**Digihelic® Differential Pressure Controller**

**3-in-1 Instrument: Gage, Switch and Transmitter, Square Root Extractor for Air Flow**

The Series DH Digihelic® Differential Pressure Controller is a 3-in-1 instrument possessing a digital display gage, control relay switches, and a transmitter with current output. Combining these three features allows the reduction of several instruments with one product, saving inventory, installation time and money. The Digihelic® Controller is the ideal instrument for pressure, velocity and flow applications, achieving a 0.5% full scale accuracy on ranges from 5 to 100 in w.c.

The Digihelic® Controller allows the selection of pressure, velocity or volumetric flow operation in several commonly used engineering units. Two SPDT control relays with adjustable deadbands are provided along with a selectable 4-20 mA process output. The Series DH provides extreme flexibility in power usage by allowing 120/220 VAC and also 24 VDC power which is often used in control panels. Programming is easy using the menu key to access five simplified menus which provide access to: security level; selection of pressure, velocity or flow operation; selection of engineering units; K-factor for use with flow sensors; rectangular or circular duct for inputting area in flow applications; set point control or set point and alarm operation; alarm operation as a high, low or high/low alarm; automatic or manual alarm reset; alarm delay; view peak and valley process readings; digital damping for smoothing erratic process applications; scaling the 4-20 mA process output to fit your application’s range; Modbus® communications; and field calibration.

With all this packed into one product it is easy to see why the Digihelic® Controller is the only instrument you will need for all your pressure applications.

**OPTIONS**

- Barbed fitting for 3/16˝ ID tubing -BB ........................................... add $5.00
- For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example DH-004-NIST ..................................................... 135.00
- For factory calibration certificate, add suffix -FC to model DH-004-FC ..................................................... 30.00

**ACCESSORIES**

- The Mini-Node™ converters are an easy solution for utilizing the Digihelic® Controller’s RS-485 serial communication and connecting to virtually any PC. MN-1, Mini-Node USB/RS-485 converter ........................................... $77.50
- A-266, Digihelic® surface mounting bracket ........................................... 28.00
- A-203, 1/8˝ ID x 1/4˝ OD PVC tubing ........................................... 1.30/ft
- Digihelic Links®, Communication Software ........................................... $51.50

**SPECIFICATIONS**

**Service:** Air and non-combustible, compatible gases.

**Wetted Materials:** Consult factory.

**Housing Material:** ABS plastic, UL approved 94-V-0.

**Accuracy:** ±0.5% at 77°F (25°C) including hysteresis and repeatability.

**Stability:** < ±1% per year.

**Pressure Limits:** Ranges ≤ 2.5 in w.c. = 2 psi; 5˝: 5 psi; 10˝: 5 psi; 25˝: 5 psi; 50˝: 5 psi, 100”: 9 psi.

**Temperature Limits:** 32 to 140°F (0 to 60°C).

**Compensated Temperature Limits:** 32 to 140°F (0 to 60°C).

**Power Requirements:**
- High voltage power = 100 to 240 VAC, 50 to 400 Hz or 132 to 240 VDC. Low voltage power = 24 VDC ±20%.
- Power Consumption:
  - Low voltage power = 24 VDC - 130 mA max;
  - High voltage power = 100 to 240 VAC, 132 to 240 VDC - 7VA max.

**Output Signal:** 4-20 mA DC into 900 Ω max.

**Zero & Span Adjustments:** Accessible via menus.

**Response Time:** 250 ms.

**Display:** 4 digit LCD 0.4” height. LED indicators for set point and alarm status.

**Electrical Connections:** Screw terminals.

**Process Connections:** Compression fitting for use with 1/8˝ ID X 1/4˝ OD tubing (3.175 mm ID x 6.35 mm OD).

**Agency Approvals:** CE, UL.

**SWITCH SPECIFICATIONS**

- Switch Type: 2 SPDT relays.
- Electrical Rating: 8 amps at 240 VAC resistive.
- Set Point Adjustment: Adjustable via keypad on face.

**Available Pressure Engineering Units**

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<th>Model</th>
<th>Price</th>
<th>in w.c.</th>
<th>ft.w.c.</th>
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<th>cm.w.c.</th>
<th>psi</th>
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See page 567 for process tubing options.

**Bi-Directional® Ranges also available:**

- DH-012, Range: 0.25 - 0 - 0.25 in w.c. .................. $505.00
- DH-014, Range: 1.0 - 0 - 1.0 in w.c. .................. $505.00
- DH-015, Range: 2.5 - 0 - 2.5 in w.c. .................. $384.00
- DH-016, Range: 5 - 0 - 5 in w.c. .................. $384.00
- DH-017, Range: 10 - 0 - 10 in w.c. .................. $384.00

*Velocity and volumetric flow not available on bi-directional range units and models DH-009 & DH-010.

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