

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 Stainless Steel or 316 Stainless Steel

Seat, Poppet and Sensor

17-4 PH Stainless Steel

O-Rings

Nitrile, Buna-N, FKM (Viton®-A), Ethylene Propylene or Polyurethane

Back-up Rings

PTFE

Bonnet (Spring load only)

303 Stainless Steel, 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

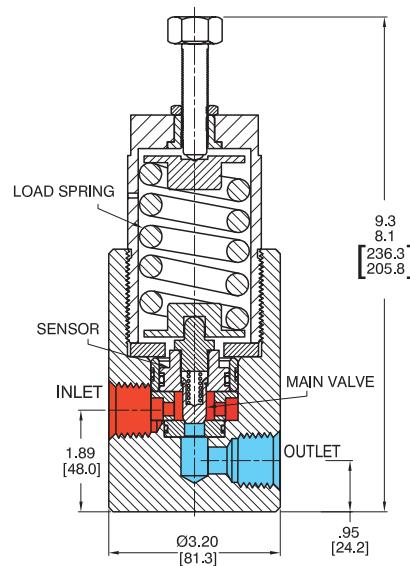
Features and Benefits

- 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
- Flanged end connections available

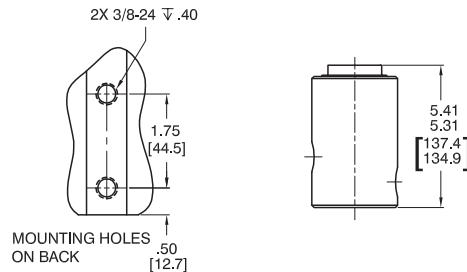
54-2300 SERIES

54-2300 Series Regulator Drawing

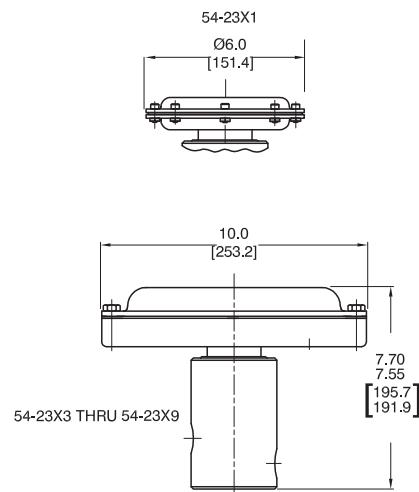
SPRING LOAD



DOME LOAD (1/2) SCALE

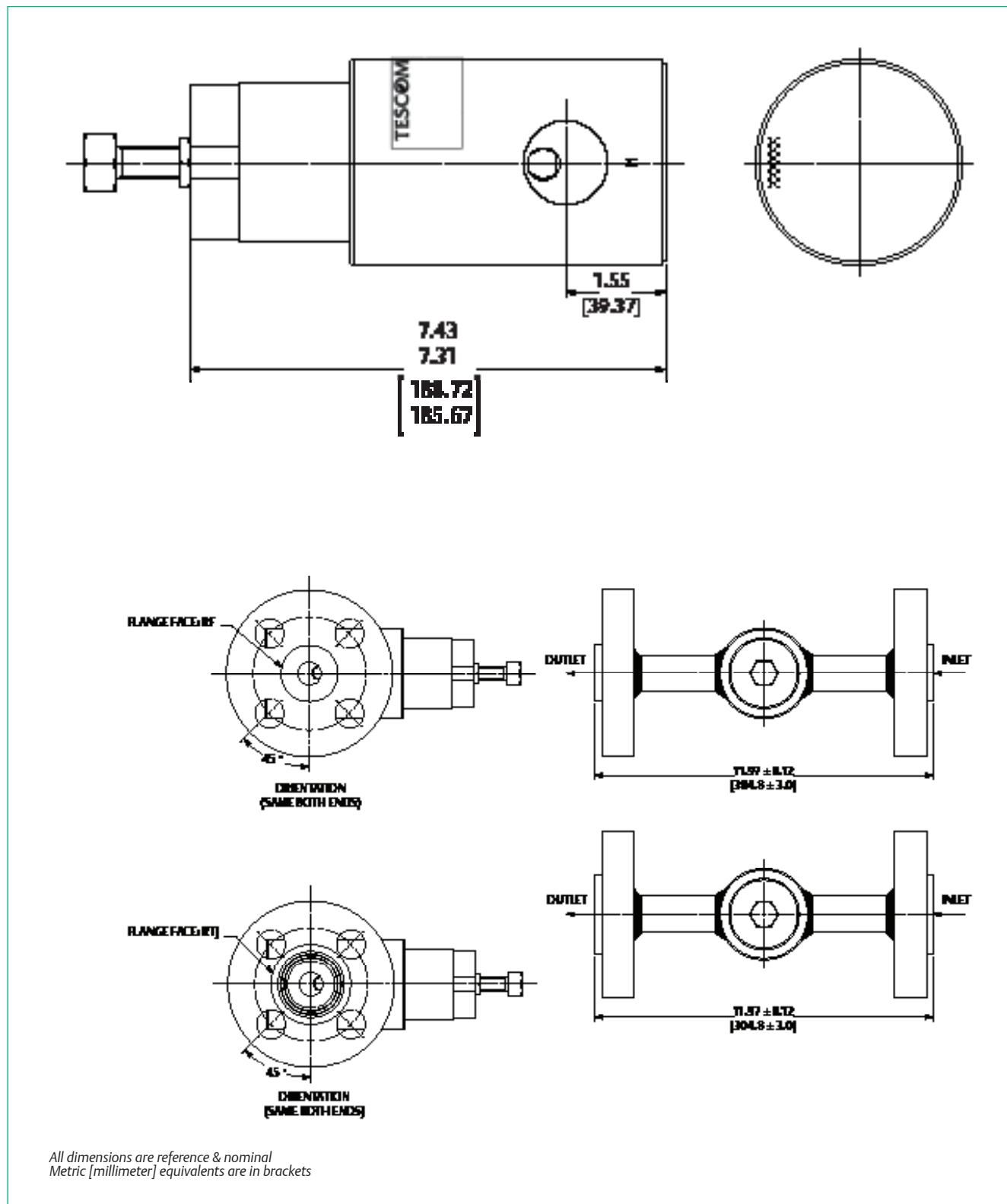


AIR LOAD (1/2) SCALE



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

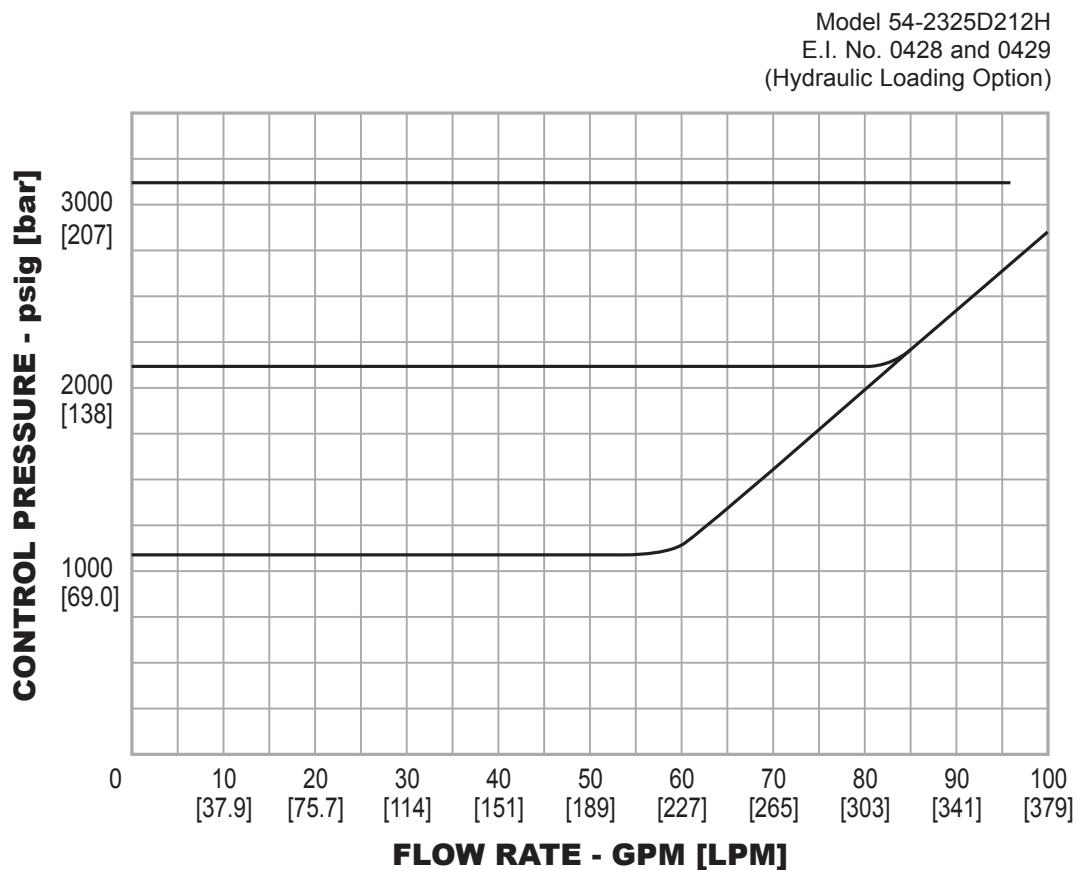
54-2300 Series Regulator with Flanges Drawing



54-2300 SERIES

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



Learn more about common options.

For modifications, repair kits and accessories, contact factory.

Threaded End Connector Part Number Selection:

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	STATIC	SEAT				
DYNAMIC									
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 T – Viton® U – Polyurethane Z – Ethylene Propylene	Buna-N Viton® Polyurethane Ethylene Propylene	17-4 Stainless Steel 17-4 Stainless Steel 17-4 Stainless Steel 17-4 Stainless Steel	-40°F to 165°F -40°C to 74°C -15°F to 300°F -26°C to 149°C -15°F to 125°F -26°C to 52°C -40°F to 225°F -40°C to 107°C	1 – SAE 2 – NPTF	08 – 1/2" 12 – 3/4"	S – Spring H – Dome A – Air

*Ratio is for reference only.

54-2300 SERIES

54-2300 Series Regulator Part Number Selector

Flanged End Connector Part Number Selection:

54-23W 6 1 A 1 52 1

BASIC SERIES	BODY, PIPE & FLANGE MATERIAL	INLET PRESSURE	SOFT GOOD MATERIAL					FLANGE SIZE	FLANGE CLASS	FLANGE FACE			
			Dash No.	O-Rings		SEAT	Operating Temperature						
				Dynamic	Static								
54-23W	6 – 316 Stainless steel	0 – 20-600 psig 1.4-41.4 bar 1 – 20-1000 psig 1.4-69.0 bar 2 – 20-1500 psig 1.4-103.0 bar 3 – 50-3500 psig 3.4-172.0 bar 4 – 200-5000 psig 13.8-344.0 bar	A	Nitrile, Buna-N	Nitrile, Buna-N	17-4 SST	-20 to 165°F / -29 to 74°C	3 – 1"	21 – 300# 41 – 600# 52 – 900# / 1500# 63 – 2500#	1 – RF 2 – RTJ			
			B	FKM	FKM	17-4 SST	-10 to 200°F / -23 to 93°C						
			C			Polyimide (Vespel® SP21)							
			D			Polyimide (Vespel® SP21)							
			E	EP	EP	17-4 SST	-20 to 200°F / -29 to 93°C						
			F			Polyimide (Vespel® SP21)							
			G	PTFE	PTFE	17-4 SST	-20 to 200°F / -29 to 93°C						