



SERIES DHC | DIGIHELIC® DIFFERENTIAL PRESSURE CONTROLLER



BENEFITS/FEATURES

- One instrument saves inventory, installation time, and money with its measurement versatility and innovative 3-in-1 design
- Measurement precision via full-scale accuracy of 1.5% or better on extremely low ranges, and 0.5% for ranges at or above 1 in w.c.
- Safe and secure with security menu programming
- Simplified field upgrade to DHC pressure controller with optional stainless steel bezel

APPLICATIONS

- SCFM duct flow
- Filter status
- Duct or building static pressure
- Damper and fan control

DESCRIPTION

The **Series DHC Digihelic® Differential Pressure Controller** is a 3-in-1 instrument possessing a digital display gage, control relay switches, and a transmitter with both current and voltage outputs. Combining these 3 features allows the reduction of several instruments with one product, saving inventory, installation time, and cost. The Series DHC Digihelic® differential pressure controller is the ideal instrument for pressure, velocity, and volumetric flow applications reading in several commonly used engineering units with optional unidirectional or bidirectional ranges. These units achieve a 1.5% or better accuracy on extremely low ranges, and 0.5% accuracy for ranges at or above 1 in w.c. Calibration can be performed in the field, making maintaining its accuracy more manageable. Additionally, the Series DHC Digihelic® differential pressure controller includes 2 SPDT control relays with adjustable deadbands. Programming the unit is simple using the built-in menu. With scalable 4-20 mA, selectable voltage process outputs, and selectable Modbus® or BACnet communication, this controller can easily fit into your application.

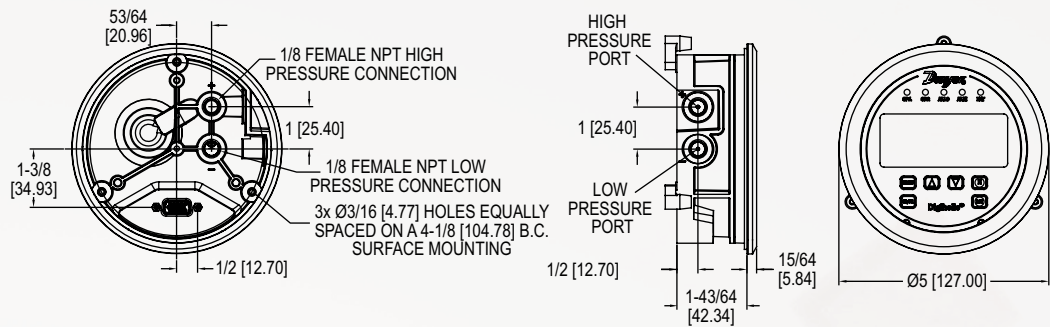
SPECIFICATIONS

Service	Air and non-combustible, compatible gases.
Wetted Materials	Consult factory.
Housing Material	Polycarbonate.
Accuracy	±0.5% FSO for all ranges, except 0.5 in w.c. @ ±1% FSO, and ranges at or below ±0.25 in w.c. @ ±1.5% FSO.
Stability	< ±1% / year FSO.
Pressure Limits	Ranges > 1 in w.c.: 6 psi max operation, 6 psi burst; Ranges ≤ 1 in w.c.: 3.6 psi max operation, 6 psi burst.
Temperature Limits	-4 to 158°F (-20 to 70°C).
Thermal Effects	.02% FS / °F (.036% FS / °C).
Power Requirements	12-28 VDC or 12-28 VAC 50 to 400 Hz.
Power Consumption	3 VA max.
Output Signal	4-20 mA (4-wire); 0-10 V, 0-5 V, 1-5 V, and 2-10 V (4-wire).
Communication	BACnet MS/TP or Modbus® RTU.
Supported Baud Rate	9600, 19200, 38400, 57600, 76800, 115200.
Device Load	1/8 unit load.
Zero and Span Adjustments	Accessible via menus.
Response Time	400 ms (damping set to 0).
Display	Backlit LCD display, LED setpoint indicators.
Electrical Connections	15 pin male high density D-sub connection. 18" (46 cm) cable with 15 conductors included.
Process Connections	1/8" female NPT ports on side and back.
Enclosure Rating	NEMA 4X (IP66).
Mounting Orientation	Not position sensitive.
Size	5" OD (127 mm) x 1.9" (48 mm) deep.
Weight	8.8 oz (250 g).
Compliance	BTL, CE.

SWITCH SPECIFICATIONS

Switch Type	2 SPDT relays.
Electrical Rating	1 A @ 30 VAC/VDC.
Set Point Adjustment	Accessible via menus.

DIMENSIONS



HOW TO ORDER

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

	DHC	-202	-NIST	
SERIES				OPTIONS
DHC: Digihelic® differential pressure controller				-FC: Factory calibration certificate
				-NIST: NIST traceable calibration certificate
				-SS: 304 brushed stainless steel bezel
RANGE				
002: 0.25 in w.c.				208: ±5 in w.c.
003: 0.5 in w.c.				209: ±10 in w.c.
004: 1 in w.c.				053: 60 Pa
006: 2.5 in w.c.				055: 125 Pa
008: 5 in w.c.				056: 250 Pa
009: 10 in w.c.				253: ±60 Pa
010: 25 in w.c.				255: ±125 Pa
011: 50 in w.c.				256: ±250 Pa
012: 100 in w.c.				082: 6 mm w.c.
202: ±0.25 in w.c.				084: 25 mm w.c.
203: ±0.5 in w.c.				282: ±6 mm w.c.
204: ±1 in w.c.				284: ±25 mm w.c.
206: ±2.5 in w.c.				

ACCESSORIES

Model	Description
A-299	Surface mounting bracket
A-300	Flat flush mounting bracket
A-301	Static pressure tip for 1/4" metal tubing connection
A-302	Static pressure tip, for 3/16" and 1/8" ID plastic or rubber tubing.
A-302F-A	303 SS Static pressure tip with mounting flange, for 3/16" I.D. rubber or plastic tubing. 4" insertion depth, includes mounting screws
A-330	1/8" pipe plug, socket hex, plated steel.
A-331	1/8" NPT filter vent plug, nylon and sintered metal
A-489	4" straight static pressure tip with flange

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Printed in U.S.A. 6/22

DS-DHC

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