

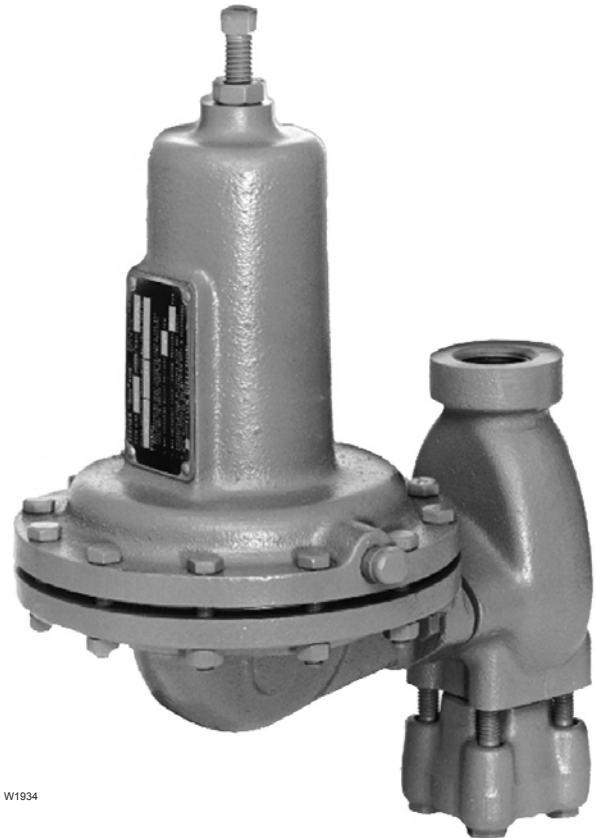
Type 630 Regulator

Introduction

The Type 630 Big Joe® regulators are direct-operated, spring-loaded, pressure reducing regulators. They are available in NPS 1 and 2 (DN 25 and 50) body sizes, and they are designed for maximum inlet pressures to 1500 psig (103 bar) and outlet pressures from 3 to 500 psig (0,21 to 34,5 bar). The Type 630 can be used with natural gas, air, or a variety of other gases for such applications as first-stage farm-tap regulators or high-pressure industrial regulators. The Type 630 can be converted in the field to a relief valve or is available as the Type 630R relief valve/backpressure regulator; refer to the separate Type 630R Bulletin (71.4:630R) for information.

Features

- **High-Pressure Capabilities**—Inlet pressures up to 1500 psig (103 bar) and control pressures up to 500 psig (34,5 bar).
- **Rugged Construction**—Compact, sturdy design and solid metal construction provide a strong, reliable, long-lasting regulator.
- **Better Low-Pressure Control**—The Type 630 is available in both high-pressure and low-pressure constructions; the low-pressure units have a larger diaphragm area to provide more accurate control of low-pressure settings.
- **Sour Gas Service Capability**—Optional materials are available for applications handling sour gases. These constructions comply with the recommendations of the NACE International MR0175.



W1934

Figure 1. Type 630 Big Joe® High-Pressure Regulator

The manufacturing processes and materials used by Fisher® Controls assure that all products specified for sour gas service comply with the chemical and physical requirements of NACE International MR0175.



Specifications

Body Sizes

NPS 1 and 2 (DN 25 and 50)

End Connection Styles

NPT, ASME CL150 RF, CL300 RF, or CL600 RF flanges

Maximum Inlet Pressure and Pressure Drops⁽¹⁾

Up to 1500 psig (103 bar), See Table 1

Maximum Outlet Pressure⁽¹⁾

Up to 500 psig (34,5 bar), See Table 2

Outlet Pressure Ranges

3 to 500 psig (0,21 to 34,5 bar), See Table 2

Pressure Registration

Internal

Flow Capacities

See Tables 3 and 4

Orifice Sizes and Wide-Open Flow Coefficients for Relief Valve Sizing

ORIFICE SIZE, INCH (mm)	C _g	C _v	C _t
1/8 (3,2)	13.9	0.49	28.4
3/16 (4,8)	31.3	1.11	28.2
1/4 (6,4)	55.1	2.03	27.2
3/8 (9,5)	122.5	4.61	26.6
1/2 (13)	216.0	8.18	26.4

Temperature Capabilities⁽¹⁾

Nitrile (NBR), Nylon (PA), and Neoprene (CR):

-20° to 180°F (-29° to 82°C)

Fluorocarbon (FKM) and Polytetrafluoroethylene (PTFE):

0° to 300°F (-18° to 149°C)

Construction Materials

Body: Cast iron, or steel

Spring Case and Diaphragm Adaptor:

Cast iron or steel

Orifice: Brass or stainless steel

Valve Disk: Nitrile (NBR), Nylon (PA), Polytetrafluoroethylene (PTFE), or Fluorocarbon (FKM)

Valve Disk Holder: Brass or stainless steel

Valve Carrier: Brass or stainless steel

Diaphragm: Neoprene (CR) or Fluorocarbon (FKM)

Inlet Body Gaskets: Copper with brass trim or stainless steel with stainless steel trim

All Other Gaskets: Composition

Lever: Zinc-plated steel or Stainless steel

Diaphragm Connector: Aluminum with brass trim or stainless steel with stainless steel trim

Pitot Tube: Stainless steel

Regulator Spring: Plated steel

Adjusting Screw: Steel

Diaphragm Plate: Zinc-plated steel

Upper Spring Seat: Zinc

Lower Spring Seat: Zinc-plated steel (low-pressure) or Zinc (high-pressure)

Vent: Type Y602-9

Spring Case Vent

1/4 NPT

Options

PTFE diaphragm protector, wire-seal adjusting screw, and NACE

1. The pressure/temperature limits in this bulletin and any applicable standard or code limitation should not be exceeded.

Installation

These regulators may be installed in any position. Some installations may require a remote vent line. Protect all vent openings against the entrance of rain, snow, debris, or any other foreign material that may plug the opening.

Direction of flow through the regulator body must be in the direction indicated by the flow direction arrow found on the regulator body.

Overpressure Protection

As is the case with most regulators, these regulators have an outlet pressure rating that is lower than the inlet pressure rating. Overpressure protection is needed if the actual inlet pressure can exceed the outlet pressure rating.

Regulator operation below the limits specified in Tables 1 and 2 do not preclude the possibility of damage from external sources or from debris in the pipeline. The regulator should be inspected for damage after any overpressure condition.

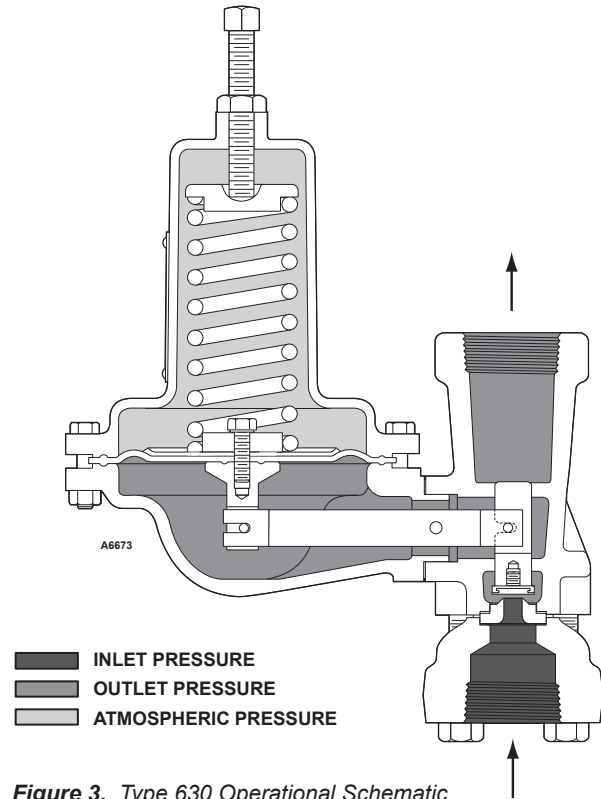
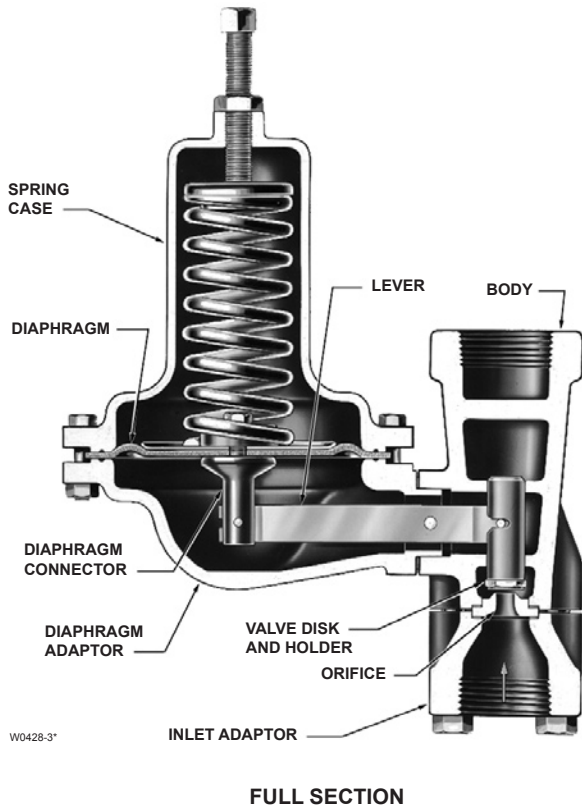
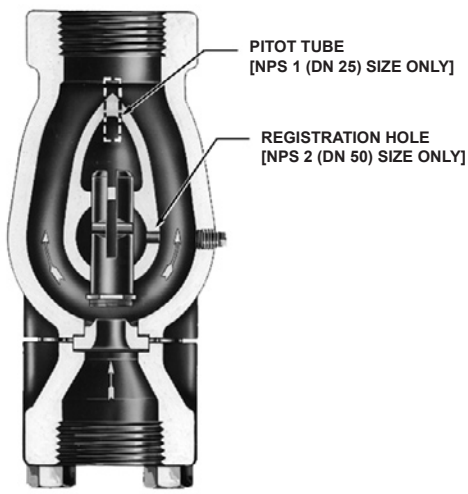


Figure 3. Type 630 Operational Schematic



BODY ONLY
(ROTATED 90°)

Figure 2. Type 630 Sectional Views

Principle of Operations

Refer to Figure 2. In the regulator construction, outlet pressure registers beneath the diaphragm. As long as the outlet pressure is less than the set pressure, spring force on the diaphragm causes the lever to hold the valve open. When the outlet pressure exceeds the set pressure, the diaphragm moves to compress the spring and the lever closes the valve until the outlet pressure returns to set pressure.

Capacity Data

Flow capacities are given in Tables 3 and 4 in standard cubic feet per hour (SCFH) and normal cubic meters per hour (Nm³/h) of 0.6 specific gravity natural gas. To determine the equivalent flow rate for other gases, multiply the table value by the appropriate factor: air—0.775; butane—0.547; nitrogen—0.789; propane—0.627.

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Table 1. Maximum Inlet Pressure and Pressure Drops

ORIFICE SIZE, INCHES (mm)	MAXIMUM ALLOWABLE INLET PRESSURE ⁽¹⁾ , PSIG (bar)	MAXIMUM ALLOWABLE PRESSURE DROPS, PSIG (bar)		
		Nylon (PA) and Polytetrafluoroethylene (PTFE) Disk	Fluorocarbon (FKM) Disk	Nitrile (NBR) Disk
1/8 and 3/16 (3,2 and 4,8)	1500 (103)	1500 (103)	200 (13,8)	600 (41,4)
1/4 (6,4)		1000 (69)		
3/8 (9,5)	1000 (69)	500 (34,5)		500 (34,5)
1/2 (13)	750 (51,7)	250 (17,2)		250 (17,2)

1. Inlet pressure must not exceed the sum of the actual outlet pressure setting and the maximum allowable pressure drop. For example, with an outlet pressure setting of 200 psig (13,8 bar) and a 3/8-inch (9,5 mm) orifice with a maximum allowable pressure drop of 500 psid (34,5 bar d), the maximum inlet pressure is 700 psig (48,3 bar).
 2. Nitrile (NBR) valve disks are normally furnished for pressure drops to 200 psi (13,8 bar, differential). For better erosion resistance, Nylon (PA) valve disks are normally furnished for higher pressure drops. Some erosion of valve disks occurs at all pressure drops due to solid particles in the flow stream. The rate of erosion is higher with large amounts of impurities in the flow stream and with high pressure drops. Valve disks and other regulator parts must be inspected periodically for erosion and damage and must be replaced as necessary.

Table 2. Outlet Pressure Ranges

REGULATOR CONSTRUCTION	OUTLET PRESSURE RANGE, PSIG (bar)	SPRING PART NUMBER	SPRING COLOR CODE	SPRING WIRE DIAMETER, INCHES (mm)	SPRING FREE LENGTH, INCHES (mm)	MAXIMUM OUTLET PRESSURE OVER SETPOINT ⁽¹⁾ , PSIG (bar)	MAXIMUM EMERGENCY OUTLET (CASING) PRESSURE ⁽⁴⁾ , PSIG (bar)	
Low-pressure	3 to 10 (0,21 to 0,69)	0W019227022	Red stripe	0.23 (5,84)	6.0 (152)	20 (1,4)	66 (4,6)	
	8 to 20 (0,55 to 1,4)	0W019127022	Olive green	0.28 (7,11)		20 psig (1,4) ⁽²⁾		
	17 to 30 (1,2 to 2,1)	0W019027022	Unpainted	0.34 (8,64)		Limited by Maximum Emergency Outlet Pressure		
	27 to 40 (1,9 to 2,8)	0Y066427022	Green stripe	0.36 (9,14)				
High-pressure	27 to 50 (1,9 to 3,4)	0W019227022	Red stripe	0.23 (5,84)		200 (13,8)	200 (13,8)	550 (37,9)
	46 to 95 (3,2 to 6,6)	0W019127022	Olive green	0.28 (7,11)				
	90 to 150 (6,2 to 10,3)	0W019027022	Unpainted	0.34 (8,64)				
	150 to 200 (10,3 to 13,8)	0Y066427022	Green stripe	0.36 (9,14)				
	200 to 275 (13,8 to 19,0)	1J146927142	Blue stripe	0.38 (9,65)	6.1 (155)			
	275 to 500 (19,0 to 34,5)	1K370927082	Yellow stripe	0.44 (11,2)	6.2 (157)	200 (13,8) ⁽³⁾		

1. Damage to internal parts of the regulator may occur if outlet pressure exceeds the actual pressure setting by amounts greater than those shown in this column.
 2. For outlet pressure settings to 25 psig (1,7 bar) only. For pressure settings over 25 psig (1,7 bar), outlet pressure is limited by maximum emergency outlet pressure of 45 psig (3,1 bar).
 3. For outlet pressure settings to 350 psig (24,1 bar) only. For pressure settings over 350 psig (24,1 bar), outlet pressure is limited by maximum emergency outlet pressure of 550 psig (37,9 bar).
 4. Leakage or bursting of pressure-containing parts may occur if outlet pressure exceeds these values.

To determine the wide-open capacity for relief sizing with the flow coefficients (C_g), use the appropriate procedure below.

1. If flow is critical (absolute outlet pressure is equal to or less than one-half the absolute inlet pressure), use the equation:

Flow = (Absolute Inlet Pressure) (C_g) (1.29)

The flow determined will be in SCFH of 0.6 specific gravity natural gas. To convert SCFH to Nm³/h multiply the SCFH result by 0.0268.

2. If flow is less than critical (absolute outlet pressure is greater than one-half the absolute inlet pressure), use Fisher's computerized sizing program or contact your local Sales Office.

Table 3. NPS 1 (DN 25) Body Capacities (Based on 20% Droop)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 1 (DN 25) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
LOW-PRESSURE	3 to 10 psig (0,21 to 0,69 bar) 0W019227022 Red Stripe	10 (0,69)	5 (0,34)	200 (5)	510 (14)	990 (27)	1700 (46)	2200 (59)
		20 (1,4)		400 (11)	770 (21)	1200 (32)	2000 (54)	2700 (72)
		30 (2,1)		600 (16)	1100 (29)	1500 (40)	2200 (59)	3300 (88)
		50 (3,4)		950 (25)	1500 (40)	2100 (56)	2800 (75)	4200 (113)
		60 (4,1)		1100 (29)	1750 (47)	2400 (64)	3000 (80)	4100 (110)
		100 (6,9)		1700 (46)	2400 (64)	2900 (78)	4000 (107)	4900 (131)
		200 (13,8)	3000 (80)	3400 (91)	4200 (113)	5100 (137)	6100 (163)	
		400 (27,6)	3700 (99)	3900 (105)	4500 (121)	6400 (172)	----	
		500 (34,5)	4100 (110)	4300 (115)	4700 (126)	7400 (198)	----	
		600 (41,4)	4300 (115)	4600 (123)	5000 (134)	----	----	
		1000 (69,0)	4600 (123)	4900 (131)	5600 (150)	----	----	
		1500 (103)	5000 (134)	5400 (145)	----	----	----	
	8 to 20 psig (0,55 to 1,4 bar) 0W019127022 Olive Drab	20 (1,4)	10 (0,69)	500 (13)	700 (19)	1400 (38)	2200 (59)	3600 (96)
		30 (2,1)		700 (19)	1300 (35)	2100 (56)	3100 (83)	4300 (115)
		50 (3,4)		900 (24)	1900 (51)	3200 (86)	4300 (115)	5400 (145)
		60 (4,1)		1050 (28)	2300 (62)	3500 (94)	4700 (126)	5800 (155)
		100 (6,9)		1600 (43)	3500 (94)	4600 (123)	5700 (153)	6900 (185)
		200 (13,8)		3300 (88)	4800 (129)	6200 (166)	7500 (201)	8200 (220)
		400 (27,6)	5400 (145)	6500 (174)	7600 (204)	8900 (239)	----	
		500 (34,5)	6000 (161)	6900 (185)	7900 (212)	9400 (252)	----	
		600 (41,4)	6500 (174)	7000 (188)	8200 (220)	----	----	
		1000 (69,0)	7200 (193)	7700 (206)	8400 (225)	----	----	
		1500 (103)	7400 (198)	8100 (217)	----	----	----	
		20 (1,4)	15 (1,0)	470 (13)	1000 (27)	1700 (46)	3300 (88)	4900 (131)
30 (2,1)	600 (16)	1500 (40)		2500 (67)	4600 (123)	5200 (139)		
50 (3,4)	1000 (27)	2300 (62)		3800 (102)	5500 (147)	5700 (153)		
60 (4,1)	1150 (31)	2700 (72)		4300 (115)	6100 (163)	6800 (182)		
100 (6,9)	1900 (51)	4300 (115)		6200 (166)	7600 (204)	9600 (257)		
200 (13,8)	3600 (96)	7500 (201)		8500 (228)	9600 (257)	10 000 (268)		
400 (27,6)	7100 (190)	8700 (233)	10 000 (268)	11 000 (295)	----			
500 (34,5)	8300 (222)	8800 (236)	10 500 (281)	12 000 (322)	----			
600 (41,4)	8600 (230)	9600 (257)	10 800 (289)	----	----			
1000 (69,0)	9600 (257)	10 000 (268)	11 000 (295)	----	----			
1500 (103)	10 000 (268)	11 000 (295)	----	----	----			

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Table 3. NPS 1 (DN 25) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 1 (DN 25) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
LOW-PRESSURE	8 to 20 psig (0,55 to 1,4 bar) 0W019127022 Olive Drab	30 (2,1) 40 (2,8) 50 (3,4) 60 (4,1)	20 (1,4)	600 (16)	1500 (40)	2500 (67)	4600 (123)	6800 (182)
				800 (21)	2000 (54)	3400 (91)	5700 (153)	8100 (217)
				1000 (27)	2300 (62)	4200 (113)	6800 (182)	9000 (241)
				1150 (31)	2700 (72)	4900 (131)	7500 (201)	9800 (263)
		100 (6,9)		1800 (48)	4100 (110)	7400 (198)	11 000 (295)	
		200 (13,8)		3600 (96)	8000 (214)	10 000 (268)	13 000 (348)	
		400 (27,6)		7200 (193)	10 000 (268)	13 000 (348)	14 000 (375)	
		500 (34,5)		8500 (228)	10 800 (289)	13 400 (359)	14 800 (397)	
		600 (41,4)		10 000 (268)	12 000 (322)	13 800 (370)	----	
	1000 (69,0)	11 000 (295)	12 300 (330)	15 000 (402)	----			
	1500 (103)	12 000 (322)	13 000 (348)	----	----			
	17 to 30 psig (1,17 to 2,1 bar) 0W019027022 Silver	30 (2,1) 40 (2,8) 50 (3,4) 60 (4,1)	20 (1,4)	590 (16)	900 (24)	1700 (46)	3300 (88)	4700 (126)
				790 (21)	1700 (46)	2400 (64)	4000 (107)	6100 (163)
				900 (24)	2200 (59)	3600 (96)	4900 (131)	6900 (185)
				1050 (28)	2500 (67)	4000 (107)	5500 (147)	7400 (198)
		100 (6,9)		1700 (46)	4000 (107)	5500 (147)	7600 (204)	
		200 (13,8)		3400 (91)	6400 (172)	9100 (244)	11 000 (295)	
		400 (27,6)		7000 (188)	8700 (233)	11 000 (295)	13 000 (348)	
		500 (34,5)		8000 (214)	9800 (263)	11 800 (316)	13 700 (367)	
		600 (41,4)		9600 (257)	11 000 (295)	13 000 (348)	----	
		1000 (69,0)		10 000 (268)	12 000 (322)	14 000 (375)	----	
		1500 (103)		12 000 (322)	13 000 (348)	----	----	
		30 (2,1) Silver		40 (2,8) 50 (3,4) 60 (4,1) 100 (6,9)	30 (2,1)	820 (22)	1700 (46)	2700 (72)
	900 (24)		2200 (59)			3600 (96)	6400 (172)	8700 (233)
1100 (29)	2600 (70)		4400 (118)			7500 (201)	9800 (263)	
1700 (46)	4100 (110)		6800 (182)			10 000 (268)	12 000 (322)	
200 (13,8)	3500 (94)		8000 (214)	11 000 (295)		14 000 (375)		
400 (27,6)	6900 (185)		13 000 (348)	15 000 (402)		17 000 (456)		
500 (34,5)	8800 (236)		14 000 (375)	15 600 (418)		18 500 (496)		
600 (41,4)	9700 (260)		15 000 (402)	16 000 (429)		----		
1000 (69,0)	15 500 (415)	17 800 (477)	17 900 (480)	----				
1500 (103)	16 400 (440)	18 500 (496)	----	----				
27 to 40 psig (1,9 to 2,8 bar) 0Y066427022 Green Stripe	40 (2,8) 50 (3,4) 60 (4,1) 100 (6,9)	30 (2,1)	800 (21)	1500 (40)	2400 (64)	4400 (118)	6400 (172)	
			900 (24)	2000 (54)	3200 (86)	5600 (150)	7700 (206)	
			1100 (29)	2500 (67)	3900 (105)	6300 (169)	8900 (239)	
			1700 (46)	3900 (105)	6400 (172)	9400 (252)	11 000 (295)	
	200 (13,8)		3500 (94)	7000 (188)	9400 (252)	14 000 (375)		
	400 (27,6)		6900 (185)	12 000 (322)	15 000 (402)	17 000 (456)		
	500 (34,5)		8800 (236)	12 500 (335)	15 600 (418)	17 800 (477)		
	600 (41,4)		9700 (260)	13 400 (359)	16 000 (429)	----		
	1000 (69,0)		15 600 (418)	15 800 (423)	17 900 (480)	----		
	1500 (103)		16 400 (440)	18 000 (482)	----	----		
	50 (3,4)		950 (25)	1800 (48)	3200 (86)	5500 (147)	8900 (239)	
	60 (4,1)		1100 (29)	2300 (67)	4100 (110)	7500 (201)	10 000 (268)	
100 (6,9)	1800 (48)	4100 (110)	7000 (188)	11 000 (295)	14 000 (375)			
200 (13,8)	3500 (94)	7800 (209)	12 000 (322)	17 000 (456)	19 000 (509)			
400 (27,6)	7100 (190)	15 000 (402)	18 000 (482)	21 000 (563)	----			
500 (34,5)	8800 (236)	16 500 (442)	18 700 (501)	21 700 (582)	----			
600 (41,4)	9800 (263)	18 000 (482)	21 000 (563)	----	----			
1000 (69,0)	16 800 (450)	19 800 (531)	22 800 (611)	----	----			
1500 (103)	20 000 (536)	22 000 (590)	----	----	----			

- continued -

Table 3. NPS 1 (DN 25) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 1 (DN 25) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
HIGH-PRESSURE	27 to 50 psig (1,9 to 3,4 bar) 0W019227022 Red Stripe	60 (4,1)	50 (3,4)	900 (24)	2000 (54)	3100 (83)	5200 (139)	8100 (217)
		100 (6,9)		1700 (46)	3500 (94)	5700 (153)	10 500 (281)	13 000 (348)
		200 (13,8)		3500 (94)	7800 (209)	11 000 (295)	16 000 (429)	19 000 (509)
		300 (20,7)		5300 (142)	10 500 (281)	14 000 (375)	20 000 (536)	23 000 (616)
		400 (27,6)		6900 (185)	13 000 (348)	17 000 (456)	23 000 (616)	----
		500 (34,5)		8700 (233)	15 000 (402)	19 000 (509)	25 000 (670)	----
		600 (41,4)		9800 (263)	17 000 (456)	21 000 (563)	----	----
		1000 (69,0)		16 200 (434)	22 300 (598)	26 300 (705)	----	----
	1500 (103)	19 000 (509)	25 000 (670)	----	----	----		
	46 to 95 psig (3,2 to 6,6 bar) 0W019127022 Olive Drab	60 (4,1)	50 (3,4)	800 (21)	1500 (40)	2400 (64)	4300 (115)	6400 (172)
		100 (6,9)		1500 (40)	3100 (83)	4200 (113)	7500 (201)	10 000 (268)
		200 (13,8)		3400 (91)	6800 (182)	9400 (252)	14 000 (375)	17 000 (456)
		300 (20,7)		5200 (139)	8900 (239)	11 000 (295)	16 000 (429)	20 000 (536)
		400 (27,6)		6800 (182)	11 000 (295)	15 000 (402)	20 000 (536)	----
		500 (34,5)		8600 (230)	12 300 (330)	16 300 (437)	22 000 (590)	----
		600 (41,4)		9800 (263)	14 000 (375)	19 000 (509)	----	----
		1000 (69,0)		13 500 (362)	18 400 (493)	21 700 (582)	----	----
	1500 (103)	18 000 (482)	24 000 (643)	----	----	----		
	90 to 150 psig (6,2 to 10,3 bar) 0W019027022 Sliver	100 (6,9)	75 (5,17)	1700 (46)	3200 (86)	5000 (134)	8000 (214)	13 000 (348)
		200 (13,8)		3500 (94)	7300 (196)	10 000 (268)	16 000 (429)	22 000 (590)
		400 (27,6)		7100 (190)	14 000 (375)	19 000 (509)	27 000 (724)	----
		500 (34,5)		8600 (230)	16 300 (437)	21 300 (571)	28 700 (769)	----
		600 (41,4)		9900 (265)	19 000 (509)	25 000 (670)	----	----
		1000 (69,0)		16 700 (448)	25 800 (691)	31 000 (831)	----	----
1500 (103)		23 000 (616)		32 000 (858)	----	----	----	
200 (13,8)		3400 (91)		6800 (182)	10 000 (268)	16 000 (429)	26 000 (697)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	300 (20,7)	150 (10,3)	5300 (142)	10 000 (268)	15 000 (402)	24 000 (643)	35 000 (938)	
	400 (27,6)		7100 (190)	14 000 (375)	22 000 (590)	34 000 (911)	42 000 (1126)	
	500 (34,5)		8000 (214)	18 800 (504)	26 300 (705)	39 300 (1053)	----	
	800 (55,2)		13 000 (348)	29 000 (777)	38 000 (1018)	----	----	
	1000 (69,0)		17 000 (456)	34 000 (911)	44 300 (1187)	----	----	
	1500 (103)		26 000 (697)	47 000 (1260)	----	----	----	
	200 (13,8)		3400 (91)	6200 (166)	9300 (249)	16 000 (429)	26 000 (697)	
	300 (20,7)		5300 (142)	10 000 (268)	15 000 (402)	24 000 (643)	30 000 (804)	
400 (27,6)	7100 (190)	14 000 (375)	21 000 (563)	32 000 (858)	38 000 (1018)			
500 (34,5)	8000 (214)	16 500 (442)	26 300 (705)	39 000 (1045)	----			
800 (55,2)	13 000 (348)	27 000 (724)	37 000 (992)	----	----			
1000 (69,0)	16 700 (448)	31 000 (831)	43 900 (1177)	----	----			
1500 (103)	26 000 (697)	44 000 (1179)	----	----	----			

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Table 3. NPS 1 (DN 25) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 1 (DN 25) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS					
				Orifice Size, Inches (mm)					
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)	
HIGH-PRESSURE	150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	250 (17,2) 300 (20,7) 600 (41,4) 700 (48,3)	200 (13,8)	4200 (113)	8300 (222)	12 000 (322)	20 000 (536)	30 000 (804)	
				5200 (139)	10 000 (268)	16 000 (429)	25 000 (670)	35 000 (938)	
				9500 (255)	22 000 (590)	34 000 (911)	55 000 (1474)	----	
				11 000 (295)	25 000 (670)	40 000 (1072)	61 500 (1648)	----	
		800 (55,2) 1000 (69,0) 1200 (82,7) 1500 (103)	200 (13,8)	13 000 (348)	30 000 (804)	43 000 (1152)	----	----	
				16 000 (429)	37 000 (992)	50 000 (1340)	----	----	
				20 000 (536)	41 000 (1099)	59 000 (1581)	----	----	
				26 000 (697)	53 000 (1420)	----	----	----	
	200 to 275 psig (13,8 to 19,0 bar) 1J146927142 Blue Stripe	250 (17,2)	250 (17,2)	4200 (113)	8200 (220)	11 000 (295)	20 000 (536)	29 000 (777)	
			300 (20,7)	5200 (139)	10 000 (268)	14 500 (389)	25 000 (670)	35 000 (938)	
			600 (41,4)	9500 (255)	22 000 (590)	31 000 (831)	51 000 (1367)	----	
			700 (48,3)	11 000 (295)	25 000 (670)	35 000 (938)	55 000 (1474)	----	
		300 (20,7) 400 (27,6) 500 (34,5) 600 (41,4)	250 (17,2)	800 (55,2)	13 000 (348)	29 000 (777)	42 000 (1126)	----	----
				1000 (69,0)	16 000 (429)	36 000 (965)	50 000 (1340)	----	----
				1200 (82,7)	19 000 (509)	41 000 (1099)	55 000 (1474)	----	----
				1500 (103)	26 000 (697)	51 000 (1367)	----	----	
		1000 (69,0) 1500 (103)	250 (17,2)	300 (20,7)	4900 (131)	9000 (241)	15 000 (402)	28 000 (750)	42 000 (1126)
				400 (27,6)	7000 (188)	14 000 (375)	23 000 (616)	40 000 (1072)	56 000 (1501)
				500 (34,5)	8500 (228)	18 000 (482)	29 000 (777)	51 000 (1367)	65 000 (1742)
				600 (41,4)	9500 (255)	22 000 (590)	34 000 (911)	59 000 (1581)	----
	300 (20,7) 400 (27,6) 600 (41,4) 1000 (69,0) 1500 (103)	275 (19,0)	1000 (69,0)	16 000 (429)	39 000 (1045)	58 000 (1554)	----	----	
			1500 (103)	26 000 (697)	59 000 (1581)	----	----	----	
			300 (20,7)	4700 (126)	9000 (241)	15 000 (402)	28 000 (750)	39 000 (1045)	
			400 (27,6)	6900 (185)	14 000 (375)	25 000 (670)	40 000 (1072)	54 000 (1447)	
275 to 500 psig (19,0 to 34,5 bar) 1K370927082 Yellow Stripe	275 (19,0)	600 (41,4)	4500 (121)	7500 (201)	10 000 (268)	20 000 (536)	31 000 (831)		
		1000 (69,0)	6600 (177)	12 000 (322)	16 000 (429)	31 000 (831)	43 000 (1152)		
		1500 (103)	9300 (249)	18 400 (493)	24 300 (651)	43 800 (1174)	----		
		17 000 (456)	32 000 (858)	43 000 (1152)	----	----			
	300 (20,7)	400 (27,6)	6600 (177)	11 000 (295)	16 000 (429)	31 000 (831)	42 000 (1126)		
		600 (41,4)	9900 (265)	19 000 (509)	26 000 (697)	48 000 (1286)	----		
		700 (48,3)	11 000 (295)	23 000 (616)	30 000 (804)	54 000 (1447)	----		
		800 (55,2)	13 000 (348)	26 000 (697)	35 000 (938)	61 000 (1635)	----		
	400 (27,6)	1000 (69,0)	16 800 (450)	32 500 (871)	43 800 (1174)	----	----		
		1300 (89,6)	22 000 (590)	43 000 (1152)	58 000 (1554)	----	----		
		1500 (103)	26 000 (697)	49 000 (1313)	----	----	----		
		500 (34,5)	8300 (222)	16 000 (429)	24 000 (643)	44 000 (1179)	62 000 (1662)		
	400 (27,6)	600 (41,4)	9400 (252)	21 300 (571)	30 000 (804)	55 300 (1482)	----		
		800 (55,2)	13 000 (348)	30 000 (804)	41 000 (1099)	76 000 (2037)	----		
		900 (62,1)	15 000 (402)	34 000 (911)	49 000 (1313)	85 000 (2278)	----		
		1000 (69,0)	17 000 (456)	38 000 (1018)	54 000 (1447)	----	----		
500 (34,5)	1200 (82,7)	20 000 (536)	46 000 (1233)	63 000 (1688)	----	----			
	1400 (96,5)	24 000 (643)	55 000 (1474)	76 000 (2037)	----	----			
	1500 (103)	26 000 (697)	60 000 (1608)	----	----	----			
	550 (37,9)	8700 (233)	16 000 (429)	26 000 (697)	50 000 (1340)	77 000 (2064)			
500 (34,5)	600 (41,4)	9500 (255)	19 000 (509)	36 800 (986)	57 000 (1528)	----			
	900 (62,1)	15 000 (402)	34 000 (911)	52 000 (1394)	92 000 (2466)	----			
	1000 (69,0)	17 000 (456)	39 000 (1045)	60 000 (1608)	100 000 (2680)	----			
	1500 (103)	26 000 (697)	59 000 (1581)	72 000 (1930)	----	----			

Table 4. NPS 2 (DN 50) Body Capacities (Based on 20% Droop)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 2 (DN 50) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
LOW-PRESSURE	3 to 10 psig (0,21 to 0,69 bar) 0W019227022 Red Stripe	10 (0,69)	5 (0,34)	290 (8)	830 (22)	1300 (35)	3300 (88)	5900 (158)
		20 (1,4)		500 (13)	1200 (32)	2100 (56)	4800 (129)	9100 (244)
		30 (2,1)		760 (20)	1600 (43)	2700 (72)	7000 (188)	11 000 (295)
		50 (3,4)		1100 (29)	2200 (59)	3900 (105)	9800 (263)	17 000 (456)
		60 (4,1)		1250 (34)	2700 (72)	4500 (121)	11 100 (297)	19 500 (523)
		100 (6,9)		1900 (51)	4300 (115)	7000 (188)	17 000 (456)	30 000 (804)
		200 (13,8)		3700 (99)	8200 (220)	13 000 (348)	32 000 (858)	57 000 (1528)
		400 (27,6)		7200 (193)	16 000 (429)	28 000 (750)	64 000 (1715)	----
		500 (34,5)		9100 (244)	19 000 (509)	35 000 (938)	79 000 (2117)	----
		600 (41,4)		10 000 (268)	24 000 (643)	42 000 (1126)	---	----
		1000 (69,0)		18 000 (482)	39 000 (1045)	69 000 (1849)	---	----
		1500 (103)		22 000 (590)	60 000 (1608)	---	---	----
	8 to 20 psig (0,55 to 1,4 bar) 0W019127022 Olive Drab	20 (1,4)	10 (0,69)	560 (15)	1300 (35)	2200 (59)	5100 (137)	9000 (241)
		30 (2,1)		770 (21)	1500 (40)	3000 (80)	7000 (188)	11 000 (295)
		50 (3,4)		1100 (29)	2400 (64)	4300 (115)	9800 (263)	17 000 (456)
		60 (4,1)		1250 (34)	2800 (75)	5000 (134)	11 100 (297)	19 500 (523)
		100 (6,9)		1900 (51)	4400 (118)	7600 (204)	17 000 (456)	30 000 (804)
		200 (13,8)		3700 (99)	8100 (217)	14 000 (375)	33 000 (884)	57 000 (1528)
		400 (27,6)		7200 (193)	16 000 (429)	28 000 (750)	62 000 (1662)	---
		500 (34,5)		8900 (239)	19 000 (509)	35 000 (938)	76 000 (2037)	----
		600 (41,4)		10 000 (268)	23 000 (616)	42 000 (1126)	----	----
		1000 (69,0)		18 000 (482)	40 000 (1072)	72 000 (1930)	----	----
		1500 (103)		27 000 (724)	60 000 (1608)	---	----	----
		20 (1,4)		15 (1,0)	520 (14)	1100 (29)	1800 (48)	3500 (94)
30 (2,1)	740 (20)	1600 (43)	2800 (75)		5900 (158)	10 000 (268)		
50 (3,4)	1100 (29)	2400 (64)	4300 (115)		9800 (263)	16 000 (429)		
60 (4,1)	1250 (34)	2800 (75)	5000 (134)		11 100 (297)	18 500 (496)		
100 (6,9)	1900 (51)	4400 (118)	7800 (209)		17 000 (456)	30 000 (804)		
200 (13,8)	3700 (99)	8300 (222)	14 000 (375)		31 000 (831)	57 000 (1528)		
400 (27,6)	7200 (193)	16 000 (429)	29 000 (777)		64 000 (1715)	----		
500 (34,5)	9200 (247)	20 000 (536)	37 000 (992)		82 000 (2198)	----		
600 (41,4)	11 000 (295)	23 000 (616)	42 000 (1126)		----	----		
1000 (69,0)	18 000 (482)	40 000 (1072)	71 000 (1903)		----	----		
1500 (103)	27 000 (724)	60 000 (1608)	---		----	----		

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Table 4. NPS 2 (DN 50) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 2 (DN 50) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS						
				Orifice Size, Inches (mm)						
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)		
LOW-PRESSURE	8 to 20 psig (0,55 to 1,4 bar) 0W019127022 Olive Drab	30 (2,1) 40 (2,8) 50 (3,4) 60 (4,1)	20 (1,4)	700 (19)	1600 (43)	2600 (70)	5200 (139)	9200 (247)		
				900 (24)	2100 (56)	3500 (94)	7500 (201)	12 000 (322)		
				1100 (29)	2400 (64)	4300 (115)	9400 (252)	15 000 (402)		
				1250 (34)	2800 (75)	5100 (137)	11 000 (295)	18 000 (482)		
		100 (6,9) 200 (13,8) 400 (27,6)		1900 (51) 3700 (99) 7300 (196)	4300 (115) 8200 (220) 16 000 (429)	7800 (209) 14 000 (375) 28 000 (750)	17 000 (456) 32 000 (858) 63 000 (1688)	29 000 (777) 59 000 (1581) ----		
		500 (34,5) 600 (41,4) 1000 (69,0) 1500 (103)		9100 (244) 11 000 (295) 17 700 (474) 27 000 (724)	19 300 (517) 24 000 (643) 39 200 (1051) 60 000 (1608)	35 500 (951) 43 000 (1152) 71 600 (1919) ----	78 800 (2112) ---- ---- ----	---- ---- ---- ----		
		17 to 30 psig (1,17 to 2,1 bar) 0W019027022 Silver		30 (2,1) 40 (2,8) 50 (3,4) 60 (4,1)	20 (1,4)	680 (18)	1300 (35)	2100 (56)	3500 (94)	6000 (161)
						890 (24)	1800 (48)	2800 (75)	5100 (137)	8200 (220)
						1000 (27)	2300 (62)	3700 (99)	6200 (166)	10 000 (268)
						1200 (32)	2700 (72)	4300 (115)	7400 (198)	12 500 (335)
				100 (6,9) 200 (13,8) 400 (27,6)		1900 (51) 3500 (94) 7100 (190)	4200 (113) 8000 (214) 15 000 (402)	6900 (185) 13 000 (348) 28 000 (750)	12 000 (322) 32 000 (858) 63 000 (1688)	24 000 (643) 56 000 (1501) ----
				500 (34,5) 600 (41,4) 1000 (69,0) 1500 (103)		8900 (239) 10 000 (268) 17 700 (474) 27 000 (724)	19 200 (515) 24 000 (643) 39 200 (1051) 60 000 (1608)	35 500 (951) 42 000 (1126) 70 600 (1892) ----	78 800 (2112) ---- ---- ----	---- ---- ---- ----
	40 (2,8) 50 (3,4) 60 (4,1) 100 (6,9)		30 (2,1)	860 (23)		1800 (48)	2900 (78)	5300 (142)	8500 (228)	
	1000 (27)			2300 (62)		3800 (102)	7300 (196)	11 000 (295)		
	1200 (32)			2700 (72)		4700 (126)	8900 (239)	14 000 (375)		
	1800 (48)			4200 (113)		7800 (209)	16 000 (429)	28 000 (750)		
	200 (13,8) 400 (27,6) 500 (34,5)			3600 (96) 7000 (188) 8900 (239)		8100 (217) 16 000 (429) 19 100 (512)	14 000 (375) 28 000 (750) 34 900 (935)	24 000 (643) 64 000 (1715) 80 900 (2168)	58 000 (1554) ---- ----	
	600 (41,4) 1000 (69,0) 1500 (103)			10 000 (268) 18 400 (493) 27 000 (724)		23 000 (616) 39 800 (1067) 61 000 (1635)	42 000 (1126) 70 900 (1900) ----	---- ---- ----	---- ---- ----	
	27 to 40 psig (1,9 to 2,8 bar) 0Y066427022 Green Stripe	40 (2,8) 50 (3,4) 60 (4,1) 100 (6,9)		30 (2,1)	850 (23)	1600 (43)	2600 (70)	4500 (121)	7200 (193)	
					1000 (27)	2200 (59)	3500 (94)	5900 (158)	9700 (260)	
					1200 (32)	2600 (70)	4200 (113)	7300 (196)	12 000 (322)	
					1800 (48)	4200 (113)	6900 (185)	12 000 (322)	23 000 (616)	
		200 (13,8) 400 (27,6) 500 (34,5)			3600 (96) 7000 (188) 8900 (239)	8100 (217) 15 000 (402) 18 800 (504)	13 000 (348) 28 000 (750) 34 900 (935)	24 000 (643) 64 000 (1715) 80 200 (2149)	57 000 (1528) -- -- -- --	
		600 (41,4) 1000 (69,0) 1500 (103)			10 000 (268) 18 400 (493) 27 000 (724)	23 000 (616) 39 700 (1064) 61 000 (1635)	42 000 (1126) 70 800 (1897) ----	---- ---- ----	---- ---- ----	
50 (3,4) 60 (4,1) 100 (6,9)		40 (2,8)	1000 (27)		2100 (56)	3400 (91)	5900 (158)	9900 (265)		
1200 (32)			2600 (70)		4300 (115)	7900 (212)	12 000 (322)			
1900 (51)			4300 (115)		7200 (193)	13 000 (348)	24 000 (643)			
200 (13,8) 400 (27,6) 500 (34,5) 600 (41,4)			3600 (96) 7200 (193) 8900 (239) 10 000 (268)		8200 (220) 16 000 (429) 19 600 (525) 23 000 (616)	14 000 (375) 28 000 (750) 35 100 (941) 42 000 (1126)	30 000 (804) 63 000 (1688) 79 400 (2128) ----	56 000 (1501) ---- ---- ----		
1000 (69,0) 1500 (103)			17 300 (464) 27 000 (724)		39 400 (1056) 61 000 (1635)	70 200 (1881) ----	---- ----	---- ----		

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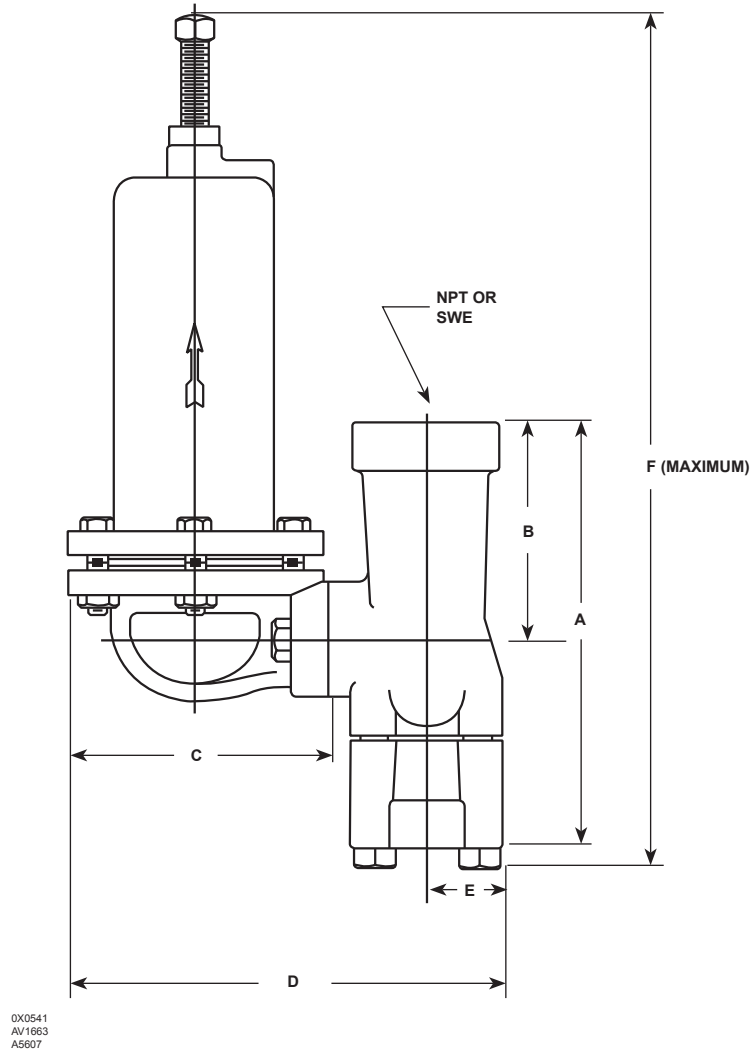
Table 4. NPS 2 (DN 50) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 2 (DN 50) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
HIGH-PRESSURE	27 to 50 psig (1,9 to 3,4 bar) 0W019227022 Red Stripe	60 (4,1)	50 (3,4)	1000 (27)	2100 (56)	3200 (86)	5300 (142)	12 000 (322)
		100 (6,9)		1800 (48)	3600 (96)	5800 (155)	10 000 (268)	21 000 (563)
		200 (13,8)		3600 (96)	7900 (212)	12 000 (322)	21 000 (563)	55 000 (1474)
		300 (20,7)		5500 (147)	11 000 (295)	19 000 (509)	48 000 (1286)	83 000 (2224)
		400 (27,6)		7000 (188)	15 000 (402)	27 000 (724)	63 000 (1688)	---
		500 (34,5)		8800 (236)	19 000 (509)	34 300 (919)	79 700 (2136)	---
	46 to 95 psig (3,2 to 6,6 bar) 0W019127022 Olive Drab	60 (4,1)	50 (3,4)	900 (24)	1600 (43)	2500 (67)	4400 (118)	7300 (196)
		100 (6,9)		1600 (43)	3400 (91)	4300 (115)	7600 (204)	12 000 (322)
		200 (13,8)		3500 (94)	6700 (180)	9600 (257)	16 000 (429)	27 000 (724)
		300 (20,7)		5300 (142)	10 000 (268)	14 000 (375)	27 000 (724)	51 000 (1367)
		400 (27,6)		6900 (185)	13 000 (348)	21 000 (563)	46 000 (1233)	---
		500 (34,5)		8700 (233)	16 300 (437)	26 300 (705)	73 300 (1964)	---
	90 to 150 psig (6,2 to 10,3 bar) 0W019027022 Silver	60 (4,1)	100 (6,9)	10 000 (268)	20 000 (536)	35 000 (938)	---	---
		1000 (69,0)		17 100 (458)	38 700 (1037)	68 800 (1844)	---	---
		1500 (103)		26 000 (697)	59 000 (1581)	---	---	---
		100 (6,9)		1800 (48)	3300 (88)	5200 (139)	9000 (241)	14 000 (375)
		200 (13,8)		3600 (96)	7400 (198)	11 000 (295)	19 000 (509)	30 000 (804)
		400 (27,6)		7200 (193)	15 000 (402)	24 000 (643)	---	---
	150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	500 (34,5)	150 (10,3)	8700 (233)	19 000 (509)	31 400 (842)	---	---
		600 (41,4)		10 000 (268)	23 000 (616)	39 000 (1045)	---	---
		1000 (69,0)		17 600 (472)	39 000 (1045)	69 300 (1857)	---	---
		1500 (103)		24 000 (643)	60 000 (1608)	---	---	---
		200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)
		300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60 000 (1608)	---	---	---	
	200 (13,8)		3500 (94)	7300 (196)	11 000 (295)	18 000 (482)	30 000 (804)	
	300 (20,7)		5400 (145)	11 000 (295)	19 000 (509)	32 000 (858)	52 000 (1394)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	26 000 (697)	46 000 (1233)	77 000 (2064)	
	500 (34,5)		8600 (230)	19 800 (531)	32 800 (879)	62 500 (1675)	---	
	1000 (69,0)		14 000 (375)	30 000 (804)	54 000 (1447)	---	---	
	1500 (103)		18 000 (482)	39 100 (1048)	67 700 (1814)	---	---	
	200 (13,8)		3500 (94)	6900 (185)	10 000 (268)	17 000 (456)	28 000 (750)	
	300 (20,7)		5400 (145)	11 000 (295)	17 000 (456)	28 000 (750)	47 000 (1260)	
150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	400 (27,6)	150 (10,3)	7200 (193)	15 000 (402)	24 000 (643)	43 000 (1152)	65 000 (1742)	
	500 (34,5)		8800 (236)	19 000 (509)	30 000 (804)	59 000 (1581)	---	
	1000 (69,0)		17 000 (456)	39 000 (1045)	69 300 (1857)	---	---	
	1500 (103)		27 000 (724)	60				

Bulletin 71.1:630

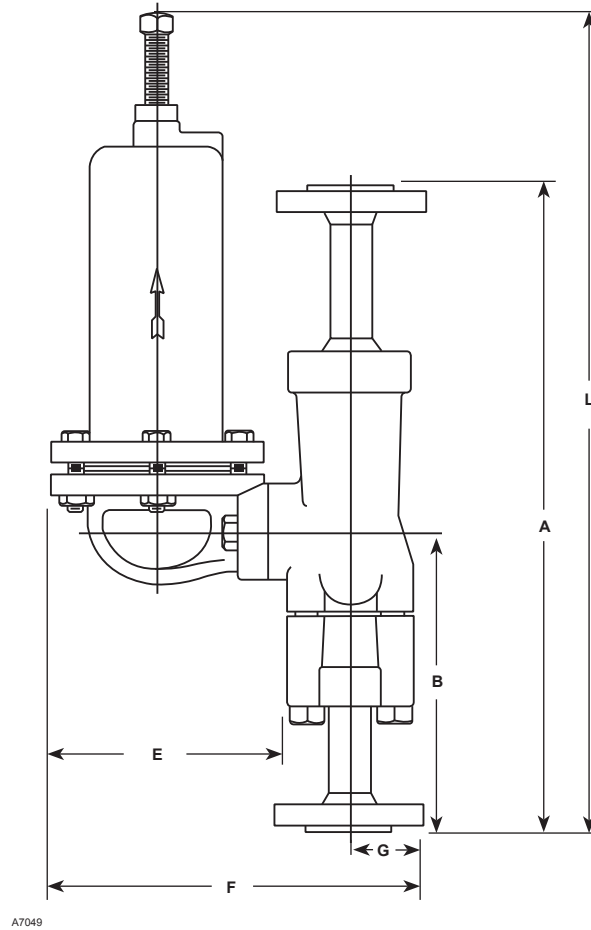
Table 4. NPS 2 (DN 50) Body Capacities (Based on 20% Droop) (continued)

	OUTLET PRESSURE RANGE, SPRING PART NUMBER, AND COLOR	INLET PRESSURE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	NPS 2 (DN 50) BODY CAPACITIES IN SCFH (Nm ³ /h) OF 0.6 SPECIFIC GRAVITY OF NATURAL GAS				
				Orifice Size, Inches (mm)				
				1/8 (3,2)	3/16 (4,8)	1/4 (6,4)	3/8 (9,5)	1/2 (13)
HIGH-PRESSURE	150 to 200 psig (10,3 to 13,8 bar) 0Y066427022 Green Stripe	250 (17,2) 300 (20,7) 600 (41,4) 700 (48,3) 800 (55,2) 1000 (69,0) 1200 (82,7) 1500 (103)	200 (13,8)	4300 (115)	9100 (244)	13 000 (348)	23 000 (616)	42 000 (1126)
				5300 (142)	11 000 (295)	18 000 (482)	33 000 (884)	52 000 (1394)
				10 000 (268)	23 000 (616)	40 000 (1072)	75 000 (2010)	----
				12 000 (322)	27 000 (724)	47 000 (1260)	90 000 (2412)	----
				14 000 (375)	31 000 (831)	54 000 (1447)	----	----
				17 000 (456)	39 000 (1045)	69 000 (1849)	----	----
	150 to 200 psig (10,3 to 13,8 bar) 1J146927142 Blue Stripe	250 (17,2) 300 (20,7) 600 (41,4) 700 (48,3) 800 (55,2) 1000 (69,0) 1200 (82,7) 1500 (103)	200 (13,8)	4300 (115)	8900 (239)	12 000 (322)	23 000 (616)	35 000 (938)
				5300 (142)	11 000 (295)	18 000 (482)	31 000 (831)	46 000 (1233)
				10 000 (268)	23 000 (616)	38 000 (1018)	70 000 (1876)	----
				12 000 (322)	27 000 (724)	45 000 (1206)	83 000 (2224)	----
				14 000 (375)	31 000 (831)	52 000 (1394)	----	----
				17 000 (456)	39 000 (1045)	68 000 (1822)	----	----
	200 to 275 psig (13,8 to 19,0 bar) 1J146927142 Blue Stripe	300 (20,7) 400 (27,6) 500 (34,5) 600 (41,4) 1000 (69,0) 1500 (103)	250 (17,2)	5000 (134)	10 000 (268)	17 000 (456)	30 000 (804)	52 000 (1394)
				7100 (190)	15 000 (402)	25 000 (670)	47 000 (1260)	76 000 (2037)
				8600 (230)	19 000 (509)	34 000 (911)	62 000 (1662)	103 000 (2760)
				10 000 (268)	23 000 (616)	41 000 (1099)	78 000 (2090)	----
				17 000 (456)	40 000 (1072)	68 000 (1822)	----	----
				27 000 (724)	60 000 (1608)	----	----	----
	275 to 500 psig (19,0 to 34,5 bar) 1K370927082 Yellow Stripe	300 (20,7) 400 (27,6) 600 (41,4) 1000 (69,0) 1500 (103)	275 (19,0)	4800 (129)	10 000 (268)	17 000 (456)	29 000 (777)	43 000 (1152)
				7000 (188)	15 000 (402)	26 000 (697)	47 000 (1260)	73 000 (1956)
				10 000 (268)	23 000 (616)	40 800 (1093)	81 900 (2195)	----
				17 000 (456)	40 000 (1072)	68 000 (1822)	----	----
		400 (27,6) 600 (41,4) 700 (48,3) 800 (55,2)	300 (20,7)	7000 (188)	13 000 (348)	21 000 (563)	35 000 (938)	54 000 (1447)
				10 000 (268)	21 000 (563)	34 000 (911)	59 000 (1581)	----
12 000 (322)				26 000 (697)	40 000 (1072)	72 000 (1930)	----	
14 000 (375)				29 000 (777)	47 000 (1260)	81 000 (2171)	----	
1000 (69,0) 1300 (89,6) 1500 (103)		300 (20,7)	15 800 (423)	33 200 (890)	53 600 (1436)	----	----	
			23 000 (616)	50 000 (1340)	80 000 (2144)	----	----	
			27 000 (724)	58 000 (1554)	----	----	----	
			8800 (236)	17 000 (456)	28 000 (750)	49 000 (1313)	77 000 (2064)	
500 (34,5) 600 (41,4) 800 (55,2) 900 (62,1) 1000 (69,0)	400 (27,6)	10 300 (276)	22 300 (598)	36 000 (965)	66 300 (1777)	100 300 (2688)		
		14 000 (375)	31 000 (831)	51 000 (1367)	95 000 (2546)	----		
		16 000 (429)	36 000 (965)	58 000 (1554)	110 000 (2948)	----		
		18 000 (482)	40 000 (1072)	66 000 (1769)	----	----		
1200 (82,7) 1400 (96,5) 1500 (103)	400 (27,6)	21 000 (563)	48 000 (1286)	80 000 (2144)	----	----		
		25 000 (670)	57 000 (1528)	96 000 (2573)	----	----		
		27 000 (724)	61 000 (1635)	----	----	----		
		9000 (241)	18 000 (482)	30 000 (804)	53 000 (1420)	89 000 (2385)		
550 (37,9) 600 (41,4) 900 (62,1) 1000 (69,0) 1500 (103)	500 (34,5)	10 000 (268)	20 800 (557)	34 500 (925)	62 300 (1670)	102 000 (2734)		
		16 000 (429)	35 000 (938)	60 000 (1608)	113 000 (3028)	----		
		18 000 (482)	40 000 (1072)	67 000 (1796)	130 000 (3484)	----		
		27 000 (724)	60 000 (1608)	82 000 (2198)	----	----		



BODY SIZE	NPT DIMENSIONS, INCHES (mm)					
	A	B	C	D	E	F
Low-Pressure Regulator						
1	7.38 (187)	3.69 (94)	7.19 (183)	10.31 (262)	1.38 (35)	15.62 (397)
2	7.88 (200)	3.94 (100)	7.19 (183)	10.94 (278)	2.00 (51)	16.38 (416)
High-Pressure Regulator						
1	7.38 (187)	3.69 (94)	4.69 (119)	7.81 (198)	1.38 (35)	16.12 (409)
2	7.88 (200)	3.94 (100)	4.69 (119)	8.44 (214)	2.00 (51)	16.88 (429)

Figure 4. NPT Dimensions



BODY SIZE, NPS (DN)	FLANGED DIMENSIONS, INCHES (mm)							
	A	B	C	F		G		L
				CL150	CL300 and CL600	CL150	CL300 and CL600	
Low-Pressure Regulator								
1 (25)	18 (457)	8 (203)	7.2 (183)	11.1 (282)	11.4 (290)	2.1 (53,3)	2.4 (61,0)	20.7 (526)
2 (50)	20 (508)	9 (229)	7.2 (183)	11.9 (302)	12.2 (310)	3.0 (76,2)	3.3 (83,8)	21.9 (556)
High-Pressure Regulator								
1 (25)	18 (457)	18 (457)	4.7 (119)	8.6 (218)	8.9 (226)	2.1 (53,3)	2.4 (61,0)	21.2 (538)
2 (50)	20 (508)	20 (508)	4.7 (119)	9.4 (239)	9.7 (246)	3.0 (76,2)	3.3 (83,8)	21.4 (544)

Figure 5. Flanged Dimensions

Ordering Information

Then, carefully review each specification and complete the Ordering Guide below. To ensure ordering accuracy, please complete the Specifications Worksheet at the bottom of this page.

Ordering Guide

Body Size (Select One)

- NPS 1 (DN 25)***
- NPS 2 (DN 50)***

Body Material and End Connection Style (Select One)

Steel

- CL150 RF**
- CL150 RF**
- CL300 RF**
- CL600 RF**

Cast Iron

- NPT***

Trim Material (Select One)

- Brass***
- Stainless steel**

Disk and Holder Material (Select One)

- Nitrile (NBR) and brass***
- Nitrile (NBR) and stainless steel*
- Nylon (PA) and brass**
- Nylon (PA) and stainless steel*

Orifice Material (Select One)

- Brass***
- Stainless steel*

Orifice Size (Select One)

- 1/8-inch (3,2 mm)**
- 3/16-inch (4,8 mm)**
- 1/4-inch (6,4 mm)**
- 3/8-inch (9,5 mm)**
- 1/2-inch (13 mm)**

Outlet Pressure Range (Select One)

- 3 to 10 psig (0,21 to 0,69 bar), Red stripe**
- 8 to 20 psig (0,55 to 1,4 bar), Olive green**
- 17 to 30 psig (1,17 to 2,1 bar), Unpainted**
- 27 to 40 psig (1,9 to 2,8 bar), Green stripe**
- 27 to 50 psig (1,9 to 3,4 bar), Red stripe**
- 46 to 95 psig (3,2 to 6,6 bar), Olive green**
- 90 to 150 psig (6,2 to 10,3 bar), Unpainted**
- 150 to 200 psig (10,3 to 13,8 bar), Green stripe**
- 200 to 275 psig (13,8 to 19,0 bar), Blue stripe**
- 275 to 500 psig (19,0 to 34,5 bar), Yellow stripe**

Replacement Parts Kit (Optional)

- Yes, send one replacement parts kit to match this order.

Regulators Quick Order Guide	
***	Readily Available for Shipment
**	Allow Additional Time for Shipment
*	Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Specification Worksheet	
Application (Please designate units):	
Specific Use	_____
Line Size	_____
Gas Type and Specific Gravity	_____
Gas Temperature	_____
Does the Application Require Overpressure Protection?	
<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, which is preferred:	
<input type="checkbox"/> Relief Valve <input type="checkbox"/> Monitor Regulator <input type="checkbox"/> Shutoff Device	
Is overpressure protection equipment selection assistance desired? _____	
Pressure:	
Maximum Inlet Pressure (P_{1max})	_____
Minimum Inlet Pressure (P_{1min})	_____
Downstream Pressure Setting(s) (P_2)	_____
Maximum Flow (Q_{max})	_____
Performance Required:	
Accuracy Requirements?	_____
Need for Extremely Fast Response?	_____
Other Requirements: _____	

