

50-4000 Series

Regulators - Pressure Reducing

D50402088X012

Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

10,000, 15,000, 20,000 psig / 690, 1034, 1379 bar

Maximum Outlet Pressure

7100 -15,000 psig / 489 -1034 bar

5500-15,000 psig / 380-1034 bar

3000-10,000 psig / 207-690 bar

3000-6000 psig / 207-414 bar

3000-4000 psig / 207-276 bar

1100-6000 psig / 76-414 bar

1100-4000 psig / 76-276 bar

1100-2500 psig / 76-172 bar

Design Proof Pressure

150% maximum rated

Leakage

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

Operating Temperature

-15°F to 165°F / -26°C to 74°C

Flow Capacity

$C_v = 0.12$ (Control Regulator), $C_v = 1.9$ (Integrated Bypass)

MEDIA CONTACT MATERIALS

Body

316 Stainless Steel, Nitronic 60 (20,000 psig / 1379 bar Inlet)

Seat, Main Valve, Vent

17-4 Stainless Steel, Vespel®

O-ring

Buna-N, Viton®, EP

Back-up Ring

CTFE

Remaining Parts

316 Series Stainless Steel, 17-4 Stainless Steel

OTHER

Cleaning

CGA 4.1 and ASTM G93

Weight (approximate)

14 lbs / 6.4 kg

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



TESCOM 50-4000, 50-4100 and 50-4200 Series pressure reducing regulators, with their integrated bypass valve, control high pressure water glycol. These unique regulators decrease pressurization time and lower maintenance costs.

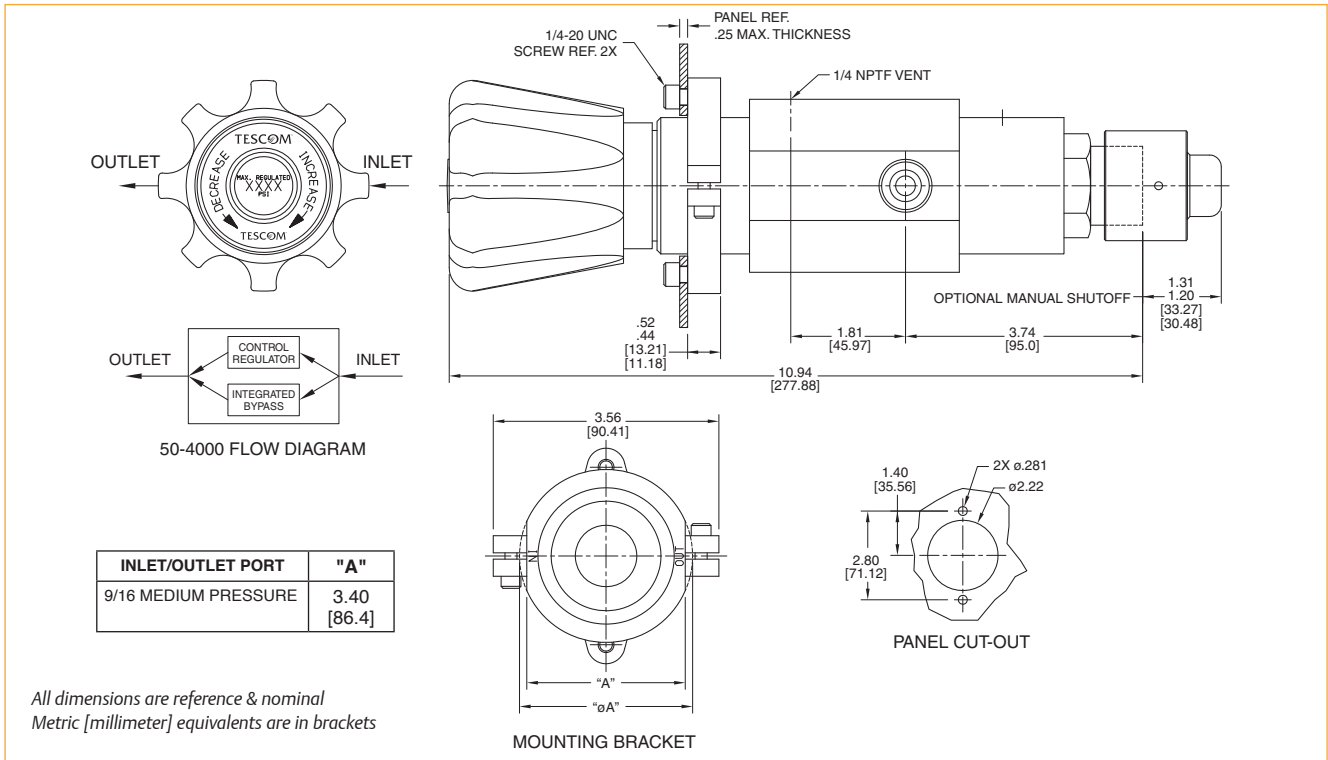
Applications

- Hydraulic Power Units (HPU)
- Wellhead control panels

Features and Benefits

- Unique integrated bypass valve simplifies the high pressure system design which results in fewer components and leak paths for added safety
- The addition of the 50-4000 Series to HPU units simplifies complex start up procedures while decreasing down time associated with filling long umbilicals
- Controls large variations in flow rates at pressures up to 15,000 psig / 1034 bar
- New stem and seal design extends regulator service life in crucial high pressure water-based hydraulic applications

50-4000 Series Regulator Drawing



50-4000 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:

50-40	9	1	D			6	9	S	3	5	0A
BASIC SERIES	MAXIMUM INLET PRESSURE ¹	MAXIMUM OUTLET PRESSURE CONTROL REGULATOR INTEGRATED BYPASS	SOFT GOODS MATERIAL			INLET AND OUTLET PORT TYPE (VENT PORT)	INLET AND OUTLET PORT SIZE	LOAD OPTION	FLOW CAPACITY	MAIN VALVE AND VENT SEAT	INTEGRATED BYPASS MANUAL OVERRIDE SHUTOFF
			DYNAMIC O-RINGS	STATIC O-RINGS	BACK-UP RINGS						
50-40	9 – 15,000 psig 1034 bar (Medium/High Pressure) 10,000 psig 690 bar (NPTF & BSPP)	1 – 3000-10,000 psig 207-690 bar	D – Buna-N	Buna-N	CTFE	0 – BSPP (1/4")	6 – 3/8" ²	S – Spring Load	3 – C _v = 0.12 (Control Regulator) C _v = 1.9 (Integrated Bypass)	5 – 17-4 Stainless Steel 7 – Vespel®	0A – Included 0 – Not Included
		2000-3000 psig 138-207 bar	T – Viton®	Viton®	CTFE	2 – NPTF (1/4")	8 – 1/2" ³	A – Air Load			
		2 – 3000-6000 psig 207-414 bar	Z – EP	EP	CTFE	4 – High Pressure (1/4" NPTF)	9 – 9/16" ⁴				
		2000-3000 psig 138-207 bar			6 – Medium Pressure (1/4" NPTF)						
		3 – 3000-4000 psig 207-276 bar									
		2000-3000 psig 138-207 bar									
4 – 1100-6000 psig 76-414 bar ⁵											
5 – 1100-4000 psig 76-276 bar ⁵											
6 – 1100-2500 psig 76-172 bar ⁵											

1. Pressure at which regulator is used must be compatible with the pressure rating of the regulator and port size/type provided

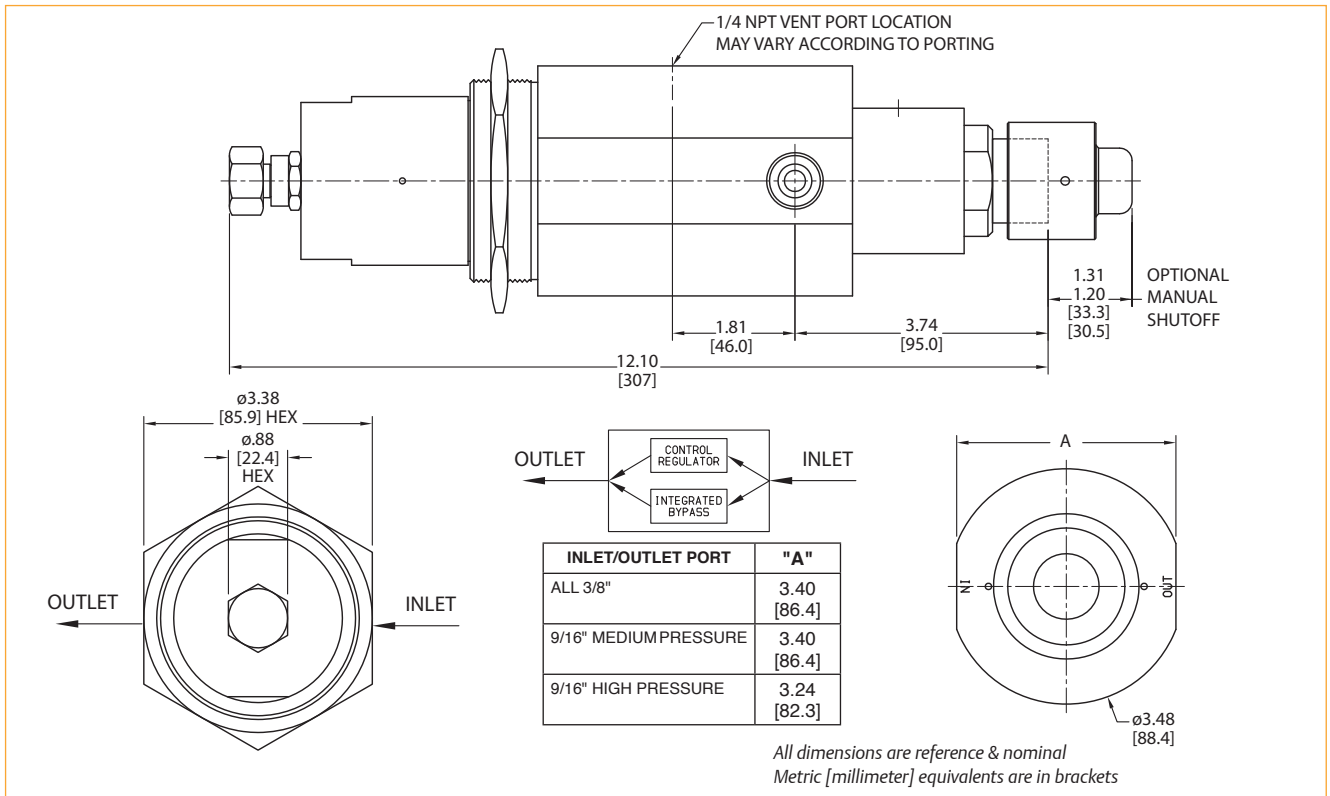
2. Integrated Bypass C_v is limited to 1.0

3. Not available in Medium Pressure and High Pressure

4. Not available in NPTF and BSPP

5. Integrated bypass pressure range is 800 to 1000 psig at 10,000 psig inlet or 800 to 1600 psig at 15,000 psig inlet.

50-4100 Series Regulator Drawing



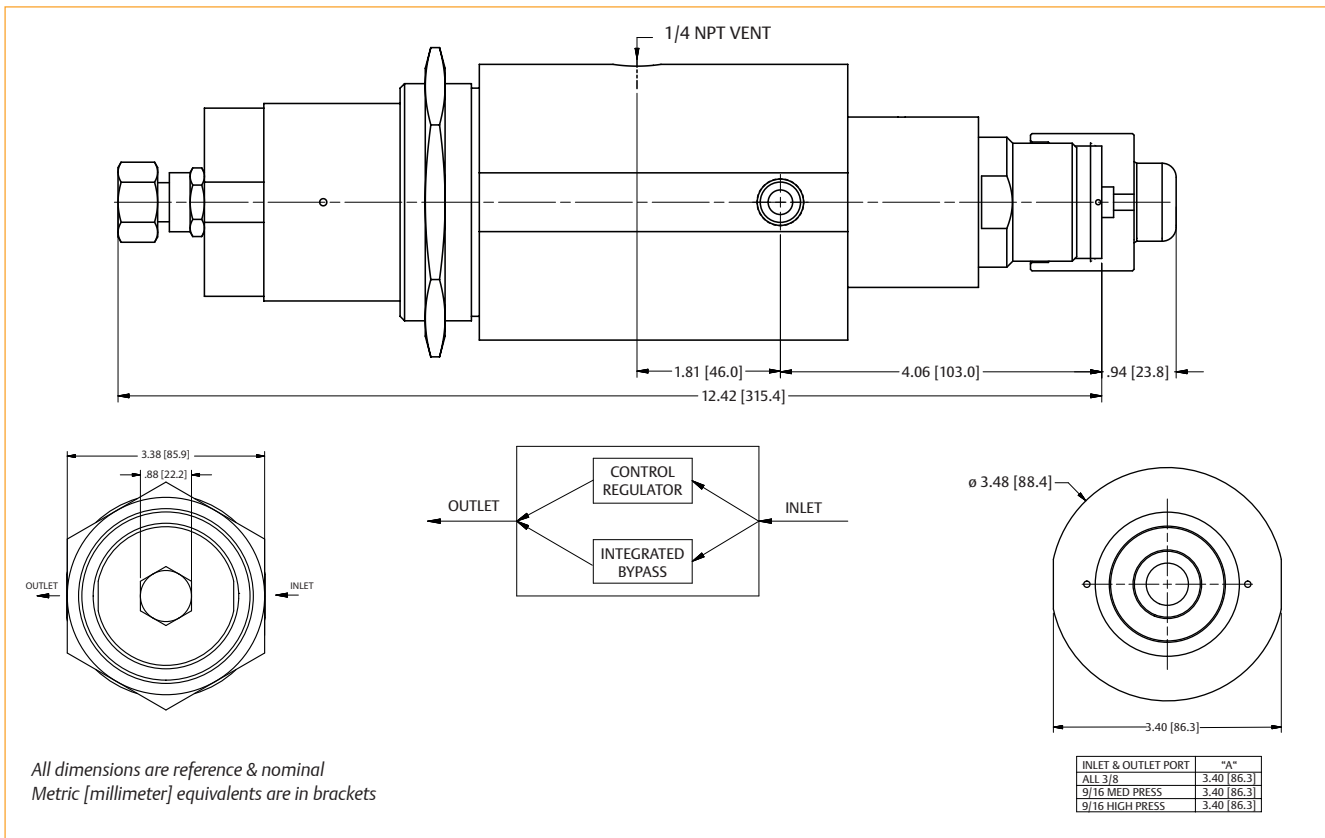
50-4100 Series Regulator Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

50-41	9	1	D			6	9	S	3	5	0A
BASIC SERIES	MAXIMUM INLET PRESSURE ¹	MAXIMUM OUTLET PRESSURE CONTROL REGULATOR INTEGRATED BYPASS	SOFT GOODS MATERIAL			INLET AND OUTLET PORT TYPE (VENT PORT)	INLET AND OUTLET PORT SIZE	LOAD OPTION	FLOW CAPACITY	MAIN VALVE AND VENT SEAT	INTEGRATED BYPASS MANUAL OVERRIDE SHUTOFF
			DYNAMIC O-RINGS	STATIC O-RINGS	BACK-UP RINGS						
50-41	9 – 15,000 psig 1034 bar (Medium/High Pressure) 10,000 psig 690 bar (NPTF & BSPP)	0 – 5500-15,000 psig 380-1034 bar 4200-5200 psig 290-358 bar	D – Buna-N T – Viton® Z – EP	Buna-N Viton® EP	CTFE CTFE CTFE	4 – High Pressure (1/4" NPTF) 6 – Medium Pressure (1/4" NPTF)	6 – 3/8" ² 9 – 9/16" ³	S – Spring Load A – Air Load	3 – C _v = 0.12 (Control Regulator) C _v = 1.9 (Integrated Bypass)	5 – 17-4 Stainless Steel 7 – Vespel®	0A – Included 0 – Not Included
<p>1. Pressure at which regulator is used must be compatible with the pressure rating of the regulator and port size/type provided</p> <p>2. Integrated Bypass C_v is limited to 1.0</p> <p>3. Not available in NPTF and BSPP</p>											

50-4200 Series Regulator Drawing



50-4200 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:

BASIC SERIES	BODY MATERIAL MAXIMUM INLET PRESSURE ¹	OUTLET PRESSURE CONTROL REGULATOR PRESET INTEGRATED BYPASS	SOFT GOODS MATERIAL			INLET AND OUTLET PORT TYPE (VENT PORT)	INLET AND OUTLET PORT SIZE	FLOW CAPACITY	MAIN VALVE & VENT SEAT	1/4" GAUGE PORT OPTIONS	INTEGRATED BYPASS MANUAL OVERRIDE SHUTOFF
			DYNAMIC O-RINGS	STATIC O-RINGS	BACK-UP RINGS						
50-42	N – Nitronic 60 20,000 psig 1379 bar	0 – 7100-15,000 psig 489-1034 bar 5000-7000 psig 344-482 bar	D – Buna-N T – Viton®	Buna-N Viton®	CTFE CTFE	4 – High Pressure (1/4" NPTF) 6 – Medium Pressure (1/4" NPTF)	6 – 3/8" ± 9 – 9/16"	3 – C _v = 0.12 (Control Regulator) C _v = 1.9 (Integrated Bypass)	5 – 17-4 SST	0 – no gauge ports 5 – one outlet gauge port at 90° (left hand inlet)	A – Included Blank – Not Included

1. Pressure at which regulator is used must be compatible with the pressure rating of the regulator and port size/type provided

2. Integrated Bypass C_v is limited to 1.0



WARNING! Do not attempt to select, install, use or maintain this product until you have read and fully understood the TESCOM Safety, Installation and Operation Precautions.