

Regulators - Relief / Backpressure

D54211635X012

Specifications*For other materials or modifications, please consult TESCO.***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 PH Stainless Steel

O-Ring

See Part Number Selector

Back-up Ring**Inlet Pressure Ranges**

2500-10,000 psig / 172-690 bar: PTFE

15,000 psig / 1034 bar: PCTFE

Valve Seal

Polyimide (Vespel®)

Sensor Seal**Inlet Pressure Ranges**

500-10,000 psig / 34.5-690 bar: PCTFE

15,000 psig / 1034 bar: Polyimide (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 TESCO.

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**AIR LOADED****SPRING LOADED****DOMES 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.

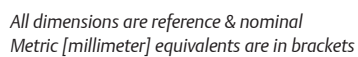
Applications

- Pump discharge pressure control
- Chemical injection
- Burst testing

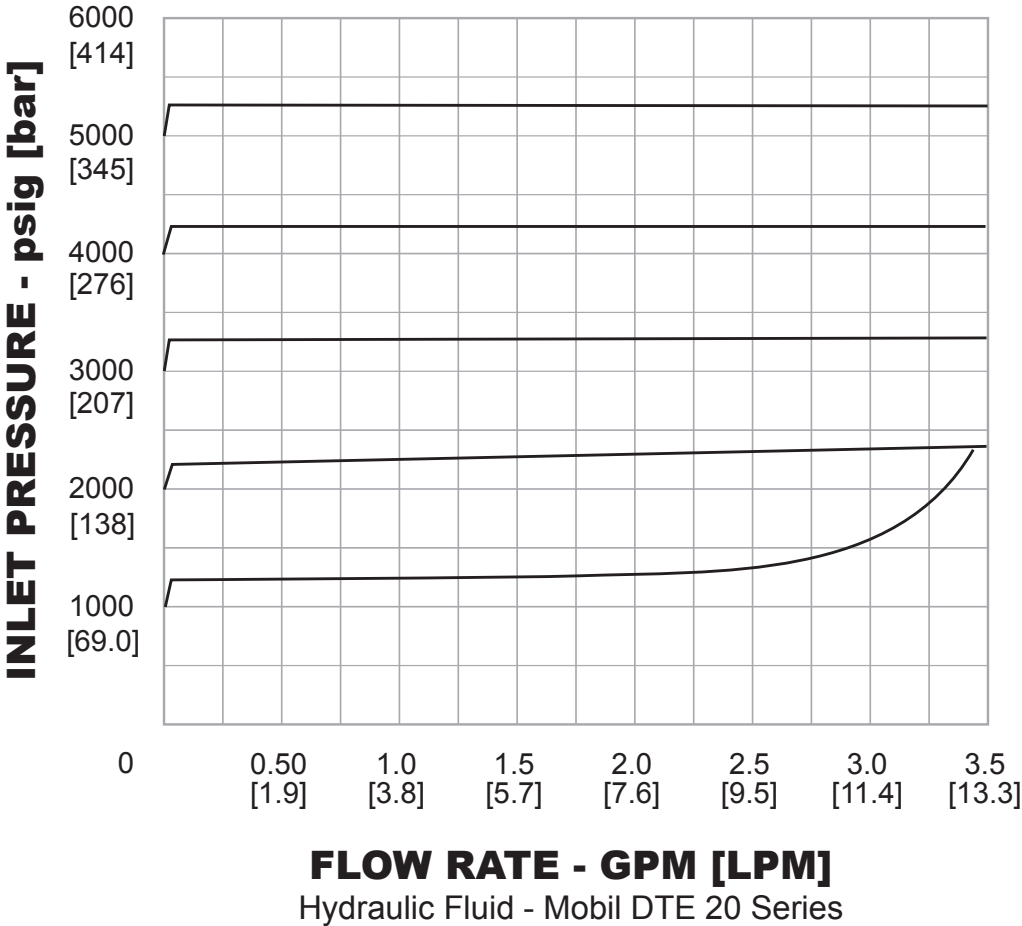
Features and Benefits

- Accuracy $\pm 1\%$ 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 TESCO's air actuator and ER5000 Electropneumatic Controllers

54-2100 Series Regulator Drawing



54-2100 Series Regulator Flow Chart



54-2100 SERIES

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 – Nitrile, Buna-N T – FKM (Viton®-A) V – FFKM, Perfluoroelastomer (Kalrez®) Z – Ethylene Propylene | Nitrile, Buna-N FKM (Viton®-A) FFKM, Perfluoroelastomer (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 | | |