May 2010

67D Series Pressure Reducing Regulators

P1183

TYPE 67D OR 67DR REGULATOR

P1182

TYPE 67DF OR 67DFR FILTERED REGULATOR

Figure 1. *67D Series Pressure Reducing Regulators*

- **Optional Smart Bleed™ Construction**
- **Optional Stainless Steel Construction**
- **Compact and Light Weight**
- **No Air Loss**
- **Easy Maintenance**
- **Optional Integral Filter**
- **Optional Internal Relief Valve**
- **Rugged Construction**

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Introduction

The 67D Series regulators are typically used to deliver constant reduced pressure of gaseous fluids to pilot-operated controllers and other pneumatic instrumentation. As shown in the Available Configurations table, an assortment of regulators is available to meet diverse flow requirements.

Features

- **Compact**—The 67D Series regulators are engineered for outstanding performance in a compact, lightweight package.
- **Pilot Supply Regulator**—Improves the accuracy of two-path control regulators by reducing inlet sensitivity caused by fluctuating inlet pressures.
- **Pressure Loading Regulator**—Provides accuracy and improved performance in dirty steam service by eliminating the need for a pilot regulator.
- **Sour Gas Service Capability**—NACE International MR0175 and MR0103 compliant construction available.
- **Optional Stainless Steel Construction**—The Types 67DS, 67DSR, 67DFS, and 67DFSR provide high resistance to corrosion, which is especially beneficial for offshore applications.
- **Full Usable Capacity**—Fisher® regulators are laboratory tested. 100% of the published capacities can be used with confidence.
- **Internal Relief**—The Types 67DR, 67DSR, 67DFR, and 67DFSR have an internal relief valve with a soft seat for reliable shutoff with no discernible leakage. These regulators are recommended for conserving plant air.
- **Smart Bleed™**—Opens to exhaust downstream pressure when inlet pressure drops below outlet pressure. Recommended for dead-end service.
- **Integral Filter**—The Types 67DF, 67DFR, 67DFS, and 67DFSR have an integral filter ensuring clean downstream air supply.
- **Ease of Maintenance**—No special tools are required to perform maintenance, and all maintenance can be performed with the regulator in the line. Filter elements are easily replaced.
- **Rugged Construction**—The 67D Series regulators are engineered for longer service life with minimal maintenance requirements.
- **Dual Second Outlets**—Body side outlets for pressure gauge or other uses.
- **Corrosion Resistant Fasteners**—Bolting and adjusting screw are double zinc-chromated for enhanced corrosion resistance. Optional stainless steel bolting and adjusting screw are also available.

Specifications

Available Configurations

Type 67D: Direct-operated regulator with aluminum body and without internal relief
Type 67DR: Aluminum body with internal relief
Type 67DS: Stainless steel body without internal relief
Type 67DSR: Stainless steel body with internal relief
Type 67DF: Aluminum body with filter and without internal relief
Type 67DFR: Aluminum body with filter and internal relief
Type 67DFS: Stainless steel body with filter and without internal relief
Type 67DFSR: Stainless steel body with filter and internal relief
See also Table 1

Body Size, Inlet and Outlet Connection Style

1/2 NPT

Construction Materials

See Table 3

Maximum Inlet Pressure (Body Rating)(1)

All filtered models: 250 psig (17,2 bar)
All unfiltered models: 400 psig (27,6 bar)

Outlet Pressure Ranges

See Table 2

Maximum Emergency Outlet Pressure(1)

150 psi (10,3 bar) over outlet pressure setting up to a maximum of 250 psi (17,2 bar)

Flow Capacities

See Table 4 and Capacity Information section

Wide-Open Flow Coefficients

Main Valve: C_g*: 45.24;* C_v*: 1.33;* C_1*: 35.02;*
Internal Relief Valve: C_g*:* 1.45; C_v*:* 0.045; C_1*:* 32.8

IEC Sizing Coefficients

X_t*: 0.75*

Types 67DR, 67DSR, 67DFR, and 67DFSR Internal Relief Performance

Low capacity for minor seat leakage only, other overpressure protection must be provided if inlet pressure can exceed the maximum pressure rating of downstream equipment or exceeds maximum outlet pressure rating of the regulator.

Approximate Weights

Types 67D and 67DR: 1.2 pound (0,5 kg)
Types 67DF and 67DFR: 2.0 pounds (1 kg)
Types 67DS and 67DSR: 2.8 pounds (1 kg)
Types 67DFS and 67DFSR: 4.6 pounds (2 kg)

Smart Bleed™ Check Valve Setpoint

6 psi (0,41 bar) differential

Pressure Registration

Internal

Spring Case Vent Location

Aligned with inlet standard, other positions optional

Drain Valve Location

Aligned in the center of the dripwell

Temperature Capabilities(1)

With Nitrile (NBR)
Standard Bolting: -20° to 180°F (-29° to 82°C)
Stainless Steel Bolting: -40° to 180°F (-40° to 82°C)
With Fluorocarbon (FKM):
Polyethylene Filter(4) ***(Standard)***:
0° to 180°F (-18° to 82°C)
Polyvinylidene (PVDF), Stainless Steel, or Glass Filter (Optional):
0° to 300°F (-18° to 149°C)
With Silicone (VMQ)(2) diaphragm, Low Temperature Nitrile (NBR) O-rings, and Low Temperature bolting: -60° to 180°F (-51° to 82°C)
With Gauges: -20° to 180°F (-29° to 82°C)
With Automatic drain: 40° to 175°F (4° to 79°C)

Types 67DF, 67DFR, 67DFS, and 67DFSR Filter Capabilities

Micron Rating:
Polyethylene Filter(4) ***(Standard)****:* 5 microns
Glass Fiber Filter (Optional): 5 microns
PVDF Filter (Optional): 40 microns
Stainless Steel Filter (Optional): 40 microns

Options

All Types
- Handwheel adjusting screw
- NACE International MR0175 or MR0103(3) construction
- Panel mount (includes spring case with 1/4 NPT vent, handwheel, and panel mounting nut)
- Closing cap (available on spring case with 1/4 NPT vent)
- Fluorocarbon (FKM) elastomers for high temperatures and/or corrosive chemicals
- Silicone (VMQ) elastomers for cold temperatures
- Fixed Bleed Restriction
- Triple scale outlet pressure gauge (brass or stainless steel)
- Stainless steel stem and valve plug
- Pipe plug in second outlet

Types 67DFR and 67DFSR only
- Smart Bleed™ internal check valve

Types 67DF, 67DFR, 67DFS, and 67DFSR
- Stainless steel drain valve

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.
2. Silicone (VMQ) is not compatible with hydrocarbon gas.
3. Product complies with the material requirements of NACE International MR0175 or MR0103. Environmental limits may apply.
4. Do not use in high aromatic hydrocarbon service.

Table 1. *Available Configurations*

TYPE	CONSTRUCTION FEATURES		OPTIONAL FEATURES			BODY MATERIAL	
	With Internal Relief	With Filter	Smart Bleed™ Internal Check Valve Airset	Drain Valve	External Fixed Bleed	Aluminum	Stainless Steel
67D						X	
67DR	X				X	X	
67DS							X
67DSR	X				X		X
67DF		X		X		X	
67DFR	X	X	X	X	X	X	
67DFS		X		X			X
67DFSR	X	X	X	X	X		X

Table 2. *Outlet Pressure Ranges and Control Spring Data*

TYPES	OUTLET PRESSURE RANGES, PSIG (bar)	CONTROL SPRING DATA				
		Part Number	Material	Color Code	Wire Diameter, Inch (mm)	Free Length, Inch (mm)
67D, 67DR, 67DF, and 67DFR	0 to 20 (0 to 1,4) 0 to 35 (0 to 2,4) 0 to 60 (0 to 4,1) 0 to 125 (0 to 8,6)	GE07809T012 T14059T0012 T14058T0012 T14060T0012	Music Wire	Green stripe Silver Blue stripe Red stripe	0.135 (3,43) 0.156 (3,96) 0.170 (4,32) 0.207 (5,26)	1.43 (36,2) 1.43 (36,2) 1.43 (36,2) 1.43 (36,2)
	0 to 35 (0 to 2,4) 0 to 60 (0 to 4,1) 0 to 125 (0 to 8,6)	T14113T0012 T14114T0012 T14115T0012	Inconel®	Silver stripe Blue Red	0.156 (3,96) 0.172 (4,37) 0.207 (5,26)	1.43 (36,2) 1.43 (36,2) 1.43 (36,2)
67DS, 67DSR, 67DFS, and 67DFSR	0 to 20 (0 to 1,4) 0 to 35 (0 to 2,4) 0 to 60 (0 to 4,1) 0 to 125 (0 to 8,6) 0 to 150 (0 to 10,3)	10C1729X012 T14113T0012 T14114T0012 T14115T0012 10C1730X012	Inconel®	Green Silver stripe Blue Red Black	0.135 (3,43) 0.156 (3,96) 0.172 (4,37) 0.207 (5,26) 0.250 (6,35)	1.50 (38,1) 1.43 (36,2) 1.43 (36,2) 1.43 (36,2) 1.77 (44,9)

Table 3. *Construction Materials*

MATERIAL	TYPES			
	67D and 67DR	67DF and 67DFR	67DS and 67DSR	67DFS and 67DFSR
BODY AND SPRING CASE	Aluminum (ASTM B85/Alloy 380)		CF8M/CF3M Stainless steel	
SPRING RETAINER	Aluminum	Zinc-plated steel	316L Stainless steel	
UPPER SPRING SEAT	Zinc-plated steel		316 Stainless steel	
DIAPHRAGM PLATE	Chromate conversion coated Aluminum			
CONTROL SPRING	Plated steel or Inconel® (NACE)		Inconel®	
VALVE STEM	Brass, Aluminum, or Stainless steel		316L Stainless steel	
VALVE PLUG				
VALVE SPRING	Stainless steel or Inconel® (NACE)			
DIAPHRAGM AND O-RINGS	Nitrile (NBR), Fluorocarbon (FKM), Low Temp Nitrile (NBR), or Silicone (VMQ)(1)			
SOFT SEAT AND GASKETS	Nitrile (NBR) or Fluorocarbon (FKM)			
BOLTING AND ADJUSTING SCREW	Zinc-plated steel or Stainless steel			
HANDWHEEL	Zinc-plated steel		Zinc-plated steel or Stainless steel	
FILTER RETAINER	- - - -	316 Stainless steel	- - - -	316 Stainless steel
FILTER ELEMENT	- - - -	Plastic, Glass fiber, or Stainless steel	- - - -	Plastic, Glass fiber or Stainless steel
DRAIN VALVE	- - - -	Brass or 18-8 Stainless steel	- - - -	316 Stainless steel or 18-8 Stainless steel
DRIPWELL	- - - -	Aluminum (ASTM B85/Alloy 380)	- - - -	CF8M/CF3M Stainless steel

1. Silicone (VMQ) diaphragm is only available with internal relief (Types 67DR, 67DSR, 67DFR, and 67DFSR).

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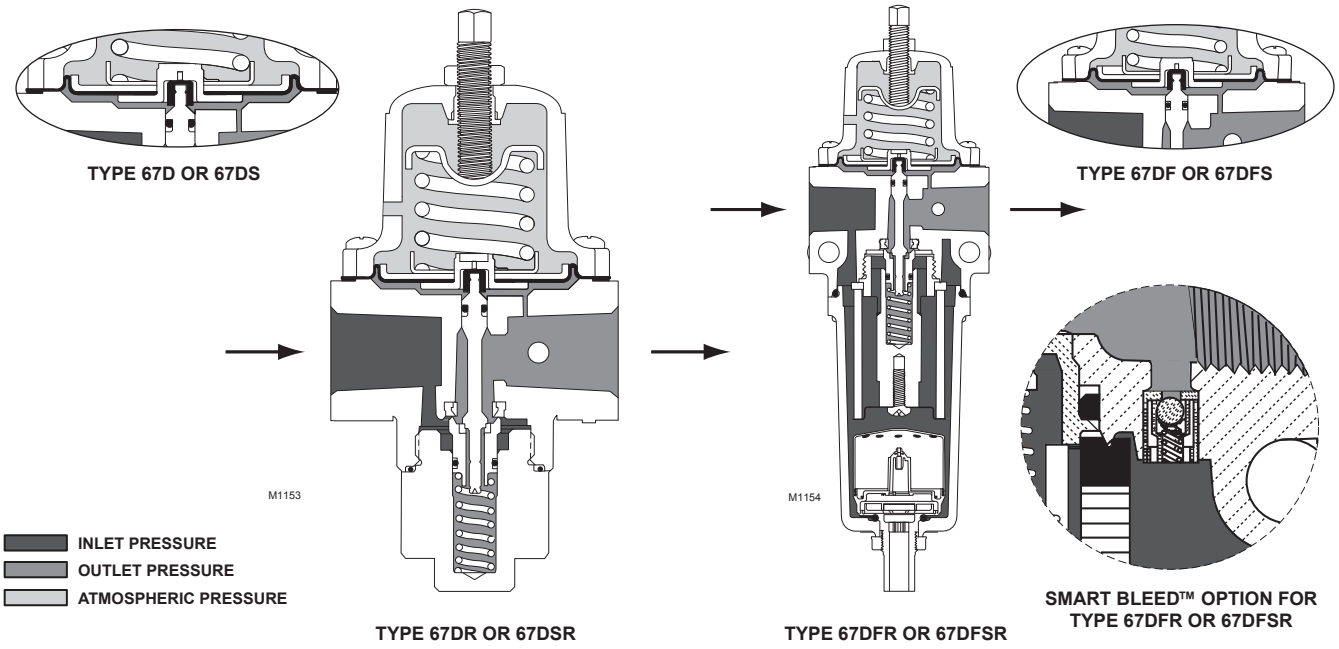


Figure 2. *67D Series Operational Schematics*

Principle of Operation (Figure 2)

Downstream pressure is registered internally on the lower side of the diaphragm. When the downstream pressure is at or above the set pressure, the valve plug is held against the orifice and there is no flow through the regulator. When demand increases, downstream pressure drops slightly allowing the spring to extend, moving the stem down and the valve plug away from the orifice. This allows flow through the regulator.

Internal Relief (Types 67DR, 67DSR, 67DFR, and 67DFSR)

If for some reason, outside of normal operating conditions, the downstream pressure exceeds the setpoint of the regulator, the force created by the downstream pressure will lift the diaphragm until the diaphragm is lifted off the relief seat. This allows flow through the token relief. The relief valve on the Type 67DR, 67DSR, 67DFR, or 67DFSR is an elastomer plug that prevents leakage of air from the downstream to atmosphere during normal operation, thereby conserving plant air.

Smart Bleed™ Airset

In some cases, it is desired to exhaust downstream pressure if inlet pressure is lost or drops below the setpoint of the regulator. For example, if the regulator is installed on equipment that at times has no flow demand but is expected to backflow on loss of inlet pressure. The Type 67DFR or 67DFSR can be ordered with the Smart Bleed™ option which includes an internal check valve for this application. During operation, if inlet pressure is lost, or decreases below the setpoint of the regulator, the downstream pressure will back flow upstream through the regulator and check valve. This option eliminates the need for a fixed bleed downstream of the regulator, thereby conserving plant air.

Installation

The 67D Series regulators may be installed in any position. Spring case vents must be protected against the entrance of rain, snow, debris, or any other foreign material that might plug the vent openings. The inlet connection is marked “In” and the main outlet connection is marked “Out”. If a pressure gauge is not installed in one of the two secondary outlet connections, plug the unused connections. See Figures 4 and 5 for dimensions.

Emerson Process Management Regulator Technologies, Inc. provides an instruction manual with every regulator shipped. Refer to this for complete installation, operation and maintenance instructions. Included is a complete listing of individual parts and recommended spare parts.

Overpressure Protection

The 67D Series regulators have maximum outlet pressure ratings that are lower than their maximum inlet pressure ratings. A pressure-relieving or pressure-limiting device is needed if inlet pressure can exceed the maximum outlet pressure rating.

Types 67DR, 67DSR, 67DFR, and 67DFSR regulators have a low capacity internal relief valve for minor seat leakage only. Other overpressure protection must be provided if the maximum inlet pressure can exceed the maximum pressure rating of the downstream equipment or exceeds maximum outlet pressure rating of the Type 67DR, 67DSR, 67DFR, or 67DFSR regulator.

Overpressuring any portion of a regulator or associated equipment may cause leakage, parts damage, or personal injury due to bursting of pressure-containing parts or explosion of accumulated gas. Regulator operation within ratings does not preclude the possibility of damage from external sources or from debris in the pipeline. A regulator should be inspected for damage periodically and after any overpressure condition.

Refer to the Capacity Information section and the Wide-Open Flow Coefficients for Relief Valve Sizing in the Specifications section on page 3 to determine the required relief valve capacity.

Capacity Information

Table 4 shows the air regulating capacities of the 67D Series regulators at selected inlet pressures and outlet pressure settings. Flows are shown in SCFH (at 60°F and 14.7 psia) and in Nm^3/h (at 0°C and 1,01325 bar) of air.

Note

The 67D Series regulators may be sized for 100% flow using capacities as shown in Table 4. It is not necessary to reduce published capacities.

To determine the equivalent capacities for other gases, multiply the table capacity by the following appropriate conversion factor: 1.29 for 0.6 specific gravity natural gas, 0.810 for propane, 0.707 for butane, or 1.018 for nitrogen. For gases of other specific gravities, divide the table capacities by the square root of the appropriate specific gravity. To find wide-open flow capacities for relief sizing at any inlet pressure, perform one of the following procedures. Then, if necessary, convert using the factors provided above.

For critical pressure drops (absolute outlet pressure equal to or less than one-half of absolute inlet pressure), use the following formula:

$$Q = (P_1)(C_g)$$

For pressure drops lower than critical (absolute outlet pressure greater than one-half of absolute inlet pressure), use the following formula:

$$Q = \sqrt{\frac{520}{GT}} C_g P_1 SIN \left(\frac{3417}{C_1} \sqrt{\frac{\triangle P}{P_1}} \right) DEG$$

where,

Q = gas flow rate, SCFH
P_1 = absolute inlet pressure, psia (P_1 gauge + 14.7)
C_g = gas sizing coefficient
G = specific gravity of the gas
T = absolute temperature of gas at inlet, °Rankine
C_1 = flow coefficient ($C_g \div C_v$)
$\triangle P$ = pressure drop across the regulator, psi

Then, if capacity is desired in normal cubic meters per hour (at 0°C and 1,01325 bar), multiply SCFH by 0.0268.

NACE Universal Compliance

Optional materials are available for applications handling sour gases. These constructions comply with the recommendations of NACE International sour service standards.

The manufacturing processes and materials used by Regulator Technologies assure that all products specified for sour gas service comply with the chemical, physical, and metallurgical requirements of NACE MR0175 and/or NACE MR0103. Customers have the responsibility to specify correct materials. Environmental limitations may apply and shall be determined by the user.

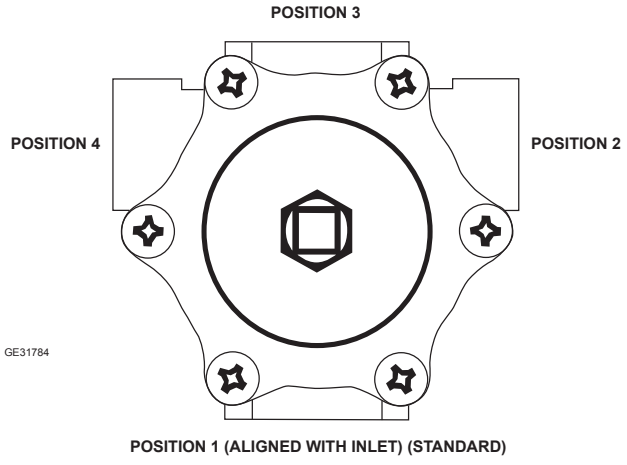


Figure 3. *67D Series Vent Positions*

Table 4. *67D Series Flow Capacities*

OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	INLET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR					
			Types 67D, 67DR, 67DS, and 67DSR			Types 67DF, 67DFR, 67DFS, and 67DFSR		
			5% Droop	10% Droop	20% Droop	5% Droop	10% Droop	20% Droop
0 to 20 (0 to 1,4) GE07809T012 (Green Stripe) 10C1729X012 (Green)	5 (0,34)	25 (1,7)	320 (8,6)	530 (14,2)	950 (25,5)	320 (8,6)	400 (10,7)	600 (16,1)
		50 (3,4)	740 (19,8)	1100 (29,5)	2200 (59,0)	400 (10,7)	540 (14,5)	1100 (29,5)
		75 (5,2)	1000 (26,8)	2700 (72,4)	3200 (85,8)	460 (12,3)	850 (22,8)	2600 (69,7)
		100 (6,9)	750 (20,1)	3600 (96,5)	4100 (110)	590 (15,8)	2800 (75,0)	2900 (77,7)
		150 (10,3)	850 (22,8)	3200 (85,8)	6100 (163)	780 (20,9)	1700 (45,6)	3900 (105)
		200 (13,8)	240 (6,4)	810 (21,7)	6300 (169)	940 (25,2)	1700 (45,6)	2200 (59,0)
		250 (17,2)	290 (7,8)	460 (12,3)	6300 (169)	1000 (26,8)	1800 (48,2)	2200 (59,0)
		400[1] (27,6)	370 (9,9)	590 (15,8)	2700 (72,4)			
	10 (0,69)	25 (1,7)	450 (12,1)	790 (21,2)	1100 (29,5)	390 (10,5)	570 (15,3)	830 (22,2)
		50 (3,4)	1100 (29,5)	1900 (50,9)	2700 (72,4)	600 (16,1)	750 (20,1)	1700 (45,6)
		75 (5,2)	2600 (69,7)	3200 (85,8)	3900 (105)	870 (23,3)	2100 (56,3)	3100 (83,1)
		100 (6,9)	3900 (104)	4400 (118)	5100 (137)	1100 (29,5)	3300 (88,4)	3900 (105)
		150 (10,3)	3400 (91,1)	6600 (177)	7400 (198)	2200 (59,0)	3200 (85,8)	4800 (129)
		200 (13,8)	1200 (32,2)	7800 (209)	7800 (209)	1900 (50,9)	2300 (61,6)	4900 (131)
		250 (17,2)	850 (22,8)	8000 (214)	8000 (214)	2000 (53,6)	2400 (64,3)	3300 (88,4)
		400[1] (27,6)	470 (12,6)	3400 (91,1)	4700 (126)			
	20 (1,4)	50 (3,4)	1500 (40,2)	2100 (56,3)	2600 (69,7)	870 (23,3)	1500 (40,2)	2100 (56,3)
		75 (5,2)	2600 (69,7)	3500 (93,8)	3800 (102)	1600 (42,9)	2600 (69,7)	3400 (91,1)
		100 (6,9)	4500 (121)	4900 (131)	5100 (137)	3600 (96,5)	4300 (115)	4600 (123)
		150 (10,3)	6700 (180)	7200 (193)	7600 (204)	4000 (107)	6600 (177)	6600 (177)
		200 (13,8)	9000 (241)	9400 (252)	10000 (268)	3300 (88,4)	4700 (126)	6900 (185)
		250 (17,2)	11200 (300)	11200 (300)	11200 (300)	2900 (77,7)	5100 (137)	7100 (190)
		400[1] (27,6)	5500 (147)	6100 (163)	9100 (244)			
0 to 35 (1 to 2,4) T14059T0012 (Silver) T14113T0012 (Silver Stripe)	15 (1,0)	25 (1,7)	480 (12,9)	760 (20,4)	1000 (26,8)	360 (9,7)	520 (14,0)	800 (21,4)
		50 (3,4)	860 (23,0)	1500 (40,2)	2200 (59,0)	720 (19,3)	1300 (34,8)	2100 (56,3)
		75 (5,2)	1200 (32,2)	2700 (72,4)	3700 (99,2)	870 (23,3)	2100 (56,3)	3500 (93,8)
		100 (6,9)	2000 (53,6)	3900 (104)	4800 (129)	1100 (29,5)	3700 (99,2)	4400 (118)
		150 (10,3)	5000 (134)	5900 (158)	7200 (193)	3400 (91,1)	5700 (153)	6400 (172)
		200 (13,8)	1000 (26,8)	7600 (204)	8800 (236)	2600 (69,7)	4100 (110)	5900 (158)
		250 (17,2)	500 (13,4)	8900 (239)	9200 (247)	2700 (72,4)	3300 (88,4)	6000 (161)
		400[1] (27,6)	820 (22,0)	6400 (172)	7400 (198)			
	20 (1,4)	25 (1,7)	370 (9,9)	570 (15,3)	810 (21,7)	420 (11,3)	570 (15,3)	940 (25,2)
		50 (3,4)	770 (20,6)	1200 (32,2)	1900 (50,9)	880 (23,6)	1500 (40,2)	2300 (61,6)
		75 (5,2)	1100 (29,5)	2600 (69,7)	3800 (102)	1100 (29,5)	2400 (64,3)	3900 (105)
		100 (6,9)	1800 (48,2)	4500 (121)	5200 (139)	1800 (48,2)	3800 (102)	4800 (129)
		150 (10,3)	6200 (166)	7000 (188)	7500 (201)	3900 (104)	6600 (177)	7000 (188)
		200 (13,8)	2900 (77,7)	7500 (201)	7800 (209)	5600 (150)	8700 (233)	8700 (233)
		250 (17,2)	4900 (131)	11000 (295)	11000 (295)	4400 (118)	8800 (236)	8800 (236)
		400[1] (27,6)	830 (22,2)	8300 (222)	8300 (222)			
	35 (2,4)	50 (3,4)	1000 (26,8)	1700 (45,6)	2200 (59,0)	840 (22,5)	1300 (34,8)	2000 (53,6)
		75 (5,2)	2000 (53,6)	3200 (85,8)	3700 (99,2)	1500 (40,2)	2500 (67,0)	3300 (88,4)
		100 (6,9)	2900 (77,7)	4500 (121)	5100 (137)	2000 (53,6)	3900 (104)	4700 (126)
		150 (10,3)	6700 (180)	7100 (190)	7600 (204)	6300 (169)	6800 (182)	7000 (188)
		200 (13,8)	9000 (241)	9500 (255)	9900 (265)	8800 (236)	9000 (241)	9000 (241)
		250 (17,2)	11100 (297)	11900 (319)	12500 (335)	6000 (161)	10000 (268)	10000 (268)
		400[1] (27,6)	7600 (204)	9300 (249)	12800 (343)			

1. Inlet pressures above 250 psig (17,2 bar) with a maximum of 400 psig (27,6 bar) are only available on unfiltered models (Types 67D, 67DR, 67DS, and 67DSR).

- continued -

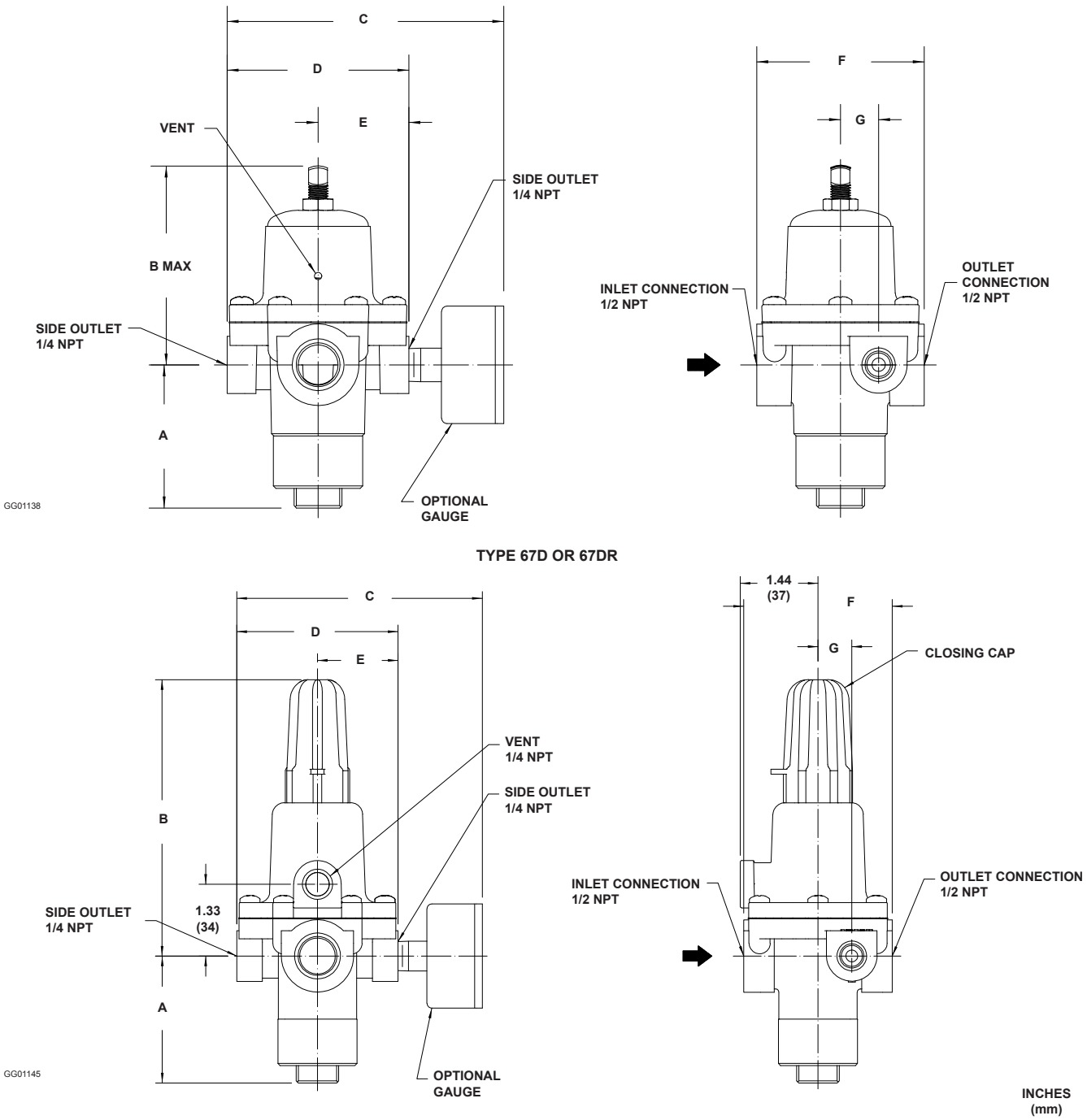
Table 4. *67D Series Flow Capacities (continued)*

OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE, PSIG (bar)	OUTLET PRESSURE, PSIG (bar)	INLET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR					
			Types 67D, 67DR, 67DS, and 67DSR			Types 67DF, 67DFR, 67DFS, and 67DFSR		
			5% Droop	10% Droop	20% Droop	5% Droop	10% Droop	20% Droop
0 to 60 (0 to 4,1) T14058T0012 (Blue Stripe) T14114T0012 (Blue)	35 (2,4)	50 (3,4)	850 (22,8)	1400 (37,5)	2100 (53,6)	690 (18,5)	1100 (29,5)	1800 (48,2)
		75 (5,2)	1400 (37,5)	2500 (67,0)	3600 (96,5)	1000 (26,8	1900 (50,9)	2900 (77,7)
		100 (6,9)	1900 (50,9)	4100 (110)	5100 (137)	1600 (42,9)	2700 (72,4)	4300 (115)
		150 (10,3)	6600 (177)	7100 (190)	7600 (204)	3100 (83,1)	5600 (150)	6600 (177)
		200 (13,8)	9200 (247)	9600 (257)	10200 (273)	7200 (193)	8400 (225)	8900 (239)
		250 (17,2)	11200 (300)	11500 (308)	11500 (308)	9500 (255)	9500 (255)	9500 (255)
		400[1] (27,6)	1100 (29,5)	11900 (319)	11900 (319)			
	60 (4,1)	75 (5,2)	1200 (32,2)	2200 (59,0)	3000 (80,4)	920 (24,7)	1600 (42,9)	2600 (69,7)
		100 (6,9)	2100 (56,3)	3600 (96,5)	4600 (123)	1500 (40,2)	2500 (67,0)	4000 (107)
		150 (10,3)	4300 (115)	6900 (185)	7600 (204)	2600 (69,7)	5200 (139)	6600 (177)
		200 (13,8)	9200 (247)	9700 (260)	10200 (273)	4300 (115)	8300 (222)	8800 (236)
		250 (17,2)	11900 (319)	12400 (332)	12800 (343)	9500 (255)	10600 (284)	11100 (297)
		400[1] (27,6)	4000 (107)	18000 (482)	18000 (482)			
0 to 125 (0 to 8,6) T14060T0012 (Red Stripe) T14115T0012 (Red)	60 (4,1)	75 (5,2)	690 (18,5)	1200 (32,2)	2000 (53,6)	670 (18,0)	1100 (29,5)	2000 (53,6)
		100 (6,9)	1000 (26,8)	1900 (50,9)	3000 (80,4)	1000 (26,8)	1800 (48,2)	2900 (77,7)
		135 (9,3)	1500 (40,2)	3000 (80,4)	4600 (123)	1300 (34,8)	2500 (67,0)	4300 (115)
		150 (10,3)	1700 (45,6)	3500 (93,8)	5300 (142)	1400 (37,5)	2800 (75,0)	5200 (139)
		200 (13,8)	2500 (67,0)	6000 (161)	7700 (206)	1800 (48,2)	4100 (110)	7600 (204)
		250 (17,2)	5600 (150)	8100 (217)	9300 (249)	2400 (64,3)	6600 (177)	10200 (273)
		400[1] (27,6)	3500 (93,8)	17900 (480)	17900 (480)			
	80 (5,5)	100 (6,9)	1000 (26,8)	1700 (45,6)	2900 (77,7)	960 (25,7)	1700 (45,6)	3000 (80,4)
		135 (9,3)	1600 (42,9)	3000 (80,4)	4600 (123)	1500 (40,2)	2800 (75,0)	4600 (123)
		150 (10,3)	1900 (50,9)	3700 (99,2)	5400 (145)	1700 (45,6)	3100 (83,1)	5300 (142)
		200 (13,8)	2900 (77,7)	6000 (161)	7700 (206)	2200 (59,0)	4800 (129)	8000 (214)
		250 (17,2)	4200 (113)	10200 (273)	12200 (327)	2900 (77,7)	7100 (190)	10600 (284)
		400[1] (27,6)	3700 (99,2)	19900 (533)	10400 (279)			
	125 (8,6)	135 (9,3)	1500 (40,2)	2500 (67,0)	3500 (93,8)	1600 (42,9)	2700 (72,4)	4400 (118)
		150 (10,3)	2100 (56,3)	3200 (85,8)	4300 (115)	1800 (48,2)	3200 (85,8)	5200 (139)
		200 (13,8)	3800 (102)	5600 (150)	6700 (180)	2900 (77,7)	5200 (139)	8000 (214)
		250 (17,2)	5800 (155)	7800 (209)	9000 (241)	4100 (110)	7800 (209)	10400 (279)
		400[1] (27,6)	6800 (182)	19400 (520)	20900 (560)			
0 to 150 (0 to 10,3)[2] 10C1730X012 (Black)	110 (7,6)	150 (10,3)	1900 (50,9)	3300 (88,4)	5500 (147)	2000 (53,6)	3400 (91,1)	5600 (150)
		200 (13,8)	2700 (72,4)	4800 (129)	8300 (222)	2600 (69,7)	4800 (129)	8000 (214)
		250 (17,2)	3400 (91,1)	6200 (166)	10500 (281)	3400 (91,1)	6000 (161)	10400 (279)
		400[1] (27,6)	4200 (113)	11300 (303)	19100 (512)			
	135 (9,3)	150 (10,3)	1800 (48,2)	3300 (88,4)	5600 (150)	1800 (48,2)	3200 (85,8)	5500 (147)
		200 (13,8)	3000 (80,4)	5400 (145)	8300 (222)	2800 (75,0)	5100 (137)	8200 (220)
		250 (17,2)	3900 (105)	6700 (180)	10700 (287)	3700 (99,2)	6600 (177)	11000 (295)
		400[1] (27,6)	6400 (172)	13300 (356)	19300 (517)			
	150 (10,3)	200 (13,8)	2900 (77,7)	5200 (139)	8300 (222)	2900 (77,7)	5200 (139)	8200 (220)
		250 (17,2)	4000 (107)	7400 (198)	11000 (295)	4100 (110)	7300 (196)	11000 (295)
		400[1] (27,6)	6400 (172)	13900 (373)	19700 (528)			

1. Inlet pressures above 250 psig (17,2 bar) with a maximum of 400 psig (27,6 bar) are only available on unfiltered models (Types 67D, 67DR, 67DS, and 67DSR).
2. Available for Types 67DS, 67DSR, 67DFS, and 67DFSR only.

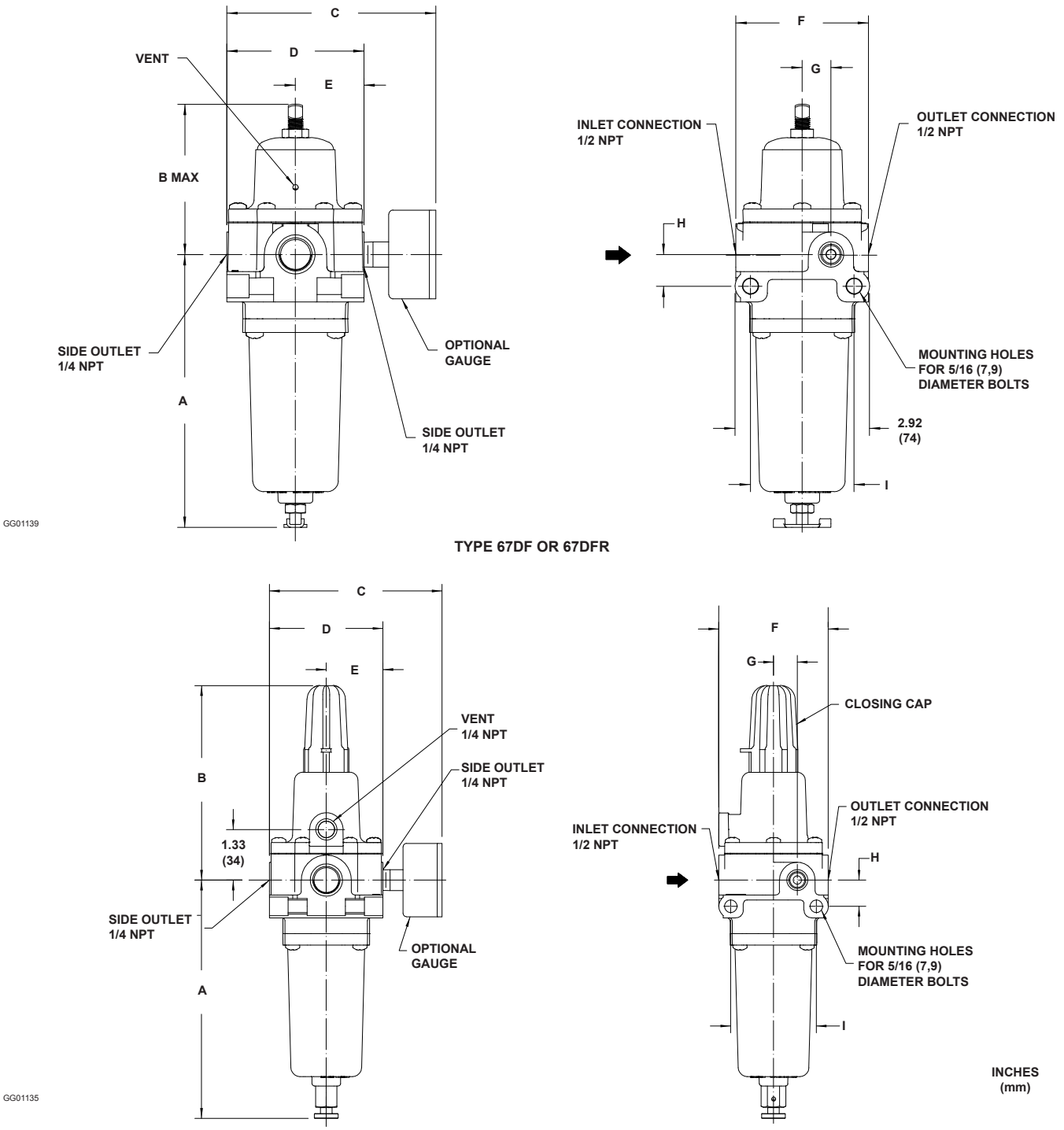
Ordering Information

When ordering, complete the Ordering Guide on pages 11 and 12. Refer to the Specifications section on page 3. Review the description to the right of each specification and the information in each referenced table or figure. Specify your choice whenever a selection is offered.



TYPES	DIMENSIONS, INCHES (mm)						
	A	B	C	D	E	F	G
67D, 67DR	2.35 (60)	3.66 (93)	4.54 (115)	2.98 (76)	1.49 (38)	2.75 (70)	0.63 (16)
67DS, 67DSR		5.12 (130)					

Figure 4. *Types 67D, 67DR, 67DS, and 67DSR Dimensions*



TYPES	DIMENSIONS, INCHES (mm)								
	A	B	C	D	E	F	G	H	I
67DF, 67DFR	5.93 (151)	3.66 (93)	4.54 (115)	2.98 (76)	1.49 (38)	2.88 (73)	0.63 (16)	0.69 (18)	2.25 (57)
67DFS, 67DFSR	6.27 (159)	5.12 (130)							

Figure 5. *Types 67DF, 67DFR, 67DFS, and 67DFSR Dimensions*

Ordering Guide

Type (Select One)

- ☐ Type 67D (aluminum without internal relief)***
- ☐ Type 67DR (aluminum with internal relief)***
- ☐ Type 67DS (stainless steel without internal relief)***
- ☐ Type 67DSR (stainless steel with internal relief)***
- ☐ Type 67DF (aluminum with filter and without internal relief)***
- ☐ Type 67DFR (aluminum with filter and internal relief)***
- ☐ Type 67DFS (stainless steel with filter and without internal relief)***
- ☐ Type 67DFSR (stainless steel with filter and internal relief)***

Quantity (Specify) _____

Spring Case Style (Select One)

- ☐ Drilled hole vent (Types 67D, 67DR, 67DF, and 67DFR **standard**)***
- ☐ 1/4 NPT vent (Types 67DS, 67DSR, 67DFS, and 67DFSR **standard**)***
- ☐ Single hole panel mount***

Adjusting Screw (Select One)

- ☐ Square head (Types 67D, 67DR, 67DF, 67DFR **standard**)***
- ☐ Square head with closing cap (Types 67DS, 67DSR, 67DFS, and 67DFSR **standard**)***
- ☐ Handwheel***

Outlet Pressure Range (Select One)

- ☐ 0 to 20 psig (0 to 1,4 bar)***
- ☐ 0 to 35 psig (0 to 2,4 bar)***
- ☐ 0 to 60 psig (0 to 4,1 bar)***
- ☐ 0 to 125 psig (0 to 8,6 bar)***
- ☐ 0 to 150 psig (0 to 10,3 bar) (Types 67DS, 67DSR, 67DFS, and 67DFSR only)***

Diaphragm, O-Rings, and Valve Seat Plug (Select One)

- ☐ Nitrile (NBR) **(standard)***
- ☐ Fluorocarbon (FKM)**
- ☐ Silicone (VMQ) diaphragm, Low Temperature Nitrile (NBR) O-rings, and Nitrile (NBR) valve seat*

Filter Material (Select One)

- ☐ Polyethylene (5 microns) **(standard)***
- ☐ Glass (5 microns)***
- ☐ Polyvinylidene (PVDF) (40 microns)***
- ☐ Stainless steel (40 microns)***

Drain Valve (Select One)

- ☐ Brass (Types 67DF and 67DFR **standard**)***
- ☐ Stainless steel (Types 67DFS and 67DFSR **standard**)***
- ☐ Automatic Drain with Nitrile (NBR) elastomers***
- ☐ Automatic Drain with Fluorocarbon (FKM) elastomers**

Spring Case Vent Location (Select One)

- ☐ Position 1 - Aligned with inlet **(standard)***
- ☐ Position 2
- ☐ Position 3
- ☐ Position 4

External Fixed Bleed for Type 67DR, 67DSR, 67DFR, or 67DFSR (Optional)

- ☐ Yes**

Smart Bleed™ Internal Check Valve Airset (Optional - Types 67DFR and 67DFSR only)

- ☐ Yes**

Second Outlet (Select One)

- ☐ Open (Types 67D, 67DR, 67DF, and 67DFR **standard**)***
- ☐ Plugged with pipe plug (Types 67DS, 67DSR, 67DFS, and 67DFSR **standard**)***
- ☐ Pressure Gauge (see below)

Triple Scale Pressure Gauge (Optional)

- ☐ **Brass Gauge** or ☐ **Stainless Steel Gauge**
  - ☐ 0 to 30 psig/0 to 0.2 MPa/0 to 2,1 bar***
  - ☐ 0 to 60 psig/0 to 0.4 MPa/0 to 4,1 bar***
  - ☐ 0 to 160 psig/0 to 1.1 MPa/0 to 11,0 bar***

- continued -

Ordering Guide (continued)

NACE International MR0175 Construction (Optional)(1)

☐ Yes (not available with gauge)**

NACE International MR0103 Construction (Optional)

☐ Yes (not available with gauge)**

Replacement Parts Kit (Optional)

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

1. Product complies with the material requirements of NACE International MR0175. Environmental limits may apply.

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?

☐ Yes ☐ No If yes, which is preferred:

☐ Relief Valve ☐ Monitor Regulator

☐ Shut-off Device

Is overpressure protection equipment selection assistance desired? _____

Pressure (Please designate units):

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: _____

_____

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