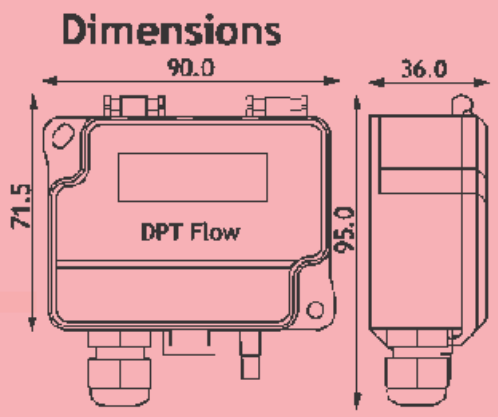
AEROSENSE™

SERIES DPT-FLOW

AEROSENSE DIFFERENTIAL PRESSURE CUM AIR FLOW TRANSMITTER



Series DPT-Flow Differential Pressure Cum Air Flow transmitters are engineered for building automation in the HVAC/R industry. The most technologically advanced transmitters on the market, measuring volume flow, velocity, and static and differential pressure. The **Series DPT-Flow** devices can be connected directly to the pressure measurement points in a centrifugal fan, providing accurate flow measurement of the fan. The smart user interface enables easy selection of settings according to the selected fan or in-duct measurement probe.

Technical Specifications:

Service: Dry air or non-aggressive gases
Measuring element: Piezo resistive
Accuracy: ±1 %
Thermal effects: Temperature compensated across the full spectrum of capability
Proof pressure: 25 kPa
Zero point calibration: Automatic autozero or manual pushbutton
Response time: 1.0 to 20 sec selectable via menu
Pressure units (select via menu): PA, kPA, mBar, In. WC, MM WC
Pressure output scale (select via menu): 100-1000/ 200-2000/ 500-5000/ 700-7000 (Depending Upon Models)
Flow units (select via menu): Volume: m3/s, m3/hr, cfm, l/s
Velocity: m/s, ft/min
Operating temperature: -10...50° C with autozero (-AZ) calibration -5...50 °C
Storage temperature: -20...70 °C Humidity: 0 to 95 % rH, non condensing
Dimensions: 90.0 x 95.0 x 36.0 mm
Electrical connections: 4-screw terminal block
Cable entry: M16
Weight: 150 g Mounting: 2 each 4.3 mm screw holes, one slotted
Materials: ABS
Protection standard: IP54
Display: 2-line display (12 characters/line)
Size: 46.0 x 14.5 mm
Line 1: Volume or velocity measurement
Line 2: Pressure measurement

Model Selection Table

Models	Pressure Range (Scalable Via Menu)	Air Velocity/Flow Ranges. (Scalable Via Menu)
DPT-Flow-1000-D	0-1000 PA	0-1…50 m3/s 0-4000…200000m3/h 0-2000…100000cfm 0-1000…50000 l/s 0-10…100m/s 0-2000….20000fpm
DPT-Flow-2000-D	0-2000 PA	
DPT-Flow-5000-D	0-5000 PA	
DPT-Flow-7000-D	0-7000 PA	

Add –AZ to model for Auto-Zero models. For e.g. DPT-Flow-1000-AZ-D

Electrical:

Voltage:
Maximum load: 500 Ω
Power consumption: <1.0 W
Circuit: 3-wire (V Out, 24 V, GND)
Input: 24 VAC or VDC. ±10 %
Output: 0–10 VDC, selectable via jumper
Resistance minimum: 1 kΩ
Current:
Power consumption: <1.2 W
Circuit: 3-wire (mA Out, 24 V, GND)
Input: 24 VAC or VDC. ±10 %
Output: 4–20 mA selectable via jumper

APPLICATIONS:

- Airflow monitoring across centrifugal fans and blowers
- In-duct airflow monitoring
- VAV applications

Optional Auto-Zero Feature:

AZ-calibration is a function in the form of an automatic zeroing circuit built into the PCB. The AZ-calibration electronically adjusts the transmitter zero at predetermined time intervals (every 10 minutes). The AZ-calibration eliminates all output signal drift due to thermal, electronic or mechanical effects, as well as the need for technicians to remove high and low pressure tubes when performing initial or periodic transmitter zero point calibration.

The AZ adjustment takes 4 seconds. To avoid conflict with the BAS system, the output and display values will freeze to the latest measured value, after which the device returns to its normal measuring mode. Transmitters equipped with the AZ-calibration are virtually maintenance free.