TESCOM

54-2300 Series

Regulators - Relief / Backpressure

D54231641X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure
Spring and Dome Loaded: 5000 psig / 345 bar
Air Actuated: 10,000 psig / 690 bar

Control Pressure Ranges
1000, 1500, 2500, 3500, 5000 and 10,000 psig
69.0, 103, 172, 241, 345 and 690 bar

Design Proof Pressure
150% of maximum rated

Leakage
2 drops/min at 150 S.U.S. at 2500 psig / 172 bar

Operating Temperature (media)[1]
-40°F to 165°F / -40°C to 74°C

Flow Capacity
C_V = 1.6

MEDIA CONTACT MATERIALS

Body
303 or 316 Stainless Steel

Seat, Poppet and Sensor
17-4 PH Stainless Steel

O-Rings
Buna-N, Viton®, Ethylene Propylene or Polyurethane

Back-up Rings
PTFE

Bonnet (Spring load only)
303 Stainless Steel

Remaining Parts
300 Stainless Steel

OTHER

Cleaning
CGA 4.1 and ASTM G93

Weight
Spring and Dome Loaded: 15 lbs / 6.8 kg
Air Actuated: 30 lbs / 13.6 kg

1. Operating temperature range dependent on o-ring material.

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TESCOM 54-2300 Series backpressure hydraulic regulator is capable of flows from 5-50 GPM and is available in air load for use with the TESCOM ER5000 Electropneumatic Controller.

Applications

- Hydraulic test stands
- Process control

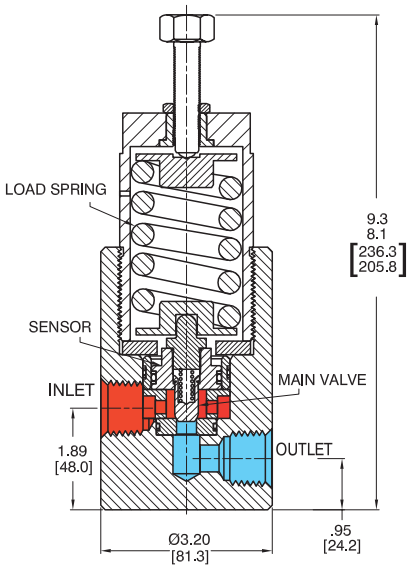
Features and Benefits

- Wear rings available for non-lubricating media
- Control pressure up to 10,000 psig / 690 bar
- Flow Capacity C_V = 1.6
- Excellent crack-to-reseat ratio
- Hardened metal-to-metal seats for heavy duty service
- Choice of spring, dome and air actuated loading
- Standard side mounting holes

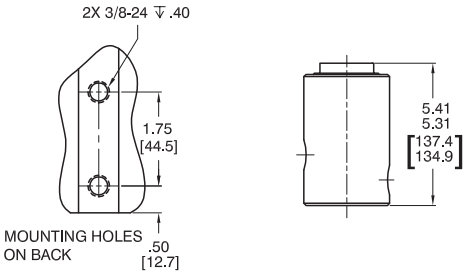
EMERSON
Process Management

54-2300 Series Regulator Drawing

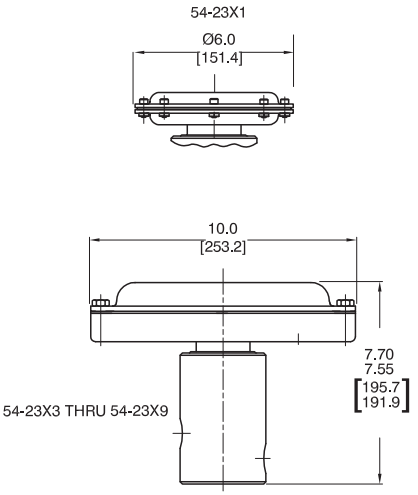
SPRING LOAD



DOME LOAD (1/2) SCALE



AIR LOAD (1/2) SCALE

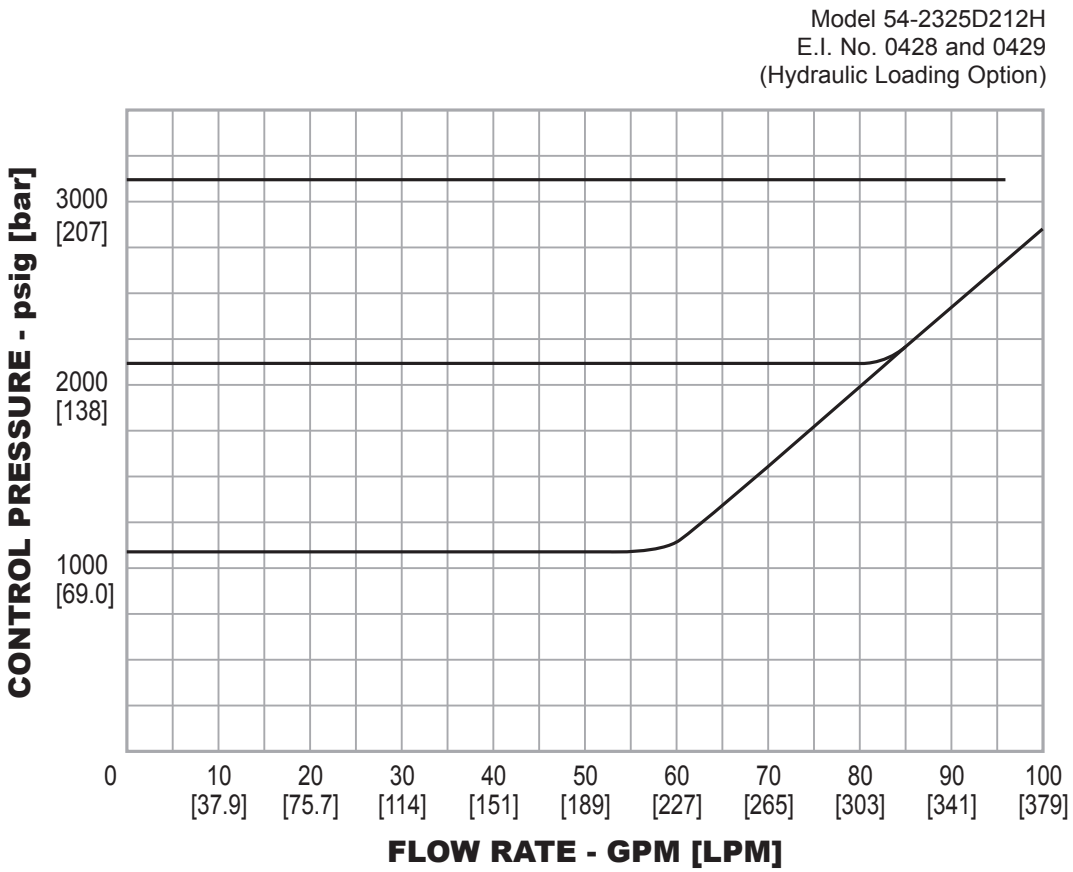


All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

EMERSON
Process Management

54-2300 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.



54-2300 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:

54-23	2	1	T				2	12	S
BASIC SERIES	BODY MATERIAL	CONTROL PRESSURE RANGES	SOFT GOODS MATERIAL				PORT TYPE	PORT SIZE	LOADING METHOD
			O-RINGS DYNAMIC	O-RINGS STATIC	SEAT	TEMPERATURE (MEDIA ONLY)			
54-23	**2** – 303 Stainless Steel **6** – 316 Stainless Steel	**0** – 20-1000 psig 1.4-69.0 bar (spring only) **1** – 20-1500 psig 1.4-103 bar (spring and air only) **3** – 50-3500 psig 3.4-241 bar (spring only) 50-2500 psig 3.4-172 bar (air only 30:1*) **5** – 200-5000 psig 13.8-345 bar (spring and dome 1:1 and air 75:1) **9** – 250-10,000 psig 17.2-690 bar (air only 125:1*)	**D** – Buna-N	Buna-N	17-4 Stainless Steel	-40°F to 165°F -40°C to 74°C	**1** – SAE **2** – NPTF	**08** – 1/2" **12** – 3/4"	**S** – Spring **H** – Dome **A** – Air
			T – Viton®	Viton®	17-4 Stainless Steel	-15°F to 300°F -26°C to 149°C			
			U – Polyurethane	Polyurethane	17-4 Stainless Steel	-15°F to 125°F -26°C to 52°C			
			Z – Ethylene Propylene	Ethylene Propylene	17-4 Stainless Steel	-40°F to 225°F -40°C to 107°C			

**Ratio is for reference only.*