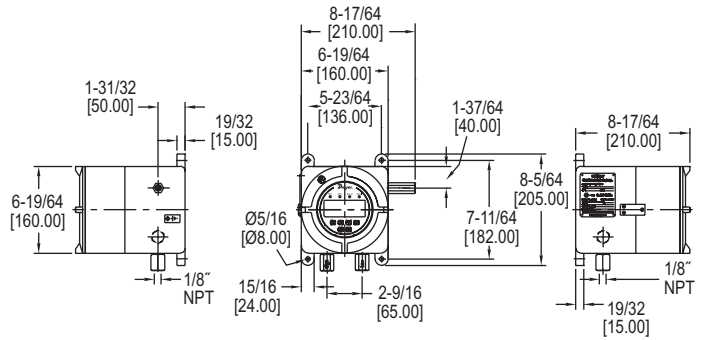


# ATEX/IECEx APPROVED DH3 DIFFERENTIAL PRESSURE CONTROLLER

Digihelic® Pressure Control in Flame-Proof ATEX/IECEx Enclosure



The **Series AT2DH3 ATEX/IECEx Approved DH3 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 hazardous area pressure, velocity and flow applications by allowing for 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. In velocity or flow modes, a square root output is provided on the 4-20 mA signal to coincide with the actual flow curve. Flame-proof enclosures are available in aluminum and can include a glass window for viewing process information and set point status on digital display.

**FEATURES/BENEFITS**

- 3-in-1 instrument allows the reduction of several instruments with one product, saving inventory, installation time and money
- Flame-proof enclosure with optional glass window and aluminum housing protects the device in hazardous areas while giving local visibility to process pressure and set point status

**APPLICATIONS**

- Hazardous area pressure measurement and switching

**Attention:** Check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.

**SPECIFICATIONS**

**Service:** Air and non-combustible, compatible gases.  
**Wetted Materials:** Consult factory.  
**DH3 Housing Material:** Die cast aluminum case and bezel.  
**Housing Material:** Aluminum.  
**Finishing:** Texture epoxy coat RAL7038.  
**Accuracy:** < 5 in w.c. (except ±2.5 in w.c.): ±1%; All other ranges: ±0.5% at 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.: 25 psi; ±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) (**Note:** Product temperature limits differ from case).  
**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:** 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 and Span Adjustments:** Accessible via menus in safe zone only.  
**Response Time:** 250 ms (damping set to 1).  
**Display:** Backlit 4 digit LCD 0.4" height LED indicators for set point and alarm status.  
**Process Connections:** 1/8" NPT female brass (SS optional). In presence of acetylene it is necessary to use SS.  
**Electrical Connections:** Two 1/2" NPT female. Cable gland not included.  
**Weight:** 12.3 lb (5.6 kg).  
**Electrical Wiring:** Screw terminal.  
**Mounting Orientation:** Mount unit in vertical plane.  
**Enclosure Rating:** (IP66). IP65 with option OPV, overpressure relief valve.  
**Dial Size:** 5" (127 mm) OD x 3-1/8" (79.38 mm).  
**ATEX Certificate:** BVI 14ATEX0072.  
**Agency Approvals:** ATEX Compliant **CE** 1370 **Ex** II 2G Ex d IIC T6 Gb / II 2D Ex tb IIIC T85°C Db, -60°C ≤ Tamb ≤ +60°C IECEx Compliant: Ex d IIC T6 Gb / Ex tb IIIC T85°C Db.  
**SWITCH SPECIFICATIONS**  
**Switch Type:** 2 SPDT relays.  
**Electrical Rating:** 1 A @ 30 VAC/VDC.  
**Set Point Adjustment:** Adjustable via keypad on face in safe zone only.

MODEL CHART															
Example	AT2DH3	-002	-A	O	1	X	T2	AT2DH3-002-AO1XT2							
Series	AT2DH3							ATEX/IECEx approved DH3 differential pressure controller							
Range	002	003	004	005	006	007	009	010	011	013	014	015	016	017	018
	0 to 0.25 in w.c. (0 to 62.2 Pa) 0 to 0.5 in w.c. (0 to 124.4 Pa) 0 to 1 in w.c. (0 to 248.8 Pa) 0 to 2.5 in w.c. (0 to 622.1 Pa) 0 to 5 in w.c. (0 to 1244.2 Pa) 0 to 10 in w.c. (0 to 2488.4 Pa) 0 to 25 in w.c. (0 to 6221 Pa) 0 to 50 in w.c. (0 to 12442 Pa) 0 to 100 in w.c. (0 to 24884 Pa) 0.25 to 0 to 0.25 in w.c. (62.2 to 0 to 62.2 Pa) 0.5 to 0 to 0.5 in w.c. (124.4 to 0 to 124.4 Pa) 1 to 0 to 1 in w.c. (248.8 to 0 to 248.8 Pa) 2.5 to 0 to 2.5 in w.c. (622.1 to 0 to 622.1 Pa) 5 to 0 to 5 in w.c. (1244.2 to 0 to 1244.2 Pa) 10 to 0 to 10 in w.c. (2488.4 to 0 to 2488.4 Pa)														
Housing Material			A					Aluminum							
Cover				B	O			Blind Glass top cover							
Process Connection					1	2		1/8" NPT F brass ports 1/8" NPT F SS ports							
Overpressure Plug						X	OPV	Standard without overpressure relief valve Overpressure relief valve Material same as port							
Tag							T2	SS information label							

USA: California Proposition 65  
 ⚠WARNING: Cancer and Reproductive Harm  
 www.P65Warnings.ca.gov