

AIR FLOW AND VELOCITY TRANSMITTERS

DPT-FLOW

Multifunctional air flow transmitters for building automation systems

SPECIFICATIONS

Performance

Accuracy (at applied pressure):

Ranges < 125 Pa = ±2 Pa

Ranges 125 Pa = ±1,5 % Pa

(Accuracy specifications include: general accuracy, temperature drift, linearity, hysteresis, long term stability, and repetition error)

Thermal effects:

Temperature compensated across the full spectrum of capability

Overpressure:

Proof pressure: 25 kPa

Zero point calibration:

Automatic autozero or manual pushbutton

Response time:

1.0–20 s, selectable via menu

Technical Specifications

Media compatibility:

Dry air or non-aggressive gases

Pressure units (select via menu):

Pa, kPa, mbar, inWC, mmWC

Pressure output scale (select via menu):

	DPT-Flow-1000	DPT-Flow- 2000	DPT-Flow-5000	DPT-Flow-7000
Pa	100-1,000	200-2,000	500-5,000	700-7,000
kPa	0.1-1.0	0.2-2.0	0.5-5.0	0.7-7.0
mbar	1-10	2.0-20	5.0-50	7.0-70
mmWC	10-100	20-200	50-500	70-700
inWC	0.4-4.0	0.8-8.0	2.0-20	2.5-30

Flow units (select via menu):

Volume: m³/s, m³/hr, cfm, l/s

Velocity: m/s, ft/min

Flow output scale (select via menu):

Units	Range
m ³ /s	0.025-50
m ³ /hr	100-200,000
cfm	50-100,000
l/s	25-50,000
m/s	1-100
f/min	200-20,000

Measuring element:

MEMS

Environment:

Operating temperature:

-10...50 °C

with autozero (-AZ) calibration -5...50 °C

Storage temperature:

-20...70 °C

Humidity:

0 to 95 % rH, non condensing

Physical

Dimensions:

Case: 90.0 x 95.0 x 36.0 mm

Weight:

150 g

Mounting:

2 each 4.3 mm screw holes, one slotted

Materials:

Case: ABS

Lid: PC

Duct connectors: ABS

Tubing: PVC

Protection standard:

IP54

Display

2-line display (12 characters/line)

Line 1: Volume or velocity measurement

Line 2: Pressure measurement

Size: 46.0 x 14.5 mm

Electrical connections:

4-screw terminal block

Wire: 12–24 AWG (0.2–1.5 mm²)

Cable entry:

Strain relief: M16

Knockout: 16 mm

Pressure fittings

Male Ø 5.0 mm and 6.3 mm

Electrical

Voltage:

Circuit: 3-wire (V Out, 24 V, GND)

Input: 24 VAC or VDC, ±10 %

Output: 0–10 V, selectable via jumper

Power consumption: <1.0 W

Resistance minimum: 1 kΩ

Current:

Circuit: 3-wire (mA Out, 24 V, GND)

Input: 24 VAC or VDC, ±10 %

Output: 4–20 mA, selectable via jumper

Power consumption: <1.2 W

Maximum load: 500 Ω

Conformance

Meets requirements for CE marking:

EMC Directive 2014/30/EU

RoHS Directive 2002/95/EY



AZ-calibration is a function in the form of an automatic zeroing circuit built into the PCB board. 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.

How to generate a model?

Example:	Product series			
	DPT-FLOW-1000-AZ-D	DPT-FLOW	Air flow transmitter	
		Highest available measurement range		
		-1000	0...1000 Pa	
		-2000	0...2000 Pa	
		-5000	0...5000 Pa	
		-7000	0...7000 Pa	
		Zero Point Calibration		
		-AZ	With autozero calibration	
			Standard with pushbutton manual auto zero	
		Display		
		-D	With display	
			Without display	
Model	DPT-FLOW	-1000	-AZ	-D