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
Internal: Bubble-tight
External: Designed to meet ≤ 2 x 10-8 atm cc/sec He

Maximum Ambient Temperatures for Regulator Body and Electrical Housing Assembly

Supply Voltage (VAC)	Heater Watts (W)	Max. Ambient Temperature
115	12.5	149°F / 65°C
	25	
	50	
	100	
	200	122°F / 50°C
230	50	149°F / 65°C
	100	
	200	
	400	122°F / 50°C

Important!
Product approvals and maximum ambient temperature ratings are based on both the electrical housing and the regulator body being in the same ambient environment not exceeding the maximum temperatures in the table above. For additional information, please reference the manual.

Heater Temperature Analog Output
4-20 mA signal for monitoring heater coil temperature

Flow Capacity
C_V = 0.02

AVAILABLE MEDIA CONTACT MATERIALS

Body
316 Stainless Steel, Monel® or Hastelloy®

Seat
Vespel SP1®

Diaphragm and Spring
Elgiloy®, Hastelloy®

Remaining Parts
316 Stainless Steel, Monel® or Hastelloy®

OTHER AVAILABLE OPTIONS

Connections
NPTF

Cleaning
CGA 4.1 and ASTM G93

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

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

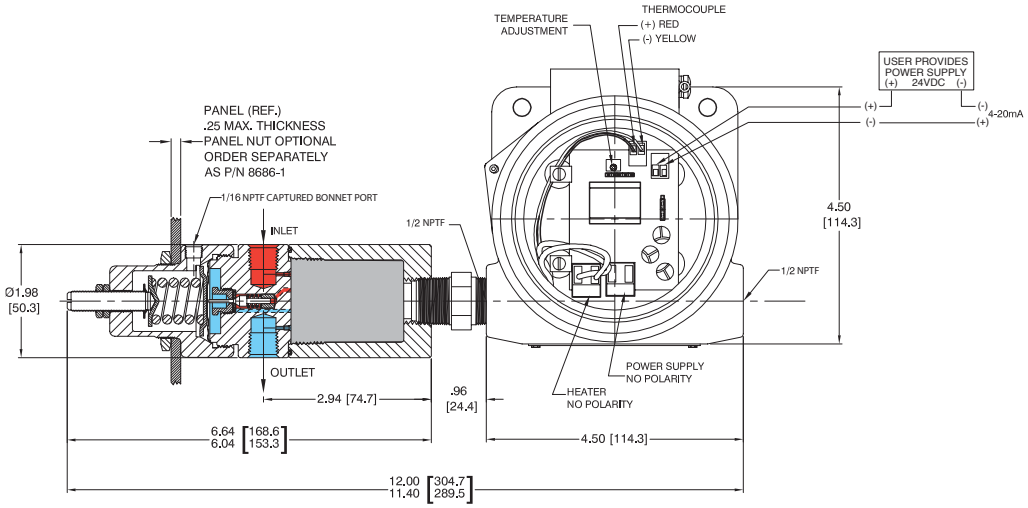
Features and Benefits

- For worldwide use: Designed for 115/230V VAC, 50/60 Hz
- 4-20 mA analog output for remote temperature monitoring and data acquisition
- Optional LCD temperature display
- Optional panel mounting
- Advanced heat transfer technology
- Single turn heater temperature control dial
- CSA, ATEX and IECEX Certification to T3 (200°C) Rating (Ratings are not applicable to steam version)
- NACE MR0175/ISO 15156

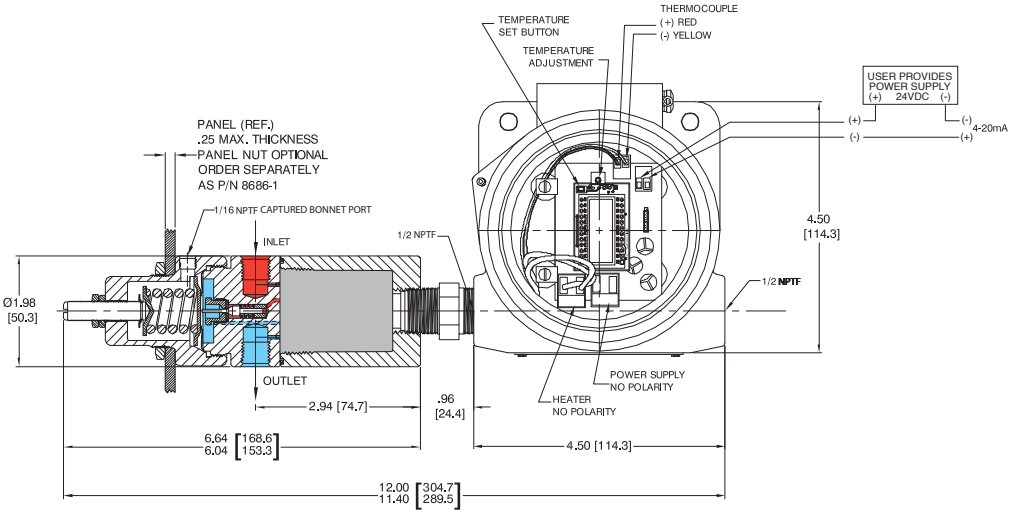
TESCOM

44-5800 Series Regulator Drawing

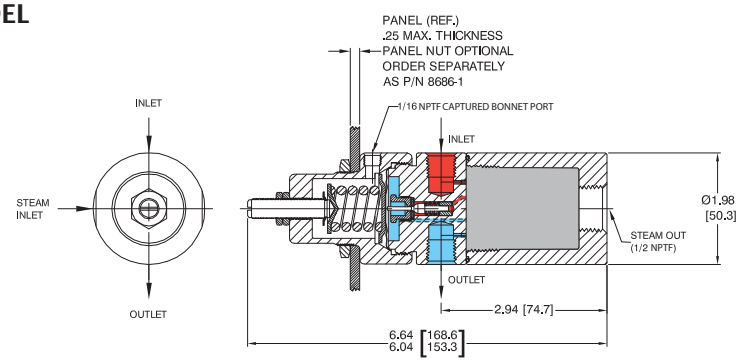
ELECTRIC MODEL



ELECTRIC MODEL-001 LCD DISPLAY



STEAM MODEL



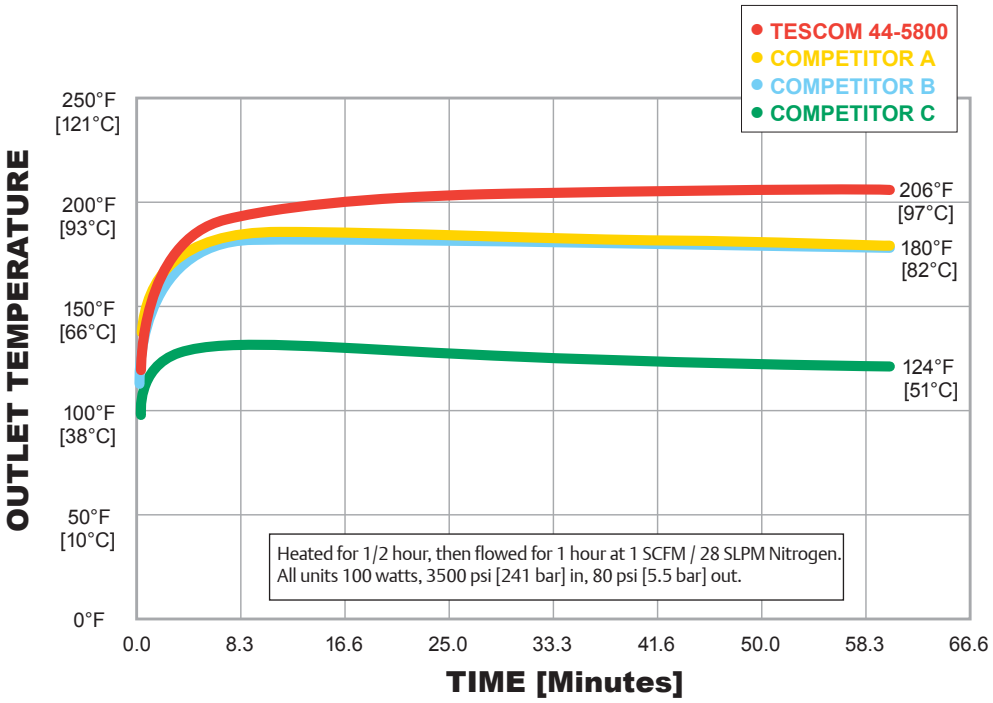
All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

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

EMERSON
Process Management

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.



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

44-58	6				1	D		2	4	1	E
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®	Eligiloy® 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

STEAM MODEL

STEAM

44-58	6				1	-	2	4	1	S
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®	Eligiloy® 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

Although the 44-5800 Series product design meets the design standards required by the approval agencies, a circuit board failure could occur during the life of the product potentially causing the regulator's surface temperature to exceed the ATEX T1 temperature class limit of 450°C. As a result, 44-5800 Series regulators should not be used in an enclosed environment without an external temperature control device to interrupt power to the regulator. Redundant safety and monitoring devices are recommended for safe system use in any application environment to protect against the risk of fire or explosion in the event of overheating of the regulator due to circuit board failure.

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.*

EMERSON Process Management

www.tescom.com