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DATA SHEET

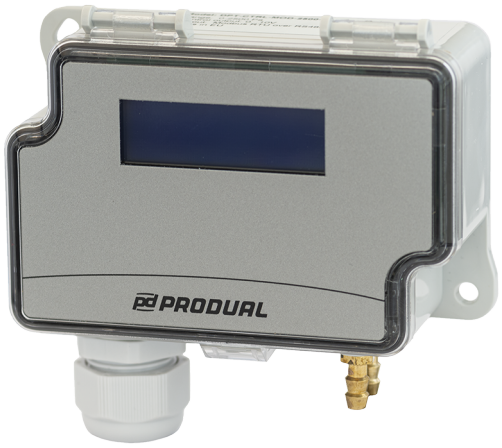
DPT-Ctrl-MOD

Produal

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DPT-Ctrl-MOD - Modbus differential pressure or airflow controller



DPT-Ctrl-MOD Modbus differential pressure or airflow controllers are designed for building automation systems. Controller can control constant pressure or flow of fans, VAV systems or dampers. When controlling air flow, it is possible to select a fan manufacturer or a common measuring probe that has a K-value.

The devices include several properties and selectable functions:

- PID controller that can, for example, control differential pressure or air flow in duct or across centrifugal fan
- Measuring and monitoring differential pressure or air flow in duct or across centrifugal fans
- Multiple selectable measurement units
- Voltage output for control
- One multifunctional input (analogue, resistive or digital)
- Ambient temperature compensation function
- Two possible control setpoints that can be activated by using the digital input (e.g. weekly clock, turn switch or key card switch)
- Modbus RTU (RS-485) connection

Technical specifications

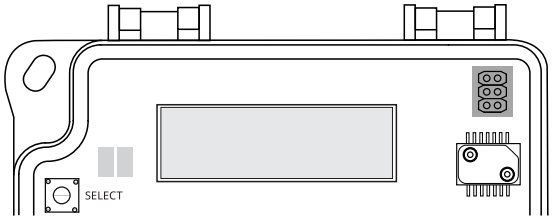
Property	Value
Supply	24 Vac/dc (22...26 V)
Power consumption	< 1 VA
Pressure measurement	
Range	
-2500 models	*0...2500 Pa / custom setting (-250...2500 Pa via Modbus)
-7000 models	*0...7000 Pa / custom setting (-700...7000 Pa via Modbus)
Accuracy (25 °C)	
-2500 models	• pressure < 125 Pa = ±1 % ±2 Pa • pressure > 125 Pa = ±1 % ±1 Pa
-7000 models	• pressure < 125 Pa = ±1.5 % ±2 Pa • pressure > 125 Pa = ±1.5 % ±1 Pa
Time constant	1...20 s

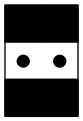
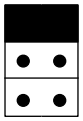
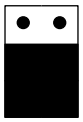
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Property	Value
Zeroing	manual with push button or via Modbus
Max. over pressure	30 kPa
Connection	Ø5.2 mm
Medium	dry air or non-aggressive gas
Input	0...10 Vdc, NTC 10K, Pt1000, Ni1000, Ni1000-LG or DI
Control output	0...10 Vdc
Communication	Modbus RTU (RS-485)
Bus speed	*9600/19200/38400/57600 bit/s
Data bits	8
Parity	*none/odd/even
Stop bits	1
Unit load	1/4 UL
Display	backlit dot matrix display
Wiring terminals	1.5 mm^2
Appliance class (IEC 60664-1)	III
Operating conditions	
Temperature	-20...50 °C
Humidity	0...95 %rH (non condensing)
Housing	
Material	ABS and PC plastic
Protection class	IP54
Cable gland	M16
Mounting	2 x Ø4.3 mm screw holes, one slotted
Dimensions (w x h x d)	102 x 72 x 36 mm
Weight	150 g
	* factory default

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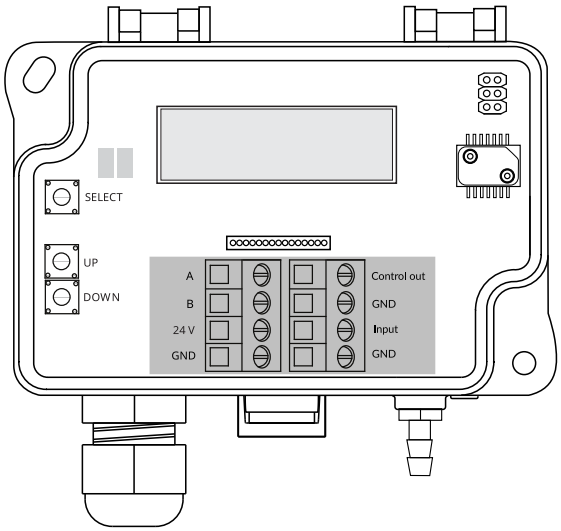
Input settings



	*NTC 10K or digital input
	Pt1000, NI1000 or NI1000-LG input
	0...10 Vdc input
	* factory default

Note: The input setting must also be set via device menu.

Wiring

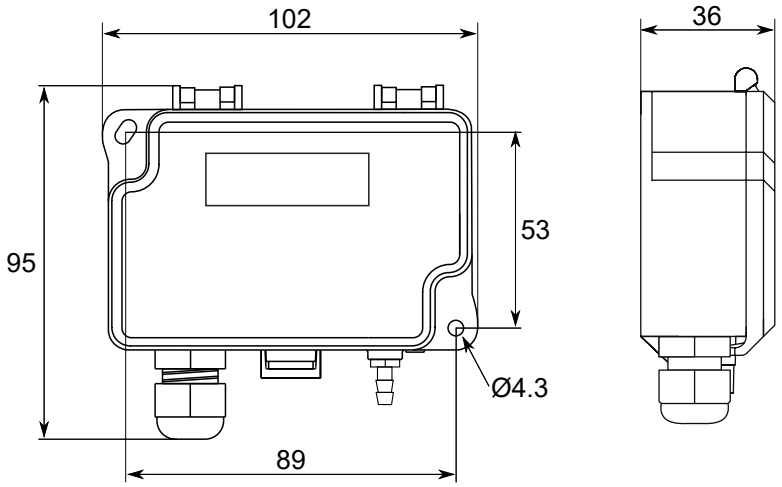


A	Modbus RTU (RS-485)
B	
24V	24 Vac/dc supply
GND	0 V
Control out	Control output, 0...10 Vdc
GND	0 V
Input	Input, 0...10 Vdc, NTC 10K, Pt1000, Ni1000, Ni1000-LG or DI
GND	0 V

Ordering information

	Type	Product number	Description
	DPT-Ctrl-MOD-2500-D	114.003.020	Differential pressure or airflow controller, Modbus, range 0...2500 Pa, manual zeroing
	DPT-Ctrl-MOD-7000-D	114.009.010	Differential pressure or airflow controller, Modbus, range 0...7000 Pa, manual zeroing

Dimensions



Supported standards, directives and regulations

Standard	Description
2014/30/EU	Electromagnetic Compatibility (EMC).
2011/65/EU	Restriction of Hazardous Substances (RoHS2) Directive.
(EU) 2015/863	Commission Delegated Directive, amending Annex II to Directive 2011/65/EU.
2012/19/EU	Waste electrical and electronic equipment (WEEE).
S.I. 2016 No. 1091	Electromagnetic compatibility regulations
S.I. 2012 No. 3032	The restriction of the use of certain hazardous substances in electrical and electronic equipment regulations
S.I. 2013 No. 3113	The waste electrical and electronic equipment regulations
S.I. 2005 No. 1803	The general product safety regulations
EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
EN 61326-2-3:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning

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