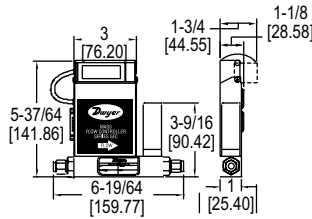


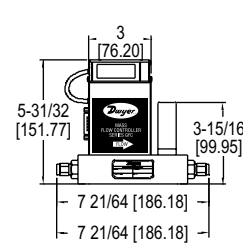
# GAS MASS FLOW CONTROLLERS

Flow Range Up to 1000 L/min, Pressures Up to 500 psi, NIST Traceable

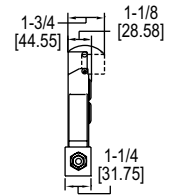
CALIBRATION SERVICES AVAILABLE



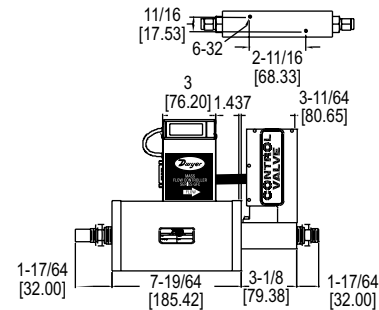
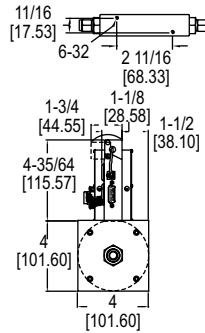
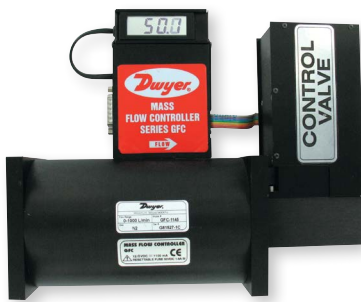
Model GFC-1101 thru GFC-1111 and GFC-2101 thru GFC-2111



Model GFC-1130 thru GFC-1133 and GFC-2130 thru GFC-2133



Model GFC-1140 thru GFC-1142 and GFC-2140 thru GFC-2142



Model GFC-1143 thru GFC-1145 and GFC-2143 thru GFC-2145

The Series GFC Gas Mass Flow Controllers combine a straight tube sensor with a restrictor flow element. It is available for flow ranges up to 1000 L/min and offered in aluminum or 316 SS in 1/4", 3/8", 1/2" and 3/4" sizes.

**BENEFITS/FEATURES**

- Provides high accuracy and repeatability
- Flow rates are virtually unaffected by temperature and pressure variations
- Utilizes an electromagnetic valve and PID electronics to maintain continuous control by comparing measured sensor signal set to flow rates
- Set points can be adjusted with local potentiometers or remotely via 0-5 VDC or 4-20 mA analog signal
- Actual gas flow is displayed in engineering units on a 3-1/2 digit, 90° tiltable LCD readout
- Can be used with Series GFT2 Flow Totalizer for applications requiring totalization
- NIST traceable certificate included

**APPLICATIONS**

- Gas flow measurement
- Gas flow control
- Operating pumps and valves
- Process equipment
- Vacuum processes
- Glass and metal coating
- Film deposition

**SPECIFICATIONS**

**Service:** Clean gases compatible with wetted parts.  
**Wetted Materials:** GFC-1XXX: Anodized aluminum, brass, 316 SS and fluoroelastomer O-rings; GFC-2XXX: 316 SS and fluoroelastomer O-rings.  
**Accuracy:** ±1% FS including linearity over 59 to 77°F (5 to 25°C) and 5 to 60 psia (0.34 to 4 bar); Series GFC X143, X144, X145, ±1.5% FS.  
**Repeatability:** ±0.25% FS.  
**Response Time:** 2 s to within ±2% of actual flow.  
**Output:** Linear 0-5 VDC and 4-20 mA.  
**Max. Particulate Size:** 5 microns.  
**Temperature Limits:** 32 to 122°F (0 to 50°C).  
**Power Supply:** ±12 VDC.  
**Process Connections:** 1/4" compression fitting for flow rates ≤50 L/m; 3/8" for 100 and 200 L/m; 1/2" for 500 L/min; 3/4" for 1000 L/min.  
**Pressure Limits:** 1000 psig (68.9 bar); Series GFC-X143, X144, X145, 500 psig (34.5 bar).  
**Leak Integrity:** 1 x 10<sup>-9</sup> sccs of He.  
**Display:** 90° tiltable, 3-1/2 digit.  
**Compliance:** CE.

MODEL CHART			
Aluminum Model	SS Model	Flow Range	Process Connector Compression Fitting
GFC-1101*	GFC-2101*	0 to 10 mL/m	1/4"
GFC-1102*	GFC-2102*	0 to 20 mL/m	1/4"
GFC-1103*	GFC-2103*	0 to 50 mL/m	1/4"
GFC-1104*	GFC-2104*	0 to 100 mL/m	1/4"
GFC-1105*	GFC-2105*	0 to 200 mL/m	1/4"
GFC-1106*	GFC-2106*	0 to 500 mL/m	1/4"
GFC-1107*	GFC-2107*	0 to 1000 mL/m	1/4"
GFC-1108*	GFC-2108*	0 to 2 L/min	1/4"
GFC-1109*	GFC-2109*	0 to 5 L/min	1/4"
GFC-1111*	GFC-2111*	0 to 15 L/min	1/4"
GFC-1131*	GFC-2131*	0 to 30 L/min	1/4"
GFC-1133*	GFC-2133*	0 to 50 L/min	1/4"
GFC-1142*	GFC-2142*	0 to 100 L/min	3/8"
GFC-1143*	GFC-2143*	0 to 200 L/min	3/8"
GFC-1144*	GFC-2144*	0 to 500 L/min	1/2"
GFC-1145*	GFC-2145*	0 to 1000 L/min	3/4"

\*Specified flow ranges are for an equivalent flow of nitrogen at 70°F (21°C) @ 760 mm Hg

ACCESSORIES	
Model	Description
GFC-110P	110 V power supply
GFC-220PE	220 V power supply
GFC-CBL1	8' cable with 15-pin connector
GFC-CBL3	3' extension cable for LCD readout

USA: California Proposition 65  
**WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).