The Series DH3 Digihelic® Differential Pressure Controller is a 3 in 1 instrument possessing a digital display gage, control relay switches, and a transmitter with current output all packed in the popular Photohelic® gage style housing. Combining these 3 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 1% full scale accuracy on ranges down to the extremely low 0.25 in w.c. to 2.5 in w.c. full scale. Ranges of 5 in w.c. and greater maintain 0.5% F.S. accuracy. Bi-directional ranges are also available.

The 4-20 mA process output 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 1% full scale accuracy on ranges down to the extremely low 0.25 in w.c. to 2.5 in w.c. full scale. Ranges of 5 in w.c. and greater maintain 0.5% F.S. accuracy. Bi-directional ranges are also available.

Applications

- Fan control
- Damper control
- Static pressures in ducts or buildings
- Filter status
- SCFM flow in ducts
- Set point control or set point and alarm operation
- Alarm operation as a security level
- Selection of pressure, velocity or flow operation
- Selection of engineering units
- Programmable deadbands
- Digital damping for smoothing erratic process applications
- Zero & Span Adjustments: Accessible via menus.
- Response Time: 250 ms (damping set to 1).
- Display: Backlit 4 digit LCD.
- Agency Approvals: CE.

SPECIFICATIONS

Service: Air and non-combustible, compatible gases.
Wetted Materials: Consult factory.
Housing Material: Die cast aluminum case and bezel.
Accuracy: ±1.5% for 0.25” and ±0.25” w.c. ranges. Ranges 0.5” to 5” w.c. and corresponding bi-directional (except ±2.5” w.c.) ±1%. All other ranges: ±0.5% @ 77°F (25°C) including hysteresis and repeatability (after 1 hour warm-up).
Stability: <±1% per year.
Pressure Limits: Ranges ≤ 2.5 in w.c.: ±2.5”, 5 in w.c.: ±5 psi; 10 in w.c.: ±5 psi; 25 in w.c.: ±5 psi; 50 in w.c.: ±5 psi; 100 in w.c.: ±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). For 0.25” and ±0.25” w.c. ranges: ±0.03%/°F (±0.054%/°C).
Power Requirements: 12-28 VDC, 12-28 VAC 50 to 600 Hz.
Power Consumption: 3 VA max.
Output Signal: 4-20 mA DC into 900 ohms max.
Zero & Span Adjustments: Accessible via menus.
Response Time: 250 ms (damping set to 1).
Display: Backlight 4 digit LCD.
Agency Approvals: CE.

SWITCH SPECIFICATIONS

Switch Type: 2 SPDT relays.
Electrical Rating: 1 amp @ 30 VAC/VDC.
Set Point Adjustment: Adjustable via keypad.

ACCESSORIES

- A-320, Flat Aluminum Bracket for flush mounting
- A-301, Static Pressure Tip for 1/4” metal tubing connection
- A-302, Static Pressure Tip for 3/16” and 1/8” I.D. 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 depht. Includes mounting screws
- A-370, Mounting Bracket flush mount bracket. Bracket is then surface mounted. Steel with gray hammertone epoxy finish
- A-489, 4” Straight Static Pressure Tip with Flange

OPTIONS

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example DH3-004-NIST.
For factory calibration certificate, add suffix -FC to model numbers. Example DH3-004-FC.

See page 587 for process tubing options.