



# Peritact 80

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

- Diaphragm measuring unit
- Smallest measuring range 0...50 Pa
- Analogous output 0...10 V or 0/4...20 mA
- Large mechanical indicator
- Min. and max. contact
- Supply voltage 230 Vac, 24 Vac or 24 Vdc
- Wall mounting case IP65



## 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.

## Use

The indicator PERITACT 80 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 pressure respectively the differential pressure works on a silicone diaphragm and generates a force which will be compensated by a spring movement. The diaphragm is lead by tape beared links. At the pivot of the links movement of diaphragm is broughtout of the pressure chamber by a bending pipe and is lead to the actual value pointer. The zero point can be adjusted with a setting screw.

The unit is available with 2 setpoints. An Adjustment of the setpoints is possible without overlap at full scale range. If the actual value pointer reaches the presettable setpoint, the segment deeps into an optical switch, which is connected to a switch amplifier with relais output. Switching states of relais are indicated on scale by LEDs.

The movement of the diaphragm can also be transformed by a differential trans-formator with a connected electronic in a pressure- or differential pressure proportional output signal.

The complete measuring system, included the electrical exploitation is build in a panel mounting case 144 x 144 or a wall mounting case protection class IP65. The connection nozzles for the pressure and the electrical connection of the panel mounting case are situated at the backside. The connection nozzles of the wall mounting case are situated at the bottom side while the electrical cables are conducted into the unit via damp proof installation cables. Contact devices as well devices with an electrical output signal needs a supply voltage of 230 Vac or 24 Vac.

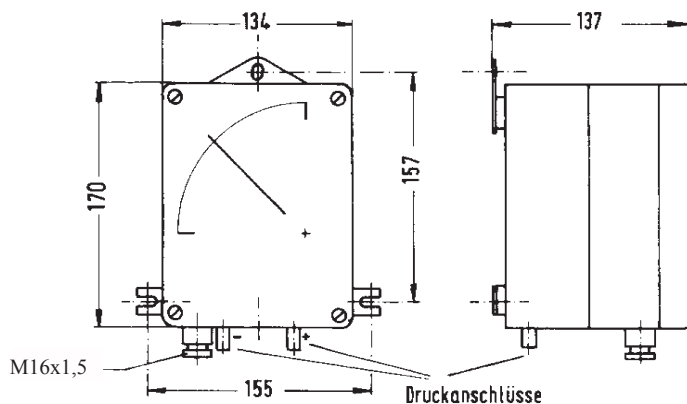
The two-wire transformer MZP 80 needs a supply voltage of approximately 13...30 Vdc.

The transformer changes it current-consumption in accordance of the measured pressure in its limit of 4...20 mA.

## Mounting

All PERITACT 80 devices have to be mounted onto an antivibration wall or panel.  
A three-point fastening is provided for assembly of wall mounting devices.  
All devices have to be vertically mounted.

## Physical dimensions



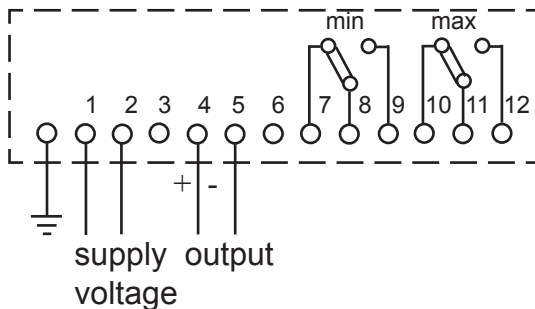
## Connection of pressure pipes

The diameter of the connection nozzles which are intended for hose connection is 8 mm. The nozzles are situated at the backside by panel mounting devices and at the bottom side of the unit by wall mounting devices. Overpressure connection and underpressure connection are marked with “+” and “-”. All devices are protected against overload up to 0,2 bar, static pressure may not exceed 0,2 bar.

## Electrical connection

Connection is effected as per the connection plan below. After removing the front cover you can see the terminals. The devices with the order no. 2410 and 2415 do not need supply voltage. At the two-wire transformer MZP 80 the support and transfer will be done with the same two wires. A direct current of approx. 24 Vdc (13...30 Vdc) is needed as voltage source. The maximum load of contact devices are 250 Vac, 6 A, free of induction.

## Connection plan



## Zero point adjustment

For zero point adjustment the tubes have to be stripped of. Then zero point can be adjusted at the front by the zero adjuster. After Adjusting the tubes must be fitted to the sockets again.

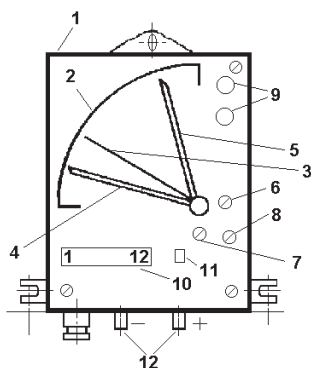
## Adjustment of the setpoints

Adjustment of setpoints for min. and max. controlling can be done at the front side of the instrument. Adjustment is possible without overlap at full scale range. Switching states of relays are indicated on scale by LEDs.

## Readjustment of the electrical output signal

If there is a difference between induction and output signal, the output signal can be readjusted at the potentiometer P1 and P2. The P1 effects a displacement of the zero point, while the P2 a change of the range causes. At the two-wire transmitter MZP 80 the potentiometer correspond with „4 mA“ and „20 mA“ on the scale.

## Operating element wall mounting case



1 plastic case 155x170x137 mm

2 scale

3 actual value pointer

4 setpoint min.

5 setpoint max.

6 adjustment setpoint min.

7 adjustment setpoint max.

8 zero adjustment

9 LEDs for switching states

10 electrical plug

11 separate plug for protective ground

12 sockets for pressure connection 8 mm

## Technical data

<b>measuring substances:</b>	air and non-aggressive gases
<b>measuring absorber:</b>	leaded diaphragm with measuring spring
<b>lowest measuring range:</b>	wall mounting case 50 Pa, panel mounting 200 Pa
<b>largest measuring range:</b>	10 000 Pa
<b>overpressure protection:</b>	max. 0,2 bar
<b>static pressure:</b>	max. 0,2 bar
<b>pressure connections:</b>	hose nozzles 8 mm $\varnothing$
<b>electrical connections:</b>	terminal screw 2 x 2,5 mm <sup>2</sup> wall mounting case with cable entries M16x1,5
<b>output:</b>	Peritact 80: 0...20 mA, 4...20 mA, or 0...10 V MZP80: 4...20 mA, two-wire system
<b>max. load:</b>	on current output 500 ohm
<b>max. load:</b>	on voltage output 20 mA
<b>contact device:</b>	2 limits min and max, per 1 relais with 1 throw-over switch for each limit value max. contact load 250 Vac, 6 A, noninductive
<b>supply voltage:</b>	Peritact 80: 230Vac or 24 Vac MZP80: 24 Vdc (13...30 Vdc)
<b>EMV:</b>	tested according EN 50081-2, 50082-2, CE-sign
<b>case:</b>	ABS - plastic wall mounting, 134 x 170 x 137 mm (BxHxT) non-clouding cover
<b>protection class:</b>	wall mounting case IP65 according EN 60529
<b>working position:</b>	vertical
<b>ambient temperature:</b>	panel mounting case -5...+40 °C wall mounting case -10...+60 °C
<b>weight:</b>	ca. 1,5 kg
<b>influences and tolerances</b>	
<b>supply voltage:</b>	$\leq 0,1 \%$ -15...+10 %
<b>ambient temperature:</b>	$\leq 0,3 \%$ /10K
<b>load:</b>	$\leq 0,1 \%$