

SERIES DFC | DIGITAL FLOW CONTROLLER



BENEFITS/FEATURES

- Able to quickly see changes due to fast <20 ms response rate
- Simple setup using configuration/calibration software
- Works for a variety of application with up to 90 different user selectable gases and gas mixes
- Meet application requirements with high accuracy and repeatability
- Minimize downtime with self-diagnostics through status LED or OLED indication

APPLICATIONS

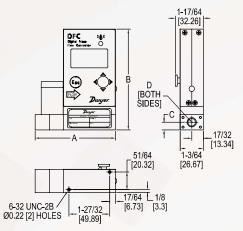
- · Gas flow measurement
- Gas flow control
- Operating pumps and valves
- Process equipment
- Vacuum process
- Scientific and analytical
- · Bioreactors and surface depositions

DESCRIPTION

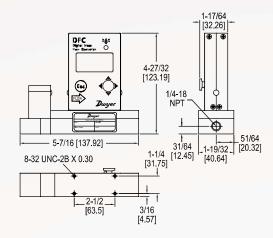
The Series DFC Digital Flow Controller combines a straight tube sensor with a restrictor flow element to provide accurate readings and control. Simultaneous displays of mass flow, volumetric flow, pressure and temperature parameters promote applications in a variety of industries.

SPECIFICATIONS

Service	Clean, non-corrosive gases compatible with wetted parts.		
Wetted Materials	316 SS, 416 SS, high temperature polyamide, alumina ceramic, epoxy, silicone, glass, gold. FKM O-rings.		
Accuracy	$\pm (0.5\% \text{ of reading} + 0.2\% \text{ FS}).$		
Repeatability	±0.2% FS.		
Response Time	150 ms.		
Output	0-5 VDC, 4-20 mA and 0-10 VDC.		
Relay Rating	Programmable solid state relay.		
Max. Particulate Size	20 microns.		
Temperature Limits	14 to 140°F (-10 to 60°C).		
Power Supply	12-26 VDC.		
Process Connections	1/8" compression fitting for flow rates ≤ 10 L/min (-005, -010); 1/4" for ≤ 50 L/min (-050); 3/8" for ≤ 100 L/min (-100).		
Pressure Limits	120 psig (8.27 bar).		
Leak Integrity	1 x 10 ⁻⁹ sccs of helium.		
Display	2 x 16 character OLED.		
Weight	DFC-01/50: 1.40 lbs (0.635 kg); DFC-51/56: 1.66 lbs (0.755 kg).		
Agency Approvals	CE.		



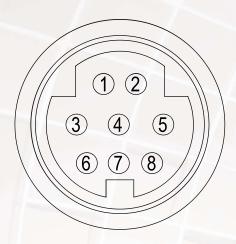
Ranges 0.5 mL/min-20 L/min (DFC-01/50)



Ranges 21 L/min-100 L/min (DFC-51/56)

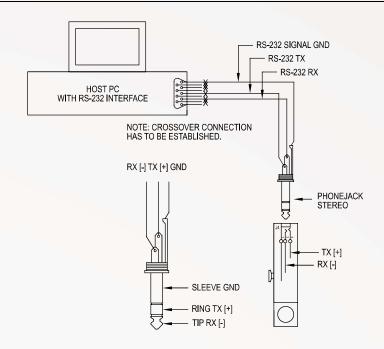
Range	Α	В	С	D
0.5 mL/min-50 mL/min	3-11/16 [93.47]	4-37/64 [116.33]	11/32 [8.64]	10-32 UNF
51 mL/min-20 L/min	3-21/32 [92.96]	4-13/32 [111.76]	11/32 [8.64]	1/8 NPT

WIRING DIAGRAM

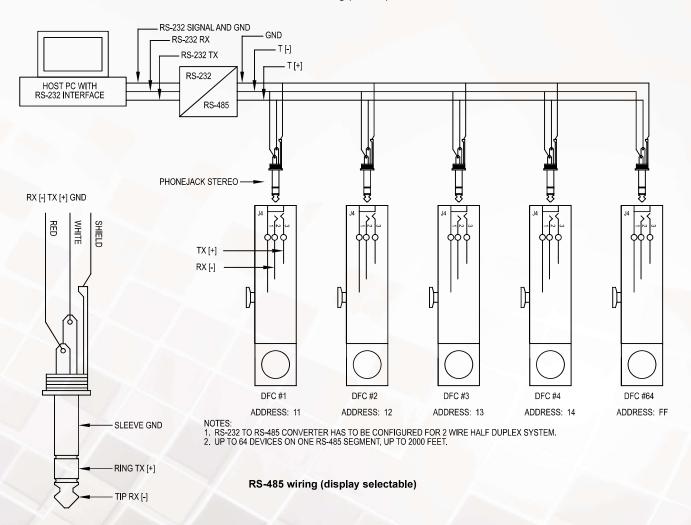


DIN connector wiring

PIN	Function	Note
1	Solid state SPST relay NO	Do not exceed SSR maximum voltage 48
	(normally open) contact #1	AC peak/DC and maximum load current
2	Solid state SPST relay NO	400 mA.
	(normally open) contact #2	
3	Analog set point input (+) (0-5	Input impedance: 100K (0-5, 0-10 VDC)
	VDC, 0-10 VDC, 4-20 mA)	250 Ω (4-20 mA).
4	Analog (0-5 VDC, 0-10 VDC, 4-20	Common (return) for pins 3 and 6 (0-5 VDC
	mA) input/output reference (-)	or 0-10 VDC or 4-20 mA).
5	Not assigned. Do not connect!	Factory use only. Do not connect any
		signals to this pin!
6	Analog (0-5 VDC, 0-10 VDC or	Output. Do not apply external voltage or
	4-20 mA) output (+)	any current source. Be sure to observe
		recommended load impedance.
7	Power supply, positive (+)	Power input 12-26 VDC. (DFC-01-DFC-53)
	74	or 24-26 VDC (DFC-54-DFC-56).
8	Power supply, common (-)	Power input common.

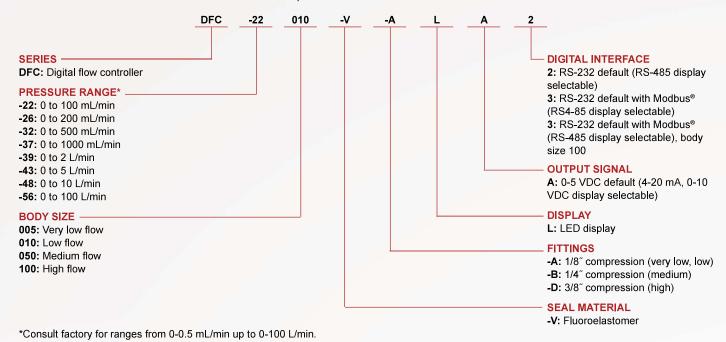


RS-232 wiring (default)



HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.



ACCESSORIES

Model	Description			
GFM-110P	110 V power supply			
GFM-220PE	220 V power supply			
Note: 1.5 ft RS-232 interface 3-wire 9-pin D connector included. For				
RS-485 contact factory for A-DFM-CBL-A485DP 3 ft RS-485 3.5 mm				
stereo-audio connection with stripped ends available for purchase.				

ORDER ONLINE TODAY!

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DS-DFC Rev. 1

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