

## Datasheet

Subject to technical alteration  
Issue date: 05.03.2015



## Application

Differential pressure transmitter with 8 selectable measuring ranges and adjustable output (0..10 V or 4..20 mA). For monitoring the differential pressure of air and other non-flammable and non-aggressive gases. Possible applications: Monitoring for air filters, fans, industrial cooling air cycles as well as overheating protection, control of air and fire dampers. Suitable for mounting on DIN rail TS35 according to DIN / EN60715 or screwed on flat ground.

## Types available

Type	Measuring range <sup>2)</sup>
DPA-250 (-D) <sup>1)</sup>	0..250 Pa
DPA-2500 (-D) <sup>1)</sup>	0..2500 Pa
DPA-7000 (-D) <sup>1)</sup>	0..7000 Pa

<sup>1)</sup> Display (optional)

<sup>2)</sup> Details for measuring range, please refer page 3

## Security Advice – Caution



The installation and assembly of electrical equipment must be performed by a skilled electrician.

The device should only be used for the appropriate application. Unauthorised conversions or alteration are prohibited! The modules must not be used in relation with equipment that threatens, directly or indirectly, human health or life or with applications that can result in danger for people, animals or assets. Before connecting devices, the installation must be isolated from the power source!

For devices with controlling units (signal transducers, transmitters, etc.), it is important to make sure that the signal receiving device (actuators, generators, etc.) does not accept damaging or threatening conditions, that may arise from false signals during installation / configuration of the control unit. If necessary, disconnect the signal receiver from any source of power.

The following procedure must be carried out:

1. Disconnect the device from power.
2. Ensure the device is secured against reconnection.
3. Verify the device is not powered.
4. Prior to reconnection, ensure that the enclosure is securely closed.

Please verify and consult:

- Laws, standards and regulations.
- The current condition of the device at the time of installation, to ensure safe installation.
- The devices technical data and installation manual.



## Notes on Disposal

As a component of large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location. The Waste Electrical and Electronic Act (WEEE) is not applicable. However, the product may contain valuable materials that should not be recycled rather than disposed as domestic waste. Please note the relevant regulations for local disposal.

## Technical Data

Power supply:	15..24 V = ( $\pm 10\%$ )   24 V ~ ( $\pm 10\%$ )
Power consumption:	Max. 1,3 W
Output differential pressure:	0..10 V, 4..20 mA
Accuracy:	DPA 2500 / DPA 7000: $\pm 1,5\%$ from measuring range, DPA 250: $\pm 6$ Pa
Response time:	0,8 or 4 seconds (selectable at the device)
Media:	Air and non-aggressive gases
Measuring range pressure (largest measuring range):	0..250 Pa, 0..2500 Pa, 0..7000 Pa
Max. pressure:	200 kPa
Bursting pressure:	400 kPa
Enclosure material:	PA6
Tubing:	PVC, soft
Pressure connection:	male, $\varnothing=5,0$ mm / $\varnothing=6,3$ mm
Electrical connection:	Screw terminals, max. 1,5 mm <sup>2</sup>
Cable entry:	M20, single
Dimensions LxBxH:	66 x 90 x 52 mm
Measuring element:	Piezoresistive
Ambient temperature:	-10..+50 °C, max 95% rH, no condensate
Storage temperature:	-20..70 °C
Protection:	IP54 according to EN 60529 (IP65 with Cover screw)
Weight:	150 g

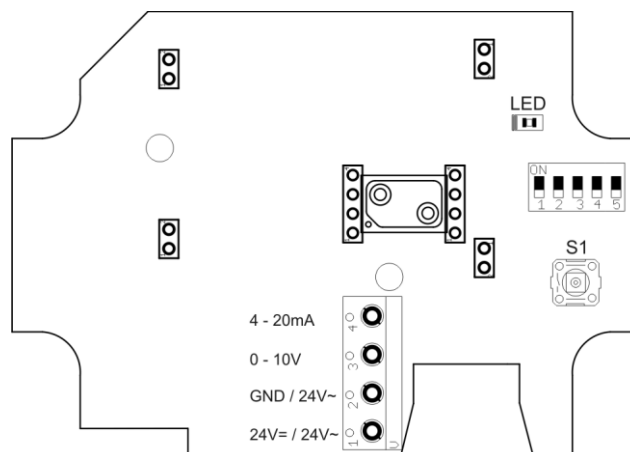
## Mounting Advices

- In order to connect the device, the process lines must be unpressurized.
- Consider the suitability of the device for the medium to be measured.
- Consider maximum pressures.

A prerequisite for the operation is a proper installation of all electrical supply, control and sensing leads as well as the pressurized connection line.

Before installing the device, the leak tightness of the pressurized connection lines has to be inspected.

## Terminal connection Plan



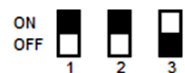
## DIP Configuration

### Range 1



Type	Measuring range pressure	
250	0	+25
2500	-100	+100
7000	0	+1000

### Range 2



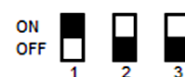
Type	Measuring range pressure	
250	0	+50
2500	0	+100
7000	0	+1500

### Range 3



Type	Measuring range pressure	
250	0	+100
2500	0	+250
7000	0	+2000

### Range 4



Type	Measuring range pressure	
250	0	+250
2500	0	+500
7000	0	+2500

### Range 5



Type	Measuring range pressure	
250	-25	+25
2500	0	+1000
7000	0	+3000

### Range 6



Type	Measuring range pressure	
250	-50	+50
2500	0	+1500
7000	0	+4000

### Range 7



Type	Measuring range pressure	
250	-100	+100
2500	0	+2000
7000	0	+5000

### Range 8



Type	Measuring range pressure	
250	-150	+150
2500	0	+2500
7000	0	+7000

## Response Time



DIP 4: Response Time 0,8 s



DIP 4: Response Time 4 s

## Display backlight



DIP 5: Display backlight OFF (only devices with Display)



DIP 5: Display backlight ON (only devices with Display)

## Zero-calibration

**Attention! To zero point calibration the power supply must be connected one hour before.**

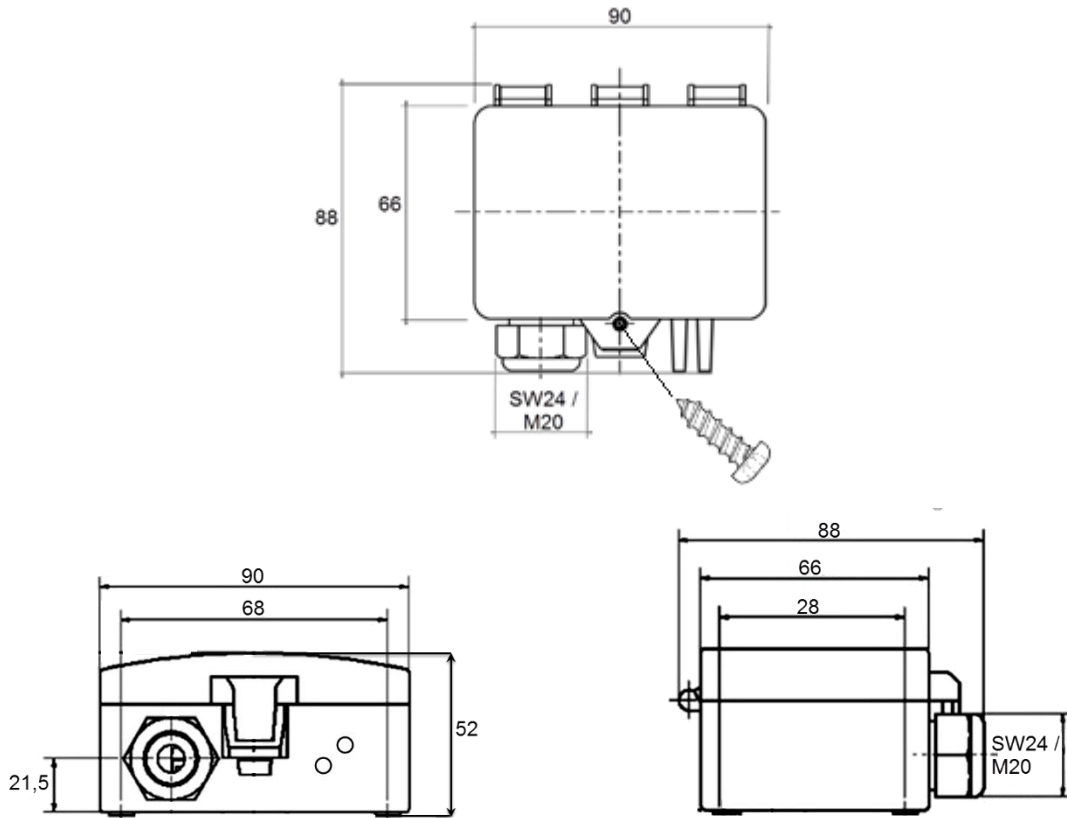
- Both hoses from the pressure terminals + and - solve.
- Press the S1 button until the LED stays on.
- Wait until the LED flashes again and install the tubing to the pressure ports.

In normal operation it is recommended to perform the zero point calibration every 12 months.

## Change measuring unit (only devices with display)

To change the displayed measurement size unit, push the S1 button briefly (several times), until the required measuring unit (Pa, inWC mmWC, kPa, mbar, psi) are shown on the display.

## Dimensions (mm)



## Accessories

- 2 fixing screws
- 2 plastic duct connectors
- 2 meter tube  $\varnothing$  4 / 7 mm