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% FS accuracy. Bi-directional ranges are also available. The Series DH3 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.

Programming is easy using the menu key to access 5 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 reading; digital damping for smoothing erratic process applications; scaling the 4-20 mA process output to fit your applications range and field calibration.

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, corrosive gases.
- Wetted Materials: Consult factory.
- Housing Material: Die cast aluminum case and bezel.
- Accuracy: ±1.5% for ±0.25 in w.c. to ±2.5 in w.c. full-range. 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 hysteresis and repeatability (after 1 hour warm-up).
- Stability: < ±1% per year.
- Pressure Ranges: Limits ±2.5 in w.c.: ±25 psi; ±0.25 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 in and ±0.25 in w.c. ranges: ±0.03%/°F (±0.054%/°C).
- Power Requirements: 12-28 VDC, 12-28 VAC 50 to 60 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” height 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.

ACCESSORIES

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-298</td>
<td>Flat aluminum bracket for flush mounting</td>
</tr>
<tr>
<td>A-301</td>
<td>Static pressure tip for 1/4” metal tubing connection</td>
</tr>
<tr>
<td>A-302</td>
<td>Static pressure tip for 3/16” and 1/8” I.D. plastic or rubber tubing</td>
</tr>
<tr>
<td>A-302F-A</td>
<td>303 SS static pressure tip with mounting flange; for 3/16” I.D rubber or plastic tubing; 4” insertion depth; includes mounting screws</td>
</tr>
<tr>
<td>A-370</td>
<td>Mounting bracket flush mount bracket; bracket is then surface mounted; steel with gray hammertone epoxy finish</td>
</tr>
<tr>
<td>A-489</td>
<td>4” straight static pressure tip with flange</td>
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</tbody>
</table>

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

Example: DH3-004-SS
Example: DH3-004-NIST
Example: DH3-004-FC