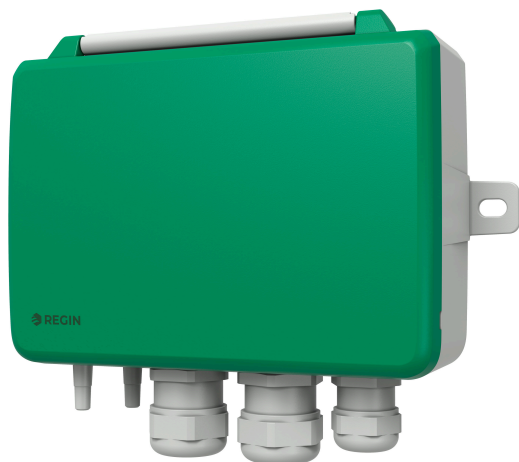


# PDTX...-C

Differential pressure transmitter with communication



*Differential pressure transmitters, 24 V, with two universal inputs, two universal outputs and communication via Modbus.*

- ✓ Uses a sensor technology that offers very high accuracy and excellent long-term stability
- ✓ Easy installation and setup
- ✓ Expands the controller by up to four inputs and two outputs
- ✓ Ambient temperature -25...+50 °C
- ✓ Can be mounted vertically or horizontally

## Application

Presigo PDTX...-C is a range of pressure transmitters equipped with one or two pressure sensors, two universal inputs, two universal outputs and an RS485 port for Modbus communication.

This range of pressure transmitters is especially well suited as distributed I/O modules for air handling unit controllers. They are designed for easy installation together with Regin's Corrigo or EXOcompact controllers.

## Function

The transmitter operates as a Modbus slave, relieving the controller of up to two analogue pressure inputs, two universal inputs and two universal outputs. This means

that less wiring is required, reducing both material costs as well as the amount of work needed.

Due to the use of MEMS dual-chip medical grade sensor the transmitter offers very high accuracy and excellent long-term stability.

## Installation

When the transmitter is connected to a Corrigo controller, all values can be read in *Application tool*, Regin's PC-based software that enables comprehensive configuration and supervision of an installation via a graphical interface.

The unit can be mounted either vertically or horizontally. If it is installed in a humid environment, vertical mounting is recommended to allow moisture to escape.

Installing the product is made easily since the unit has three separate cable inlets, a large angled terminal and generous space. The communication configuration is both flexible and easy as it can either be done via a menu system, which is easy to navigate, or via Modbus.

## Technical data

### General data

<b>Supply voltage</b>	24 V AC/DC (21...27 V AC/DC)
<b>Protection class</b>	IP54
<b>Power consumption</b>	< 4 VA
<b>Ambient humidity</b>	0...95 % RH (non-condensing)
<b>Ambient temperature</b>	-25...+50 °C
<b>Storage temperature</b>	-40...+70 °C
<b>Mounting</b>	Wall
<b>Connection, cable</b>	Screw terminals max.1.5 mm <sup>2</sup> (AWG16)
<b>Connection, pressure</b>	Connection pipes for 6 mm tube, (+) connects to higher pressure, (-) to lower pressure
<b>Working range, pressure</b>	0...1250 / 0...2500 / 0...7500 Pa (factory setting) 0...12 / 0...25 / 0...75 mbar 0...127 / 0...254 / 0...764 mmH <sub>2</sub> O 0...5 / 0...10 / 0...30 inH <sub>2</sub> O
<b>Working range, flow</b>	0...65000 m <sup>3</sup> /h (factory setting) 0...31000 l/s 0...65000 Ft <sup>3</sup> /min
<b>Cable glands</b>	2 x M20 (cable diameter 5...12 mm) 1 x M16 (cable diameter 3.5...10 mm)
<b>Max overvoltage</b>	±18 V, on any terminal (not G and G0)
<b>Electronic damping</b>	0 s (0...120 s)
<b>Accessories, included</b>	Two pressure outlets (straight) and 2 m plastic tube. Art. no.: ANS-20
<b>Calibration</b>	Factory calibrated
<b>Dimensions, external (WxHxD)</b>	167 x (~130) x 46 mm
<b>Weight, incl. packaging</b>	0,39 kg

### Pressure data

<b>Media</b>	Air, non-combustible and non-aggressive gases
<b>Response time</b>	40 ms, depending on the electronic damping
<b>Sensor element, pressure</b>	Piezoresistive
<b>Temperature dependency, pressure</b>	Thermal effects: 1 (-25...+85°C), Offset: ±0.5 % FSS, Span: ± 1.0 % FSS
<b>Accuracy, pressure</b>	≤ 1 % full scale
<b>Resolution</b>	0,005 % of full scale
<b>Warmup time</b>	< 5 min
<b>Annual deviation</b>	±2 Pa (1250 Pa) ±4 Pa (2500 Pa) ±20 Pa (7500 Pa)
<b>K-factor</b>	5 (5...700)
<b>Zero-point adjustment</b>	By pressing a button, the output signal and the display adjusts to zero.

### Universal Input, UI1 and UI2

<b>Universal inputs (UI)</b>	2
<b>Configuration</b>	AI (AI / DI), see specifications below

*Configured as AI:*

<b>Analogue inputs (AI)</b>	0...10 V (0...10 V / PT1000 / Ni1000-01)
<b>Accuracy</b>	± 1 % (0...10 V) ± 0.5 K (PT1000/Ni1000-01)
<b>Measuring range, temperature</b>	-40...+60 °C

Configured as DI:

<b>Digital input (DI)</b>	Potential-free contacts on / off (on = closed)
<b>Output current</b>	0.5 mA (max. 2.5 V)

Universal output, UO1 and UO2

<b>Universal outputs (UO)</b>	2
<b>Configuration</b>	AO (AO / DO), see specifications below

Configured as AO:

<b>Analogue outputs (AO)</b>	0...10 V
<b>Load impedance, 0...10 V</b>	Min. 10 kΩ
<b>Accuracy</b>	± 1 %

Configured as DO:

<b>Configuration</b>	Mosfet outputs, 24 V AC or DC, 2 A continuous
<b>Power output</b>	max. 2 A (total UO1 + UO2)

Communication data

<b>Communication ports</b>	1
<b>Port type</b>	RS485
<b>Port isolation</b>	Non-isolated
<b>Supported protocols</b>	Modbus
<b>Default protocol</b>	Modbus
<b>Communication speed</b>	9600 bps (1200...56700)
<b>Stop bits</b>	1 (1 / 2)
<b>Cable length</b>	max. 100 m
<b>Parity</b>	None (even / odd / none)
<b>Device ID</b>	1



This product carries the CE-mark. More information is available at [www.regincontrols.com](http://www.regincontrols.com).

Material

<b>Material, housing</b>	Polycarbonate (PC)
<b>Material, base</b>	Polycarbonate (PC)

<b>Material, cable gland</b>	Thermoplastic elastomer (TPS-SEBS)
<b>Material, gasket</b>	Ethylene Propylene Diene Monomer (EPDM)

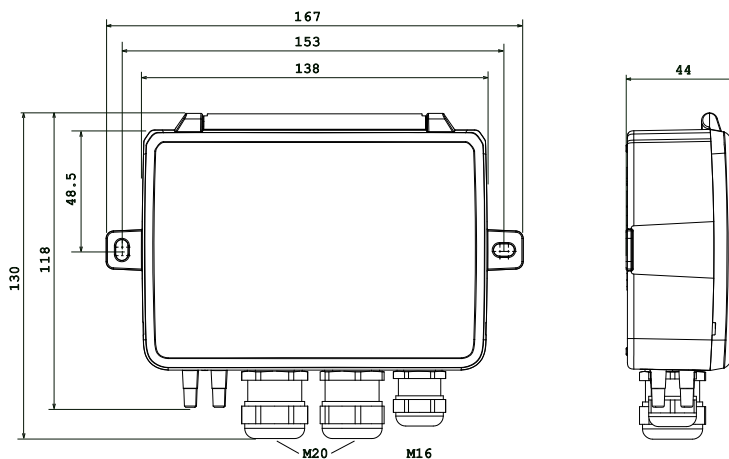
## Models

Article	Number of sensors	Max overload pressure (kPa)	Measuring range, pressure (Pa)
PDTX12-C	1	25	0...1250
PDTX25-C	1	50	0...2500
PDTX75-C	1	120	0...7500
PDTX12-2-C	2	25 / 25	0...1250 (sensor 1) / 0...1250 (sensor 2)
PDTX25-2-C	2	50 / 50	0...2500 (sensor 1) / 0...2500 (sensor 2)
PDTX12S25-C	2	25 / 50	0...1250 (sensor 1) / 0...2500 (sensor 2)
PDTX12S75-C	2	25 / 120	0...1250 (sensor 1) / 0...7500 (sensor 2)

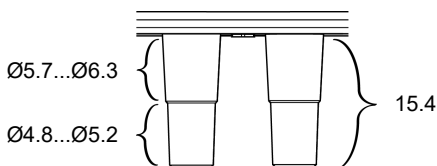
## Accessories

Article	Description
ANS-1	2 m plastic tube and two pressure outlets (cut 60°)
ANS-20	Two pressure outlets (straight) and 2 m plastic tube

## Dimensions



*Dimensions, pressure outlets:*



[mm]

## Documentation

All documentation can be downloaded from [www.regincontrols.com](http://www.regincontrols.com).