



# Peritact 2000

## Low pressure measuring device with digital display for draught, pressure and differential pressure

- Diaphragm measuring unit
- Lowest measuring range 0...50 Pa
- Analogous output 0...10 V and 0/4...20 mA
- 3 1/2 digit LCD display
- Supply voltage 230 Vac, 24 Vac or 24 Vdc
- Wall mounting case IP65
- Panel mounting with additional accessories



## Description and operation

## Safety indications



**Attention!** Read these instructions carefully before connecting the unit and putting it into operation. The device disposes of shock hazardous voltage and is therefore only to be connected and put into operation by trained and expert staff.

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## Use

The low pressure measuring unit PERITACT 2000 is used for measuring, display and transfer of measured values of smaller differential pressures of non-aggressive gas, particularly air.

The application range is e.g. in the climate and ventilation technology with the control of fans, monitoring of the room pressure or the filter control.

## Description

The differential pressure to be measured acts onto a silicone diaphragm and deflects it to a measuring spring. Deflection is transferred into an electronic output signal by a differential transformer with an electronics made up in SMD technology.

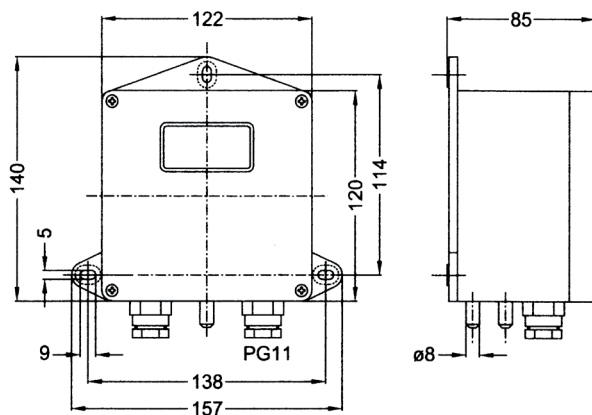
A 3 1/2 digit LCD display is incorporated to display the current pressure value.

The low pressure measuring unit PERITACT 2000 has a voltage output of 0...10 V and in addition a current output of 0/4...20 mA. The current output can be switched over from 0...20 mA to 4...20 mA by means of a DIP switch.

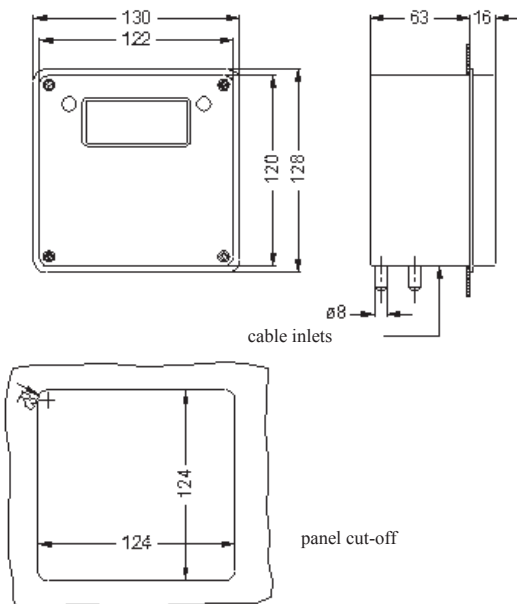
The unit is equipped with an incorporated mains transformer for a supply voltage of 230 Vac. Furthermore, it is possible to supply the unit with 24 Vac or with 24 Vdc direct.

The complete measuring system is placed into a wall mounting case with protection class IP65. The connection nozzles for the differential pressure to be measured are situated at the bottom side while the electrical cables are conducted into the unit via damp proof installation cables.

## Physical dimensions



## Physical dimensions panel mounting



## Mounting

The low measuring unit PERITACT 2000 has to be vertically mounted onto an antivibration wall. A three-point fastening is provided for assembly.

A zero point adjustment has to be effected after assembly, particularly with small measuring ranges (see pages 5).

## Connection of pressure pipes

The diameter of the connection nozzles which are intended for hose connection is 8 mm. The nozzles are situated at the bottom side of the unit, overpressure connection and underpressure connection are marked with „+“ and „-“.

## Connection plan



### Explanations to the connection plan

Supply with 230 V 50 c/s at terminals 1 and 2. This connection ist physically separated from the remaining electronics by an incorporated mains transformer.

Supply with 24 Vac or with 24 Vdc at terminals 3 and 4. Here, direct supply is effected, i.e. the terminals 4, 6 and 8 are earth connections which are internally connected.

The voltage output and the current output can be used in parallel or individually. The current output is not be short-circuited only if the voltage output is used.

## Electrical connection

Connection is effected as per connection plan below. The terminals are directly accessible after removing the front cover.

## Adjustments

### 1. Zeropoint

for the adjustment of the zero point, the pressure hoses have to be removed. Now, it is possible to adjust the zero point by means of the poti "Zero adjust" (besides the connection terminals) after taking off the front cover. Then place the hoses on again for pressure measuring.

### 2. Measuring range

If an exact low pressure calibrator is available, it is possible to readjust the measuring range at the corresponding poti.

### 3. Damping

With a variable pressure display, an electronic damping in 3 degrees can be adjusted at the DIP switch "Damping".

1 off 2 off = no damping

1 on 2 off = damping approx. 0,3 s

1 off 2 on = damping approx. 0,8 s

1 on 2 on = damping approx. 1,1 s

### 4. switching over the current output from 0...20 mA to 4...20 mA

DIP switch 1 on 2 off = 0...20 mA

1 off 2 on = 4...20 mA

## Technical Data

Lowest measuring range:	50 Pa
Largest measuring range:	10000 Pa
Measuring range adjusted:	on request, also $\pm$ ranges, e. g. -50...0...+50 Pa (if technically possible)
Overpressure security:	up to 0,2 bar
Static pressure:	max. 0,2 bar
Pressure connections:	Hose nozzles 8 mm $\varnothing$
Electrical connections:	Terminal screws up to 2,5 mm <sup>2</sup>
Cable entries:	2 x PG11
Supply voltage:	230 Vac (incorporated mains transformer) and 24 Vac or 24 Vdc (direct supply)
Output:	0...10 V and 0/4...20 mA, current output switchable via DIP switches
Electronic damping:	adjustable in 3 degrees 0,3 s, 0,8 s and 1,1 s
Display:	3 1/2 digit LCD display, digit height 13 mm
Wall mounting case:	Ultramid/ABS, black/grey Dimensions 122 x 120 x 85 mm (W x H x D)
Protection:	IP65
Ambient temperature:	0...50 °C
Weight:	approx. 900 g
EMC:	Control as per EN50081-2, EN50082-2, CE-sign
Tolerance:	$\pm$ 1 %