

PEL-DK - DIFFERENTIAL PRESSURE TRANSMITTER

PEL-DK 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.

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 suitable time constant (2 s or 8 s).

The N models have a backlit 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...1000 Pa *)	±500 Pa
■	●●	0...500 Pa	±250 Pa
■	●●	0...200 Pa	±100 Pa
●●	●●	0...100 Pa	±50 Pa

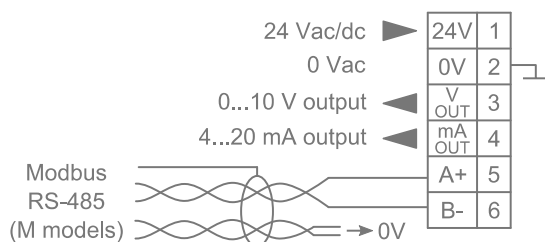
*) Factory setting. The 0...1000 Pa range is also used for the custom range setting. The range limits can be changed with the ML-SER tool or via Modbus.

Selecting time constant:

S1	Time constant
●●	2 s
■	8 s *)

*) Factory setting.

Wiring:



Technical data:

Supply	24 Vac/dc (22...28 V), 2 VA
Measuring ranges	0...100 Pa ±50 Pa
	0...200 Pa ±100 Pa
	0...500 Pa ±250 Pa
	*0...1000 Pa ±500 Pa
Accuracy (at 25 °C)	-400...1000 Pa ± 3 Pa ± 1 % of reading
	< -400 Pa ± 3 Pa ± 2 % of range
Outputs	*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	13 kPa
Pressure connections	Ø5 mm
Operating temperature	0...+45 °C
Display (N models)	backlit dot matrix display
Housing	IP54, polycarbonate
Dimensions (w x h x d)	105 x 102 x 46 mm
	* = factory setting

Ordering guide:

Model	Product number	Description
PEL-DK	1131200	differential pressure transmitter
PEL-DK-N	1131201	differential pressure transmitter with display
PEL-DK-M	1131390	differential pressure transmitter with Modbus
PEL-DK-M-N	1131391	differential pressure transmitter with Modbus and display
ML-SER	1139010	transmitter commissioning tool

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