

64-3400 Series

Regulators - Pressure Reducing

D64341782X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

3500 psig / 241 bar

Outlet Pressure Ranges

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

Design Proof Pressure

150% of maximum rated

Inboard Leak Rate

Seat: $< 4 \times 10^{-9}$ atm cc/sec He

Diaphragm: $< 1 \times 10^{-9}$ 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

See Part Number Selector

Decaying Inlet Characteristic

0.4 per 100 psig / 0.03 per 6.9 bar

MEDIA CONTACT MATERIALS

Body

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

Diaphragm

316L Stainless Steel

Valve Seat

PCTFE or Teflon PFA®

Valve Spring

316 Stainless Steel

Valve Stem and Remaining Parts

316 Stainless Steel (Hastelloy® optional)

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

10 cc

Weight

3.0 lbs / 1.4 kg

Teflon® is a registered trademark 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 64-3400 Series dual-stage, ultra high purity pressure reducing regulator offers a tied diaphragm design and 10 R_a microinch / 0.25 micrometer surface finish with optional Hastelloy® trim. Inlet pressure is 3500 psig / 241 bar with outlet pressures up to 150 psig / 10.3 bar.

Applications

- Gas cabinets
- Semiconductor manufacturing
- Research labs

Features and Benefits

- 10 R_a microinch / 0.25 micrometer internal surfaces
- Full internal Electropolish is available
- Metal-to-metal body to diaphragm seal for high leak integrity
- Choice of free poppet or tied diaphragm

64-3400 Series Regulator Drawing

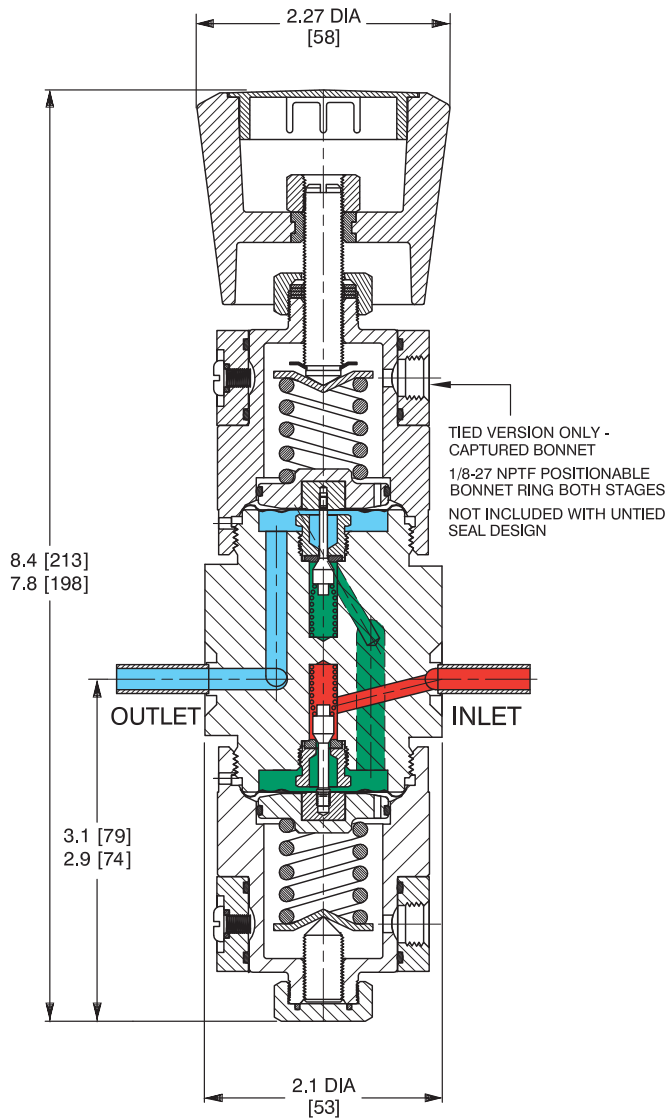


Figure A

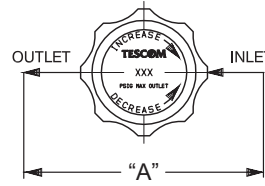


Figure B

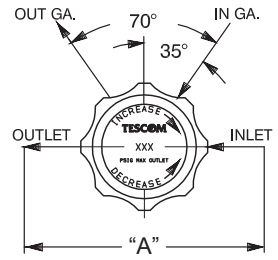


Figure C

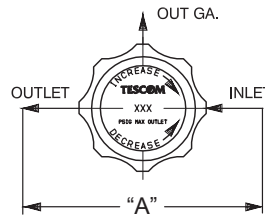
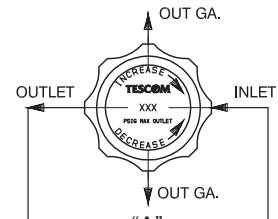


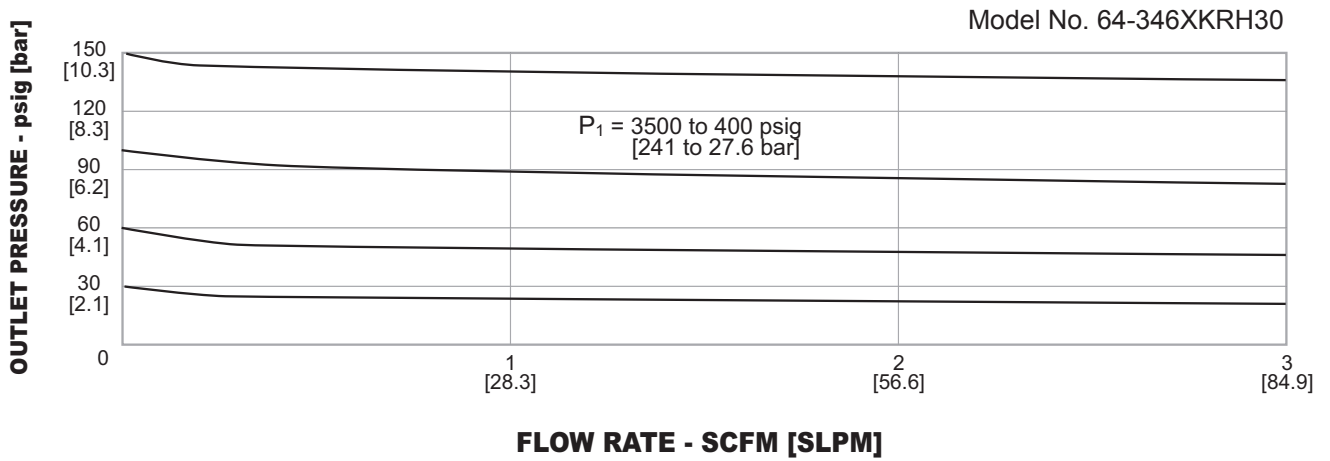
Figure D



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

64-3400 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.



64-3400 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:

64-34	6	2	K	A4	2	0		
BASIC SERIES	BODY MATERIAL/ FINISH	OUTLET PRESSURE RANGES	SEAT MATERIAL	INLET AND OUTLET PORT SIZE AND TYPE 'A' ± .06"	SEAL DESIGN	C _v	GAUGE PORT OPTIONS	NO. OF GAUGE PORTS (FIGURE)
64-34	4 – 316L Stainless Steel Electropolish: 10 R _a ¹ 6 – 316L VAR Stainless Steel Electropolish: 10 R _a ²	0 – 30 psig 2.1 bar 1 – 60 psig 4.1 bar 2 – 100 psig 6.9 bar 3 – 150 psig 10.3 bar	K – PCTFE T – Teflon PFA® (untied models only)	A4 – 1/4" H.P.I.C. (see Connections)	1 – Untied	C _v = 0.06	0 – None	0 (Figure A)
				2 – Tied	C _v = 0.06	1 – 1/4" H.P.I.C.	1 (Figure C)	
				3 – Tied	C _v = 0.15	2 – 1/4" H.P.I.C.	2 (Figure B)	
				4 – Tied (Hastelloy® Trim)	C _v = 0.15	3 – 1/4" H.P.I.C.	2 (Figure D)	
				4 – 1/4" Male Swivel	4.92"	4 – 1/4" Male Swivel	2 (Figure D)	
				4 – 1/4" Female Swivel	4.92"	5 – 1/4" Male Swivel	1 (Figure C)	
				RM – 1/4" Fixed Male	3.70"	6 – 1/4" Male Swivel	2 (Figure B)	
				RT – 1/4" Female Swivel	3.70"	7 – 1/4" Female Swivel	2 (Figure D)	
				RU – IN Port: 1/4" Male; OUT Port: 1/4" Female	3.70"	8 – 1/4" Female Swivel	1 (Figure C)	
				RV – IN Port: 1/4" Female; OUT Port: 1/4" Male	3.70"	9 – 1/4" Female Swivel	2 (Figure B)	
				T4 – 1/4" Tube Stubs	3.00"	S – 1/4" Fixed Male	2 (Figure B)	
						T – 1/4" Fixed Male	1 (Figure C)	
						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*.

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