TESCOM

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 x 10^{-9} atm cc/sec He
Diaphragm: < 1 x 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

EMERSON
Process Management

64-3400 Series Regulator Drawing

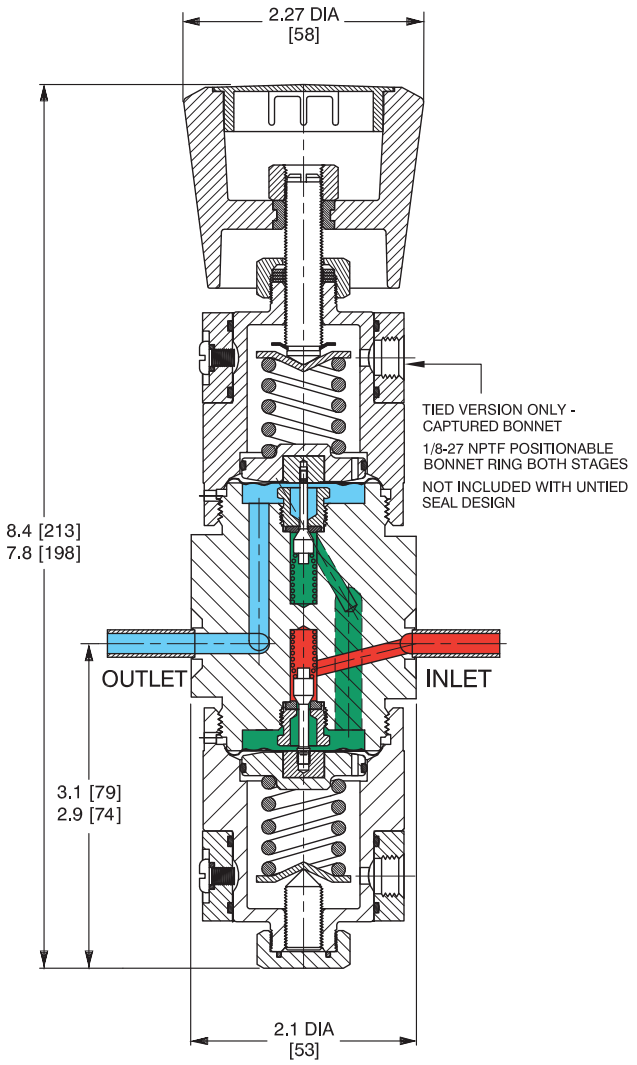


Figure A

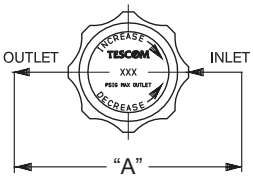


Figure B

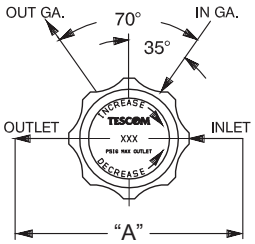


Figure C

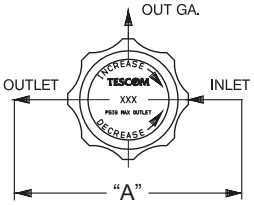
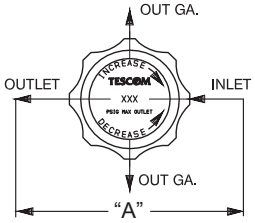


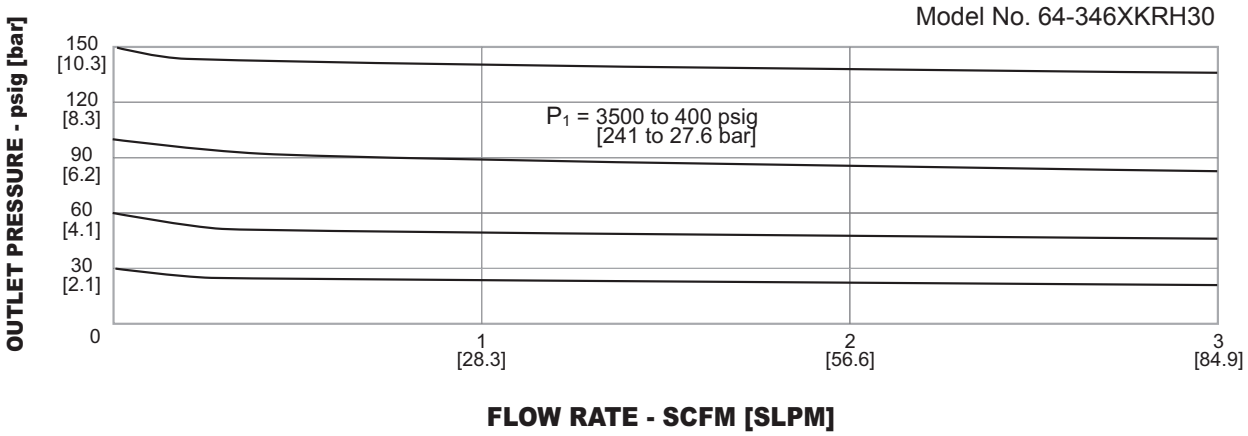
Figure D



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] *1. Per ASTM B 912* *2. Per SEMI F19, HP grade*	**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)
				RK – 1/2" Male Swivel	4.92"	**2 –** Tied	C_V = 0.06	**1 –** 1/4" H.P.I.C.	1 (Figure C)
				RL – 1/2" Female Swivel	4.92"	**3 –** Tied	C_V = 0.15	**2 –** 1/4" H.P.I.C.	2 (Figure B)
				RM – 1/4" Fixed Male	3.70"	**4 –** Tied (Hastelloy® Trim)	C_V = 0.15	**3 –** 1/4" H.P.I.C.	2 (Figure D)
				RT – 1/4" Female Swivel	3.70"			**4 –** 1/4" Male Swivel	2 (Figure D)
				RU – IN Port: 1/4" Male; OUT Port: 1/4" Female	3.70"			**5 –** 1/4" Male Swivel	1 (Figure C)
								6 – 1/4" Male Swivel	2 (Figure B)
				RV – IN Port: 1/4" Female; OUT Port: 1/4" Male	3.70"			**7 –** 1/4" Female Swivel	2 (Figure D)
								8 – 1/4" Female Swivel	1 (Figure C)
								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)