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 Temperature[1]
-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.

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

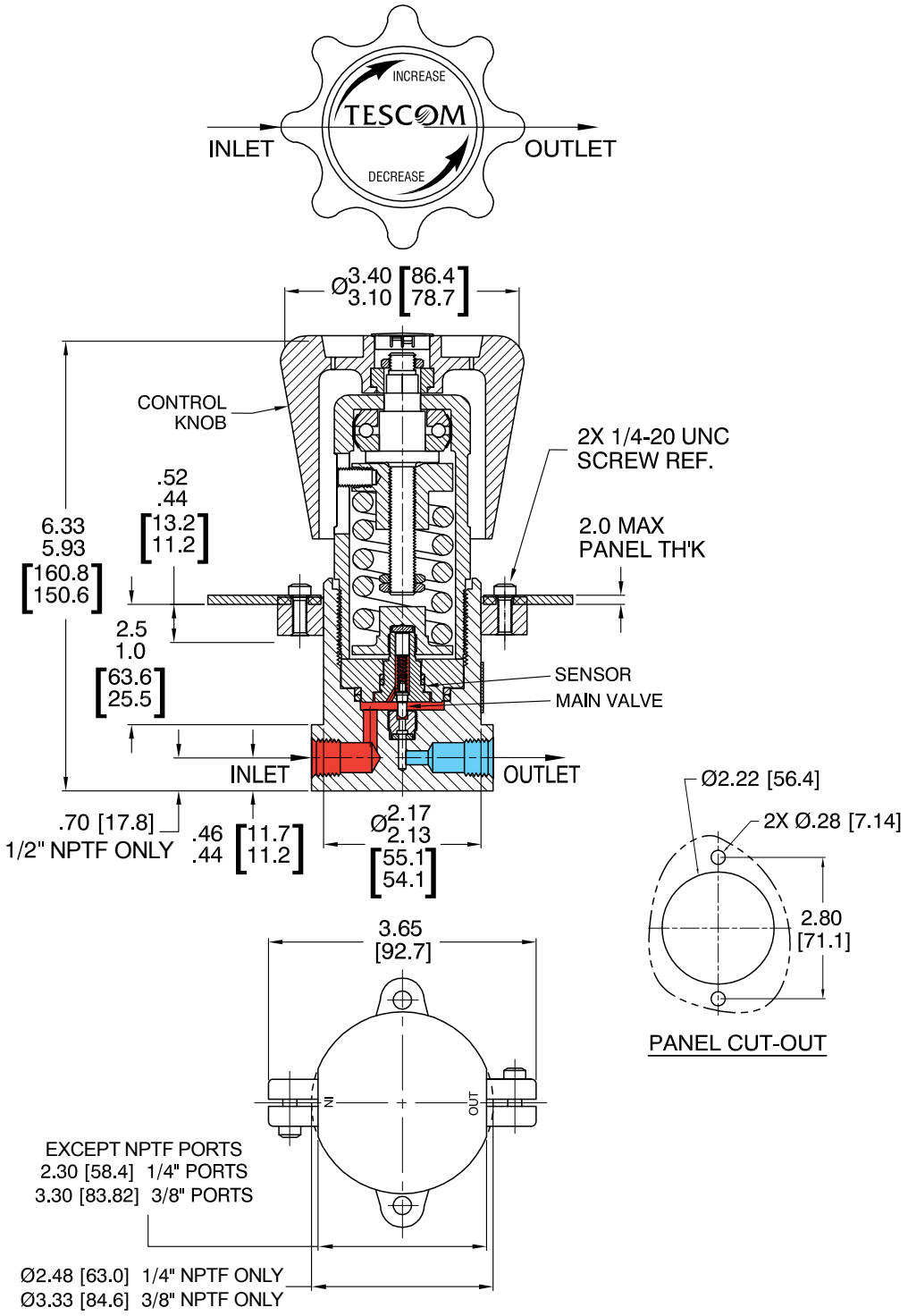
- Pump discharge pressure control
- Chemical injection
- Burst testing

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

TESCOM

54-2100 Series Regulator Drawing

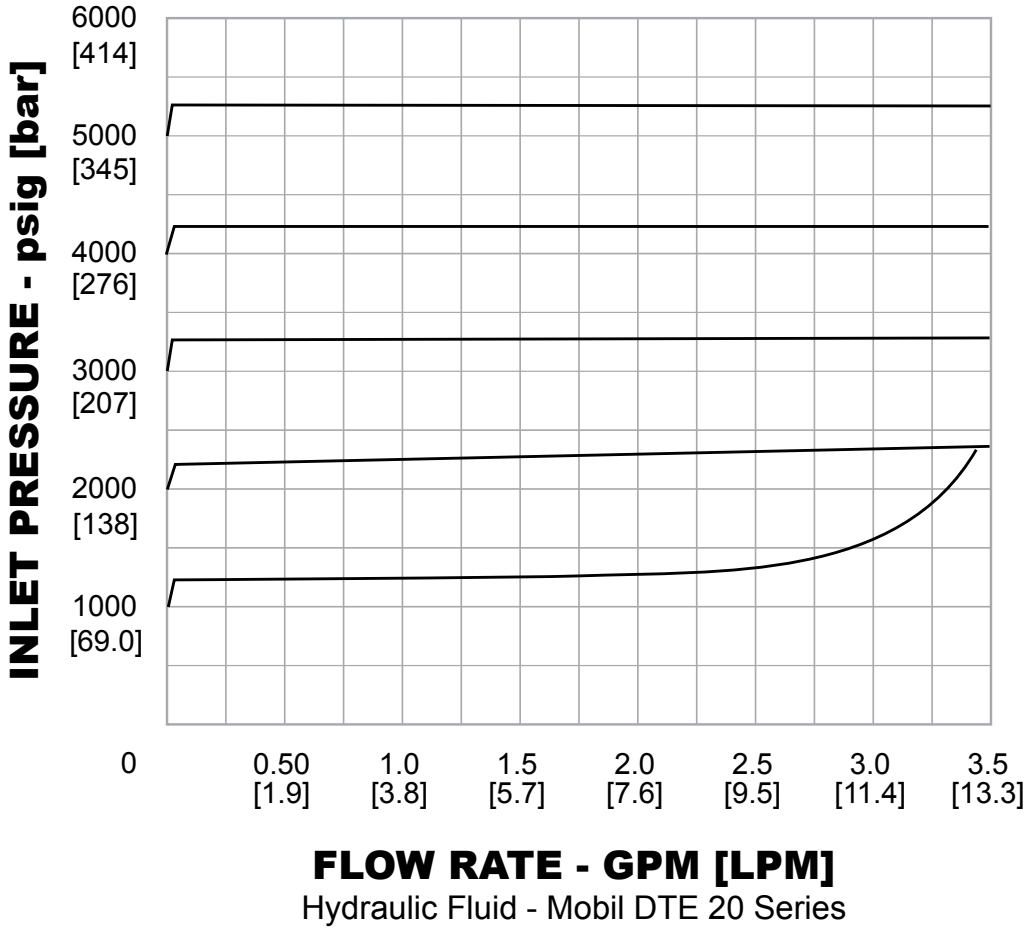


All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

EMERSON
Process Management

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

BASIC SERIES	BODY MATERIAL	INLET PRESSURE	SOFT GOODS MATERIAL			INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	LOADING
			DYNAMIC	STATIC	SEAT			
54-21	**6** – 316 Stainless Steel	**0** – 300-15,000 psig 20.7-1034 bar[1] *(Spring only)* **1** – 200-10,000 psig 13.8-690 bar[2] **2** – 50-6000 psig 3.4-414 bar *(Spring and Air only)* **3** – 25-4000 psig 1.7-276 bar *(Spring only)* **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)*	**D** – Buna-N **T** – Viton® **V** – Kalrez® **Z** – Ethylene Propylene	Buna-N Viton® Kalrez® Ethylene Propylene	17-4 Stainless Steel 17-4 Stainless Steel 17-4 Stainless Steel 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]

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

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