Presigo PDT...C(-2)

Pressure transmitter with communication for HVAC applications

Transmitters with two universal inputs and communication via EXOline or Modbus.

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

Function

Presigo PDT...C(-2) is a range of pressure transmitters with one or two pressure sensors, two universal inputs and an RS485 port for data exchange. The RS485 port can be easily configured for either EXOline or Modbus communication.

The transmitter is especially well suited as a distributed I/O module for air handling unit controllers. It is designed for easy installation together with Regin's Corrigo or EXOcompact controllers.

Several different models are available (see table on page 2).

Expands the controller by up to four inputs

The transmitter operates as a Modbus or EXOline slave, relieving the controller of up to two analogue pressure inputs and two universal inputs. This means that less wiring is required, reducing both material costs as well as the amount of work needed.

You can choose whether flow or volume data will be displayed. A single unit will usually cover half the measuring requirements of one typical air handling unit (fan, filter and two temperatures).

Smart sensor technology

The transmitter has one or two MEMS dual-chip medical grade sensor modules for general use with neutral gases. This technology offers very high accuracy and excellent long-term stability.

Compact design and flexible universal inputs

The transmitter has a small and compact design which, depending on the model, contains one or two transmitters and two universal inputs in the same casing. The universal inputs can be individually configured as digital or analogue inputs (PT1000/Ni1000 sensor or 0…10 V).

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DIP-switch

The transmitter features a DIP-switch for setting up suitable communication parameters. These settings can later be overridden by commands sent by the master.

Easy installation and wiring

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.

Two separate cable inlets, a large angled terminal and generous space make wiring easy.

Values can be read in E tool©

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

Models with pressure ranges (full scale)

Model		Number of sensors	Pressure range (Pa)	mBar	mmH$_2$O	inH$_2$O
PDT12C	PS1	One (only PS1 is present, reading PS2 related parameters will yield a zero value reading)	0...1250	0...12.5	0...125	0...5
PDT25C	PS1		0...2500	0...25	0...250	0...10
PDT75C	PS1		0...7500	0...75	0...750	0...30
PDT12C-2	PS1	Two	0...1250	0...12.5	0...125	0...5
	PS2		0...1250	0...12.5	0...125	0...5
PDT12S25C-2	PS1	Two	0...1250	0...12.5	0...125	0...5
	PS2		0...2500	0...25	0...250	0...10
PDT25C-2	PS1	Two	0...2500	0...25	0...250	0...10
	PS2		0...2500	0...25	0...250	0...10
PDT12S75C-2	PS1	Two	0...1250	0...12.5	0...125	0...5
	PS2		0...7500	0...75	0...750	0...30

PS = Pressure sensor

Flow settings

The following flow ranges apply when selecting a unit for flow measurement:

Unit	Flow ranges (full scale)
l/s	0...31000
m³/h (factory setting)	0...65000
CFM [Ft³/min]	0...65000

Universal inputs UI1, UI2

Configured as	Ambient temperature	Accuracy	Range
PT1000*	-25...0°C	±1 K	-40...+60°C or -40...+140°F
	0...50°C	±0.5 K	
Ni1000; 6180 ppm/K	-25...0°C	±1 K	-40...+60°C or -40...+140°F
	0...50°C	±0.5 K	
0...10 V	-	± 1 % at 20°C	-
Digital input	Potential-free contacts on/off (closed=on)		

Factory setting

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— 2 —

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Technical data

Supply voltage	24 V AC/DC ±15 %
Protection class	IP54
Calculated power consumption	2 VA (rms). Minimum transformer size 7.5 VA.
Data transmission channel	Non-isolated RS485 (max. 100 m)
Overall accuracy, pressure	≤ 1 % full scale
Annual deviation (typical) P1250 models P2500 models P7500 models	±2 Pa ±4 Pa ±20 Pa
Damping (settable)	1...12 s
K-factor (settable)	5...700
Operating temperature range	-25...+50°C*
Operating humidity	Max. 95 % RH (non-condensing)
Overvoltage on any terminal	Max. ±18 V (referenced to GND)

CE

This product carries the CE mark. More information is available at www.regincontrols.com

* Beginning October 2016, the extended temperature range will be gradually implemented on all models. The actual range can be found on the inside of the Presigo PDT... C(-2) cover.

Example:

Temperature range -25...+50°C
Transmitters with extended temp. range

Temperature range -10...+50°C
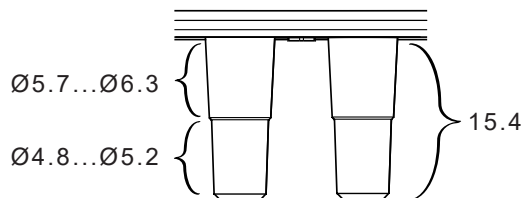*Earlier models*

Accessories

ANS-3	Metal pressure outlet with 90° angle, 2 pcs + 2 m plastic tubing
ANS-20	Pressure outlet (straight), 2 pcs + 2 m plastic tubing

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— 3 —
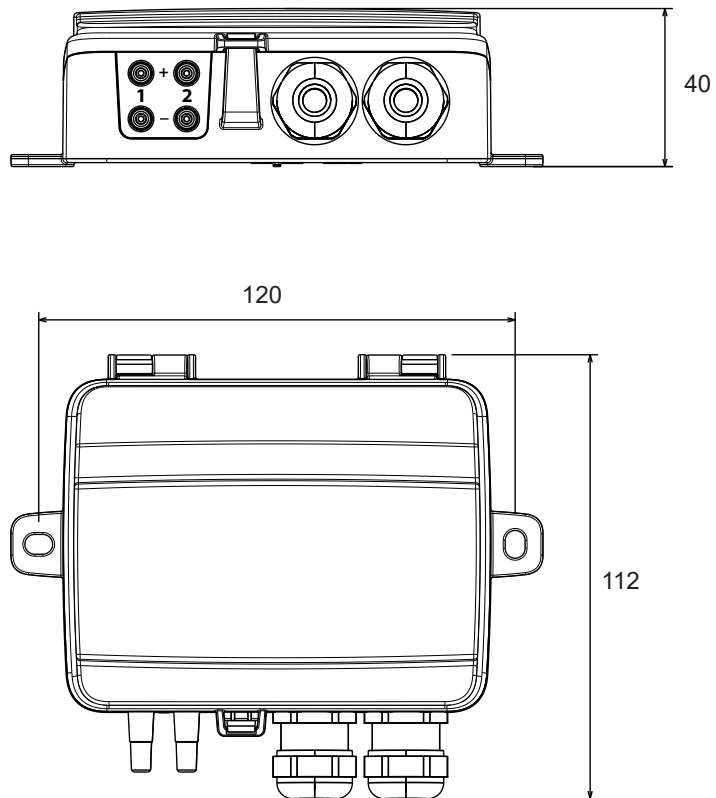
Dimensions

Dimensions, pressure outlets:

Ø5.7…Ø6.3

Ø4.8…Ø5.2

15.4

Measurements in mm unless otherwise specified.

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— 4 —

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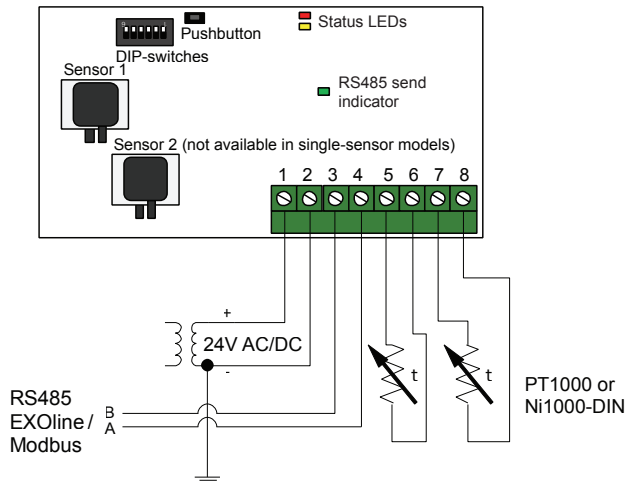THE CHALLENGER

Wiring

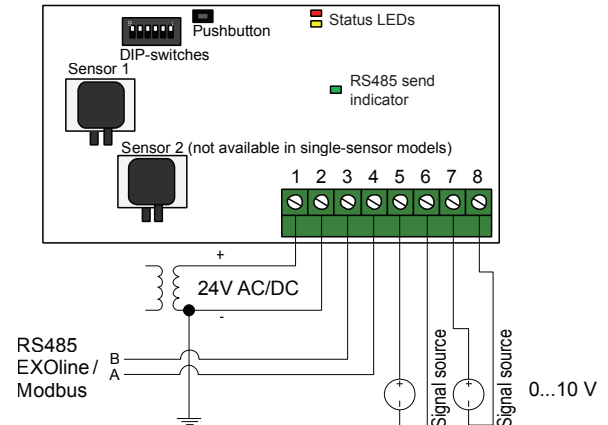Fig. 1: Wiring with UIx as temperature input
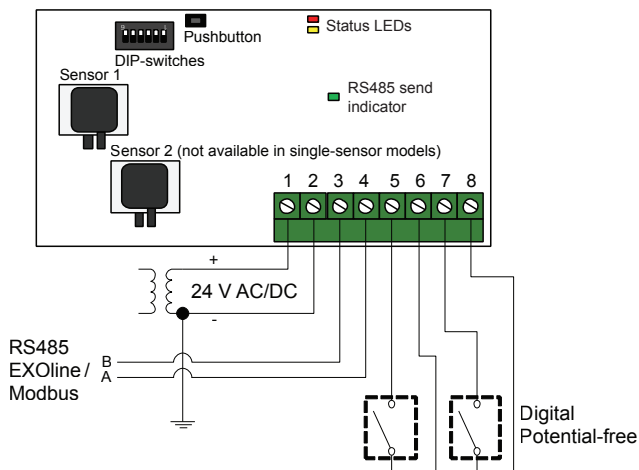

Fig. 2: Wiring with UIx as 0...10 V input

Fig. 3: Wiring with UIx as digital input

Product documentation

The product documentation can be downloaded from www.regincontrols.com

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