DIGIHELIC® 3 DIFFERENTIAL PRESSURE CONTROLLER

Digihelic® Controller in Photohelic® Gage, Square Root Output for Flow

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. provide for greater measurement precision and simplifies field upgrade to DH3 pressure controller 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 above provide for greater measurement precision saving inventory, installation time and money. The Digihelic® controller allows the selection of pressure, velocity or volumetric flow operation in several commonly used engineering units. 2 SPDT control relays with adjustable deadbands are provided along with a scalable 4-20 mA process output.

FEATURES/BENEFITS
- 3-in-1 instrument allows the reduction of several instruments with one product, saving inventory, installation time and money
- Full scale accuracy of 1% even on extremely low ranges, and 0.5% for ranges above 5 in w.c. provide for greater measurement precision
- Secure menu program provides access to device operation only for the right skill level
- Optional stainless steel bezel is the same installation diameter as Magnehelic® gage and simplifies field upgrade to DH3 pressure controller

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

SPECIFICATIONS
- Service: Air and non-combustible, compatible gases.
- Wetted Materials: Cast aluminum case and bezel.
- Accuracy: ±1.5% for 0.25 in and ±0.25 in w.c. ranges. Ranges 0.5 in to 5 in w.c. and corresponding bi-directional (except ±2.5 in w.c.) ±1%; All other ranges: ±0.5% @ 77°F (25°C) including hysterisis and repeatability (after 1 hour warm-up).
- Stability: < ±1% per year.
- Pressure Limits: Ranges ≤ 2.5 in w.c.: ±25 psi; ±2.5 in. w.c.: ±5 psi; 5 in w.c.: ±10 psi; 10 in w.c.: ±20 psi; 15 in w.c.: ±30 psi; 20 in w.c.: ±50 psi; 25 psi; ±2.5˝, 5 in w.c.: 5 psi; 5 psi 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: 0.02%/°F (0.006%/°C) from 77°F (25°C). For 0.25 in and ±0.25 in w.c. ranges: ±0.03%/°F (±0.054%/°C).
- Power Requirements: 12-28 VDC, 12-28 VAC 50 to 400 Hz.
- Power Consumption: 3 VA max.
- Output Signal: 4-20 mA DC into 900 Ω max.
- Zero & Span Adjustments: Accessible via menus.
- Response Time: 250 ms (damping set to 1).
- Display: Backlit 4 digit LCD 0.4” high LED indicators for set point and alarm status.
- Electrical Connections: 15 pin male high density D-sub connection, 18” (46 cm) cable with 10 conductors included.
- Process Connections: 1/8” female NPT. Side or back connections.
- Mounting Orientation: Mount unit in vertical plane.
- Size: 5" (127 mm) OD x 3-1/8” (79.38 mm); -SS bezel: 4-3/4” (120.7 mm) OD x 2-21/32 (67.5 mm).
- Weight: 1.75 lb (794 g).
- Agency Approvals: CE.

SWITCH SPECIFICATIONS
- Switch Type: 2 SPDT relays.
- Electrical Rating: 1 A @ 30 VAC/VDC.
- Set Point Adjustment: Adjustable via keypad on face.

OPTIONS
- To order add suffix: Description
  -SS 304 brushed stainless steel bezel. Backward compatible with standard Magnehelic® gage installation diameter
-NIST NIST traceable calibration certificate
-FC Factory calibration certificate

ACCESSORIES

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<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
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<tbody>
<tr>
<td>A-298</td>
<td>Flat aluminum bracket for flush mounting</td>
<td>$27.75</td>
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<tr>
<td>A-301</td>
<td>Static pressure tip for 1/4” metal tubing connection</td>
<td>9.00</td>
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<tr>
<td>A-302</td>
<td>Static pressure tip for 3/16” and 1/8” I.D. plastic or rubber tubing</td>
<td>9.10</td>
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<tr>
<td>A-302F-A</td>
<td>303 SS static pressure tip with mounting flange; for 3/16” ID rubber or plastic tubing; 4” insertion depth; includes mounting screws</td>
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<tr>
<td>A-370</td>
<td>Mounting bracket flush mount bracket; bracket is then surface mounted; steel with gray hammertone epoxy finish</td>
<td>34.25</td>
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<tr>
<td>A-489</td>
<td>4” straight static pressure tip with flange</td>
<td>6.67</td>
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PROCESS TUBING OPTIONS: See page 499 (Gage Tubing Accessories)