

## TESCOM™ Pressure Reducing Regulators

### Specifications

For other materials or modifications, please consult contact your Emerson sales representative.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

##### Maximum Inlet Pressure

Standard 3500 psig / 241 bar / 24,132 kPa  
Optional 6000 psig / 414 bar / 41,370 kPa

##### Maximum Outlet Pressure

0-25, 0-50, 0-100, 0-250, 0-500 psig  
0-1.7, 0-3.4, 0-6.9, 0-17.2, 0-34.5 bar  
0-172, 0-345, 0-690, 0-1724, 0-3448 kPa

##### Design Proof Pressure

150% maximum rated

##### Leakage

Bubble-tight  
Diaphragm  $2 \times 10^{-8}$  atm cc/sec He

##### Ambient Temperatures for Section A and B

Supply Voltage (VAC) & Heater Watts (W)	Min Ambient Temperature	Max Ambient Temperature
100 W at 120 VAC, 400 W at 240 VAC	-40 °F (-40°C)	185 °F (85°C) ①
		149 °F (65 °C) ②

① Regulator body max ambient temperature.

② Electrical housing max ambient temperature.

##### Heater Temperature Analog Output

4-20 mA signal for monitoring heater coil temperature

##### Flow Capacity

Cv 0.02

#### MEDIA CONTACT MATERIALS

##### Body

316 Stainless Steel or Nickel Alloy (Hastelloy®)

##### Diaphragm and Spring

Cobalt Chrome Nickel Alloy (Elgiloy®), Nickel Alloy (Hastelloy®)

##### Seat

VespeI®

##### Remaining Parts

316 Stainless Steel or Nickel Alloy (Hastelloy®)

#### OTHER

##### Connections

NPTF, TUBE STUB

##### Cleaning

CGA 4.1 and ASTM G93

##### Weight

Electric: 6.3 lbs / 2.9 kg  
Steam: 3.1 lbs / 1.4 kg



ELECTRIC VERSION HAZLOC CERTIFIED INTEGRAL ASSEMBLY

TESCOM 44-6800 Series Vaporizing Regulator is a key component of sample conditioning systems for gas chromatograph analyzers that ensure the delivery of single-phase vapor samples to the analyzer. With a high tolerance for voltage spikes and high ambient temperatures, this regulator is designed for worldwide applications.

### Applications

- Analyzer systems for oil and gas, petrochemical, and chemical applications

### Features and Benefits

- Installation Flexibility - Option to separate regulator body from electrical housing
- For worldwide use: Designed for 100-240 VAC, 50/60 Hz
- TR CU, CSA, ATEX and IECEx Certification to T3 (200°C) Rating
- 4-20 mA analog output for remote temperature monitoring and data acquisition
- Optional LED temperature display
- Optional panel mounting
- Advanced heat transfer technology
- PID heater control
- NACE MR0175/ISO 15156
- Enclosure rated NEMA 4, IP65

VespeI® is a registered trademark of E.I. du Pont de Nemours and Company. Elgiloy® is a registered trademark of Elgiloy Corp. Hastelloy® is a registered trademark of Haynes International, Inc. Monel® is a registered trademark of Special Metals Corporation. Dursan® is a registered trademark of SilcoTek Corporation. SilcoNert® is a registered trademark of SilcoTek Corporation.



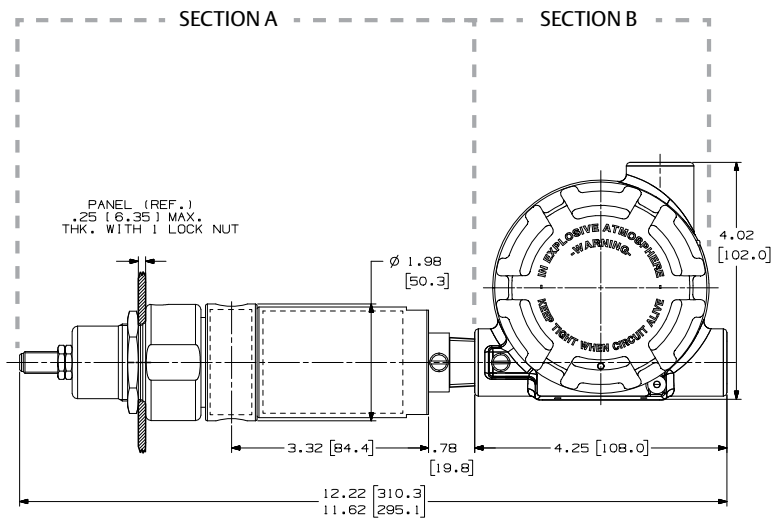
STEAM VERSION

ELECTRIC VERSION HAZLOC CERTIFIED TWO-PIECE ASSEMBLY

# 44-6800 SERIES

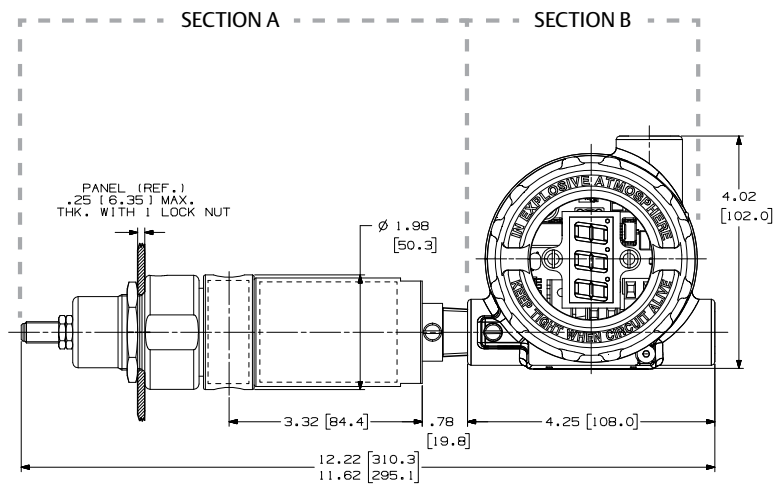
## 44-6800 Series Regulator Drawing

### ELECTRIC MODEL

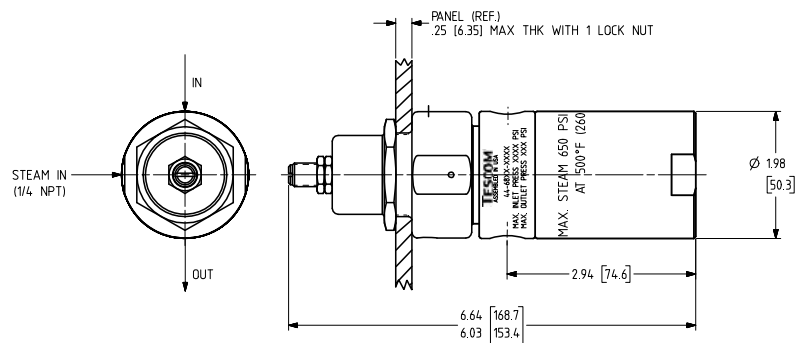


Note: Spring loaded, screw driver adjust. Panel mounting nut not included - order separately with part number 8686-1

### ELECTRIC MODEL with LED Display and glass cover



### STEAM MODEL



Note: Steam in at 90° to process connections (same plane).

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

44-6800 Series Regulator Part Number Selector

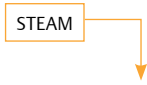
**i Learn more about common options.**  
For modifications, repair kits and accessories, contact factory.

Example for selecting a part number:

**ELECTRIC VERSION**

BASIC SERIES	6				1	D		2	4
	MATERIAL					OUTLET PRESSURE RANGE	HEATER		
	BODY	DIAPHRAGM	SPRING	REMAINING PARTS			120 VAC	240 VAC	
44-68	5 – Hastelloy® 6 – 316 Stainless Steel	Hastelloy® Elgiloy®	Elgiloy® Elgiloy®	Hastelloy® 316 Stainless Steel	0 – 0-25 psig 0-1.7 bar 0-172 kPa	D – 100 WATTS 0.83 amps	400 WATTS 1.67 amps	2 – NPTF  T– Tube Stub (3500 psig, 241 bar, 24132 kPa version only)	4 – 1/4"
	F – SST Dursan® Coated	Elgiloy®	Elgiloy®	316 Stainless Steel	1 – 0-50 psig 0-3.4 bar 0-345 kPa				
	G – 316 SST SilcoNert® Coated	Elgiloy®	Elgiloy®	316 Stainless Steel	2 – 0-100 psig 0-6.9 bar 0-690 kPa				
				316 Stainless Steel	3 – 0-250 psig 0-17.2 bar 0-1724 kPa				
					4 – 0-500 psig 0-34.5 bar 0-3448 kPa	For applications that require higher than 0.5 SCFM, operate using 240 VAC.			

1	E	0
INLET PRESSURE	OPTIONS	INLET AND OUTLET PORT SIZE
1 – 6000 psig 414 bar 41370 kPa	E – Solid Cover without Display E1 – Glass Cover with LED Display E2 – Solid Cover with LED Display	0 – No Gauge Ports LH Inlet 1 – No Gauge Ports RH Inlet
2 – 3500 psig 241 bar 24132kPa	E3 – Separable Regulator and Enclosure (Solid Cover/No LED) (4 Feet) E4 – Separable Regulator and Enclosure (Glass Cover/LED) (4 Feet) E5 – Separable Regulator and Enclosure (Solid Cover/LED) (4 Feet)	2 – No Gauge Ports RH Inlet at 90° 3 – LH Inlet with 1/4 NPT Gauge Port at 90° 4 – RH Inlet with 1/4 NPT Gauge Port at 90° 5 – LH Inlet with 1/4 NPT Gauge Port at 70° 6 – RH Inlet with 1/4 NPT Gauge Port at 70°



**STEAM MODEL**

BASIC SERIES	6				1	-2	4	1	S
	MATERIAL								
	BODY	DIAPHRAGM	SPRING	REMAINING PARTS					
44-68	5 – Hastelloy® 6 – 316 Stainless Steel	Hastelloy® Elgiloy®	Elgiloy® Elgiloy®	Hastelloy® 316 Stainless Steel	0 – 0-25 psig 0-1.7 bar 0-172 kPa	2 – NPTF T – Tube Stub	4 – 1/4"	1 – 6000 psig 414 bar 41,370 kPa	2 – 3500 psig 241 bar, 24,130 kPa
	F – SST Dursan® Coated	Elgiloy®	Elgiloy®	316 Stainless Steel	1 – 0-50 psig 0-3.4 bar 0-345 kPa				
	G – 316 SST SilcoNert® Coated	Elgiloy®	Elgiloy®	316 Stainless Steel	2 – 0-100 psig 0-6.9 bar 0-690 kPa				
				316 Stainless Steel	3 – 0-250 psig 0-17.2 bar 0-1724 kPa				
					4 – 0-500 psig 0-34.5 bar 0-3448 kPa				