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 dead bands are provided along with a scalable 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.

**APPLICATIONS**
- Dust collection bag filters
- SCFM flow in ducts
- Air flow for industrial ovens
- Filter status
- Clean room pressure
- Fume hood air flow
- Pharmaceutical or bio-medical glove box pressures
- Static pressures in ducts or buildings
- Damper control
- Fan control

**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).
- **Thermal Effects:** 0.020%/°F (0.036/°C) from 77°F (25°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 ohms 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).
- **Enclosure Rating:** Face designed to meet NEMA 4X (IP66).
- **Mounting Orientation:** Mount unit in horizontal plane.
- **Size:** 1/8 DIN.
- **Panel Cutout:** 1.772 x 3.620 in (45 x 92 mm).
- **Weight:** 14.4 oz (408 g).
- **Serial Communications:** Modbus® RTU, RS485, 9600 baud.
- **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.
One Control for all your Pressure Applications
Reduces Instruments, Inventory, Installation Time and Cost

- **Compact 1/8 DIN housing** reduces panel space.
- **Set Point** Status LED Indicators display set point activation. Allows user to view process status from a distance.
- **“Hot Key”** saves time by allowing instant access to set point and alarms. Set points/alarms can be easily adjusted with arrow keys.
- **Menu Key** Scrolls through menus to adjust settings. 5 simple menus allow for quick set-up and reduced installation time.
- **Adjustable clip** for panel mounting.
- **Set point 2** or alarm output (SPDT). Selectable direct acting control relay with adjustable deadband or high, low or high low alarm.
- **4-20 mA** process output. View process remotely or send signal to PLC. Alleviates purchase of a separate transmitter.
- **24 VDC** power supply. Universal power supply eliminates options, inventory and ordering mistakes.

**Available Pressure Engineering Units**

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<th>Model</th>
<th>Price</th>
<th>in wc</th>
<th>ft wc</th>
<th>mm wc</th>
<th>cm wc</th>
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Bi-Directional* Ranges also available:

- DH-012, Range: 0.25 - 0 - 0.25” w.c. ................................................. $490.00
- DH-014, Range: 1.0 - 0 - 1.0” w.c. ................................................. $490.00
- DH-015, Range: 2.5 - 0 - 2.5” w.c. ................................................. $372.00
- DH-016, Range: 5 - 0 - 5” w.c. ......................................................... $372.00
- DH-017, Range: 10 - 0 - 10” w.c. ...................................................... $372.00

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

**ACCESSORIES**
The Mother Node™ and 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** ........................................ $75.00
- **351-9, Mother Node™ silver RS-232 to RS-485 Converter with DB9F Connector.** Includes 120 VAC to 12 VDC adapter ........................................ $165.00
- **A-266, Digihelic® surface mounting bracket** ..................................... $29.00
- **A-203, 1/8” I.D. x 1/4” O.D. PVC tubing** ........................................ $1.30/ft
- **Digihelic Links™, Communication Software** .................................... $51.50

CALL TO ORDER: U.S. Phone 219 879-8000 • U.K. Phone (+44) (0)1494-461707 • Australia Phone (+61) (0) 2 4272 2055

![Image](https://example.com/image1.png)

![Image](https://example.com/image2.png)