

## Specifications

For other materials or modifications, please consult TESCO M.

### 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

### MEDIA CONTACT MATERIALS

#### Body

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

#### Diaphragm

316L Stainless Steel

#### Valve Seat

PCTFE or PTFE PFA®

#### Valve Spring

316 Stainless Steel

#### Valve Stem and Remaining Parts

316 Stainless Steel (Nickel Alloy (Hastelloy®) optional)

### OTHER

#### Internal Surface Finish

10 R<sub>a</sub> 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<sub>a</sub> 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<sub>a</sub> 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

### 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.

# 64-3400 SERIES

## 64-3400 Series Regulator Drawing

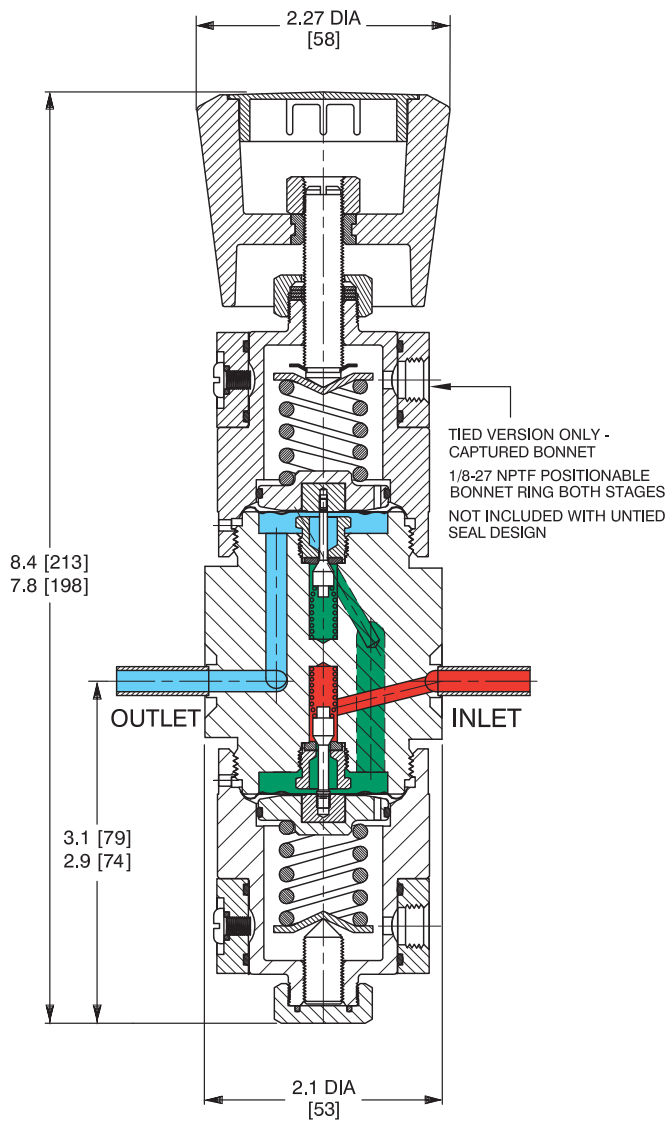


Figure A

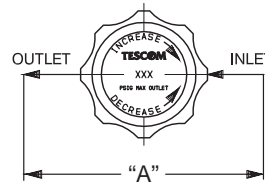


Figure B

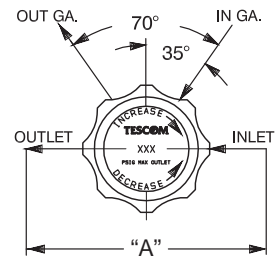


Figure C

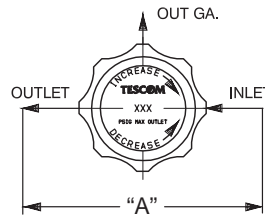
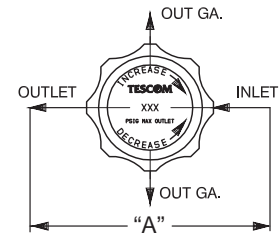


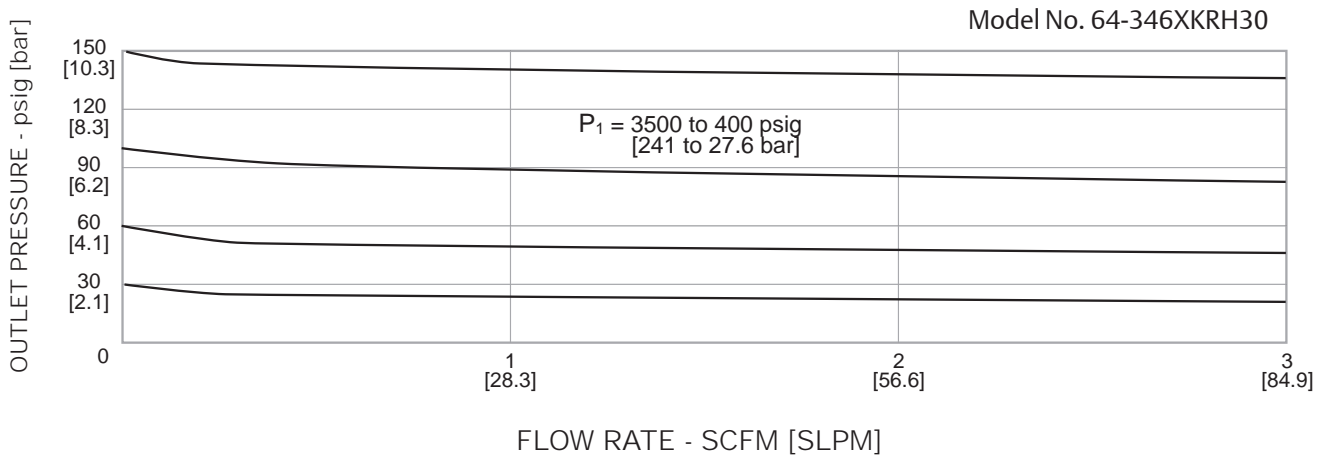
Figure D



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 TESCO catalog or on [www.tescom.com](http://www.tescom.com).



# 64-3400 SERIES

## 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:

BASIC SERIES	BODY MATERIAL/ FINISH	OUTLET PRESSURE RANGES	SEAT MATERIAL	INLET AND OUTLET PORT SIZE AND TYPE	'A' ± .06"	SEAL DESIGN	C <sub>v</sub>	GAUGE PORT OPTIONS	NO. OF GAUGE PORTS (FIGURE)
64-34	4 – 316L Stainless Steel Electropolish: 10 R <sub>A</sub> <sup>1</sup> 6 – 316L VAR Stainless Steel Electropolish: 10 R <sub>A</sub> <sup>2</sup>	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 – PTFE PFA® (untied models only)	A4 – 1/4" H.P.I.C. (see Connections) RK – 1/2" Male Swivel RL – 1/2" Female Swivel RM – 1/4" Fixed Male RT – 1/4" Female Swivel RU – IN Port: 1/4" Male; OUT Port: 1/4" Female RV – IN Port: 1/4" Female; OUT Port: 1/4" Male T4 – 1/4" Tube Stubs	- 4.92" 4.92" 3.70" 3.70" 3.70" 3.70" 3.70"	1 – Untied 2 – Tied 3 – Tied 4 – Tied Nickel Alloy (Hastelloy®) Trim	C <sub>v</sub> = 0.06 C <sub>v</sub> = 0.06 C <sub>v</sub> = 0.15 C <sub>v</sub> = 0.15	0 – None 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 S – 1/4" Fixed Male T – 1/4" Fixed Male U – 1/4" Fixed Male	0 (Figure A) 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 B)

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