

# 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

**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.



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

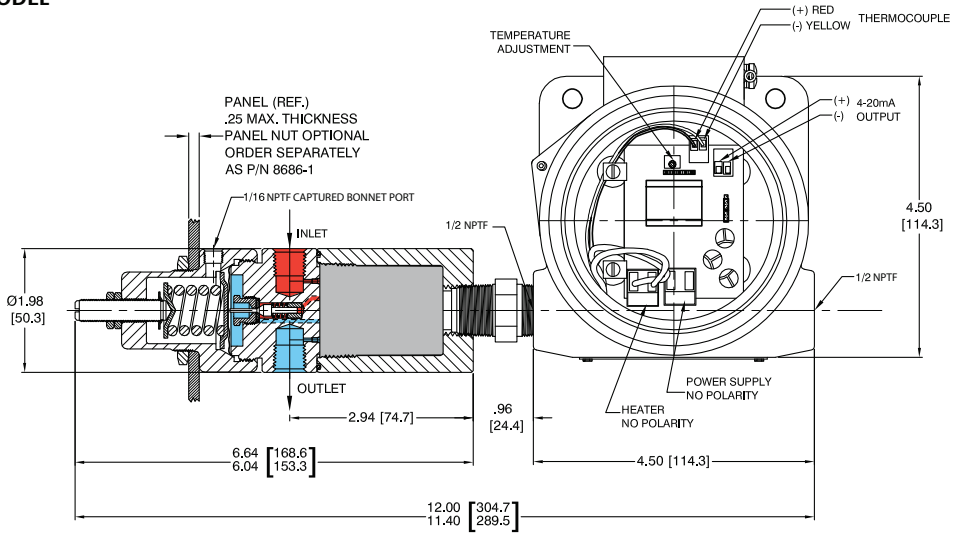
- Liquid petroleum analyzer
- Petrochemical / refinery analyzer
- Sampling systems

### Features and Benefits

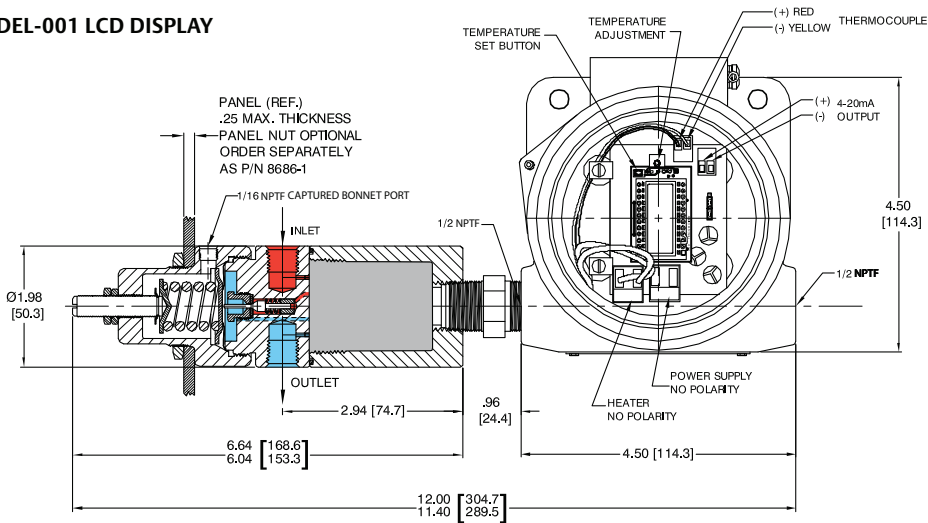
- For worldwide use: Designed for 90-125 VAC / 190-230 VAC, 50/60 Hz
- 4-20 mA analog output for remote temperature monitoring and data acquisition
- Optional LCD temperature display
- Optional heating capacity up to 400 watts for faster response to flow variations
- Optional panel mounting
- Advanced 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

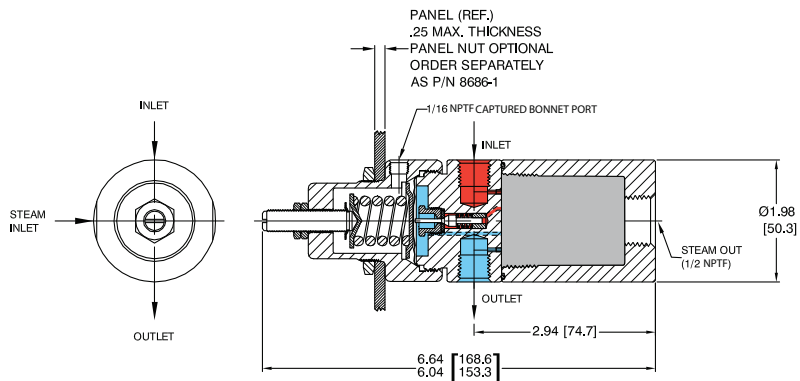
## ELECTRIC MODEL



## ELECTRIC MODEL-001 LCD DISPLAY



## STEAM MODEL

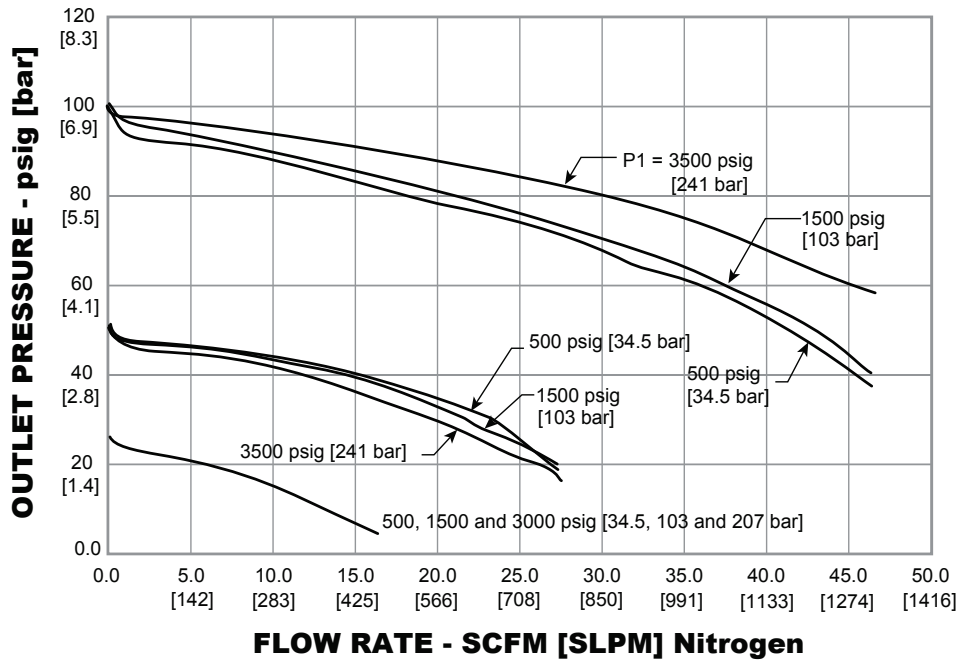
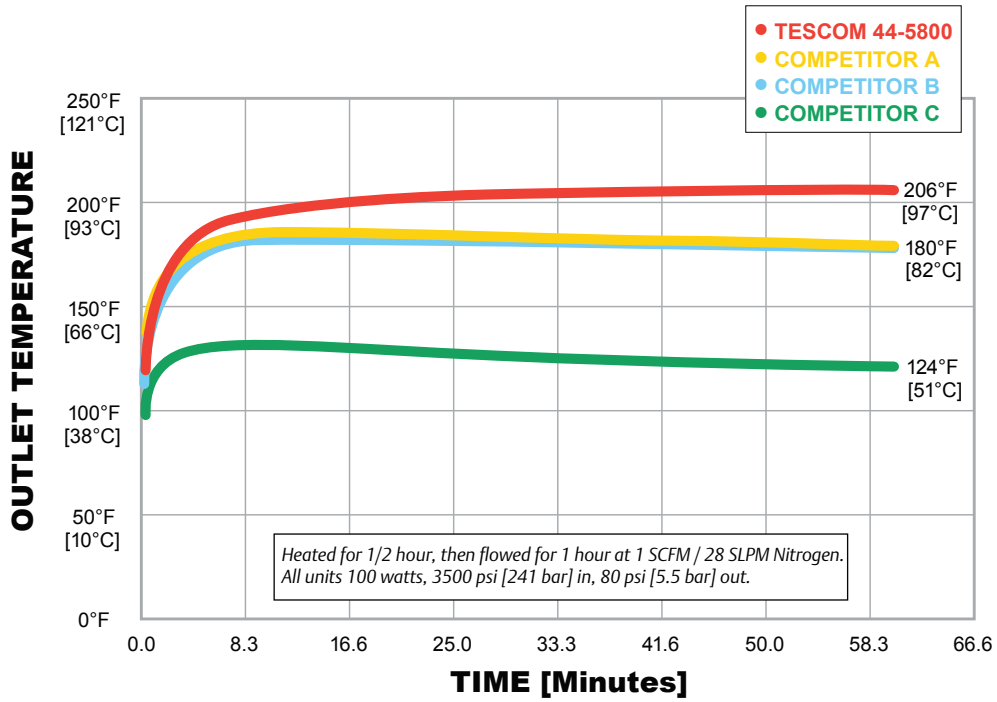


All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

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®<br>6 – 316 Stainless Steel<br>9 – Monel | Hastelloy®<br>Elgiloy® | Elgiloy®<br>Elgiloy® | Hastelloy®<br>316<br>Stainless Steel<br>Monel | 0 – 0-25 psig<br>0-1.7 bar<br>0-172 kPa<br>1 – 0-50 psig<br>0-3.4 bar<br>0-345 kPa<br>2 – 0-100 psig<br>0-6.9 bar<br>0-690 kPa<br>3 – 0-250 psig<br>0-17.2 bar<br>0-1724 kPa<br>4 – 0-500 psig<br>0-34.5 bar<br>0-3448 kPa | A – 12.5 WATTS<br>0.10 amps<br>B – 25 WATTS<br>0.21 amps<br>C – 50 WATTS<br>0.42 amps<br>D – 100 WATTS<br>0.83 amps<br>E – 200 WATTS<br>1.67 amps | 50 WATTS<br>100 WATTS<br>200 WATTS<br>400 WATTS | 2 – NPTF                   | 4 – 1/4"                   | 1 – 6000 psig<br>414 bar<br>41,370 kPa | E – 115 VAC<br>E1 – 230 VAC |

### 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®<br>6 – 316 Stainless Steel<br>9 – Monel | Hastelloy®<br>Elgiloy® | Elgiloy®<br>Elgiloy® | Hastelloy®<br>316<br>Stainless Steel<br>Monel | 0 – 0-25 psig<br>0-1.7 bar<br>0-172 kPa<br>1 – 0-50 psig<br>0-3.4 bar<br>0-345 kPa<br>2 – 0-100 psig<br>0-6.9 bar<br>0-690 kPa<br>3 – 0-250 psig<br>0-17.2 bar<br>0-1724 kPa<br>4 – 0-500 psig<br>0-34.5 bar<br>0-3448 kPa | 2 – NPTF                   | 4 – 1/4"                   | 1 – 6000 psig<br>414 bar<br>41,370 kPa |