

## 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<sup>1</sup>

-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 (VespeI®)

#### Sensor Seal

##### Inlet Pressure Ranges

500-10,000 psig / 34.5-690 bar: PCTFE  
15,000 psig / 1034 bar: Polyimide (VespeI®)

#### 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.  
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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

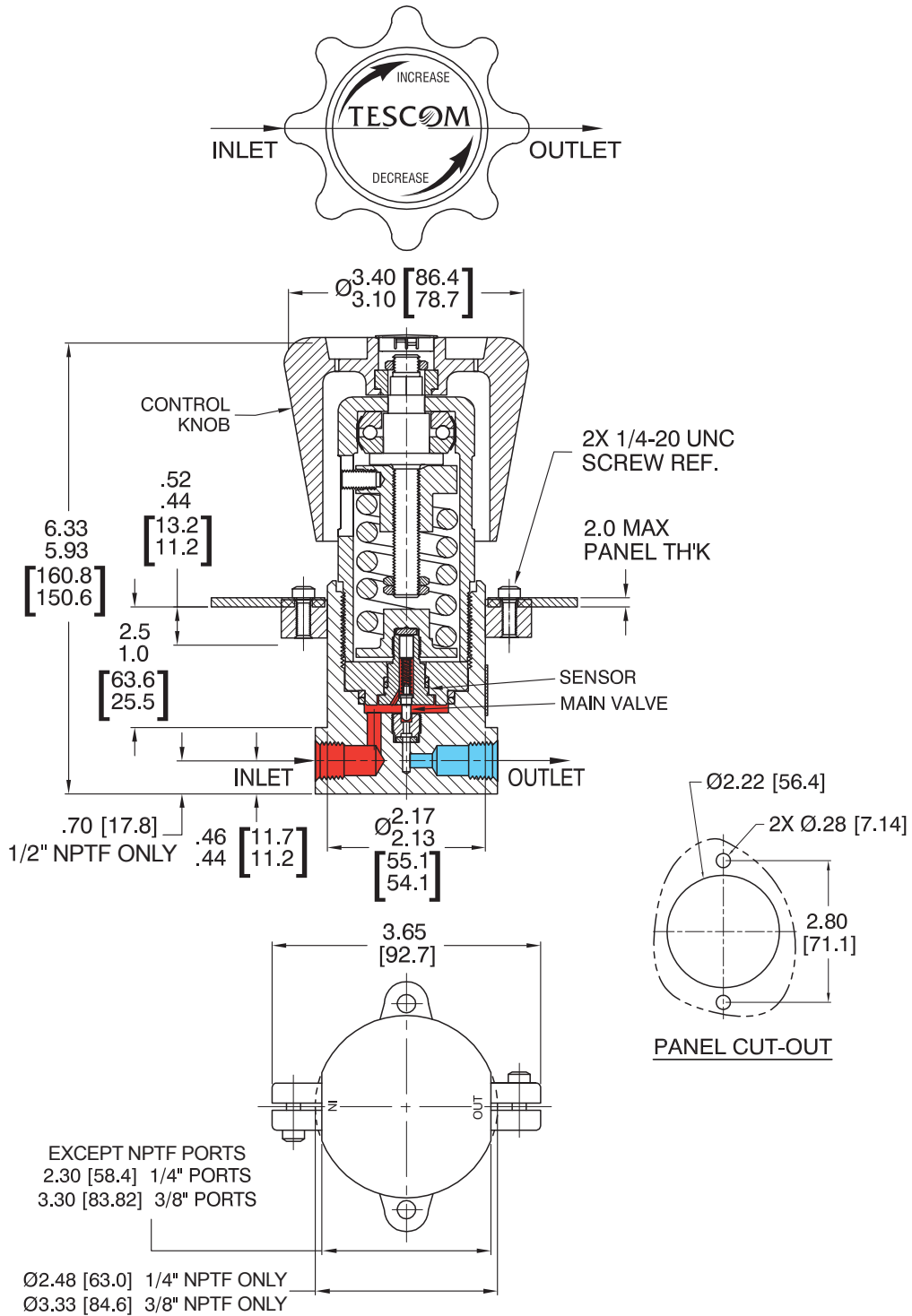
- Pump discharge pressure control
- Chemical injection
- Burst testing

## 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 TESCOM's air actuator and ER5000 Electropneumatic Controllers

# 54-2100 SERIES

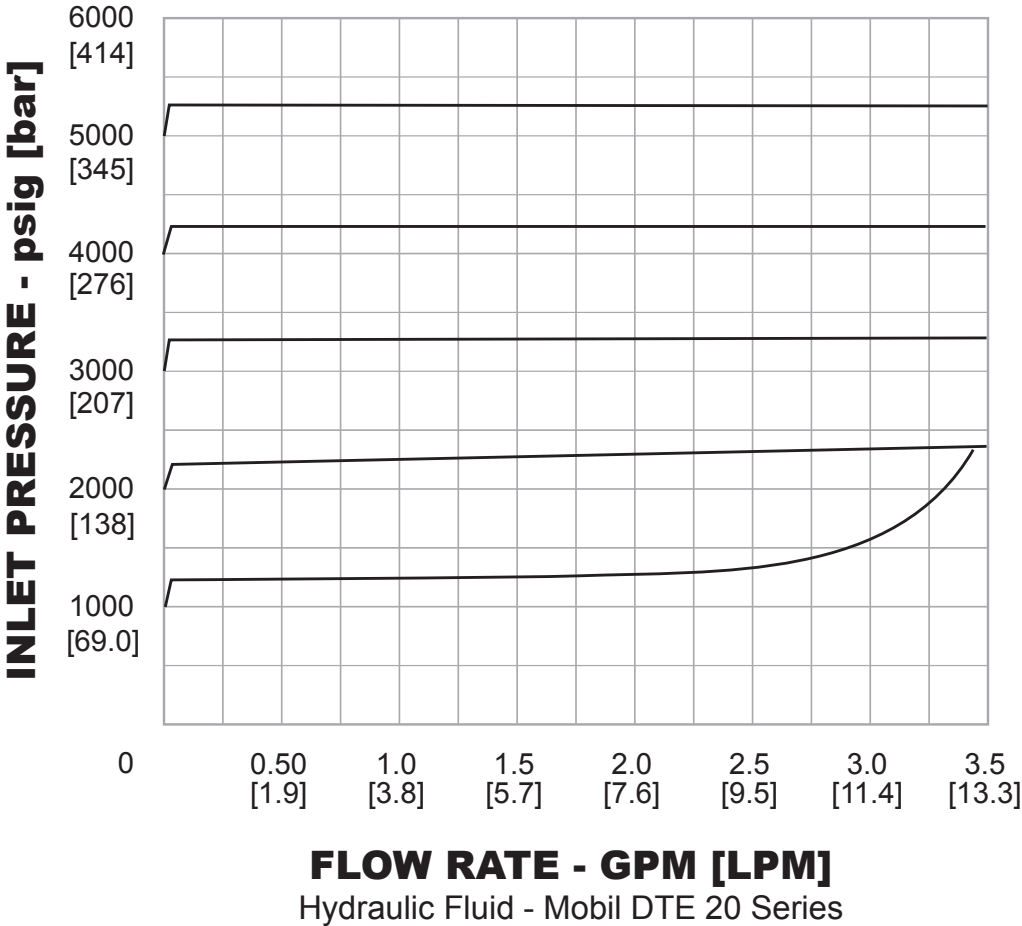
## 54-2100 Series Regulator Drawing



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 TESCO catalog or on www.tescom.com.



# 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 <sup>1</sup> (Spring only)	D – Nitrile, Buna-N	Nitrile, Buna-N FKM (Viton®-A)	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 <sup>3</sup>
		1 – 200-10,000 psig 13.8-690 bar <sup>2</sup>	T – FKM (Viton®-A)	FFKM, Perfluoroelastomer	17-4 Stainless Steel 17-4 Stainless Steel			
		2 – 50-6000 psig 3.4-414 bar (Spring and Air only)	V – FFKM, Perfluoroelastomer (Kalrez®)	Ethylene Propylene				
		3 – 25-4000 psig 1.7-276 bar (Spring only)	Z – Ethylene Propylene					
		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