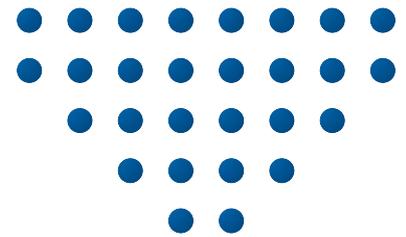




Transducer

PTH



HVAC CONTROLS AND POWER

Optimum measurement of pressure differentials

PTH is a series of pressure transducers which are ideal for monitoring and controlling pressure differentials in ventilation systems.

PTH transducers are particularly suitable when a measurement of the actual air pressure is required for demand control ventilation.

PTH transducers take up very little space and are designed for direct installation at the measuring point. PTH transducers are exceptionally compact and easy to install as there is ample room for attaching cables.

PTH transducers provide our customers with an advantageous combination of high quality and accurate measurement.

PTH FUNCTIONS

Temperature-compensated output signal

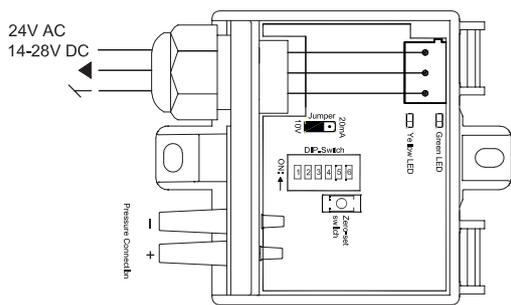
The electronic system is based on microprocessor technology, ensuring a precise output signal. Thanks to the integrated temperature compensation, the transducers are ideal for use over a wide range of temperatures. PTH is, for example, suitable for fresh-air inlets.

No risk of dust-related errors

PTH consists of semiconductor-based pressure elements that provide reliable and accurate measurements. As pressure affects these elements directly and there is no air flow through them, the risk of dust-related errors is extremely small.

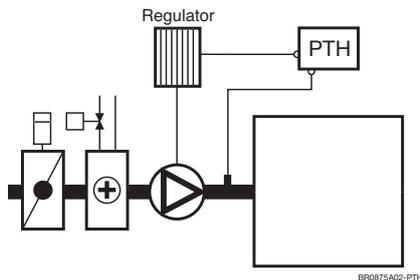
Flexible design

PTH can be configured to suit any controller. With eight different pressure ranges and the possibility of choosing between voltage and current outputs, PTH pressure transducers have a wide range of applications, are easy to install and save space in the service van.

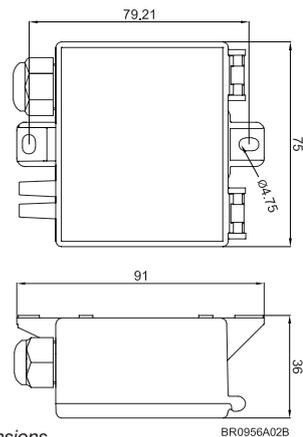


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Connections



Applications example



Dimensions

PTH FUNCTIONS

Signal fluctuation damping

It is possible to choose between two signal-damping periods, thus ensuring that PTH pressure transducers always provide a controllable signal. This is particularly useful in situations where measurement is only possible in turbulent air flows.

Protection against incorrect installation

The green LED indicates that the supply voltage has been connected correctly. If the actual pressure is outside the selected pressure range, the green LED flashes to indicate that the transducer should be set for a higher measuring range or that the tubing on the +/- connectors should be interchanged.

Protection against incorrect calibration

PTH is zero calibrated by pressing a button inside the enclosure. Tubes must be pressure free during zero calibration. If the yellow LED lights up, the pressure differential is greater than +50 Pa and it is recommended that the pressure tube(s) be removed before zeroing is performed.

TECHNICAL DATA

Supply voltage	24V AC $\pm 15\%$, 50/60 Hz, 13.5 - 28V DC
Transducer output	0-10V, 2-10V DC, 4-20 mA, 0-20 mA DC
Measuring range	-50/+50 Pa, 0/100 Pa, 0/150 Pa, 0/300Pa, 0/500 Pa, 0/1000 Pa, 0/1600 Pa, 0/2500 Pa
Ambient temperature	Operation: -20/+40°C (transient -30/+50°C)
Accuracy at -20/+40°C	$\pm 3\%$ (> 350 Pa), ± 10 Pa (< 350 Pa)
Linearity at -20/+40°C	$< \pm 1\%$ of entire transducer range
Maximum pressure	20 kPa
Power consumption	2 VA (+5/+40°C), 4 VA (-20/+5°C))
Damping period	0,4 secs. and 10 secs.
Dimensions	75 x 36 x 91 mm
Cable dimension	3 x max. 1,5 mm ²
Pressure tubes	2 x ϕ 6,2
Enclosure	IP54
Weight	80 g

CE MARKING

PTH transducers meet the requirements contained in the following standards:

EMC DIRECTIVE

EN 61000-6-2
 EN 61000-6-3

INSTALLATION

PTH installation

PTH is mounted using two screws. The mounting surface must be level between the two screws. The pressure tubes must be as short as possible and be secured in position to prevent vibration. To obtain the best possible results, pressure must be measured where there is least risk of turbulence, i.e. in the centre of the ventilation duct and at a distance of at least twice the width of the duct from bends and branches.

Control signal cable installation

The enclosure is opened without the use of tools by pressing the snap lock at the side of the connectors. The transducer cable may be up to 50 m in length. The transducer cable must be kept separate from mains-carrying cables as voltages may otherwise be produced that can interfere with transducer function and damage the controller.

PRODUCT PROGRAM

TYPE	PRODUCT
PTH-3202	Pressure transducer 0-2500 Pa, single channel