

Cylinder Pressure Regulators

FCR-1 Series General Diaphragm Regulators

Features

- ⦿ Metal-to-metal seal to minimize external leak
- ⦿ Convoluted diaphragm design to improve regulation precision and cycle life
- ⦿ Applicable to corrosive or toxic gases
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched environments
- ⦿ Adjustable relief pressure
- ⦿ 20 µm filter installed at inlet

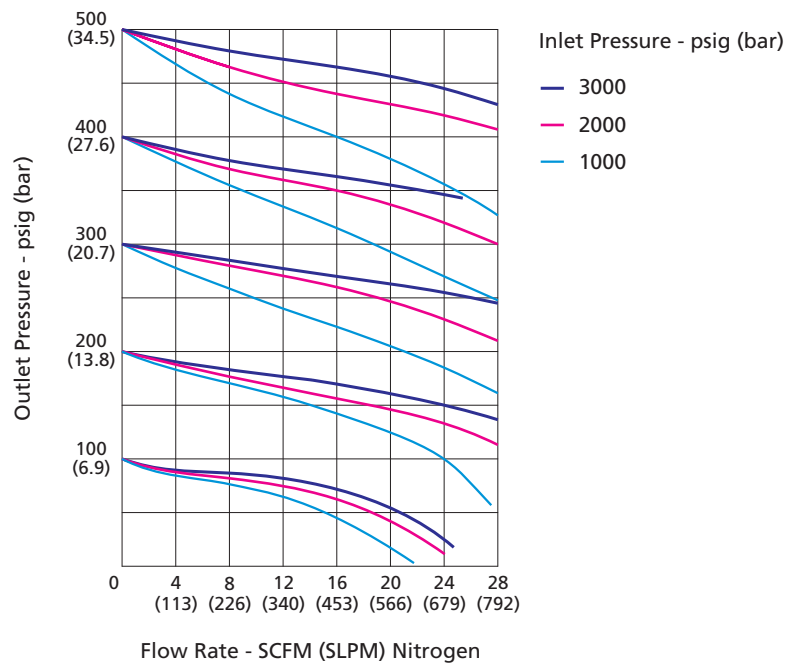


Model: FCR-16L-30-100-C330-B-B-00-R-P

Technical Data

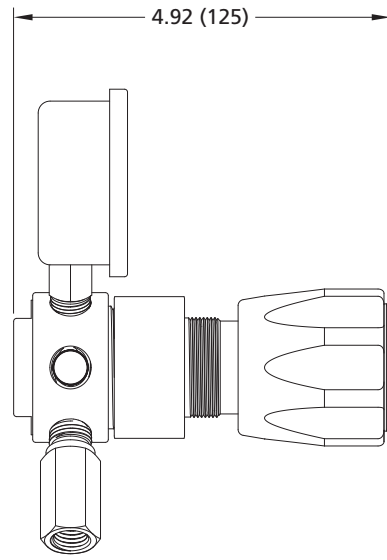
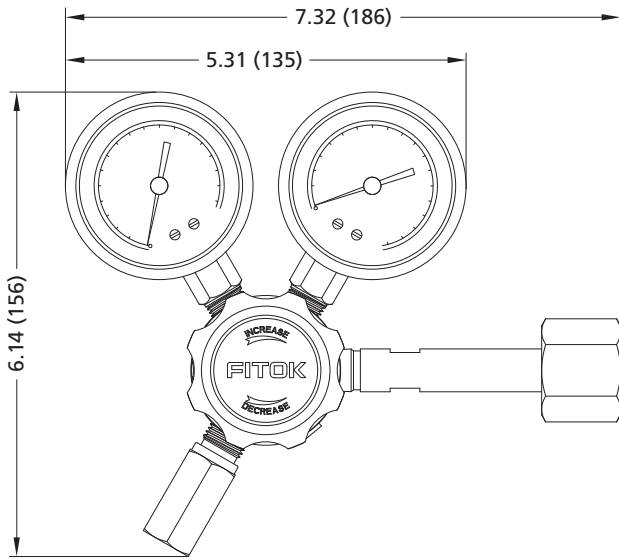
- ⦿ Single-stage regulator
- ⦿ Maximum inlet pressure: 3000 or 4500 psig
- ⦿ Outlet pressure range: 0~25, 0~50, 0~100, 0~250 or 0~500 psig
- ⦿ Material of the internal components:
 - Seat: PCTFE
 - Diaphragm: Hastelloy
 - Filter: 316L
- ⦿ Temperature: -40°F~+165°F (-40°C~+74°C)
- ⦿ Leak rates:
 - Internal: $\leq 1 \times 10^{-7}$ mbar·l/s helium
 - External: $\leq 1 \times 10^{-9}$ mbar·l/s helium
- ⦿ Flow coefficient (Cv): 0.06
- ⦿ Weight (regulator only): ≈ 1.98 lbs (0.9 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet, gauge and relief valve

Typical Flow Chart

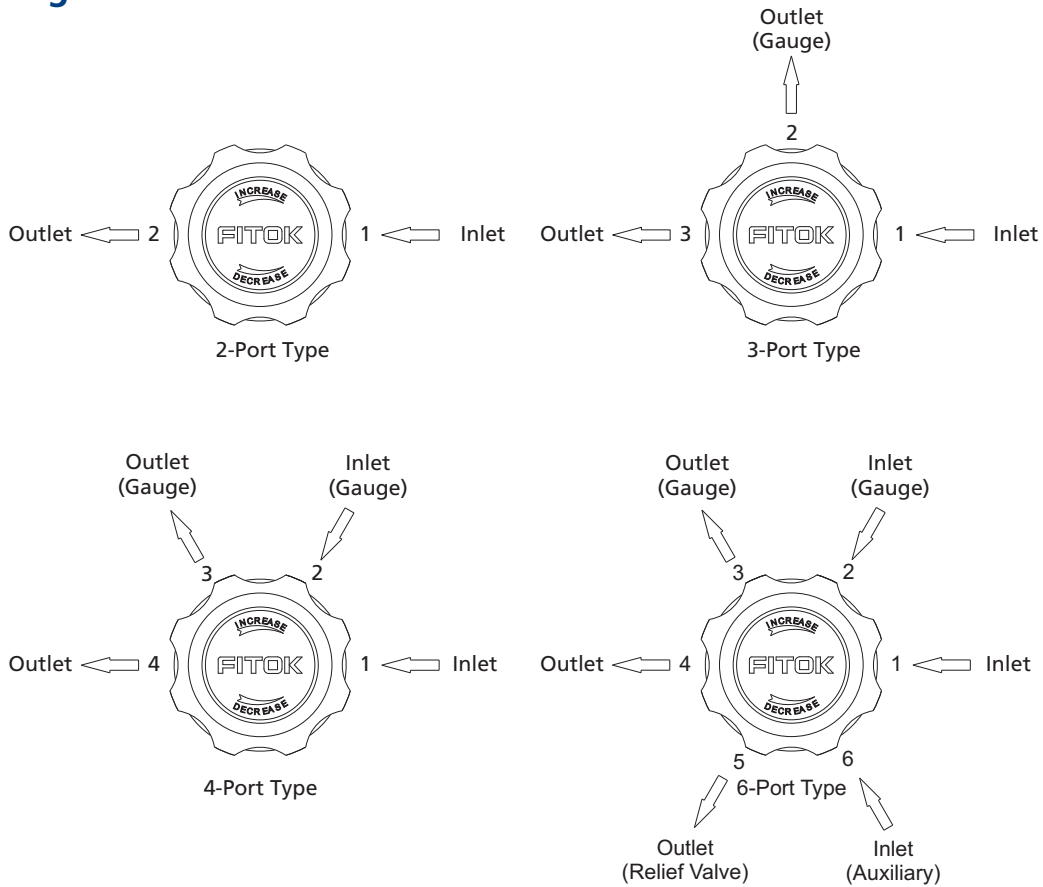


Dimensions

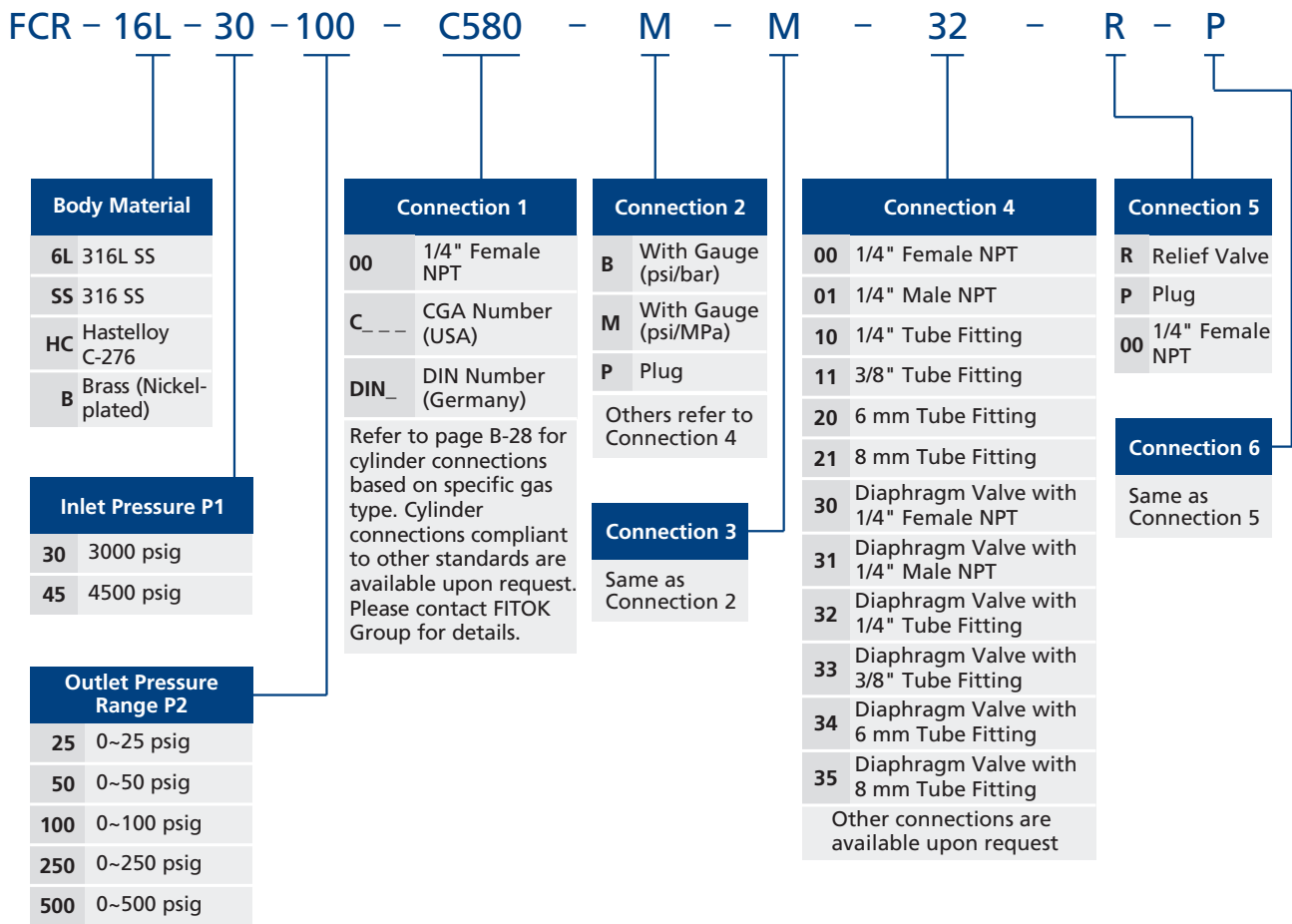
Dimensions, in inches (millimeters), are for reference only.



Port Configurations



Part Number Description



Notes:

1. Most configurations are available.
2. Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 2-port type (1 in, 1 out): FCR-16L-45-100-C580-00
- b. 3-port type (1 in, 2 out): FCR-15S-30-500-C330-B-00
- c. 4-port type (2 in, 2 out): FCR-1B-45-250-00-B-B-34

Cylinder Pressure Regulators

FCR-1S Series Sensitive Diaphragm Regulators

Features

- ⦿ Large diameter convoluted diaphragm to increase pressure sensitivity and minimize pressure drop
- ⦿ Fitted with captured vent as standard
- ⦿ 316L SS and Brass available for valve
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched environments
- ⦿ Die spring for stable outlet pressure
- ⦿ 20 µm filter installed at inlet

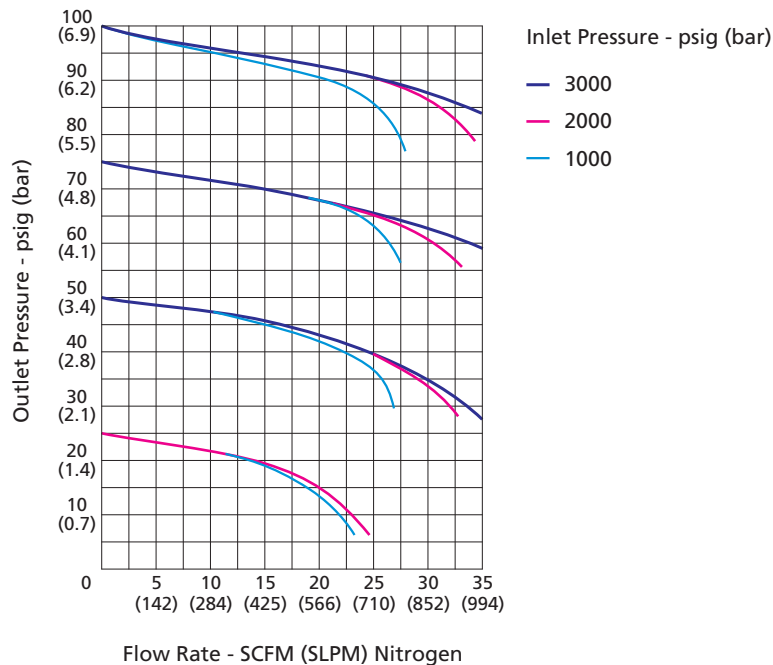


Model: FCR-1S6L-30-50-C580-B-B-00-R-P

Technical Data

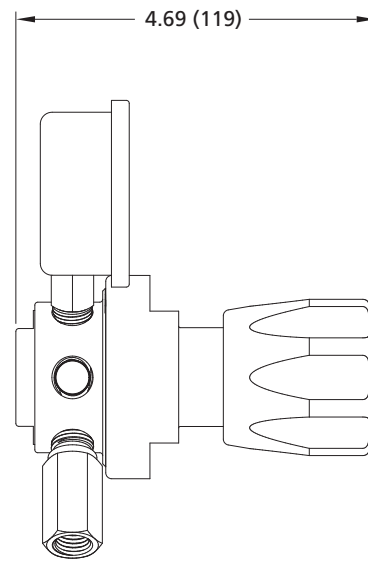
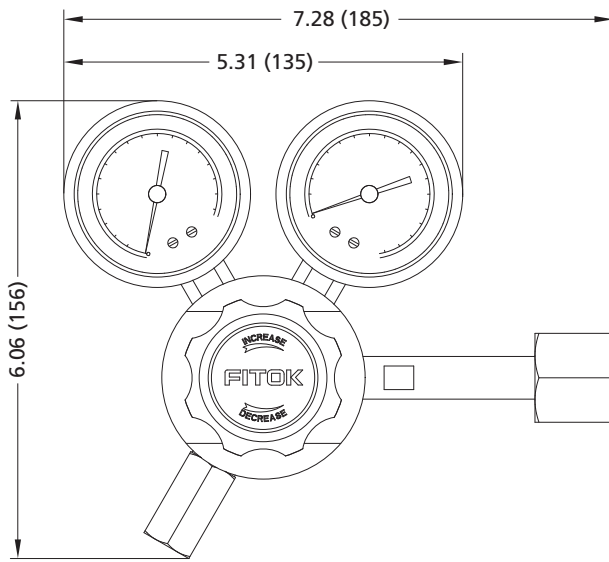
- ⦿ Single-stage regulator
- ⦿ Maximum inlet pressure: 3000 or 4500 psig
- ⦿ Outlet pressure range: 0~25, 0~50, 0~100, 0~150 or 0~200 psig
- ⦿ Material of the internal components:
 - Seat: PCTFE
 - Diaphragm: 316L
 - Filter: 316L
- ⦿ Temperature: -40°F~+165°F (-40°C~+74°C)
- ⦿ Leak rates:
 - Internal: $\leq 1 \times 10^{-7}$ mbar-l/s helium
 - External: $\leq 1 \times 10^{-9}$ mbar-l/s helium
- ⦿ Flow coefficient (Cv): 0.06
- ⦿ Weight (regulator only): ≈ 2.87 lbs (1.3 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet, gauge and relief valve

Typical Flow Chart

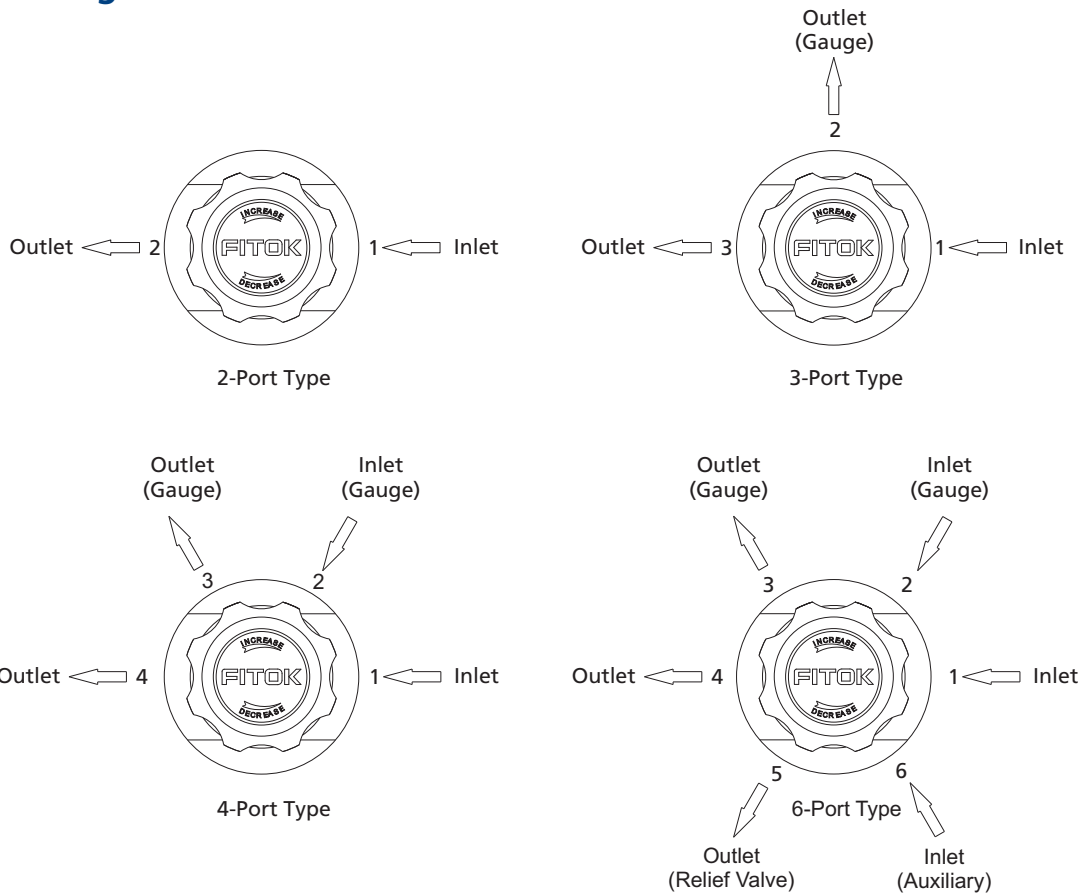


Dimensions

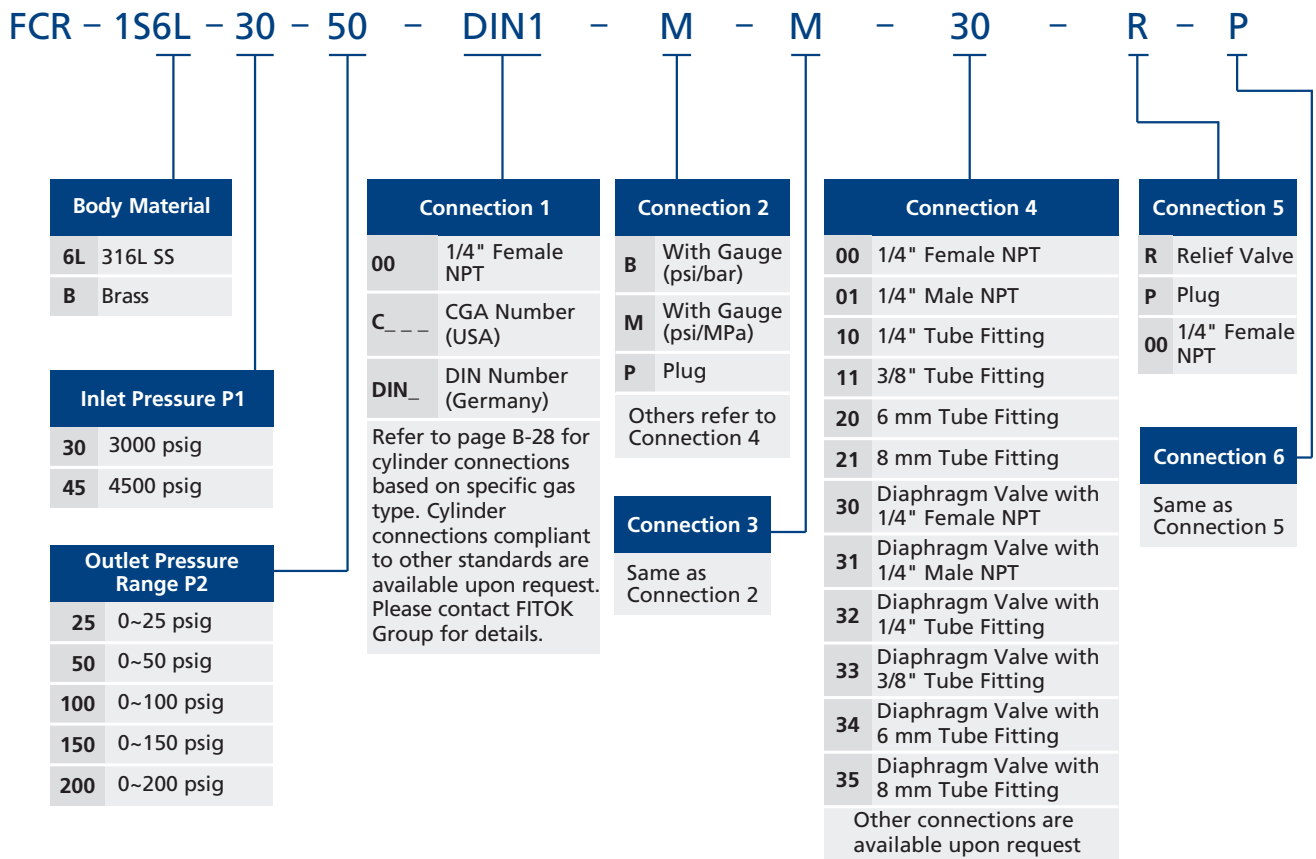
Dimensions, in inches (millimeters), are for reference only.



Port Configurations



Part Number Description



Notes:

1. Most configurations are available.
2. Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 2-port type (1 in, 1 out): FCR-1S6L-45-25-C580-00
- b. 3-port type (1 in, 2 out): FCR-1SB-30-150-C330-B-00
- c. 4-port type (2 in, 2 out): FCR-1SB-45-200-00-00-00-00

Cylinder Pressure Regulators

FCR-2 Series High Pressure Piston Regulators

Features

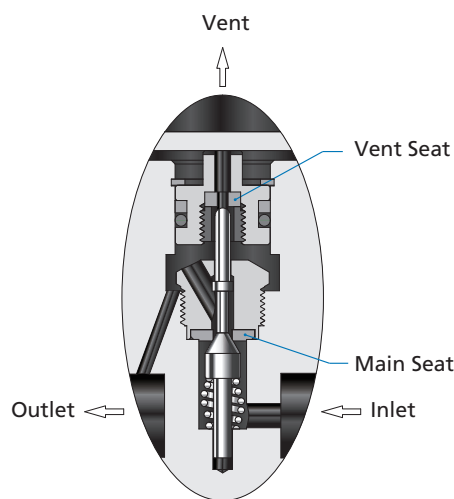
- ⦿ For high pressure applications
- ⦿ Robust piston-sensed design to ensure safety and reliability
- ⦿ 316L SS or Nickel-plated Brass body optional
- ⦿ For non-corrosive gases (due to seal limit)
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched environments
- ⦿ Venting model available
- ⦿ 20 µm filter installed at inlet



Model: FCR-26L-45-750-DIN8-B-B-00-P-P

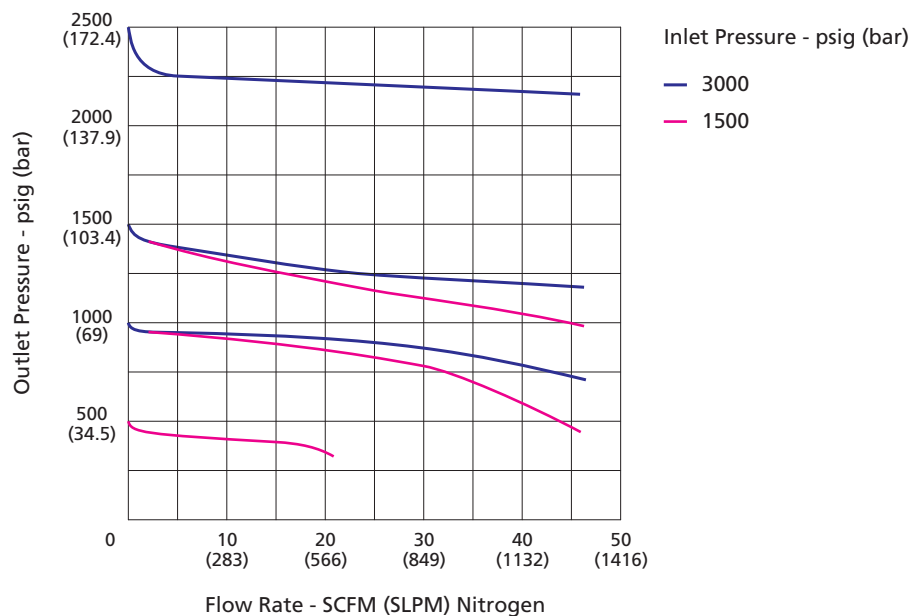
Technical Data

- ⦿ Single-stage regulator
- ⦿ Maximum inlet pressure: 4500 or 6000 psig
- ⦿ Outlet pressure range: 0~750, 0~1500 or 0~2500 psig
- ⦿ Material of the internal components:
 - Main Seat: PCTFE (PEEK for Venting Model)
 - Vent Seat: PCTFE
 - Piston: 316L
 - O-ring: Viton or Kalrez
 - Filter: 316L
- ⦿ Temperature: -15°F~+165°F (-26°C~+74°C)
- ⦿ Leak rates:
 - Internal: Bubble-tight
 - External: Bubble-tight
- ⦿ Flow coefficient (Cv):
 - Without vent: 0.06
 - Vent: 0.1
- ⦿ Weight (regulator only): ≈ 1.98 lbs (0.9 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet and gauge



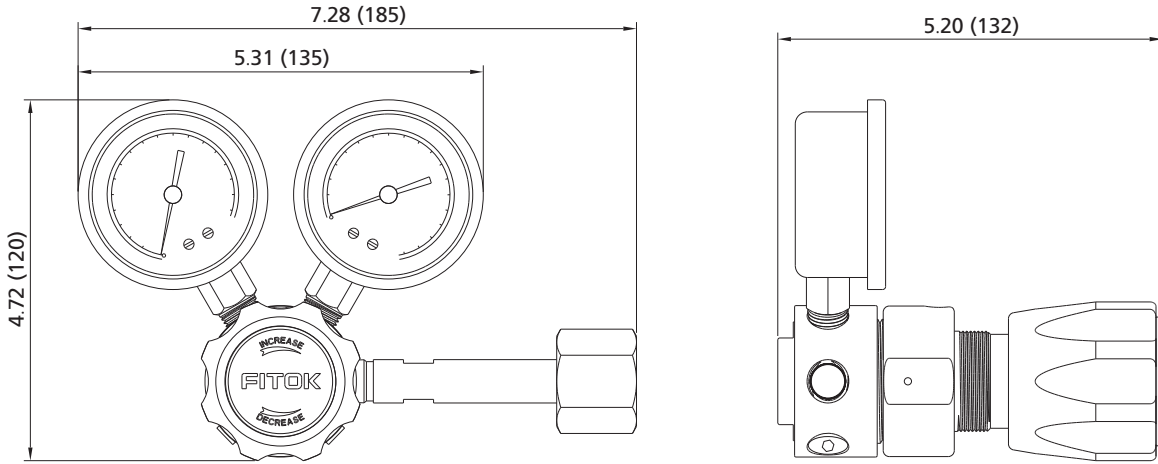
Construction Drawing with Venting Model

Typical Flow Chart

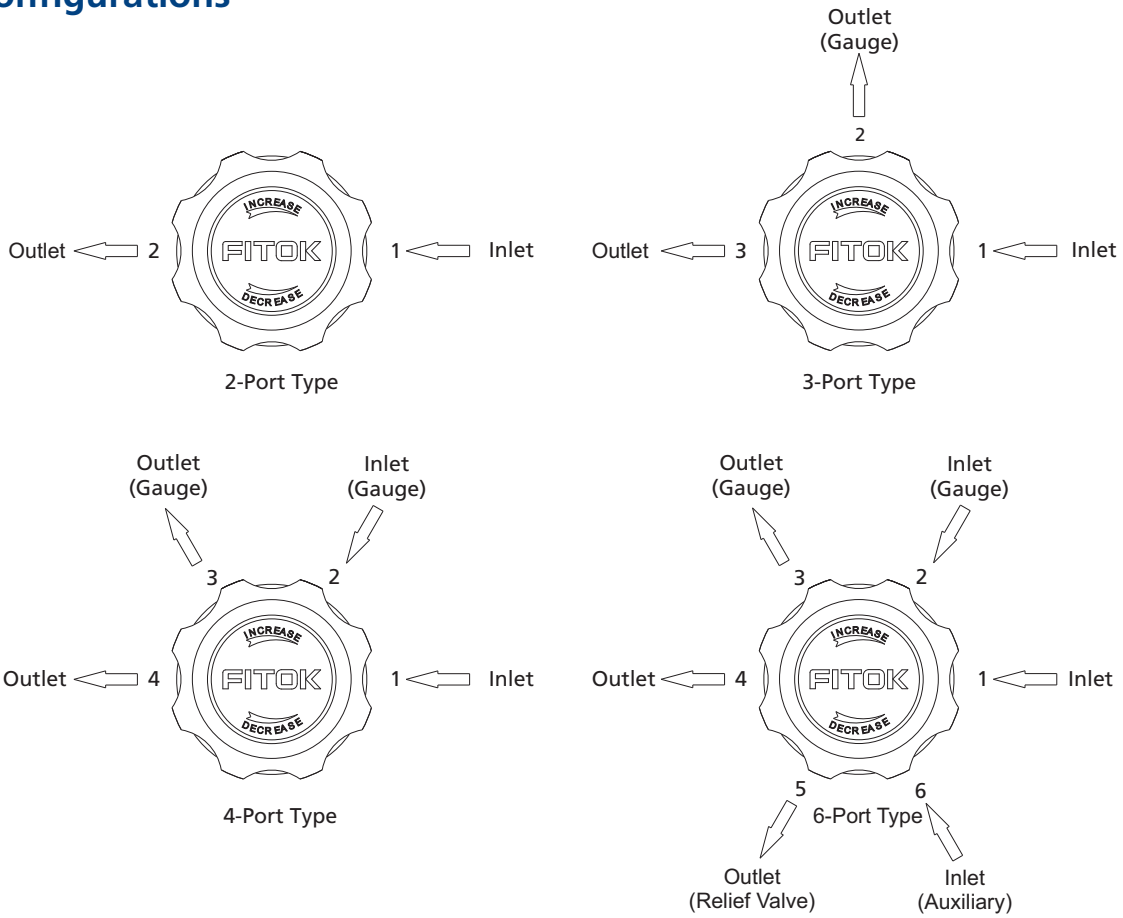


Dimensions

Dimensions, in inches (millimeters), are for reference only.



Port Configurations



Part Number Description

Vent Option		Inlet Pressure P1		Connection 1		Connection 2		Connection 4		Connection 5	
Without		45	4500 psig	00	1/4" Female NPT	B	With Gauge (psi/bar)	00	1/4" Female NPT	P	Plug
V	With	60	6000 psig	C---	CGA Number (USA)	M	With Gauge (psi/MPa)	01	1/4" Male NPT	00	1/4" Female NPT
O-ring Material		Outlet Pressure Range P2		DIN_	DIN Number (Germany)	P	Plug	10	1/4" Tube Fitting	Connection 6	
Viton		750	0~750 psig	Refer to page B-28 for cylinder connections based on specific gas type. Cylinder connections compliant to other standards are available upon request. Please contact FITOK Group for details.							
Z	Kalrez	1500	0~1500 psig	Connection 3		Same as Connection 2					
		2500	0~2500 psig	Same as Connection 2		Others refer to Connection 4					
Body Material											
6L	316L SS										
SS	316 SS										
B	Brass (Nickel-plated)										
		Other connections are available upon request									

Notes:

1. Most configurations are available.
2. Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 2-port type (1 in, 1 out): FCR-26L-45-1500-C580-00
- b. 3-port type (1 in, 2 out): FCR-2VB-45-750-C660-00-00
- c. 4-port type (2 in, 2 out): FCR-2VZSS-60-2500-00-B-B-32

Cylinder Pressure Regulators

FCR-1D Series Dual-stage Diaphragm Regulators

Features

- ⦿ Compact design
- ⦿ Dual-stage pressure reducing construction to provide accurate and stable pressure
- ⦿ 20 μm filter installed at inlet
- ⦿ With special cleaning and packaging, applicable to oxygen-enriched environments

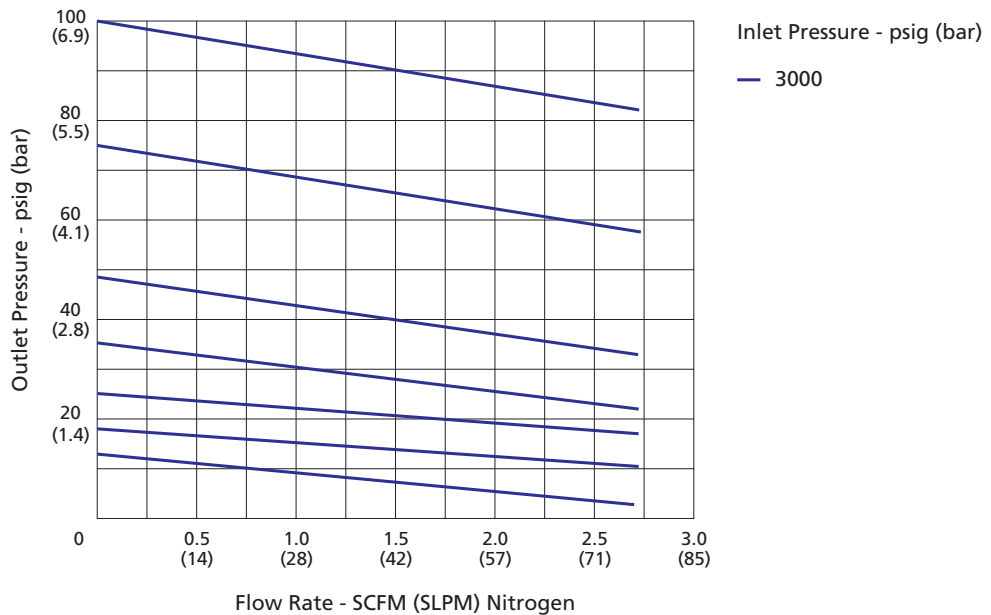


Model: FCR-1D6L-30-100-C660-B-B-00-R-P

Technical Data

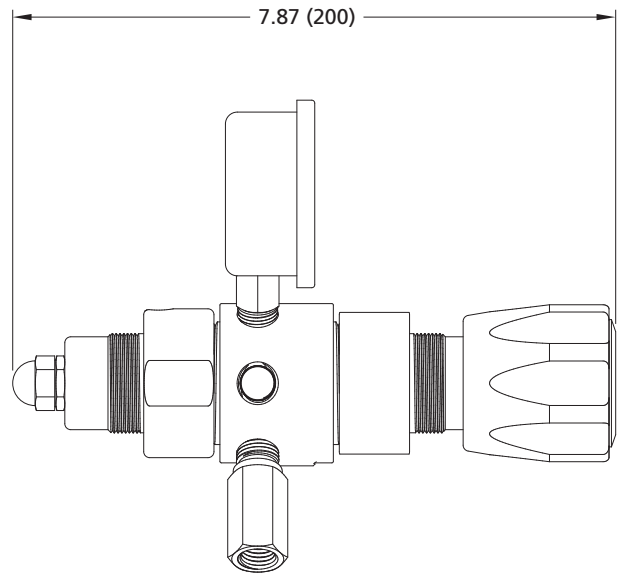
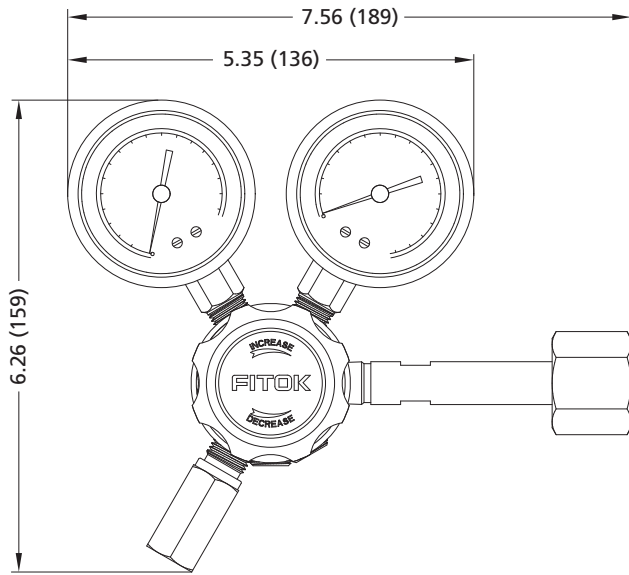
- ⦿ Maximum inlet pressure: 3000 or 4500 psig
- ⦿ 1st stage outlet pressure range: 480~500 psig
2nd stage outlet pressure range: 0~25, 0~50, 0~100, 0~150, 0~250 psig
- ⦿ Material of the internal components:
Seat: PCTFE
Diaphragm: Hastelloy
Filter: 316L
- ⦿ Temperature: -40°F~+165°F (-40°C~+74°C)
- ⦿ Leak rates:
Internal: $\leq 1 \times 10^{-7}$ mbar·l/s helium
External: $\leq 1 \times 10^{-9}$ mbar·l/s helium
- ⦿ Flow coefficient (Cv): 0.05
- ⦿ Weight (regulator only): ≈ 3.3 lbs (1.5 kg)
- ⦿ Body ports: 1/4" female NPT for inlet, outlet, gauge and relief valve

Typical Flow Chart

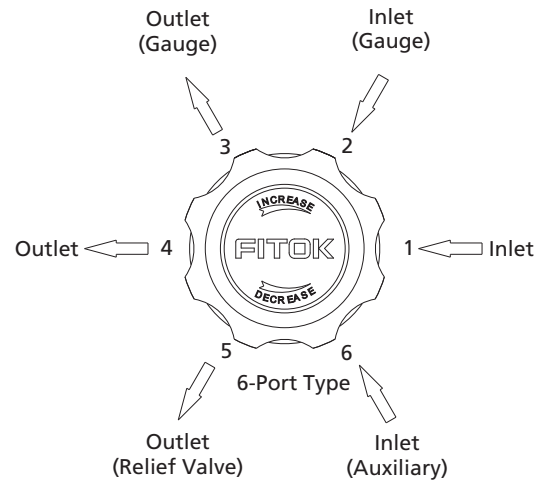
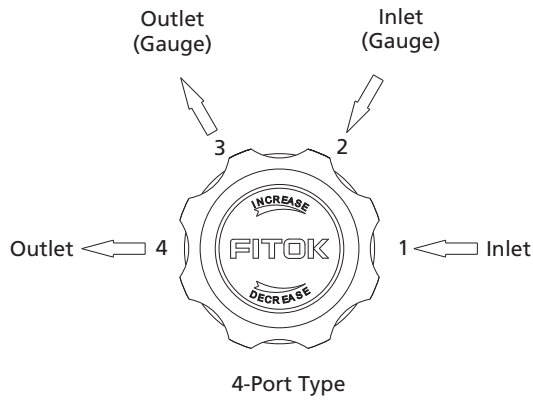


Dimensions

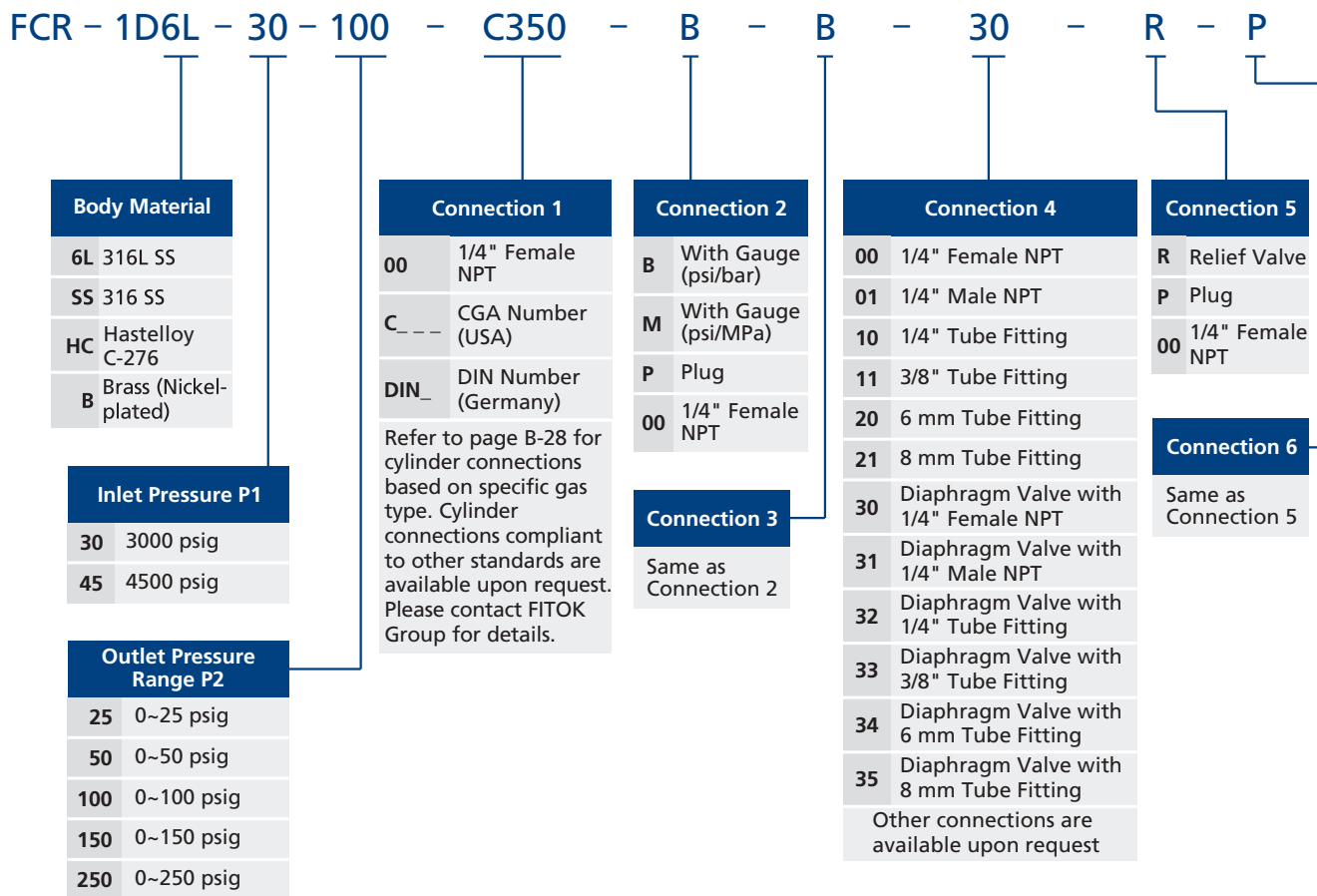
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Port Configurations



Part Number Description



Notes:

1. Most configurations are available.
2. Before ordering, please read **Installation Instructions and Cautions** on A-77.

Examples of part number:

- a. 4-port type (2 in, 2 out): FCR-1DB-45-150-DIN1-B-B-30
- b. 6-port type (3 in, 3 out): FCR-1DSS-30-50-C580-B-B-00-R-P