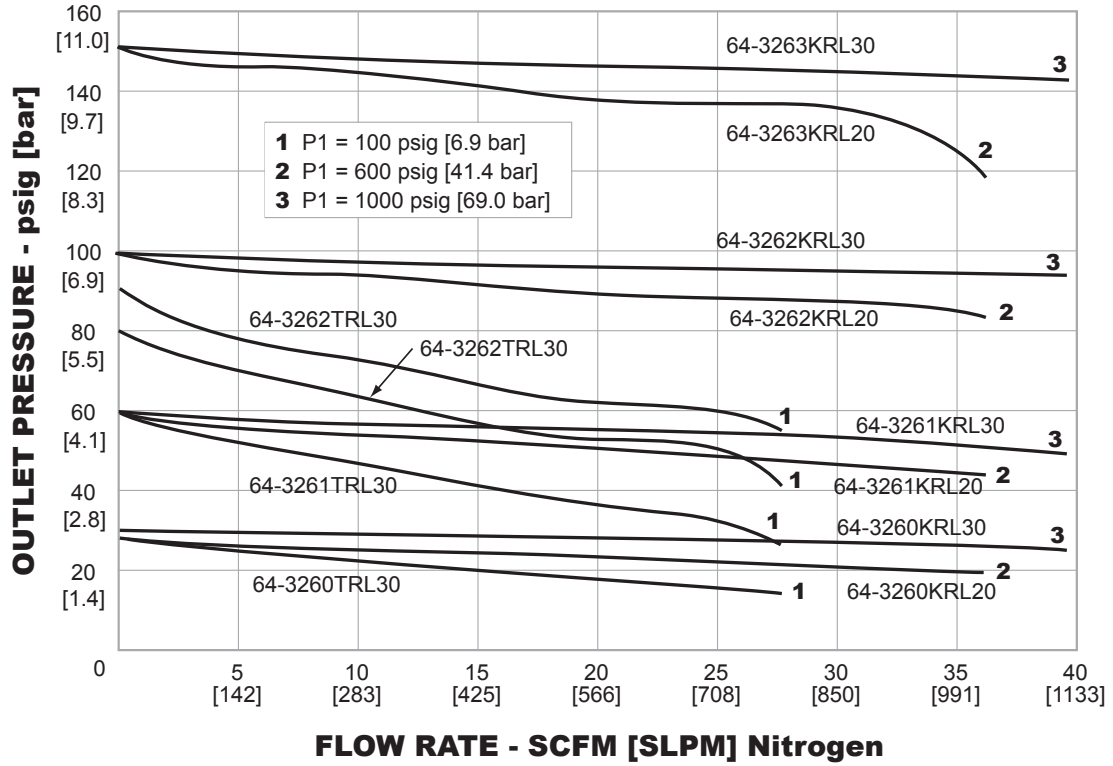
64-3200 Series Regulator Drawing



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.



64-3200 SERIES

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 _a ¹	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 _a ²	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 – PTFE (150 psig / 10.3 bar inlet only)	T7 – 3/4" Tube Ends	5.75"	2 – 1000 psig / 69.0 bar	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.	2 (Figure D)
		4 – 200 psig 0-13.8-bar (1000 or 1500 psig / 69.0 or 103 bar inlet only)	V – Polyimide (Vespel®) (1000 or 1500 psig / 69.0 or 103 bar inlet only)	RB – 3/4" Male Swivel	6.30"	Hastelloy® Trim	4 – 1/4" Male Swivel	2 (Figure D)
				RC – 3/4" Female Swivel	6.30"	4 – 1500 psig / 103 bar	5 – 1/4" Male Swivel	1 (Figure C)
				RG – 1/4" Male Swivel High Flow	4.27"	5 – 1000 psig / 69.0 bar	6 – 1/4" Male Swivel	2 (Figure B)
				RH – 1/4" Female Swivel High Flow	4.27"	6 – 150 psig / 10.3 bar	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