Presigo PDTN series

Pressure transmitter with/without communication for HVAC applications

Transmitters with communication via EXOline, Modbus or BACnet, and analogue without communication. With one or two ports, and with or without display.

Uses a sensor technology that offers very high accuracy and excellent long-term stability.

- ✓ High visibility display showing relevant information readable on a distance
- ✓ Installation-friendly with lots of space in casing and clear markings directly on PCB
- ✓ BACnet, Modbus and EXOline for easy integration to controllers and BMS
- ✓ Wireless communication using the Regin:GO app
- ✓ +/- pressure benefited in clean room or hospital applications
- ✓ Can be installed in demanding environments (IP54 class), mounted vertically or horizontally

Application

Discover the Presigo PDTN series – Precision Meets Versatility.

Engineered for high-performance pressure measurement, the Presigo PDTN series sets a new standard in accuracy and adaptability. Whether you choose the single or dual-port configuration, this advanced transmitter offers selectable analogue outputs (0–10 V or 4–20 mA) to suit your application needs.

Seamless integration is built in, thanks to a configurable RS485 interface supporting EXOline, BACnet, and Modbus protocols—ensuring smooth communication across diverse network environments.

At its core, the transmitter leverages single or dual dual-chip sensor modules to deliver highly accurate readings with neutral gases—making it ideal for demanding HVAC and industrial applications.

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Customise your output units with ease: choose from Pa, kPa, PSI, mBar, inH_2O, mmH_2O m^3/h, m^3/s, l/s, or CFM for pressure and flow.

Maintenance is effortless with a built-in push-button interface for zero-point calibration and quick factory reset —keeping your system running smoothly with minimal downtime.

Function

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

It is designed for easy installation together with Regin's Corrigo or EXOcompact controllers.

Several different models are available. See section *Model overview*.

Models with a display

The user interface consists of a display made up of a matrix of LEDs, in a plastic casing, where the display can be seen through the plastic material.

Settings of the display can be done through the Regin:GO app or Application tool 2 (for PDTN-..(C) models).

Models without a display

For devices without display, sensor readings are shown in the Regin:GO app or Application tool 2. Or via RS485 (EXOline, Modbus/BACnet).

Communication and Configuration - Bluetooth

The transmitter can be connected to a central SCADA-system via RS485 (EXOline or Modbus, or BACnet) and configured for a particular application using the Regin: GO app.

Configuration is supported by communication via Bluetooth®, and the Regin:GO app.

For more information about the Regin:GO, contact Regin.

The Regin:GO app can be downloaded from *App store* (iPhone and iPad) or *Google play* (Android).

Regin:GO

Available on the App Store

GET IT ON Google Play

SCAN ME App Store

SCAN ME Google Play

Smart sensor technology

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

Rotary switch

The transmitter features a rotary switch for setting up suitable communication parameters (models with RS485). These settings can later be overridden by commands sent via EXOline, BACnet, Modbus, or via the Regin:GO app.

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.

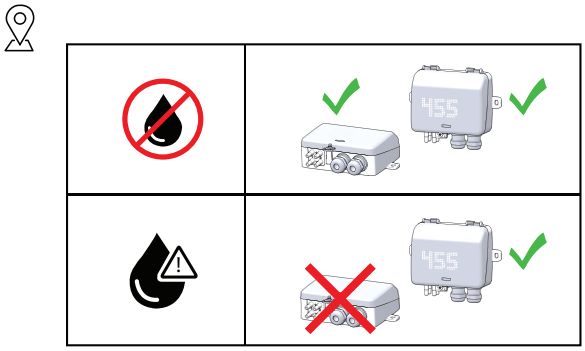

Fig. 1 Installation placement

Two separate cable inlets, a large angled terminal and generous space make wiring easy. For more information, see the Presigo PDTN Instruction, to be downloaded at www.regincontrols.com.

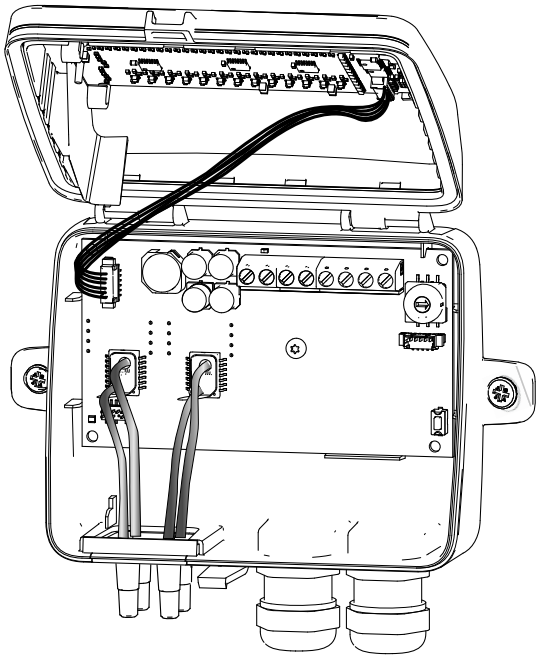

Fig. 2 LED wiring and pressure tubes

Technical data

Supply voltage	24 V AC/DC ±15 %
Protection class	IP54
Calculated power consumption	2 VA (rms)
Data transmission channel	Non-isolated RS485
Damping (settable)	0…600 s
K-factor (settable)	1…1000
Ambient temperature	-25...+50°C
Storage temperature	-25…+50°C
Ambient humidity	max. 95 % RH (non-condensing)
Colour	**Lid**: Green RAL6032 (green) **Housing**: RAL7035 (grey) **Connection and cable glands**: RAL7035 (grey)
Overvoltage on any terminal	max. ±18 V (referenced to GND)
Accuracy, sensors	±1.5% of full scale
Annual drift	max. ± 0,1% full scale
Mounting	Horizontal/Vertical (not upside down)

Communication

RS485	For EXOline (with automatic detection), Modbus (with automatic detection), or BACnet.
Communication cable length, maximum	300 m
Bluetooth® Low Energy	Bluetooth® communication.
Communication	**PDTN and PDTN-C**:Bluetooth® Low Energy **PDTN-C only**: RS485 (EXOline or Modbus (with automatic detection/change-over), or BACnet. (EXOline: Regin applications only))
Modbus, EXOline	8 bits 1 or 2 stop bits (1 stop bit = default) Odd, even (default) or no parity
Communication speed Modbus, EXOline, BACnet	9600, 14400, 19200, 38400 bps. 76800, 115200 bps (for update).
BACnet	MSTP B-ASC (based on the B-AAC stack)

Pressure data

Media	Air, non-flammable and non-aggressive gas

Material

Material, lid	Polycarbonate (PC, Makrolon 2207)
Material, gasket	Ethylene Propylene Diene Monomer (EPDM)
Material, housing	Polycarbonate (PC)
Material, cable gland	Polyamide (PA6.6)

Model overview

Article	Sensor 1 Pressure range	Sensor 2 Pressure range	0...10V / 4...20mA	Display	Communication RS485 EXOline / Modbus / BACnet
PDTN5	-500...+500	-	✓		
PDTN5-C	-500...+500	-			✓
PDTN5-D	-500...+500	-	✓	✓	
PDTN5-CD	-500...+500	-		✓	✓
PDTN12	0...1250	-	✓		
PDTN12-C	0...1250	-			✓
PDTN12-D	0...1250	-	✓	✓	
PDTN12-CD	0...1250	-		✓	✓
PDTN25	0...2500	-	✓		
PDTN25-C	0...2500	-			✓
PDTN25-D	0...2500	-	✓	✓	
PDTN25-CD	0...2500	-		✓	✓
PDTN70	0...7000	-	✓		
PDTN70-C	0...7000	-			✓
PDTN70-D	0...7000	-	✓	✓	
PDTN70-CD	0...7000	-		✓	✓
PDTN12S12-C	0…1250	0…1250			✓
PDTN12S12-CD	0…1250	0…1250		✓	✓
PDTN12S25	0...1250	0...2500	✓		
PDTN12S25-C	0...1250	0...2500			✓
PDTN12S25-D	0...1250	0...2500	✓	✓	
PDTN25S25	0…2500	0…2500	✓		
PDTN25S25-C	0…2500	0…2500			✓
PDTN25S25-CD	0…2500	0…2500		✓	✓

Note! When using the rotary switch, each sensor provides several preset output-to-measurement mapping ranges (typically 7–9 options). In contrast, the mobile application allows full customisation of the output signal mapping. For example, if the sensor range is –500 to +500 and you want the 0–10 V output to represent –100 (0 V) to +500 (10 V), this configuration can be easily achieved through the Regin:GO app.

Inputs & outputs

Analogue outputs (AO)	0...10 V and/or 4...20 mA. 0...10 V: Load impedance min. 10 kΩ. Output impedance less than 35 Ω. 4...20 mA: Load impedance 40…500 Ω. Accuracy: better than 1 % of full scale. Short circuit protected.

Accessories

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

Dimensions

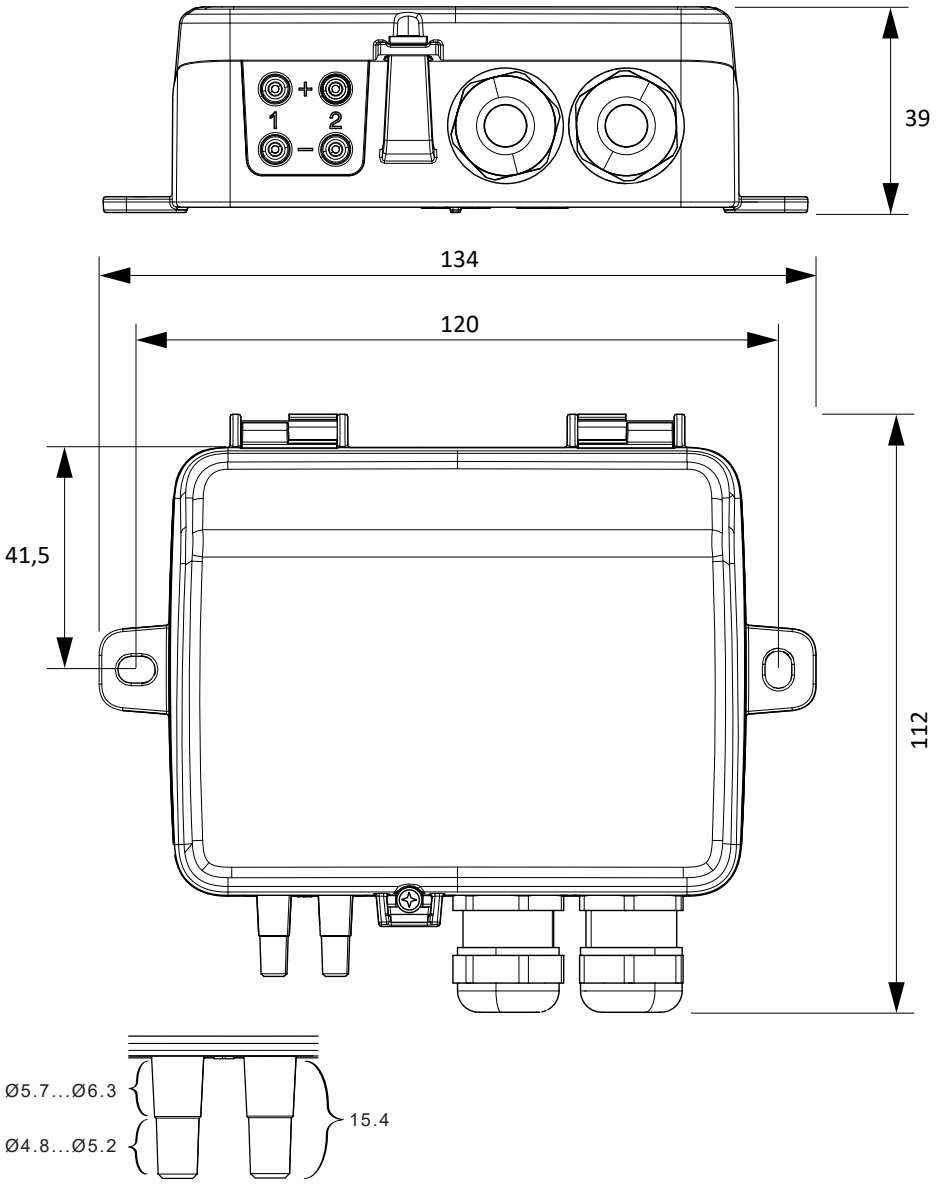

Fig. 3 Dimensions, pressure outlets

[mm], unless otherwise specified

Wiring

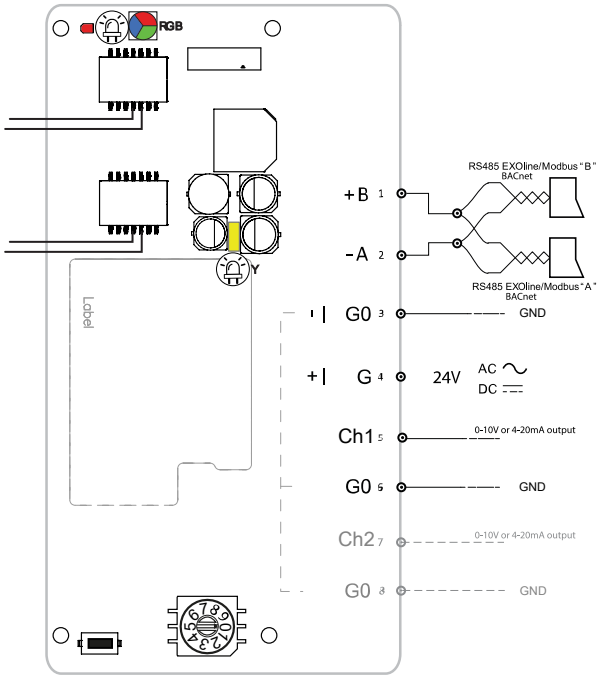

Fig. 4 Wiring example - Generic

CE

Hereby, Regin declares that the radio equipment type ,Presigo PDTN series is in compliance with Directive 2014/53/EU.

Presigo PDTN complies with EN IEC 60730-1 as a class A control.

This radio equipment device is approved for use in all countries within the European union.

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

Documentation

All documentation can be downloaded from www.regincontrols.com.