

# 44-5800 Series

## Regulators - Pressure Reducing

D44582012X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

**Maximum Inlet Pressure**

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

**Operating Steam Pressure**

650 psig / 44.8 bar

**Inlet Proof Pressure**

9000 psig / 620 bar

**Leakage**

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

**Operating Temperatures**

**Maximum Media Temperature:** 500°F / 260°C

**Maximum Ambient Temperature:** 149°F / 65°C

**Maximum Ambient Temperature:** 122°F / 50°C\*

**Minimum Ambient Temperature:** -4°F / -20°C

**Heater Temperature Control:** 270° turn

122°F to 572°F / 50°C to 300°C

**Heater Temperature Analog Output**

4-20 mA / 176°F to 518°F / 80°C to 270°C

**Voltage**

90-125 VAC / 190-230 VAC, 50/60 Hz

**Flow Capacity**

$C_v = 0.02$

#### MEDIA CONTACT MATERIALS

**Body**

316 Stainless Steel, Monel, or Hastelloy®

**Seat**

VespeI SP1®

**Diaphragm and Spring**

Elgiloy®, Hastelloy®

**Remaining Parts**

316 Stainless Steel, Monel, or Hastelloy®

#### OTHER

**Connections**

NPTF

**Cleaning**

CGA 4.1 and ASTM G93

**Weight**

**Electric:** 6.3 lbs / 2.9 kg

**Steam:** 3.1 lbs / 1.4 kg

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.

\*400 WATTS / 230 VAC and 200 WATTS / 115 VAC only



TESCOM 44-5800 Series offers superior heat transfer technology. With a high tolerance to voltage spikes and high ambient temperatures, this regulator is designed for worldwide applications.

### Applications

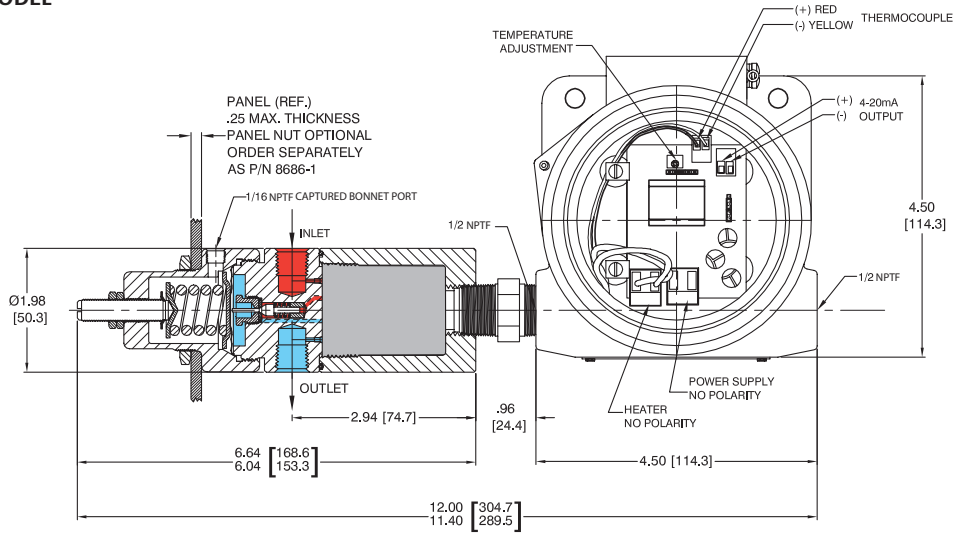
- Liquid petroleum analyzer
- Petrochemical / refinery analyzer
- Sampling systems

### Features and Benefits

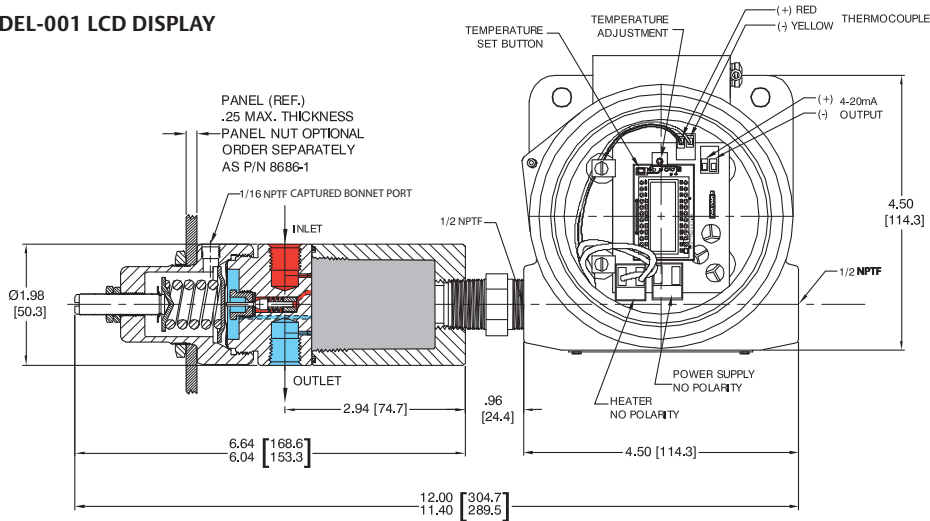
- For worldwide use: Designed for 90-125 VAC / 190-230 VAC, 50/60 Hz
- 4-20 mA analog output for remote temperature monitoring and data acquisition
- Optional LCD temperature display
- Optional heating capacity up to 400 watts for faster response to flow variations
- Optional panel mounting
- Advanced heat transfer technology
- Single turn heater temperature control dial
- CSA, ATEX, and IECEX Certification to T4 Rating
- NACE MR0175/ISO 15156

# 44-5800 Series Regulator Drawing

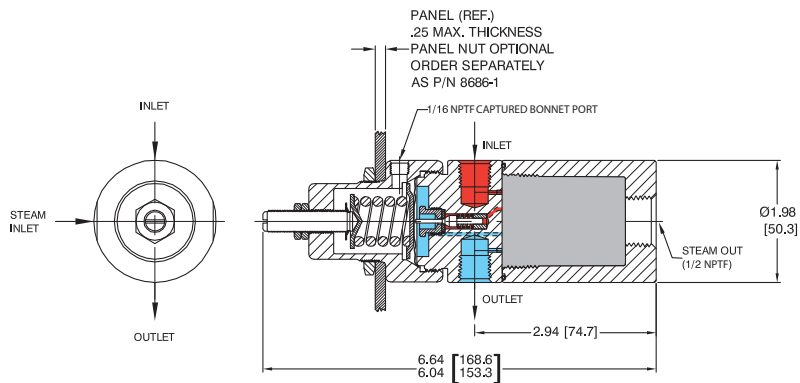
## ELECTRIC MODEL



## ELECTRIC MODEL-001 LCD DISPLAY



## STEAM MODEL

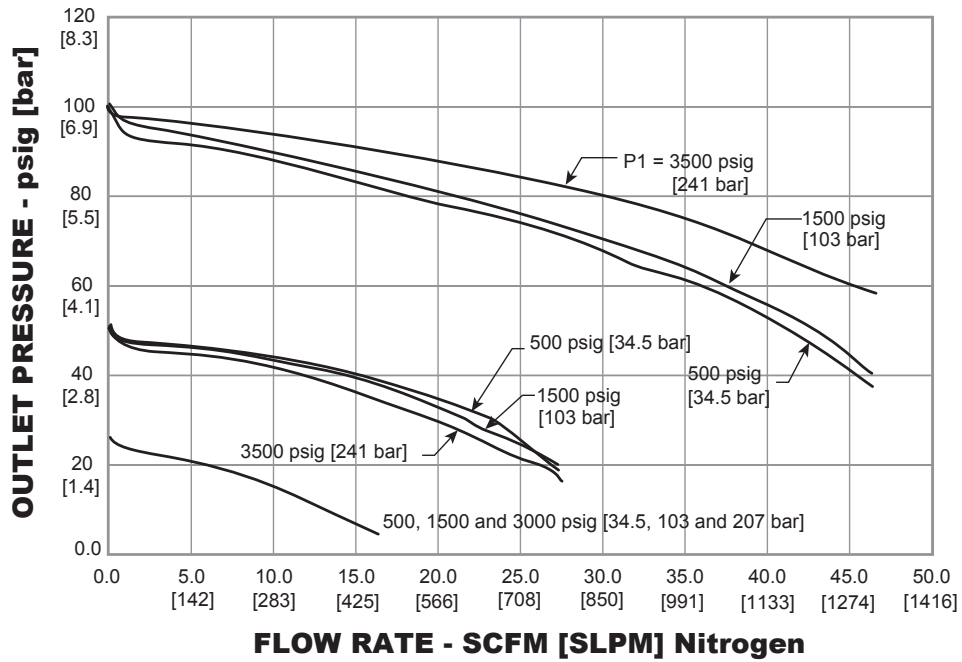
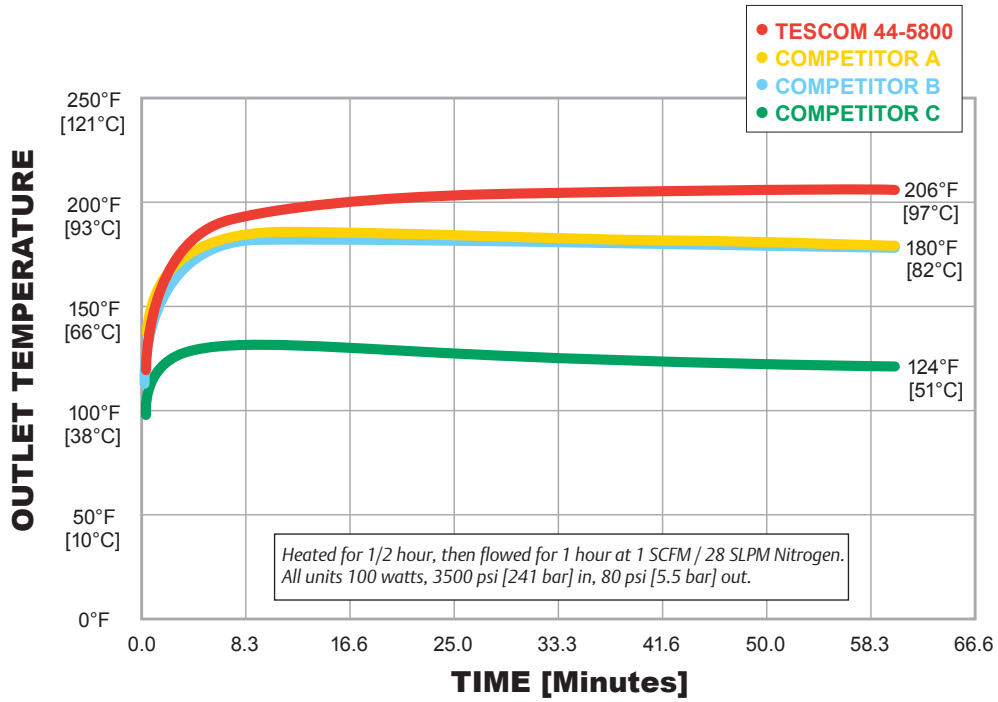


All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

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

### 44-5800 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).



## 44-5800 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:

### ELECTRIC MODEL

- 001  
LCD DISPLAY

BASIC SERIES	MATERIAL				OUTLET PRESSURE RANGE	HEATER		INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	INLET PRESSURE	VOLTAGE
	BODY	DIAPHRAGM	SPRING	REMAINING PARTS		115 VAC	230 VAC				
44-58	5 – Hastelloy® 6 – 316 Stainless Steel 9 – Monel	Hastelloy® Elgiloy®	Elgiloy® Elgiloy®	Hastelloy® 316 Stainless Steel Monel	0 – 0-25 psig 0-1.7 bar 0-172 kPa 1 – 0-50 psig 0-3.4 bar 0-345 kPa 2 – 0-100 psig 0-6.9 bar 0-690 kPa 3 – 0-250 psig 0-17.2 bar 0-1724 kPa 4 – 0-500 psig 0-34.5 bar 0-3448 kPa	A – 12.5 WATTS 0.10 amps B – 25 WATTS 0.21 amps C – 50 WATTS 0.42 amps D – 100 WATTS 0.83 amps E – 200 WATTS* 1.67 amps	50 WATTS 0.21 amps 100 WATTS 0.42 amps 200 WATTS 0.83 amps 400 WATTS* 1.67 amps	2 – NPTF	4 – 1/4"	1 – 6000 psig 414 bar 41,370 kPa	E – 115 VAC E1 – 230 VAC
* Maximum Ambient Temperature: 122°F / 50°C											

### STEAM MODEL

STEAM

BASIC SERIES	MATERIAL				OUTLET PRESSURE RANGE	INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	INLET PRESSURE
	BODY	DIAPHRAGM	SPRING	REMAINING PARTS				
44-58	5 – Hastelloy® 6 – 316 Stainless Steel 9 – Monel	Hastelloy® Elgiloy®	Elgiloy® Elgiloy®	Hastelloy® 316 Stainless Steel Monel	0 – 0-25 psig 0-1.7 bar 0-172 kPa 1 – 0-50 psig 0-3.4 bar 0-345 kPa 2 – 0-100 psig 0-6.9 bar 0-690 kPa 3 – 0-250 psig 0-17.2 bar 0-1724 kPa 4 – 0-500 psig 0-34.5 bar 0-3448 kPa	2 – NPTF	4 – 1/4"	1 – 6000 psig 414 bar 41,370 kPa



**WARNING!** Do not attempt to select, install, use or maintain this product until you have read and fully understood the *TESCOM Safety, Installation and Operation Precautions*.

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