

50-4000 Series

Regulators - Pressure Reducing

D50402088X012

Specifications

For other materials or modifications, please consult TESCO M.

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

Outlet Pressure

8000 to 20,000 psig / 552 to 1379 bar

7100 to 15,000 psig / 489 to 1034 bar

5500 to 15,000 psig / 380 to 1034 bar

3000 to 10,000 psig / 207 to 690 bar

3000 to 6000 psig / 207 to 414 bar

3000 to 4000 psig / 207 to 276 bar

1100 to 6000 psig / 76 to 414 bar

1100 to 4000 psig / 76 to 276 bar

1100 to 2500 psig / 76 to 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, Nitronic® 60

OTHER

Cleaning

CGA 4.1 and ASTM G93

Weight (approximate)

10 to 25 lbs / 4.5 to 11.3 kg

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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.

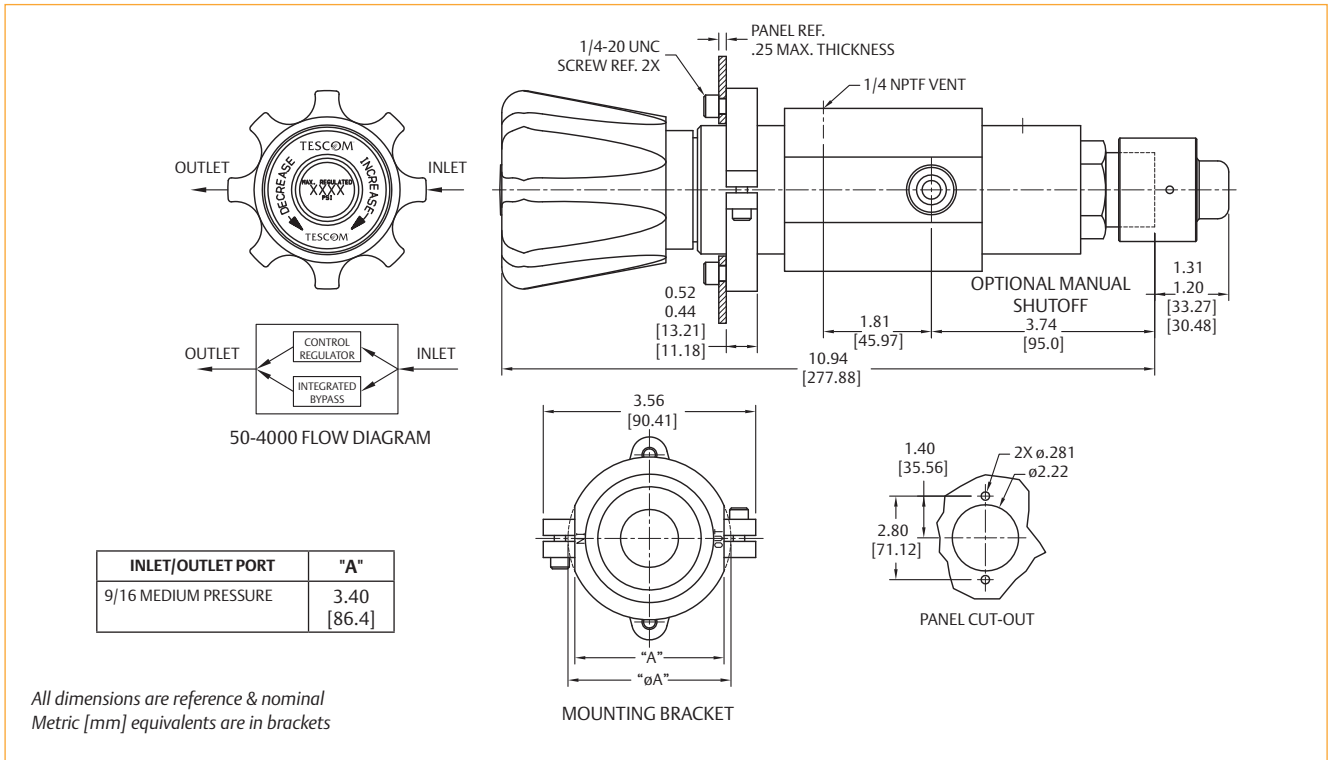
Applications

- 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 20,000 psig / 1379 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

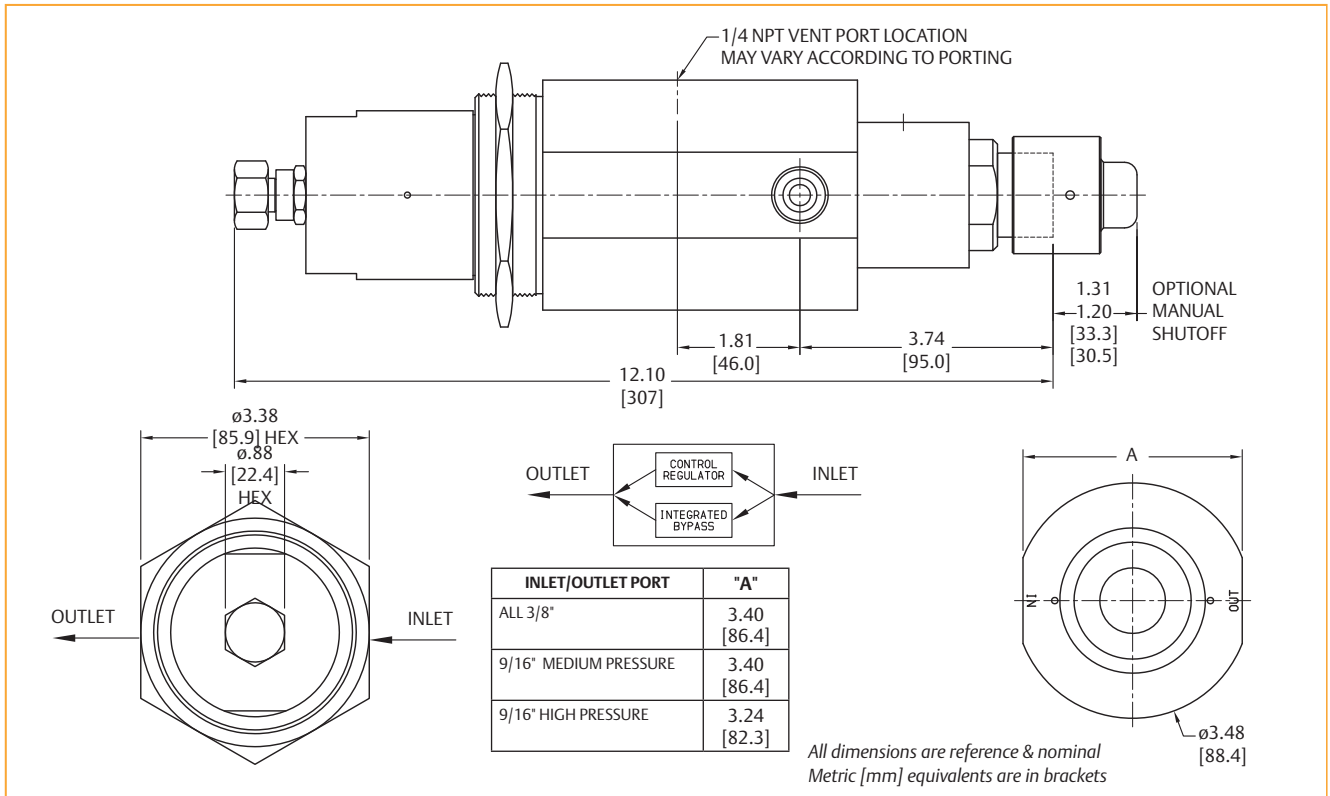
Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

50-40	9	1	D			6	9	S	3	5	0A
BASIC SERIES	MAXIMUM INLET PRESSURE ¹	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 to 10,000 psig 207 to 690 bar 2000 to 3000 psig 138 to 207 bar	D – Buna-N	Buna-N	CTFE	0 – BSPP (1/4") 2 – NPTF (1/4") 4 – High Pressure (1/4" NPTF) 6 – Medium Pressure (1/4" NPTF)	6 – 3/8" ² 8 – 1/2" ³ 9 – 9/16" ⁴	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
			T – Viton®	Viton®	CTFE						
		2 – 3000 to 6000 psig 207 to 414 bar 2000 to 3000 psig 138 to 207 bar	3 – 3000 to 4000 psig 207 to 276 bar 2000 to 3000 psig 138 to 207 bar	Z – EP	EP	CTFE	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.				
								4 – 1100 to 6000 psig 76 to 414 bar ⁵	5 – 1100 to 4000 psig 76 to 276 bar ⁵	6 – 1100 to 2500 psig 76 to 172 bar ⁵	

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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.

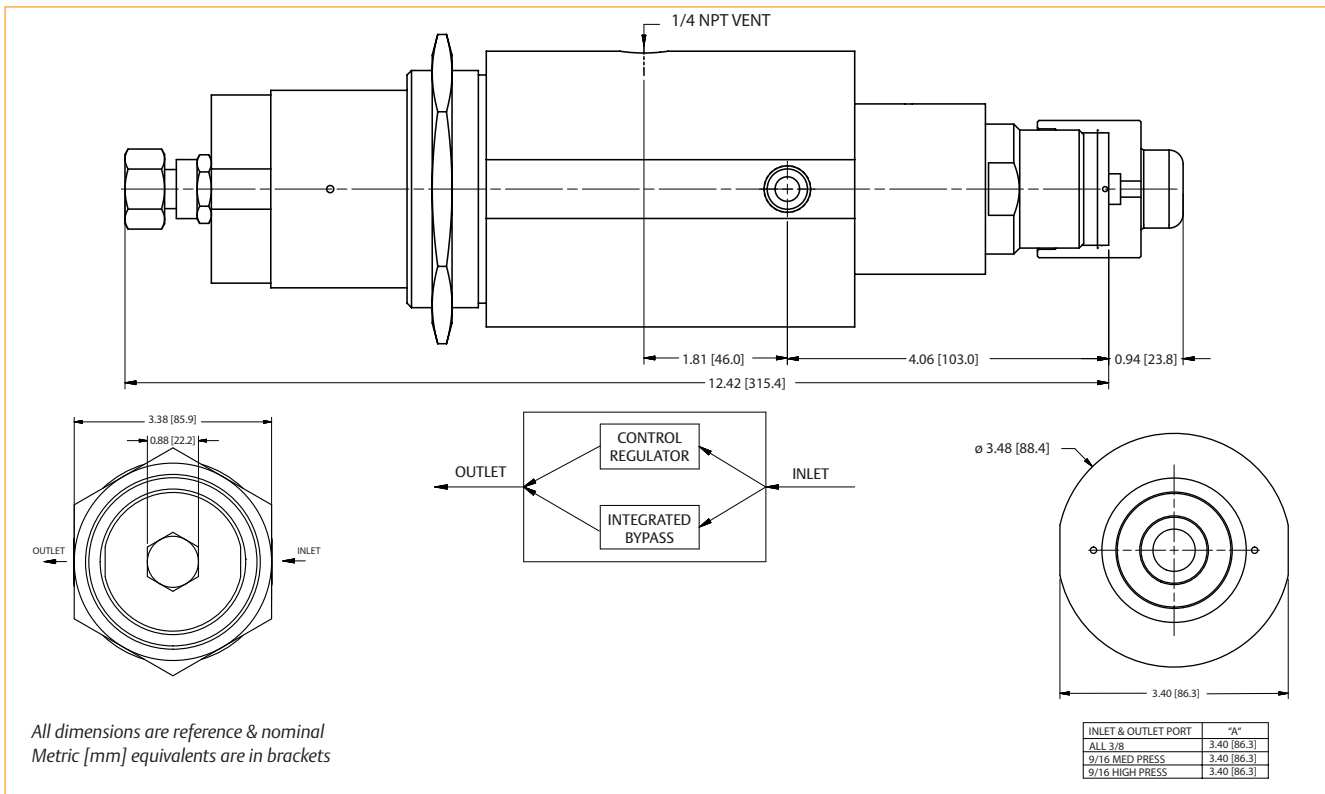
Example for selecting a part number:

BASIC SERIES	MAXIMUM INLET PRESSURE ¹	OUTLET PRESSURE	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)	0 – 5500 to 15,000 psig 380 to 1034 bar 4200 to 5200 psig 290 to 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

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

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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 INTEGRATED BYPASS	SOFT GOODS MATERIAL			INLET AND OUTLET PORT TYPE (VENT PORT)	INLET AND OUTLET PORT SIZE	LOAD OPTION	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 to 15,000 psig 489 to 1034 bar, 5000 to 7000 psig 344 to 482 bar 1 – 8,000 to 20,000 psig ³ 552 to 1379 bar ³ , 5000 to 8000 psig 344 to 556 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" ² 9 – 9/16"	S – Spring Load A – Air Load	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

3. Outlet pressure only available with air loader option

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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.

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