

44-4700 SERIES

Regulators - Relief / Backpressure

D44471777X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

50 mm Hg absolute - 15 psig / 1 bar
 50 mm Hg absolute - 50 psig / 3.4 bar
 50 mm Hg absolute - 100 psig / 6.9 bar
 50 mm Hg absolute - 150 psig / 10.3 bar

Design Proof Pressure

150% maximum rated

Leakage**Internal:** Bubble-tight**External:** $\leq 2 \times 10^{-8}$ atm cc/sec He**Ambient Operating Temperature**

-40°F to 165°F / -40°C to 74°C

Flow Capacity $C_v = 0.04$ $C_v = 0.30$ (optional)**Maximum Operating Torque**

25 in-lbs / 2.8 N•m



TESCOM 44-4700 Series is an extremely sensitive, high purity, backpressure regulator for specialty, flammable and industrial gases for low pressure, and sub-atmospheric pressure control. Diffusion-resistant metal diaphragm seal ensures gas purity and leak integrity.

Applications

- Analytical systems
- Sample systems
- Pilot plants

Features and Benefits

- 316 Stainless Steel diaphragm provides metal-to-metal sealing integrity and good sensitivity
- Large sensing seat area provides a low crack-to-reseat pressure differential and excellent repeatability
- Negative spring bias for vacuum systems
- Adjustable stop limits maximum outlet pressure
- NACE compliant designs are available

MEDIA CONTACT MATERIALS**Body**

316 Stainless Steel

Bonnet

Electroless Nickel Plated Brass

Seat

PTFE

Spring Main Valve and Bias

316 Stainless Steel

Diaphragm

316 Stainless Steel

Remaining Parts

316 Stainless Steel

OTHER**Cleaning**

CGA 4.1 and ASTM G93

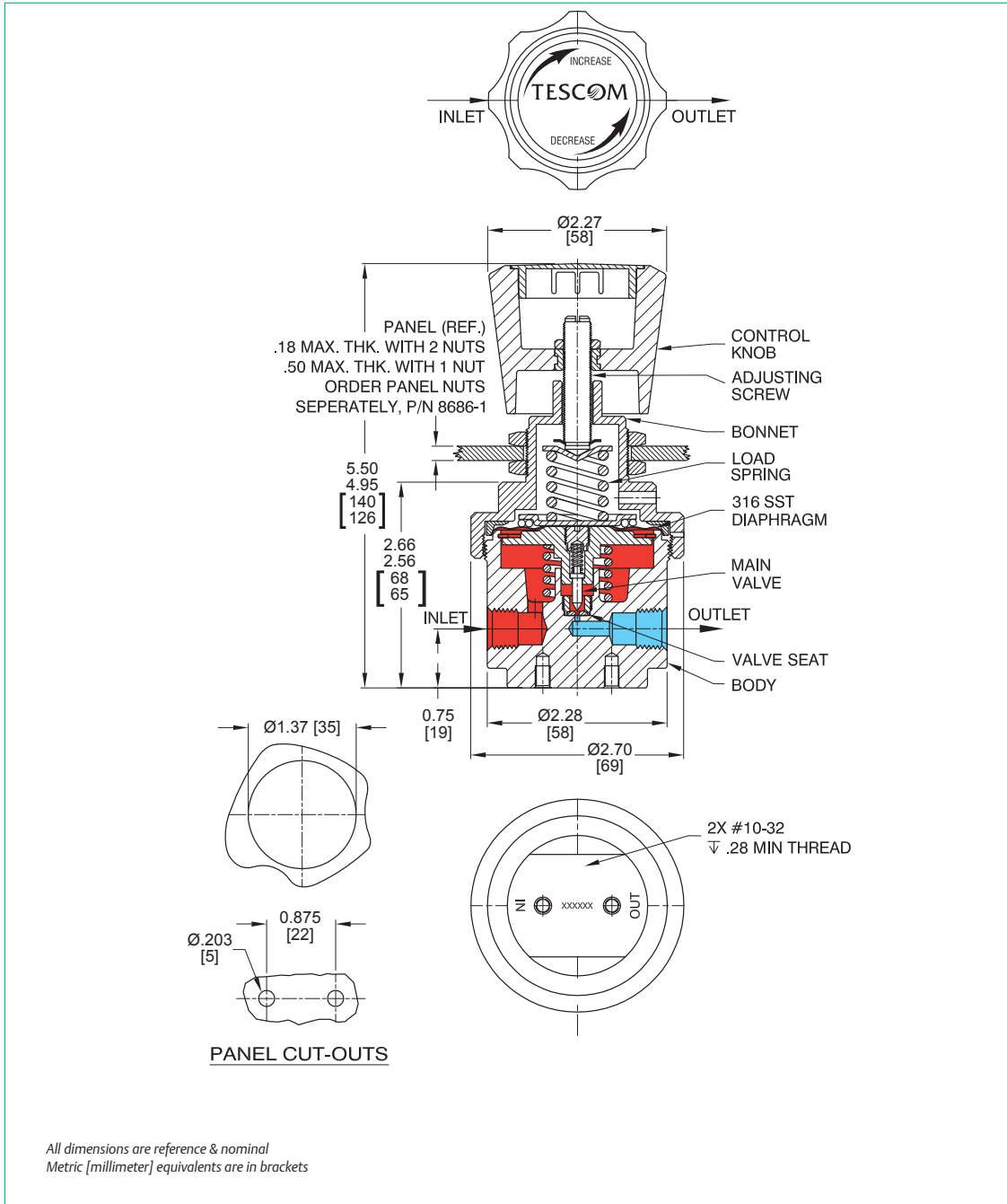
Weight (without gauges)

2.75 lbs / 1.2 kg

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44-4700 Series Regulator Drawing

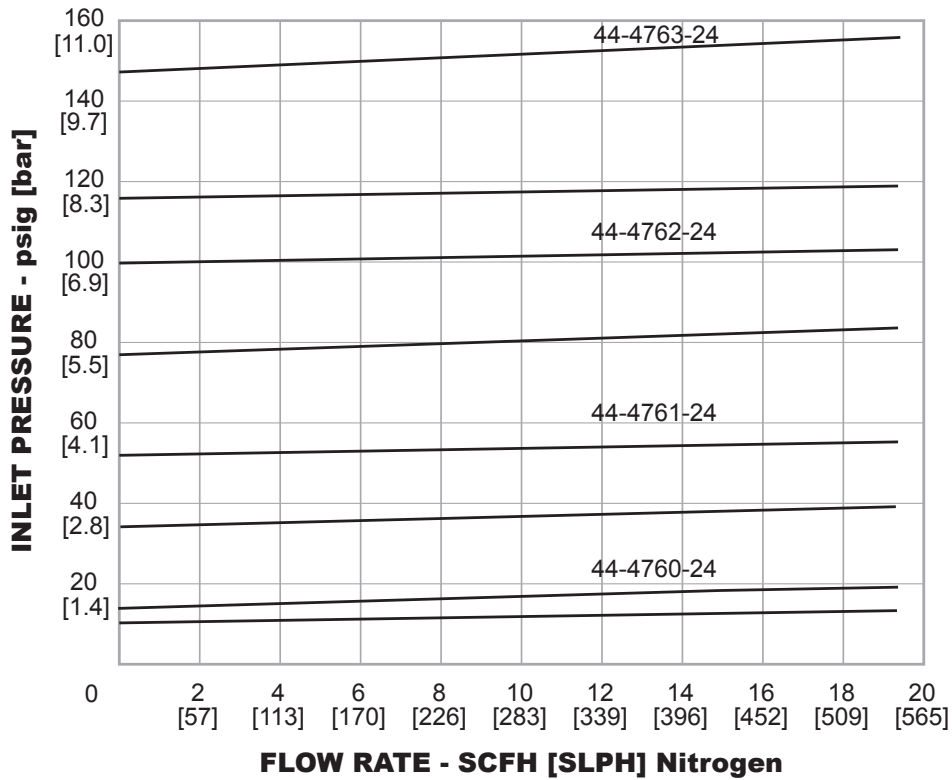




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44-4700 Series Regulator Flow Chart

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.



44-4700 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:

| 44-47 | 6 | 0 | - | 2 | 4 | |
|--------------|-------------------------|---|--|----------------------------|------------------------------|--|
| BASIC SERIES | BODY MATERIAL | INLET PRESSURE RANGES ¹ | INLET AND OUTLET PORT TYPE | INLET AND OUTLET PORT SIZE | OPTIONS | |
| 44-47 | 6 – 316 Stainless Steel | 0 – 50 mm Hg absolute - 15 psig / 1 bar 1 – 50 mm Hg absolute - 50 psig / 3.4 bar 2 – 50 mm Hg absolute - 100 psig / 6.9 bar 3 – 50 mm Hg absolute - 150 psig / 10.3 bar | 1 – SAE 2 – NPTF 3 – MS33649 H – HPIC | 4 – 1/4" 6 – 3/8" | -501 – C _v = 0.30 | |
| | | 1. 28" Hg = 50 mm Hg absolute | | | | |