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

Outlet Pressure
9000 to 20,000 psig / 621 to 1379 bar
8000 to15,000 psig / 552 to 1034 bar
6000 to 15,000 psig / 414 to 1034 bar
4000 to 10,000 psig / 276 to 690 bar
2000 to 6000 psig / 138 to 414 bar
2000 to 4000 psig / 138 to 276 bar
1700 to 2500 psig / 117 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 PH Stainless Steel, Polyimide (Vespel®)

O-ring
Nitrile, Buna-N, FKM (Viton®-A), EP

Back-up Ring
PCTFE

Remaining Parts
316 Series Stainless Steel, 17-4 PH Stainless Steel, Nitronic 60

OTHER

Cleaning
CGA 4.1 and ASTM G93

Weight (approximate)[1]
50-4000: 15 lbs / 6.8 kg
50-4100: 20 lbs / 9.1 kg
50-4200: 20 lbs / 9.1 kg

1. Air loaded versions will have an additional approx. 5 lbs / 2.3 kg to account for the actuator.

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AIR LOADED

SPRING LOADED

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

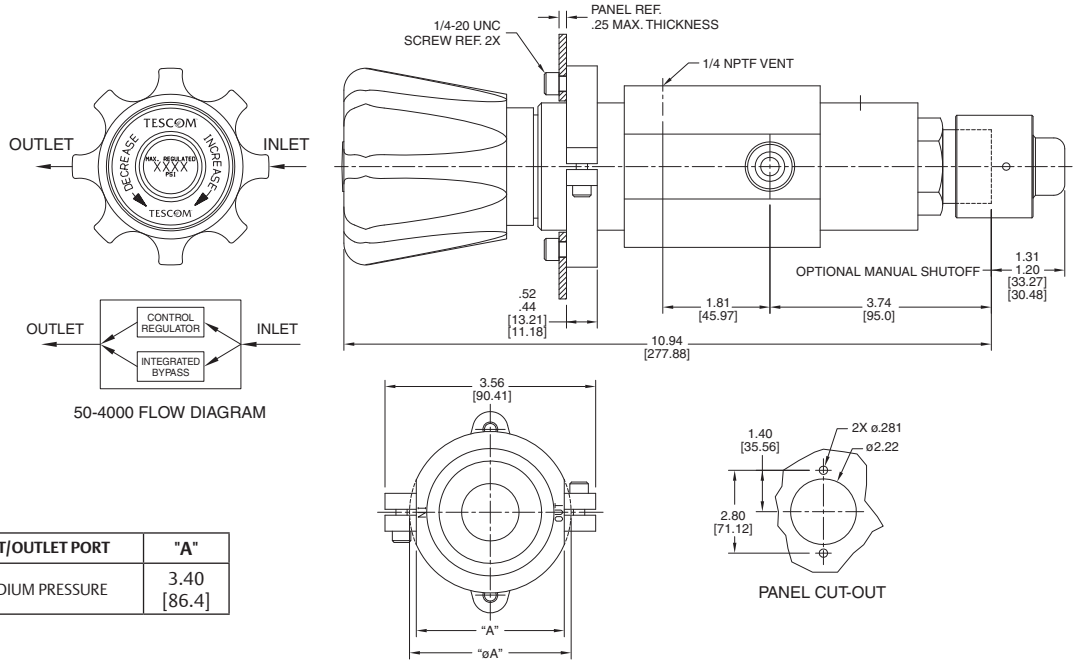
- Hydraulic Power Units (HPU)
- Wellhead control panels

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

50-4000 Series Regulator Drawing



INLET/OUTLET PORT	"A"
9/16 MEDIUM PRESSURE	3.40 [86.4]

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

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	0	A
BASIC SERIES	BODY MATERIAL --- MAXIMUM INLET PRESSURE[1]	OUTLET PRESSURE CONTROL REGULATOR --- INTEGRATED BYPASS	SOFT GOODS MATERIAL DYNAMIC O-RINGS	STATIC O-RINGS	BACK-UP RINGS	INLET AND OUTLET PORT TYPE (VENT PORT)	INLET AND OUTLET PORT SIZE	LOAD OPTION	FLOW CAPACITY	MAIN VALVE AND VENT SEAT	1/4" GAUGE PORT OPTIONS	INTEGRATED BYPASS MANUAL OVERRIDE SHUTOFF
50-40	**9** – 316 SST --- 15,000 psig 1034 bar (Medium/ High Pressure) 10,000 psig 690 bar (NPTF & BSPP)	**1** – 4000 to 10,000 psig 276 to 690 bar --- 0 to 3000 psig 0 to 207 bar **4** – 2000 to 6000 psig 138 to 414 bar[5] **5** – 2000 to 4000 psig 138 to 276 bar[5] **6** – 1700 to 2500 psig 117 to 172 bar[5]	**D** – Nitrile, Buna-N **T** – FKM (Viton®-A) **Z** – EP	Nitrile, Buna-N FKM (Viton®-A) EP	PCTFE PCTFE PCTFE	**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** – Polyimide (Vespel®)	**0** – no gauge ports **1** – one outlet gauge port at 90°	**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. Not available in Medium Pressure and High Pressure
4. Not available in NPTF and BSPP
5. Integrated bypass pressure range:
0 to 1000 psig at 10,000 psig inlet /
0 to 69 bar at 689 bar or
0 to1600 psig at 15,000 psig inlet /
0 to 110 bar at 1034 bar inlet.

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