

AX-ADPT2K5-D-MOD-RHT

Air Differential Pressure Transmitters - MODBUS, RH & Temp



Product Overview

The AX-ADPT2K5-D-MOD-RHT is used for measuring air flow, velocity, static and differential pressures of air and non-combustible gases in order to monitor and control building automation, HVAC and cleanroom systems. The measurements can be read and the configuration done via Modbus communication. AX-ADPT2K5-D-MOD-RHT have an additional feature of displaying RH & T values it receives as input (Analogue or Thermistor) type.



Products Features

- Cost-effective Solution
- MODBUS RTU RS485 pressure output
- Additional monitoring option for RH & Temp
- Zero point calibration option available

Product Specifications

Power Supply:	24Vac or 24Vdc, $\pm 10\%$ < 1.3Watts
Input Signal:	Temp: 0–10 V or NTC10k, Pt1000, Ni1000/(-LG)
	Humidity: 0–10 V
Output:	Modbus
Sensor Type:	MEMS, No flow through
Accuracy:	Pressure < 125 Pa 1 % + ± 2 Pa
	Pressure > 125 Pa 1 % + ± 1 Pa
Overpressure:	Proof: 25kPa
	Burst: 30kPa
Pressure Connection:	$\varnothing 5.2$ mm ABS connectors (High & Low)
Electrical Connection:	Screw terminals suitable for cables 0.2-1.5mm ²
Response Time:	1.0–20 s, selectable via menu
Zero Point Calibration:	Manual pushbutton or via Modbus register
Compatible Media:	Dry air or non-aggressive gases
Display :	2-line display (12 characters/line)
	Line 1: Pressure measurement
	Line 2: Relative Humidity & Temp measurement (If input is connected)
Pressure Units (select via menu):	Pa, mbar, inchWC, mmWC, psi
Protection Standard:	IP54
Operating Environment:	Temperature: -20°C to 50°C
	0°C to 50°C (Compensated Range)
	-40°C to 70°C (Storage Temperature)
	Humidity: 0 to 95 % RH, non condensing
Certifications:	CE, UKCA
Country of Origin:	Finland

Order codes

Part Number	Description
AX-ADPT2K5-D-MOD-RHT	Air Diff Pressure Transmitter, -250/+2500 Pa , Modbus, RH&T, LCD

AX-ADPT2K5-D-MOD-RHT

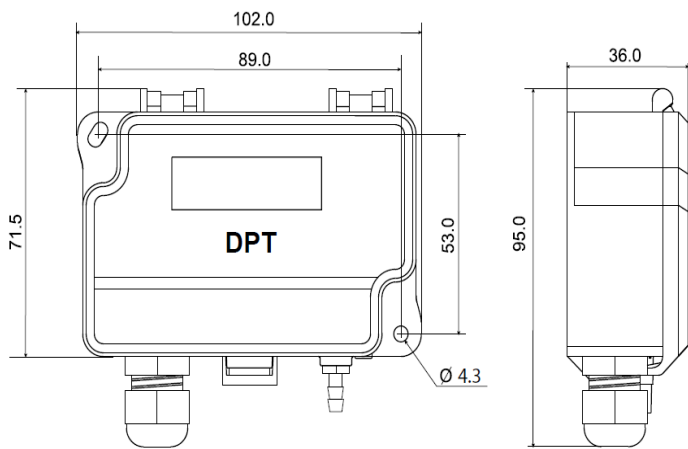


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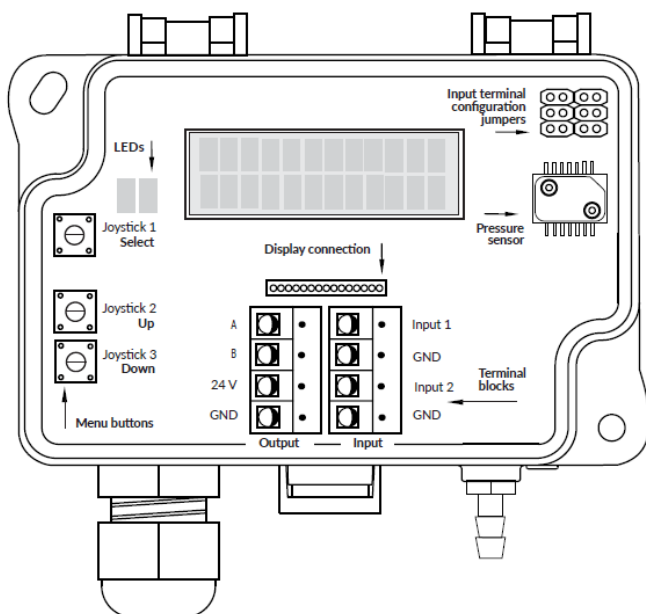
Installation

The unit should be installed by a suitably qualified technician in accordance with prevailing regulations and any guidelines for the equipment to which it is to be connected. This unit is not suitable for use with Mains Voltage. The unit has two fixing lugs moulded into the base for use with screws up to 4mm in diameter. When fixing the transmitter, care should be taken not to stress the unit. The unit is designed to be mounted on a vertical plane with the gland and pressure connections at the bottom of the unit.

Dimensions



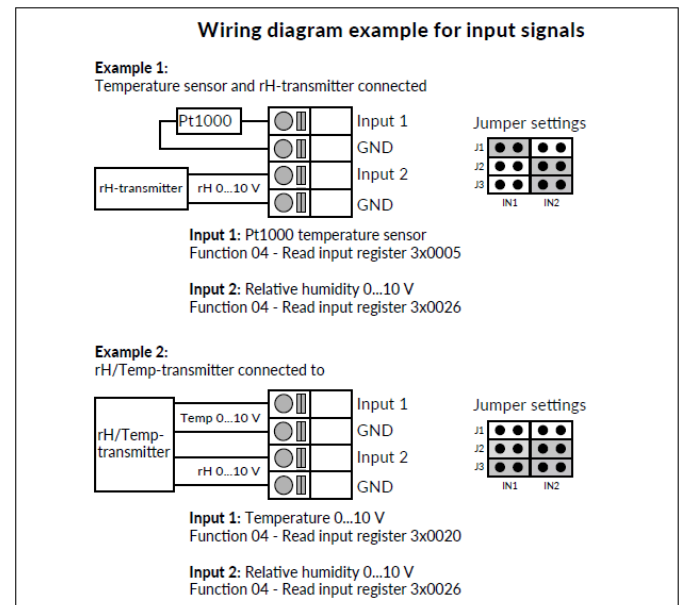
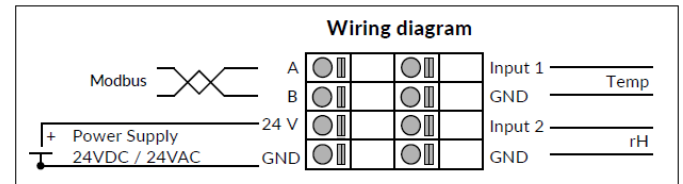
Connections



Wiring Diagram

For CE compliance, a properly grounded shielding cable is required.

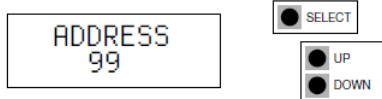
- 1) Unscrew the strain relief and route the cables.
- 2) Connect the wires as shown in figure 2a and 2b.
- 3) Tighten the strain relief.



Configuration

1) Activate the device Menu by pushing the the select button for 2 seconds.

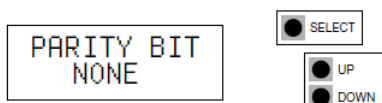
2) Select the address for Modbus: 1...247



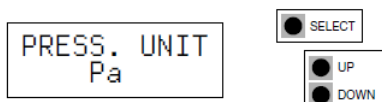
3) Select the baud rate: 9600/19200/38400.



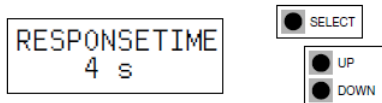
4) Select the parity bit: None/Even/Odd



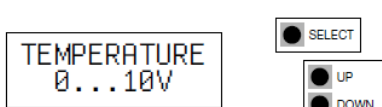
5) Select the pressure unit for display: Pa/kPa/mbar/mmWC/inchWC/psi



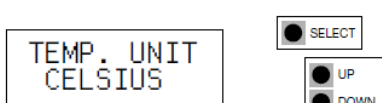
6) Select the response time: 1...20 s



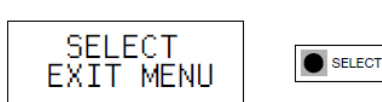
7) Select the temperature measurement type: 0...10V/NTC10K/NI1000LG/NI1000/PT1000



8) Select the temperature unit for display: Celsius/Fahrenheit



9) Push the select button to exit menu.



Zero Point Adjustment

NOTE! Always zero the device before use.

Supply voltage must be connected one hour before the zero point

adjustment is carried out. Access via Modbus or by push button.

1) Loose both tubes from the pressure inlets + and -.

2) Press the select button briefly.

3) Wait until the LED turns off and then install tubes again for the pressure inlets.

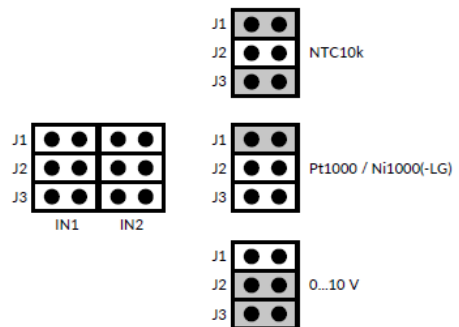
Input Signal Configuration

Input signals can be read over Modbus via MOD RS485 interface.

Signals	Accuracy for measurement	Resolution
0...10 V	< 0.5 % typical	0.1 %
NTC10k	< 0.5 % typical	0.1 %
Pt1000	< 0.5 % typical	0.1 %
Ni1000(-LG)	< 0.5 % typical	0.1 %

The jumpers should be set according to the instructions below and the value should be read from the right register. Both inputs can be configured independently.

Input signal configuration



Datasheet Contents

Every effort has been taken in the production of this data sheet to ensure accuracy. Annicom do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Annicom has a policy of continuous improvement and reserves the right to change this specification without notice.