

PEL 8K - DIFFERENTIAL PRESSURE TRANSMITTER

PEL 8K is a pressure transmitter for detecting pressures and pressure differences in air handling systems. The pressure measurement is temperature compensated according to the ambient temperature.

Output signal can be selected to be either differential pressure linear or flow (volume) linear.

The M models have RS-485 connection for Modbus RTU communication. ML-SER tool is needed at commissioning for making the Modbus settings.

The transmitter zero point is kept accurate by using the regular automatic zeroing, eliminating the possible zero point drifting. No re-calibration is normally needed.

The influence of process disturbances (e.g. turbulence) can be damped by selecting a suitable time constant (2 s or 8 s).

The N models have a display. The display resolution is 0,1 Pa for measured values below 200 Pa and 1 Pa for values over 200 Pa. The display can be added also after commissioning.

Selecting measuring range:

S2	S3	S4	
		■	●●
■	■	0...8000 Pa *)	0...2500 Pa
●●	■	0...5000 Pa	0...2000 Pa
■	●●	0...4000 Pa	0...1500 Pa
●●	●●	0...3000 Pa	0...1000 Pa

*) Factory setting. The 0...8000 Pa range is also used for the custom range setting. The range limits can be changed with the ML-SER tool or via Modbus.

Selecting time constant:

S1	Time constant
●●	2 s
■	8 s *)

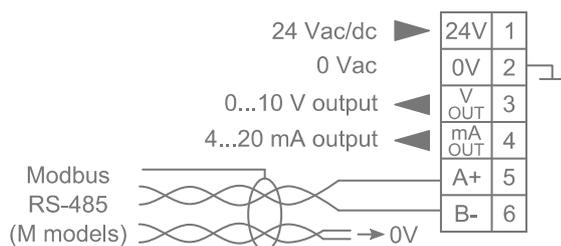
*) Factory setting.

Selecting the output mode:

S5	Output mode
■	pressure linear *)
●●	flow linear

*) Factory setting.

Wiring:



Technical data:

Supply	24 Vac/dc (22...28 V), 2 VA
Measuring ranges	0...1000 Pa 0...3000 Pa 0...1500 Pa 0...4000 Pa 0...2000 Pa 0...5000 Pa 0...2500 Pa *0...8000 Pa
Accuracy	±10 Pa ±1 % of reading (25 °C)
Output (pressure or flow linear)	*0...10 / 2...10 / 0...5 Vdc, < 2 mA *4...20 / 0...20 mA, 700 Ω
Communication (M models)	Modbus RTU (RS-485)
Time constant	2 s or *8 s
Max. over pressure	25 kPa
Pressure connections	Ø5 mm
Operating temperature	0...+45 °C
Housing	IP 54, polycarbonate
Dimensions (w x h x d)	105 x 102 x 46
	* = factory setting

Ordering guide:

Model	Product number	Description
PEL 8K	1131350	differential pressure transmitter
PEL 8K-N	1131351	differential pressure transmitter with display
PEL 8K-M	1131400	differential pressure transmitter with Modbus
PEL 8K-M-N	1131401	differential pressure transmitter with Modbus and display
PEL-AS	1131010	PEL accessory kit (2 m hose and duct assemblies)
ML-SER	1139010	transmitter commissioning tool

Products fulfill the requirements of directive 2004/108/EC and are in accordance with the standards EN61000-6-3 (Emission) and EN61000-6-2 (Immunity).