

54-2100 Series Regulators - Relief / Backpressure

D54211635X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

15,000 psig / 1034 bar

Controlled Pressure Ranges

0-500, 0-800, 10-1500, 15-2500, 25-4000, 50-6000, 200-10,000,
300-15,000 psig
0-34.5, 0-55.2, 0.69-103, 1.0-172, 1.7-276, 3.4-414, 13.8-690,
20.7-1034 bar

Design Proof Pressure

150% maximum rated

Leakage

Maximum 2 drops/minute at 150 SUS at 2500 psig / 172 bar

Ambient Operating Temperature¹

-15°F to 165°F / -26°C to 74°C

Flow Capacity

C_v = 0.08

Maximum Operating Torque

40 in-lbs / 4.5 N•m

MEDIA CONTACT MATERIALS

Body

316 Stainless Steel

Seat and Poppet

17-4 Stainless Steel

O-Ring

See Part Number Selector

Back-up Ring

Inlet Pressure Ranges

2500-10,000 psig / 172-690 bar: Teflon®
15,000 psig / 1034 bar: CTFE

Valve Seal

Vespel®

Sensor Seal

Inlet Pressure Ranges

500-10,000 psig / 34.5-690 bar: CTFE
15,000 psig / 1034 bar: Vespel®

Remaining Parts

300 Series Stainless Steel

OTHER

Cleaning

CGA 4.1 and ASTM G93

Weight

5 lbs / 2.3 kg

1. For extended temperatures from -40°F to 400°F / -40°C to 204°C, consult TESCOM.

Teflon®, Viton®, Kalrez®, and Vespel® are registered trademarks of E.I. du Pont de Nemours and Company.



AIR LOADED



SPRING LOADED



DOME LOADED

TESCOM 54-2100 Series backpressure regulator is suitable for 15,000 psig / 1034 bar liquid applications. Modifications are also available for 20,000 psig / 1379 bar and 30,000 psig / 2068 bar. Hardened Stainless Steel seat and stem provide excellent wear resistance in harsh applications.

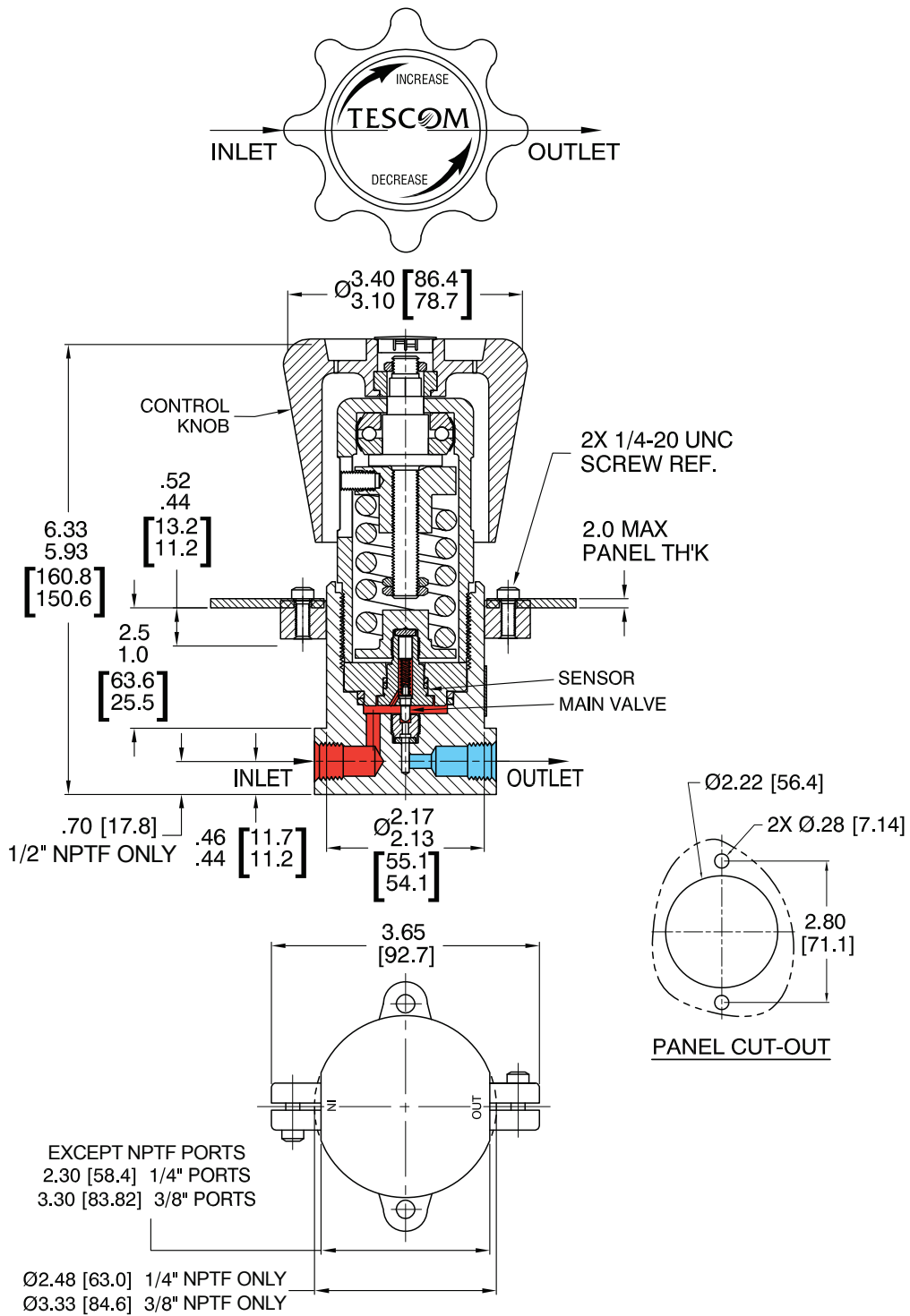
Applications

- Pump discharge pressure control
- Chemical injection
- Burst testing

Features and Benefits

- Accuracy ± 1% of control pressure range
- Easily adjusted, low torque handknob control, dome and air loaded versions are available
- Hardened Stainless Steel seats
- Safe and reliable piston-style sensor
- Panel mounting is standard
- Compatible with TESCOM's air actuator and ER3000 Electropneumatic Controllers

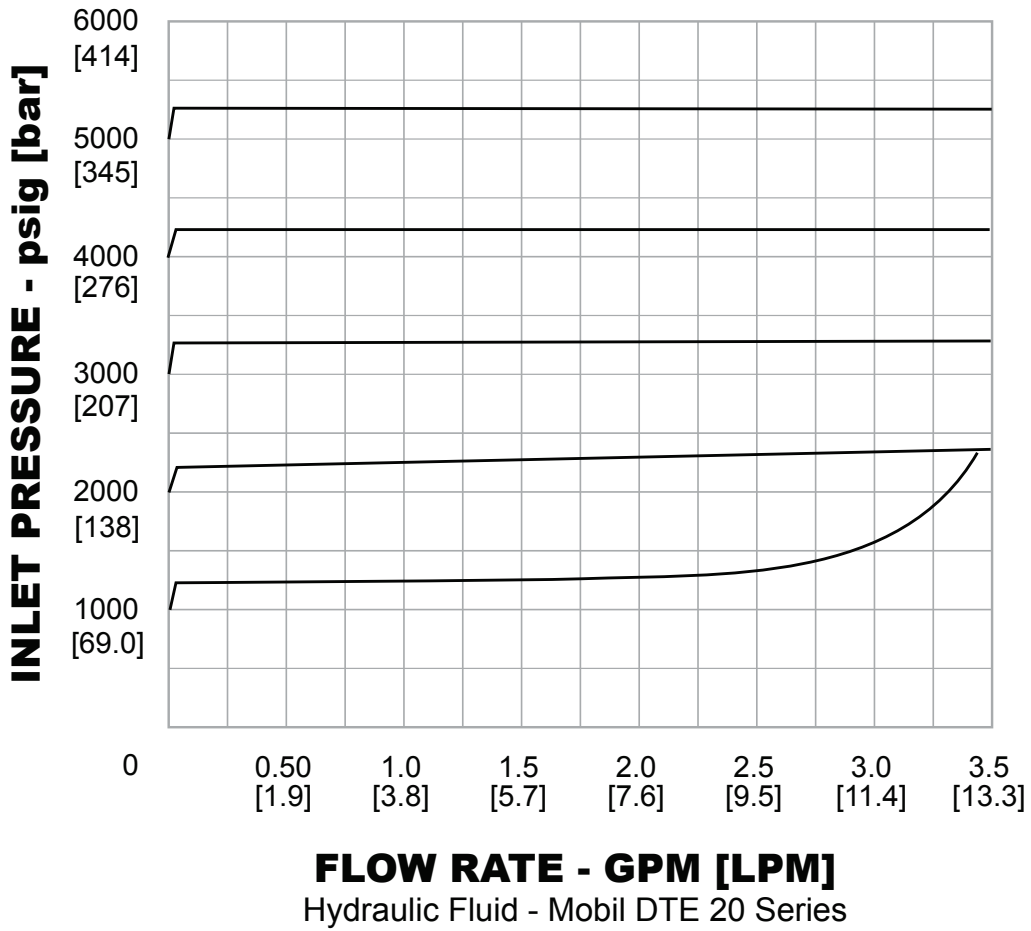
54-2100 Series Regulator Drawing



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

54-2100 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.



54-2100 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:

| 54-21 | 6 | 1 | D | | | 2 | 4 | LOADING | | |
|--|-------------------------|--|---------------------------|-----------------------|----------------------|---|--|--|----------------------------|----------------------------|
| | | | SOFT GOODS MATERIAL | | | | | | INLET AND OUTLET PORT TYPE | INLET AND OUTLET PORT SIZE |
| | | | DYNAMIC | STATIC | SEAT | | | | | |
| 54-21 | 6 – 316 Stainless Steel | 0 – 300-15,000 psig 20.7-1034 bar ¹ (Spring only) | D – Buna-N | Buna-N | 17-4 Stainless Steel | 1 – SAE 2 – NPTF 3 – MS33649 4 – High Pressure/ Amico 6 – Medium Pressure/ Slimline | 4 – 1/4" 6 – 3/8" 8 – 1/2" (NPTF/SAE/ MS33649 only) 9 – 9/16" (MP/HP only) 12 – 3/4" (MP only) | – Spring (no letter required) H – Dome A – Air ³ | | |
| | | 1 – 200-10,000 psig 13.8-690 bar ² | T – Viton® | Viton® | 17-4 Stainless Steel | | | | | |
| | | 2 – 50-6000 psig 3.4-414 bar (Spring and Air only) | V – Kalrez® | Kalrez® | 17-4 Stainless Steel | | | | | |
| | | 3 – 25-4000 psig 1.7-276 bar (Spring only) | Z – Ethylene Propylene | Ethylene Propylene | 17-4 Stainless Steel | | | | | |
| | | 4 – 15-2500 psig 1.0-172 bar (Spring and Air only) | | | | | | | | |
| | | 5 – 10-1500 psig 0.69-103 bar (Spring and Air only) | | | | | | | | |
| | | 6 – 0-800 psig 0-55.2 bar (Spring only) | | | | | | | | |
| 7 – 0-500 psig 0-34.5 bar (Spring and Dome only) | | | | | | | | | | |

For extended temperatures of soft goods material, please consult TESCOM.

1. Available with 1/4" and 3/8" high pressure, 1/4" and 3/8" medium pressure, 1/4" NPTF only
 2. Not to be used with 3/8" SAE or 3/8" MS33649 ports
 3. 80 psig / 5.5 bar minimum loading pressure needed