

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

1500 psig / 103 bar

Outlet Pressure Range

25-400 psig / 1.7-27.6 bar

Design Proof Pressure

150% maximum rated

Inboard Leak Rate

$<1 \times 10^{-9}$ atm cc/sec

Operating Temperature

-40°F to 140°F / -40°C to 60°C

Flow Capacity

$C_v = 1.0$

MEDIA CONTACT MATERIALS

Body

316L VAR Stainless Steel

Diaphragm

Cobalt Chrome Nickel Alloy (Elgiloy®)

Seat

PCTFE

Trim

Nickel Alloy (Hastelloy®)*

Valve

Nickel Alloy (Hastelloy®)*

OTHER

Internal Surface Finish

10 R_a microinch / 0.25 micrometer

Connections

Welded Female or Male VCR®

Tube Stubs

Internal Volume

12 cc

Weight

3.5 lbs / 1.6 kg

VCR® is a registered trademark of Cajon Co.

Elgiloy® is a registered trademark of Elgiloy Corp.

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

*Material to be Hastelloy® or equivalent per ASTM B 574



TESCOM 449-254 Series high purity, high flow pressure reducing regulators are ideal for high pressure bulk specialty gas delivery systems (BSGS). The 449-254 Series offers a $C_v = 1.0$, surface finish of 10 R_a and is available with Hastelloy® trim. Inlet pressure is 1500 psig / 103 bar with outlet pressures up to 400 psig / 27.6 bar.

Application

- High purity bulk specialty gas delivery systems

Features and Benefits

- Exclusively designed to handle the demands of high purity bulk specialty gas delivery systems
- Its proven design, high outlet capabilities, bubble-tight shutoff valve and standard Hastelloy® trim provides dependability required for demanding regulator applications
- Metal-to-metal sealed diaphragm
- $C_v = 1.0$ with 10 R_a microinch finish on wetted surfaces
- Meets SEMI F19 and SEMI Modular Interface specifications

449-254 SERIES

449-254 Series Regulator Drawing

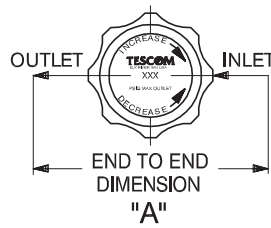
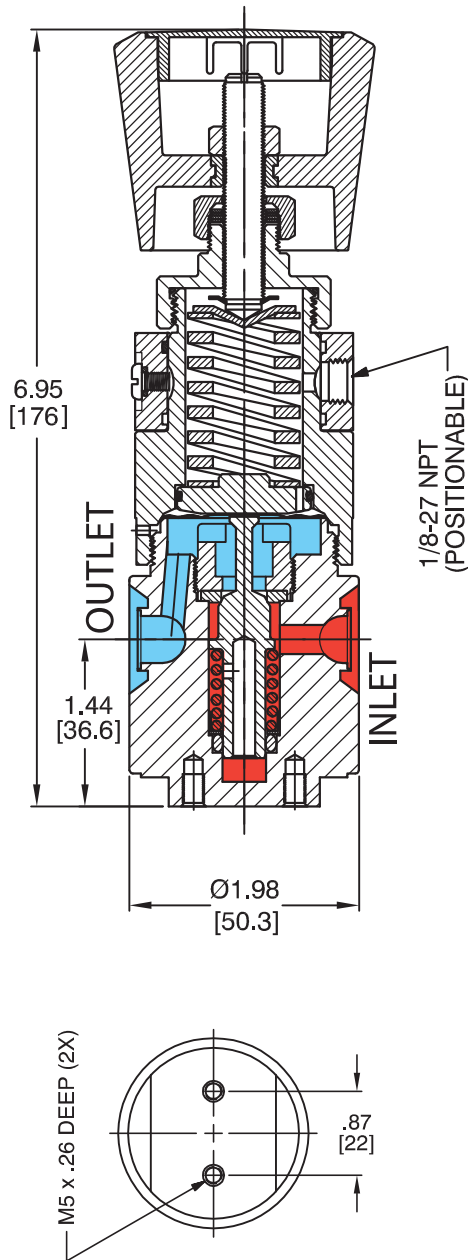


Figure A
(no gauges)

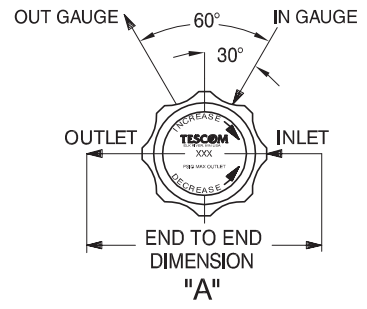


Figure B
(2 gauges)

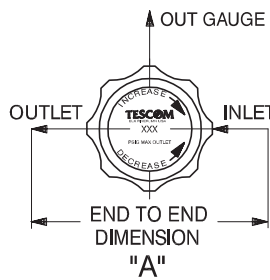


Figure C
(1 gauge)

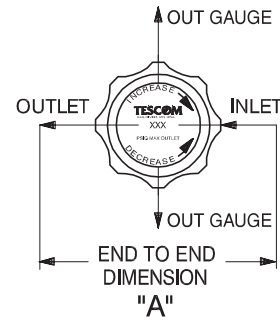
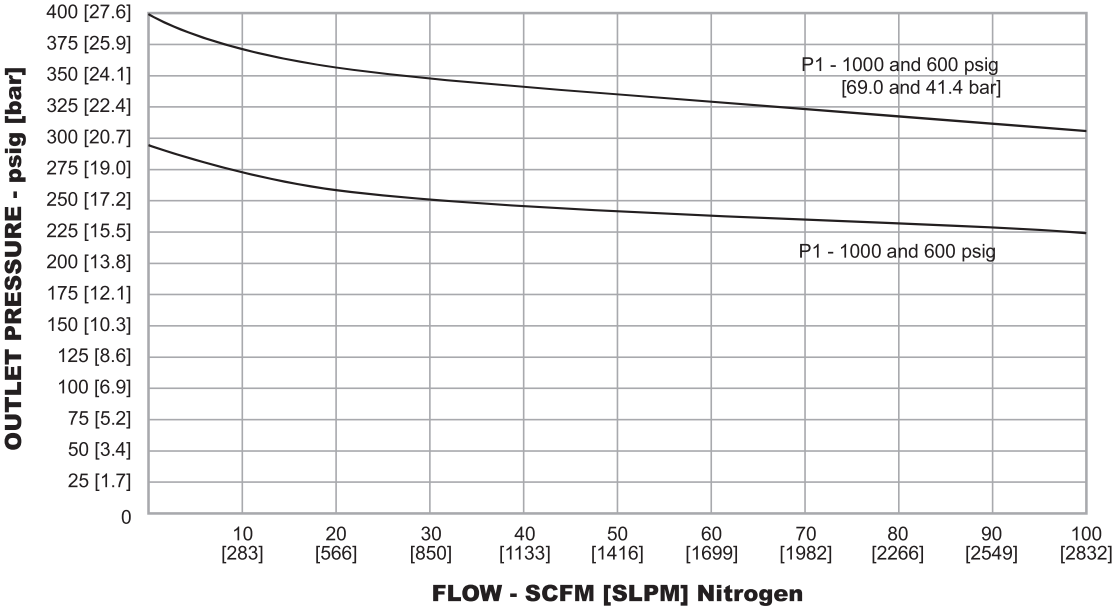


Figure D
(2 out gauges)

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

449-254 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.



449-254 SERIES

449-254 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:

449-254	4	R	K	0		
BASIC SERIES	OUTLET PRESSURE	PORT TYPE	INLET AND OUTLET PORT SIZE	"A" ± 0.06	GAUGE PORT OPTION	NUMBER OF PORTS (FIGURE)
449-254	4 – 25-400 psig 1.7-27.6 bar	R – Welded T – Tube Stubs	G – 1/4" Male Swivel (High Flow)	4.00"	0 – None	0 (Figure A)
			H – 1/4" Female Swivel (High Flow)	4.00"	4 – 1/4" Male Swivel	2 (Figure D)
			K – 1/2" Male Swivel	5.21"	5 – 1/4" Male Swivel	1 (Figure C)
			L – 1/2" Female Swivel	5.21"	6 – 1/4" Male Swivel	2 (Figure B)
			8 – 1/2" Tube Stubs	5.21"	7 – 1/4" Female Swivel	2 (Figure D)
					8 – 1/4" Female Swivel	1 (Figure C)
					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)