



SYNERGY

INNOVATIVE DIVING EQUIPMENT TRADING LLC

INSPIRING • ENGINEERING • INNOVATION

UAE • UK • INDIA • AZERBAIJAN



SY- REGULATORS - PRESSURE REDUCING

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure
6000 psig / 414 bar
Outlet Pressure Ranges
50-1500 psig / 3.4-103 bar
Design Proof Pressure
150% maximum operating
Leakage
Bubble-tight
Operating Temperature
See Part Number Selector
Flow Capacity
Main Valve: Cv = 0.7 (Cv = 2.0 optional)
Vent Valve: Cv = 0.35

MEDIA CONTACT MATERIALS

Body
303 Stainless Steel, 316 Stainless Steel, Brass, Chrome-plated Brass
Main Valve Seat
PCTFE, Polyimide (Vespel®)
O-Ring
Nitrile, Buna-N, FKM (Viton®-A), Ethylene Propylene, ETFE (Tefzel®)
Gasket
PCTFE, Polyimide (Vespel®)
Back-up Ring
PTFE
Trim
300 Series Stainless Steel, 17-4 PH
Stainless Steel, Brass

OTHER

Cleaning
CGA 4.1 and ASTM G93
Weight
8 lbs / 3.6 kg

Teflon®, Viton®, Kalrez®, and Vespel® are registered trademarks of E.I. du Pont de Nemours and Company.



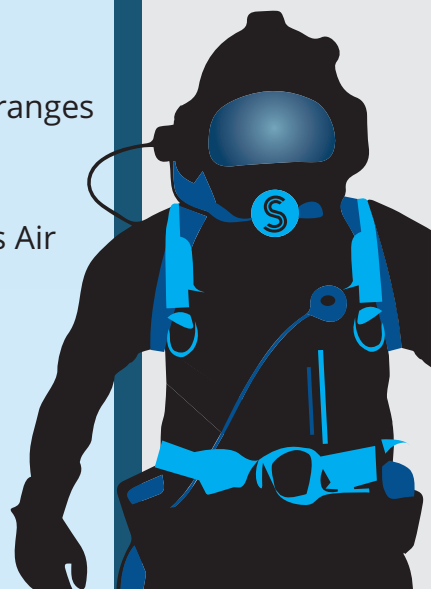
TESCOM 44-4000 dome loaded, spring biased regulator is designed for pressure tracking applications to maintain a constant differential pressure. Venting allows for pressure tracking increases and decreases.

Application

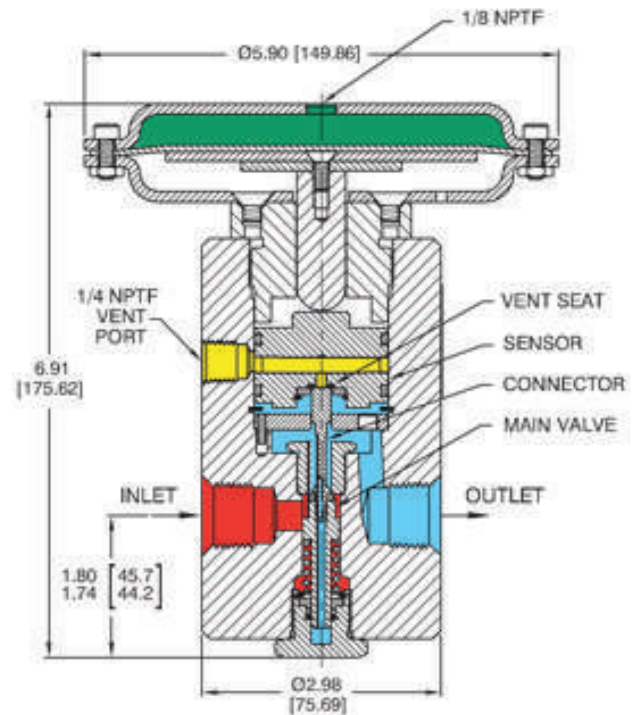
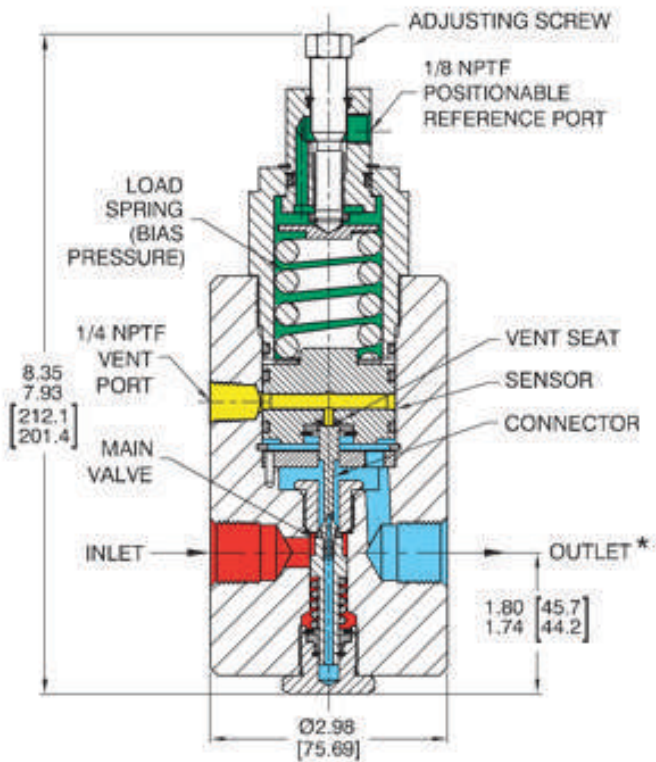
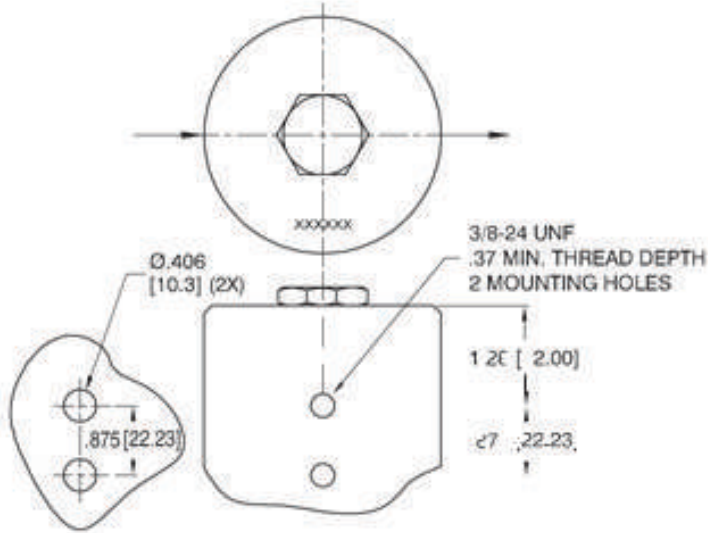
Diving applications for emergency breathing air

• Features and Benefits

- High flow: Cv = 0.7 or 2.0 (optional)
- Piston sensed
- Adjustable bias pressure ranges are available
- Venting (captured)
- Compatible with Tescom's Air Actuators and ER5000 Electropneumatic Controllers



SY- 44-4000 SERIES REGULATOR DRAWINGS



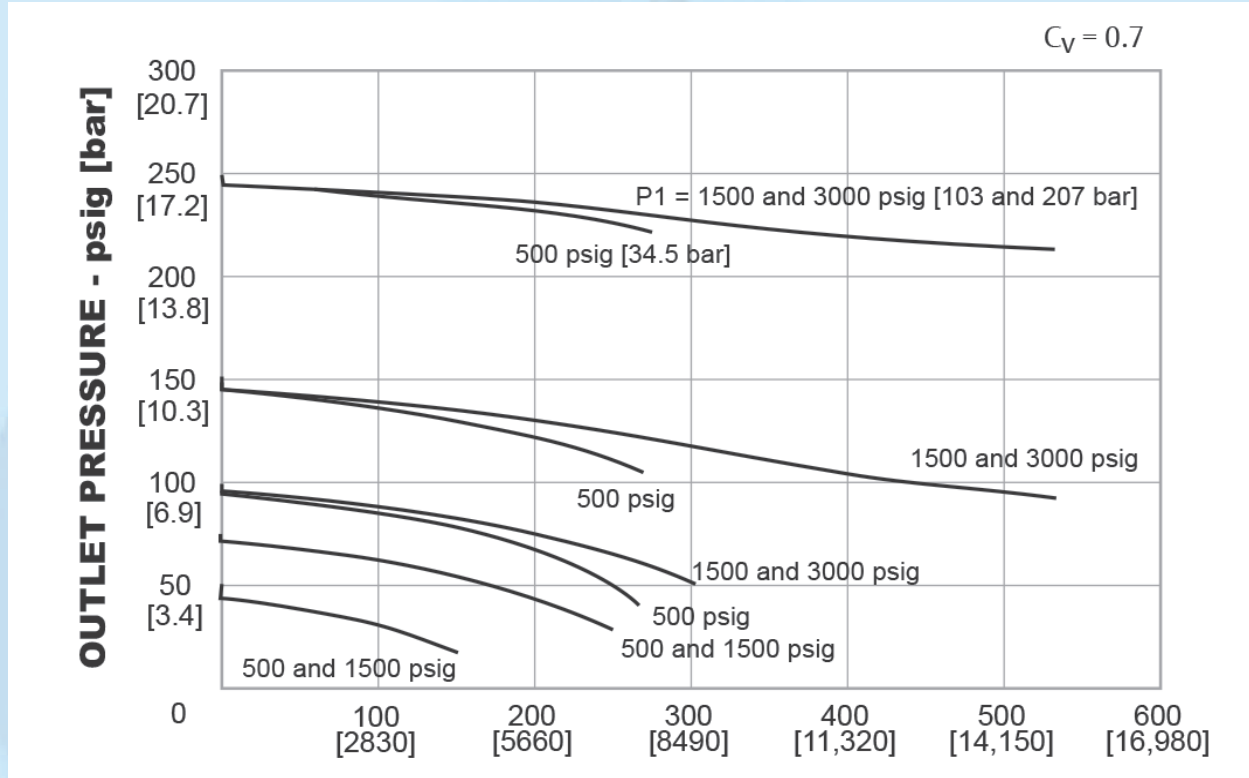
All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

*NOTE: Outlet pressure equals bias spring setting plus reference pressure.

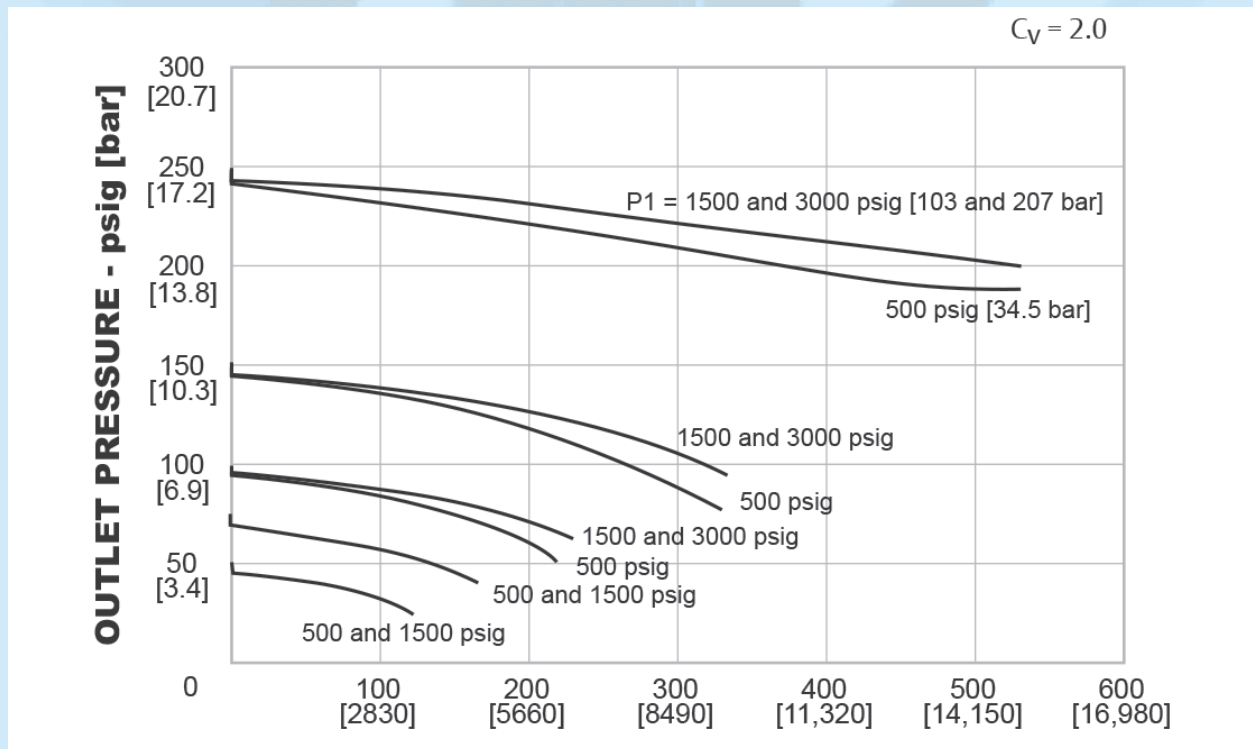


SY- 44-4000 SERIES REGULATOR FLOW CHARTS

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



FLOW RATE - SCFM [SLPM] Nitrogen



FLOW RATE - SCFM [SLPM] Nitrogen



SY- 44-4000 SERIES REGULATOR PART NUMBER SELECTOR

Learn more about common options.

For modifications, repair kits and accessories, contact factory.

Example for selecting a part number:

DOME LOAD/SPRING BIAS

44-40 1 9 E

BASIC SERIES	BODY MATERIAL	MAXIMUM BIAS PRESSURE
44-40	1 - Brass	1 - 100 psig
	2 - 303 Stainless Steel	6.9 bar
	6 - 316 Stainless Steel	2 - 200 psig
	9 - Chrome-plated Brass	13.8 bar
		3 - 350 psig
		24.1 bar
		4 - 120-150 psig
		8.3-10.3 bar (maximum)
		9 - 0-15 psig
		0-1.0 bar

SOFT GOODS			
O-RING	SEAT	GASKET	TEMPERATURE*
E - FKM (Viton®-A)	PCTFE	PCTFE	-15°F to 165°F -26°C to 74°C
M - Ethylene	PCTFE	PCTFE	-40°F to 165°F -40°C to 74°C
P - FFKM, Perfluoroelastomer (Kalrez®)	Polyimide (Vespel®)	Polyimide (Vespel®)	0°F to 165°F -17°C to 74°C
V - FKM (Viton®-A)			-15°F to 400°F -26°C to 204°C

2

INLET AND OUTLET PORT TYPE
0 - BSP
1 - SAE
2 - NPTF
3 - MS33649

12

INLET AND	
DIA. OUTLET	A' PORT SIZE
8 - 1/2"	2.98"
12 - 3/4"	NPTF 2.98"
3/4" SAE	3.48"

MODIFICATION OPTION
-002 - Cv = 2.0



SY- S44-4000 SERIES REGULATOR PART NUMBER SELECTOR

AIR LOAD

44-40

1

9

E

BASIC SERIES	BODY MATERIAL	MAXIMUM BIAS PRESSURE
44-40	1 - Brass	1 - 100 psig
	2 - 303 Stainless Steel	6.9 bar
		2 - 200 psig
	6 - 316 Stainless Steel	13.8 bar
		3 - 350 psig
	9 - Chrome-plated Brass	24.1 bar
		4 - 120-150 psig
		8.3-10.3 bar (maximum)
		9 - 0-15 psig
		0-1.0 bar

SOFT GOODS			
O-RING	SEAT	GASKET	TEMPERATURE*
A - Nitrile, Buna-N	PCTFE	PCTFE	40°F to 165°F -40°C to 74°C
E - FKM (Viton®-A)	PCTFE	PCTFE	-15°F to 165°F -26°C to 74°C
M - Ethylene	PCTFE	PCTFE	-40°F to 165°F -40°C to 74°C
P - FFKM, Perfluoroelastomer (Kalrez®)	Polyimide (Vespel®)	Polyimide (Vespel®)	0°F to 165°F -17°C to 74°C
V - FKM (Viton®-A)			-15°F to 400°F -26°C to 204°C

2

12

INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	MODIFICATION OPTIONS
0 - BSP	8 - 1/2"	-014 - Air ratio,
1 - SAE	12 - 3/4"	Venting Cv = 0.7
2 - NPTF		-015 - Air ratio,
3 - MS33649		Venting
		Cv = 2.0

* Brass body is limited to +200 °F (93 °C) maximum.

SYNERGY INFRASTRUCTURE





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DIVE CONTROL-THREE DIVER GAS PANEL

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