

DPT-2015 Series Differential Pressure Transmitter for VAV Box Applications

Description

The DPT-2015 Differential Pressure Transmitter senses differential pressure in pressure independent Variable Air Volume (VAV) applications. It sends an analog signal that is proportional to velocity pressure to a VAV controller. The DPT-2015 is available mounted to an M9104 or M9106 Electric Non-spring Return Actuator, or to the Johnson Controls® VAV controller for reliable damper positioning in closed-loop applications.

The DPT-2015 may also be mounted alone as an independent pressure transmitter or used for damper positioning in other VAV systems. (See the *M9104-AGx-2N Electric Non-spring Return Product Bulletin, LIT-2681117* or the *M9106-AGx-2N0x Series Electric Non-spring Return Actuators Product Bulletin, LIT-2681126* and the *Variable Air Volume Controller Technical Bulletin, LIT-6363040* for more information on these products.)

Features

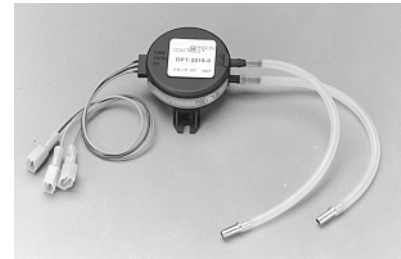
- integral pressure transmitter with dead-ended input ports eliminates inline filter and maintenance and prevents sensor contamination
- 0 to 1.5 in. W.C. sensor range satisfies the requirements for virtually all terminal box applications

- 0.5 to 4.5 VDC output is compatible with a wide variety of HVAC controllers
- no warmup period allows for immediate commissioning after powering up
- capacitive sensor technology provides long-term stability and accuracy
- 4 VDC output span replaces DPT-2000-2 when used as recommended

Applications

The DPT-2015 is used to measure differential pressure to determine the air velocity for calculating airflow. It measures differential pressure and generates a proportional voltage signal. The voltage signal from the DPT-2015 is read by the VAV controller and converted to airflow in cubic feet per minute (cfm). The DPT-2015 is available factory mounted to an M9104 or M9106 actuator, or factory mounted to a Johnson Controls VAV controller as an AS-VAVDPT. Calibration is not required other than zero calibration, which is performed within the controller.

For more information, refer to the *DPT-2015 Series Differential Pressure Transmitter for VAV Box Applications Product Bulletin (LIT-216200X)* or the *DPT-2015 Series Differential Pressure Transmitter for VAV Box Applications Installation Instructions (Part No. 24-7547-18)*.



DPT-2015 Differential Pressure Transmitter

Repair Information

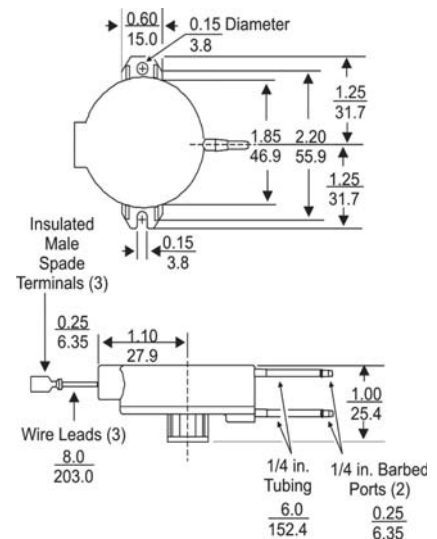
If the DPT-2015 Series Differential Pressure Transmitter for VAV Box Applications fails to operate within its specifications, replace the unit. For a replacement transmitter, contact the nearest Johnson Controls® representative.

Selection Chart

Code Number	Description
DPT-2015-0	0 to 1.5 in. W.C. (0 to 374 Pa) differential pressure transmitter
DPT-2015-1	DPT-2015-0 with DPT-2015-MNT Mounting Kit

Accessory

Code Number	Description
DPT-2015-MNT	Mounting kit for DPT-2015 used to replace the DPT-2000 or retrofit to the EDA-2040 without mounting bosses (date code prior to 9540)



Dimensions, in. (mm)

DPT-2015 Series Differential Pressure Transmitter for VAV Box Applications (Continued)

Technical Specifications

DPT-2015 Differential Pressure Transmitter for VAV Box Applications		
Power Requirements	15 VDC (14.5 to 17 VDC) unregulated; 15 mA maximum	
Pressure Range	0 to 1.5 in. W.C. (0 to 374 Pa) maximum	
Overpressure Limit	15 in. W.C.(3.74 kPa)	
Output Voltage	0.5 to 4.5 VDC into load impedance of 25,000 ohms minimum	
Accuracy	Linearity	±1.0% full span maximum
	Repeatability/Hysteresis	±0.05% full span maximum
Position Effects	Zero Shift	±0.1 VDC maximum
	Span Shift	±0.05 VDC maximum
Stability (One Year)	Zero Shift	±0.5% full span
	Span Shift	±2% full span
Temperature Effects	Zero Shift	±0.06% of full span per F° maximum over 60 to 120°F (15.6 to 49.0°C) range
	Span Shift	±1.5% of full span maximum over 60 to 120°F (15.6 to 49.0°C) range
Power Supply Effects ¹	Zero Shift	±0.01 VDC maximum
	Span Shift	+0.02, -0.04 VDC maximum
Terminals	1/4 in. male spade terminals with 8 in. (203 mm) wire length	
Pressure Connections	6 in. (152 mm) length of silicone tubing with barbed fittings for 1/4 in. (6.35 mm) O.D. tubing	
Ambient Operating Conditions	32 to 140°F (0 to 60°C); 90% RH maximum, non-condensing	
Ambient Storage Conditions	-22 to 185°F (-30 to 85°C); 90% RH maximum, non-condensing	
Dimensions (H x W x D)	1.00 x 2.71 x 2.5 in. (254 x 68.8 x 63.5 mm)	
Agency Compliance	UL Listed, File E107041, CCN PAZX, UL916 cUL Listed, File E107041, CCN PAZX7, CSA C22.2 No. 205-M1983	

1. For power supply changes of 14.5 to 17.1 VDC, referenced to 15.0 VDC.