

# 64-3600 Series

## Regulators - Pressure Reducing

D64361770X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

<b>Maximum Inlet Pressure</b>	600 or 3500 psig / 41.4 or 241 bar
<b>Outlet Pressure Ranges</b>	30, 60, 100, 150 psig / 2.1, 4.1, 6.9, 10.3 bar
<b>Design Proof Pressure</b>	150% of maximum rated
<b>Inboard Leak Rate</b>	1 x 10 <sup>-9</sup> atm cc/sec He
<b>Operating Temperature</b>	<b>PCTFE Seat:</b> -40°F to 140°F / -40°C to 60°C <b>Teflon® Seat:</b> -40°F to 160°F / -40°C to 71°C <b>VespeI® Seat:</b> -40°F to 350°F / -40°C to 177°C
<b>Flow Capacity</b>	C <sub>v</sub> = 0.15 or 0.06
<b>Decaying Inlet Characteristics</b>	<b>C<sub>v</sub> = 0.15:</b> 0.4 per 100 psig / 0.03 per 6.9 bar <b>C<sub>v</sub> = 0.06:</b> 0.2 per 100 psig / 0.01 per 6.9 bar

#### MEDIA CONTACT MATERIALS

<b>Body</b>	316L Stainless Steel Electropolish or 316L VAR Stainless Steel Electropolish
<b>Diaphragm</b>	Hastelloy®
<b>Valve Seat</b>	PCTFE, Teflon® or VespeI®
<b>Stem and Valve Spring</b>	316 Stainless Steel
<b>Remaining Parts</b>	316 Stainless Steel or Hastelloy®

#### OTHER

<b>Internal Surface Finish</b>	10 R <sub>a</sub> microinch / 0.25 micrometer
<b>Connections</b>	Welded female or male VCR® Tube stubs High Purity Internal Connections (H.P.I.C.) Internal style of VCR®, compatible with male swivel VCR®
<b>Cleaning</b>	DI water electronic grade cleaned and ES500 Particle Certified for internal electropolish models
<b>Internal Volume</b>	12 cc
<b>Weight</b>	2 lbs / 0.9 kg

Teflon® and VespeI® 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 64-3600 Series ultra high purity, highly sensitive pressure reducing regulator offers a low droop, tied diaphragm design, 10 R<sub>a</sub> / 0.25 micrometer surface finish with available Hastelloy® trim. Inlet pressures are 600 or 3500 psig / 41.4 or 241 bar with outlet pressure up to 150 psig / 10.3 bar.

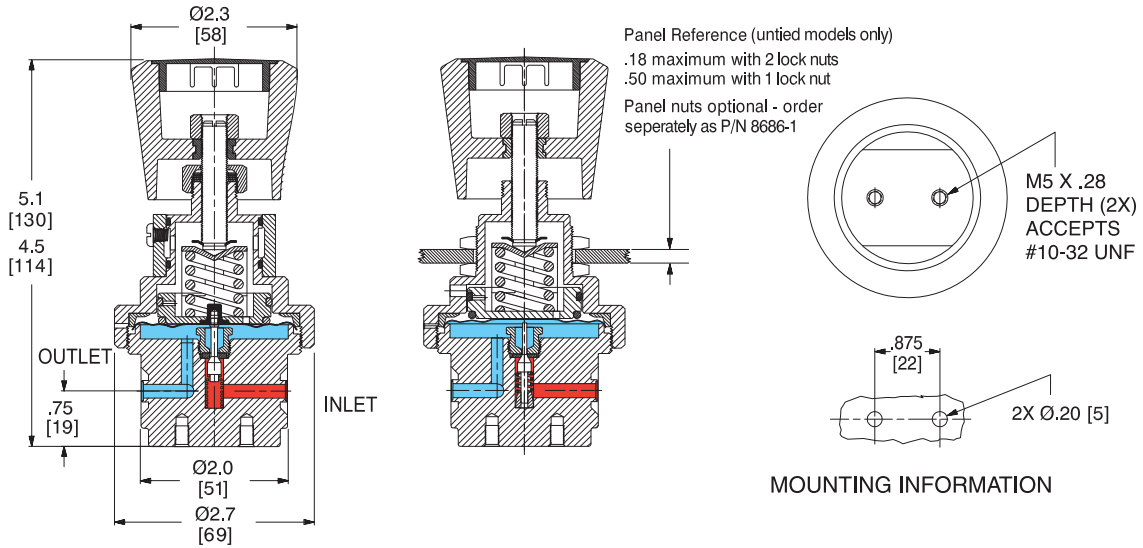
### Applications

- 1/4" point-of-use
- Gas cabinets
- Semiconductor manufacturing
- Valve manifold boxes

### Features and Benefits

- 10 R<sub>a</sub> microinch / 0.25 micrometer internal surface finishes
- Metal-to-metal seal (diaphragm to body seal for high leak integrity)
- Full internal electropolish is available
- Designed to reduce pressure fluctuations in semiconductor gas systems
- Meets the stringent semiconductor requirements of both point-of-use and cylinder applications

64-3600 Series Regulator Drawing



MOUNTING INFORMATION

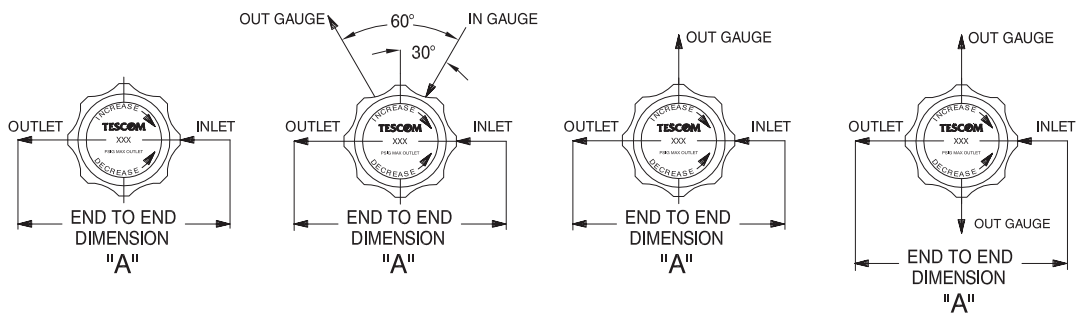


Figure A (no gauges)

Figure B (2 gauges)

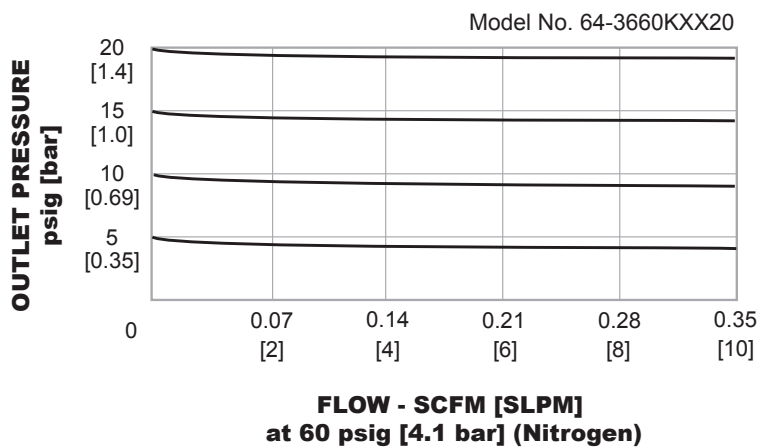
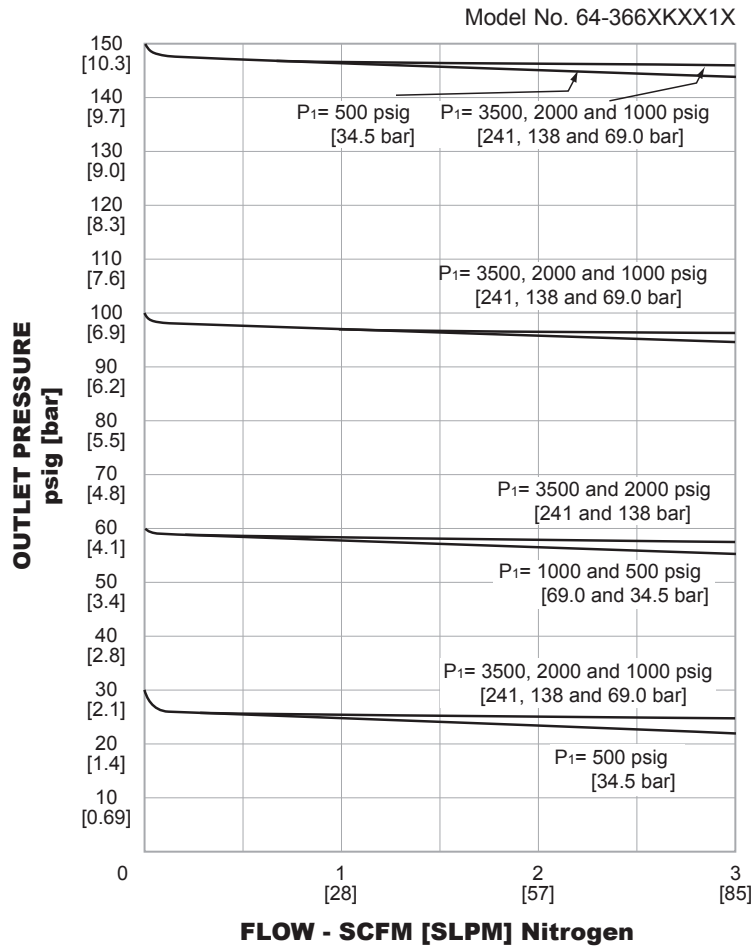
Figure C (1 gauge)

Figure D (2 out gauges)

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

### 64-3600 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).



## 64-3600 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:

64-36	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, FLOW (C <sub>v</sub> ) MAXIMUM INLET PRESSURE	GAUGE PORT OPTIONS	NUMBER OF GAUGE PORTS
64-36	4 – 316L Stainless Steel Electropolish: 10 R <sub>a</sub> <sup>1</sup>	0 – 30 psig 2.1 bar	K – PCTFE T – Teflon® (untied model only) V – Vespel®	A4 – 1/4" H.P.I.C.	1.11"	1 – Untied, C <sub>v</sub> = 0.06 3500 psig / 241 bar	0 – None	0 (Figure A)
	6 – 316L VAR Stainless Steel Electropolish: 10 R <sub>a</sub> <sup>2</sup>	1 – 60 psig 4.1 bar		RG – 1/4" Male Swivel	4.50"			
		2 – 100 psig 6.9 bar		RK – 1/2" Male Swivel	4.75"	3 – Tied, C <sub>v</sub> = 0.06 3500 psig / 241 bar	2 – 1/4" H.P.I.C.	2 (Figure B)
		3 – 150 psig 17.2 bar		RL – 1/2" Female Swivel	4.75"		4 – Tied, C <sub>v</sub> = 0.15 3500 psig / 241 bar	3 – 1/4" H.P.I.C.
				RA – 1/4" Male Fixed	3.51"	5 – Tied, C <sub>v</sub> = 0.15 3500 psig / 241 bar Hastelloy® trim	4 – 1/4" Male Swivel	2 (Figure D)
				RM – 1/4" Male Fixed	3.70"		5 – 1/4" Male Swivel	1 (Figure C)
				RT – 1/4" Female Swivel	3.70"		6 – 1/4" Male Swivel	2 (Figure D)
				RU – IN Port: 1/4" Male Fixed; OUT Port: 1/4" Female Swivel	3.70"		7 – 1/4" Female Swivel	2 (Figure D)
				RV – IN Port: 1/4" Female Swivel; OUT Port: 1/4" Male Fixed	3.70"		8 – 1/4" Female Swivel	1 (Figure C)
				T4 – 1/4" Tube Stubs	3.70"		9 – 1/4" Female Swivel	2 (Figure B)
							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