

## Specifications

For other materials or modifications, please consult TESCOM.

### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

#### Maximum Inlet Pressure

600 psig / 41.4 bar

#### Outlet Pressure Ranges

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

#### Design Proof Pressure

150% maximum rated

#### Inboard Leak Rate

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

$C_v = 1.0$



### MEDIA CONTACT MATERIALS

#### Body

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

#### Diaphragm

Nickel Alloy (Hastelloy®)

#### Valve Seat

PCTFE or PTFE PFA

#### Seat Retainer

Nitronic 60 Stainless Steel

#### Stem, Seal, and Remaining Parts

316 Stainless Steel

### OTHER

#### Internal Surface Finish

10  $R_a$  microinch / 0.25 micrometer

#### Connections

Welded Female or Male VCR®  
Tube Stubs  
Compression Fittings

#### Cleaning

DI water electronic grade cleaned and ES 500 Particle Certified  
for internal electropolish models

#### Internal Volume

21 cc

#### Weight (without gauges)

3.5 lbs / 1.6 kg

*Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.*

*VCR® is a registered trademark of Cajon Co.*

*Hastelloy® is a registered trademark of Haynes International, Inc.*

TESCOM 64-5400 Series high purity pressure reducing regulator provides 316 Stainless Steel with Electropolish, 10  $R_a$  surface finish and Hastelloy® diaphragm design. The 64-5400 Series offers high flow  $C_v = 1.0$  and inlet pressure of 600 psig / 41.4 bar with outlet pressures up to 150 psig / 10.3 bar.

### Applications

- Bulk Specialty Gas Systems (BSGS)
- 1/2" point-of-use
- Tool hookups
- Gas cabinets

### Features and Benefits

- Compact, hand-loaded and pressure reducing
- Low internal volume
- Metal-to-metal diaphragm to body seal for high leak integrity
- 1.3  $C_v$  available upon request

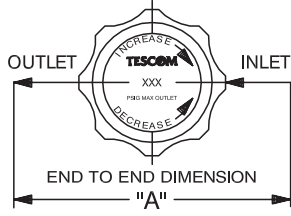
### NOTE:

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.

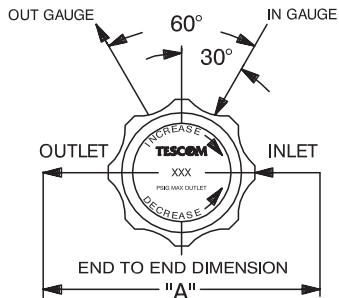
For more information on decaying inlet, please refer to the Technical Information section of the product catalog and/or contact the TESCOM customer support further assistance.

# 64-5400 SERIES

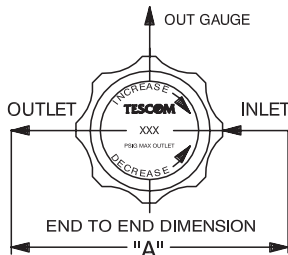
## 64-5400 Series Regulator Drawing



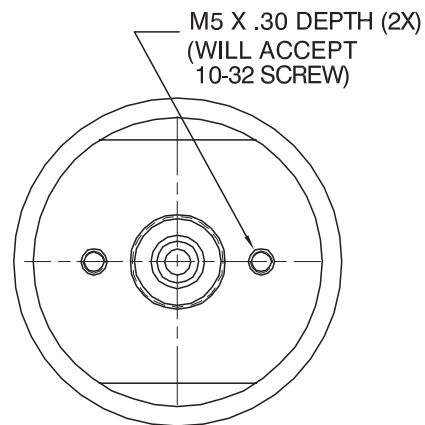
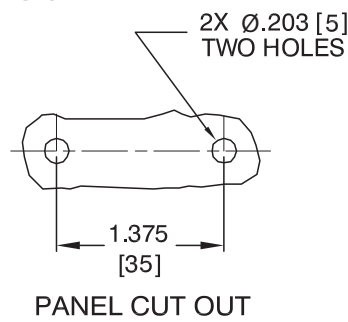
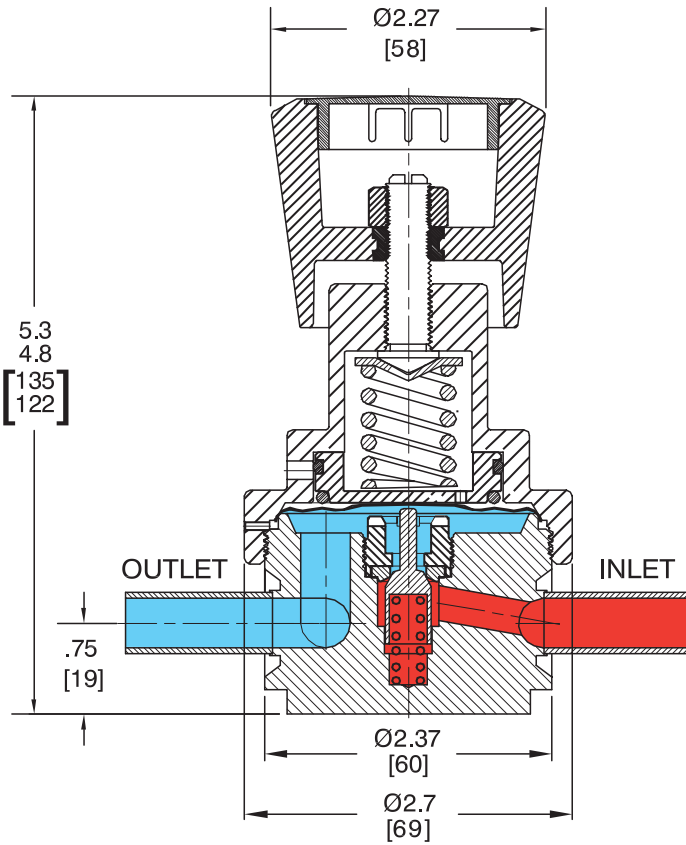
**Figure A (no gauges)**



**Figure B (2 gauges)**



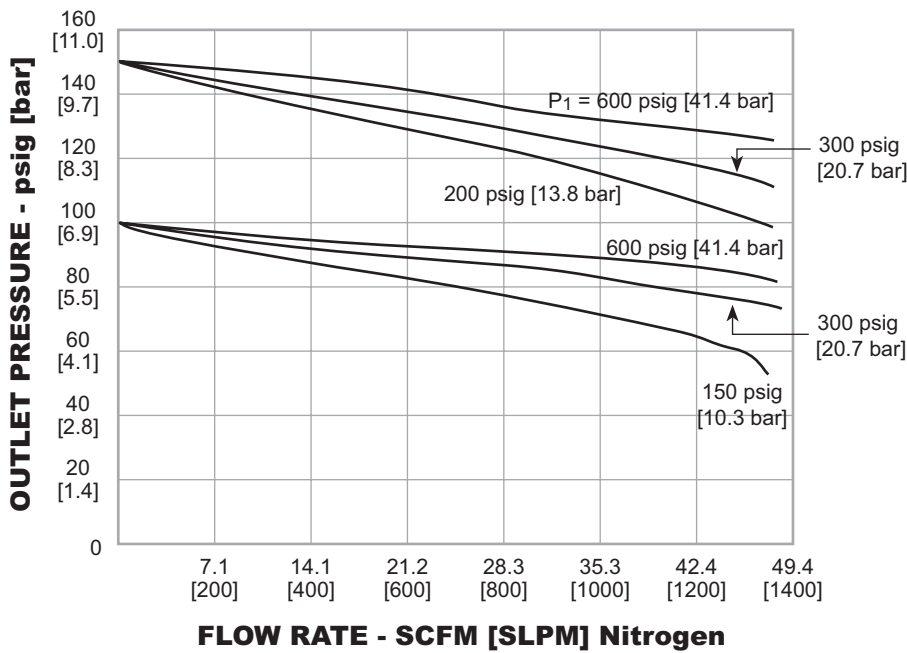
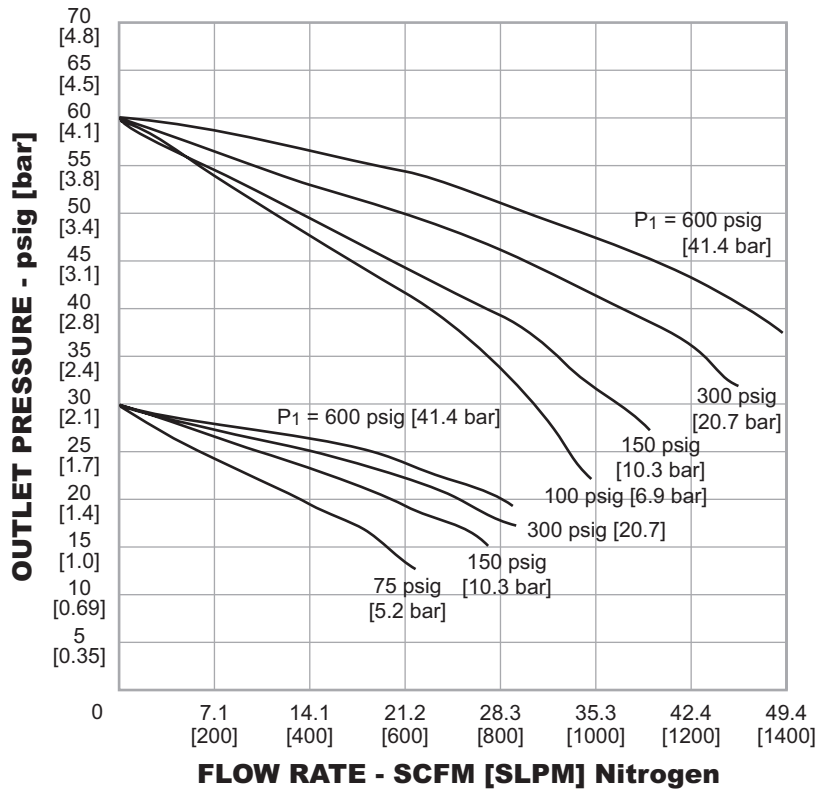
**Figure C (1 gauge)**



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

64-5400 Series Regulator Flow Charts

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).



# 64-5400 SERIES

## 64-5400 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:

64-54	6		2	K	T6		1	0	
BASIC SERIES	BODY MATERIAL	FINISH	OUTLET PRESSURE	SEAT MATERIAL	INLET AND OUTLET PORT TYPE AND SIZE	'A' ± .06"	MAXIMUM INLET PRESSURE	GAUGE PORT OPTION	NUMBER OF GAUGE PORTS (FIGURE)
64-54	4 – 316L Stainless Steel Electropolish <sup>1</sup>	10 R <sub>a</sub>	0 – 30 psig 2.1 bar	K – PCTFE  T – PTFE PFA	T6 – 3/8" Tube Stubs	3.70	1 – 600 psig 41.4 bar	0 – None	0 (A)
			1 – 60 psig 4.1 bar		T8 – 1/2" Tube Stubs	3.70		1 – 1/4" H.P.I.C.	1 (C)
	6 – 316L VAR Stainless Steel Electropolish <sup>2</sup>	10 R <sub>a</sub>	2 – 100 psig 6.9 bar		RU – 1/2" Male Swivel	5.59		2 – 1/4" H.P.I.C.	2 (B)
			3 – 150 psig 10.3 bar		RW – 1/2" Female Swivel	5.59			
					C6 – 3/8" Compression Fitting	6.42			
					C8 – 1/2" Compression Fitting	6.00			

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