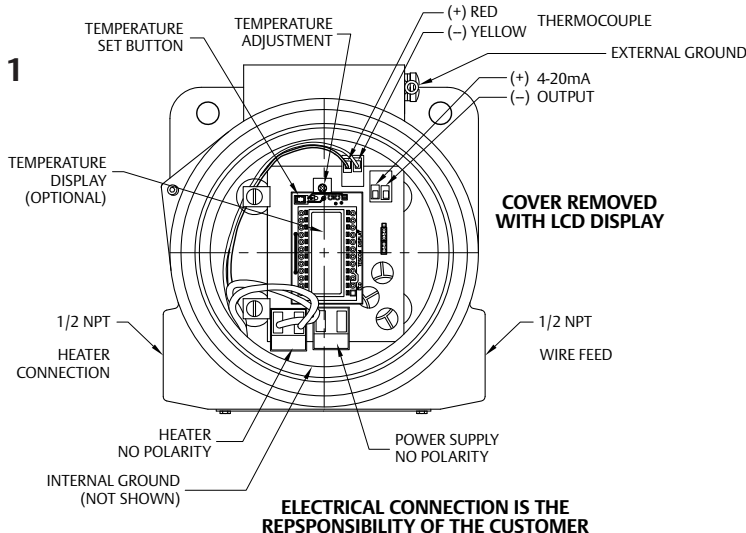


# TESCOM 44-5800 Electric Vaporizing Regulator

## Electrical Installation Instructions



FIGURE 1



The 44-5800E “Vaporizing” Regulator is designed to offset the effects of the Joule-Thompson cooling effect that occurs when there is a pressure drop in a gas. It can also be used to vaporize a liquid into a gas in some applications.

The electrical board inside the housing powers an electrical heater that indirectly heats the process media. This heater is regulated by the electrical board for temperatures up to 300° Celsius / 572°F and limited by a feedback thermocouple.

## Operating Parameters/Special Conditions For Safe Use

*Refer to catalog page and part number for options*

Maximum Inlet Pressure: 6000 psi / 413.8 bar

Maximum Outlet Pressure: 500 psi / 34.5 bar

Maximum Process Temperature: 500 °F / 260 °C

Ambient Operating Temperature: -4 °F to 149 °F / -20 °C to 65 °C

For 200 watts and above: -4 °F to 122 °F / -20 °C to 50 °C

Power Requirements: 90-125 VAC / 190-230 VAC


500 watts maximum

50/60 Hz


*All cable glands used in association with this equipment must be suitably certified and must be capable of maintaining an ingress protection of IP56 at 75°C.*


*All cables, cable glands and conductors must have a temperature rating of 75°C or greater.*


**Return any equipment in need of service to your equipment supplier for evaluation and prompt service.**



C US







CL: I DIV: I GRP: B, C, D, T4  
 CL: II DIV: II GRP: E, F, G T4  
 CL: I ZONE: I A EX d IIB+H2 T4  
 2308385  
 Ex d IIB+H2 T4 Gb  
 SIRA 10ATEX1376X  
 IECEx CSA 11.0001

# 44-5800 Series

1. Read TESCO's Safety, Installation, and Operation Precautions For Pressure Regulator Operation (Form No. 1891).

**CAUTION:** Follow all laws, regulations, and industry requirements for electrical wiring.

2. Make sure the regulator and electrical housing is mounted securely.
3. Connect external ground if required to electrical housing.
4. Remove electrical housing cover.
5. Remove power supply connector and (if used) the 4-20mA output connector from the electrical board. See Figure 1.
6. Feed power supply wires and (if used) the 4-20mA output wires through the 1/2" NPT port. See Figure 1.
7. Screw the wires to the connectors and internal ground. See Figure 1.
8. Verify all connections before applying power. Make sure the supply power is in working range of unit purchased.
9. If the 4-20mA output is used an excitation voltage of 15-45 volts is needed.  
4-20mA output correlates to 80°C-270°C (176°F-518°F).
10. Adjust the temperature with the temperature adjustment. The temperature adjustment is located on the electrical board with a 270° turn adjustment. This goes from 50° Celsius (122°F) to 300° Celsius (572°F). See Figure 2.

**NOTICE:** Temperature signal can be used as a reference to the process media temperature. Media temperature should NOT be obtained from this product. Actual media temperature should be taken from a different point.

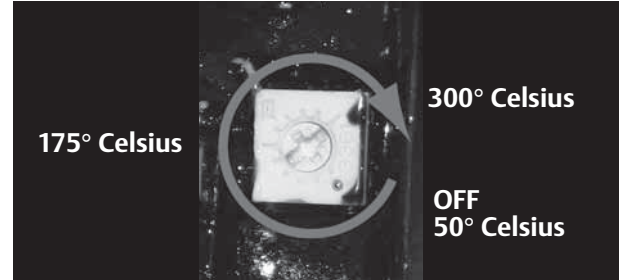


FIGURE 2

11. Temperature Display (Optional):  
The display reads the temperature of the heater in degrees Celsius.  
**NOTICE:** Should the thermocouple fail the temperature display would read greater than 350° Celsius and no heat will be generated. Disconnect power and check wiring.
12. Temperature Set Button (Only with Optional Display):  
This button is located on the temperature display. See Figure 3.  
When pressed down the display will show the heater set temperature.

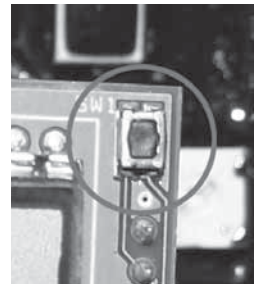


FIGURE 3

## Contact TESCO:

### Americas

**USA**  
T +1 800 447 1250  
+1 763 241 3238  
F +1 763 241 3224  
na.tescom@emerson.com  
www.tescom.com

### Europe

**Germany**  
T +49 (0) 3 88 23/31-287  
F +49 (0) 3 88 23/31-140  
eu.tescom@emerson.com  
www.tescom-europe.com

**UK & Ireland**  
T +44 1698 424 254  
F +44 1698 459 299

uk.tescom@emerson.com  
www.tescom.com

### Asia Pacific

**China**  
T +86 21 2892 9499  
F +86 21 2892 9001  
apc.tescom@emerson.com  
www.tescom.com

### Middle East & Africa

**United Arab Emirates**  
T +971 4 811 8443  
F +971 4 886 5465  
mea.tescom@emerson.com  
www.tescom.com

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