

» DPE2500 AZ | DPE2500 LCD AZ

Differential Pressure Transmitter

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
Issue date: 17.04.2020 • A111



» APPLICATION

Differential pressure transmitter with 8 selectable ranges and outputs 0..10 V. 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. Screw mounted onto flat surface, prepared for mounting on DIN rail TS35 (35x7,5 mm) according to EN 60715.

» SECURITY ADVICE – CAUTION



The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

» NOTES ON DISPOSAL



As a component of a 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, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

» TECHNICAL DATA

Measuring values	differential pressure
Medium	air and non-aggressive gases
Output voltage	0..10 V, min. load 10 kΩ
Power supply	15..24 V = (±10%) or 24 V ~ (±10%) SELV
Power consumption	typ. 1,1 W (24 V =) 1,7 VA (24 V ~)
Measuring range pressure	-100..+100 0..+100 0..+250 0..+500 0..+1000 0..+1500 0..+2000 0..+2500 Pa (default)
Accuracy pressure	deviation compared to the reference device measuring range ≤500 Pa: ±5 Pa, measuring range >500 Pa: ±10 Pa
Max. working overpressure	400 kPa
Calibration	automatic zero-point calibration
Sensor	piezo measuring element
Display <i>(type-dependent)</i>	LCD 37,5x31,6 mm, measured values: Pa
Enclosure	hinged lid enclosure, PA6, pure white
Protection	IP54 according to EN 60529, IP65 with bolted cover
Cable entry	M20 for cable max. Ø=8 mm, seal insert for double cable entry for wire max Ø=6 mm
Connection electrical	terminal block, max. 1,5 mm ²
Connection mechanical	pressure connection male Ø=5,0 mm / Ø=6,3 mm, connection tube: PVC, soft
Ambient condition	-10..+50 °C, max. 85% rH short term condensation
Weight	150 g
Mounting	screw mounted onto flat surface, prepared for mounting on DIN rail TS35 (35x7,5 mm) according to EN 60715
Delivery content	2 mounting screws, 2 plastic duct flanges, 2 m PVC connection tube

» PRODUCT TESTING AND CERTIFICATION



Declaration of conformity

The declaration of conformity of the products can be found on our website <https://www.thermokon.de/>.

» MOUNTING ADVICES

Before installing the device, please check the leak tightness of the pressure lines.

» AUTOMATIC ZERO-POINT CALIBRATION



Initial Power ON: Once the device is powered up, the Auto-zero reset will be performed multiple times in intervals shorter than 10mins (contrary to the operational mode). This is to compensate the self-heating of the sensor and PCB after start up and to provide accurate measurements throughout. After around 30mins, the device goes fully into operational mode.

Transmitters equipped with the auto zero calibration are maintenance free.

The auto-zero calibration electronically adjusts the transmitter zero every 10 minutes. The function eliminates all output signal drift due to thermal, electronic or mechanical effects. The auto-zero adjustment takes approx. 4 seconds after which the device returns to its normal measuring mode. During the 4 second adjustment period, the output and display values will freeze to the latest measured value.

» CONNECTION PLAN AND CONFIGURATION

1	UB+	15..24 V = (±10%) or 24 V ~ (±10%)
2	GND	GND
3	AOU1	0..10 V differential pressure

DIP 1..DIP 3 Measuring ranges

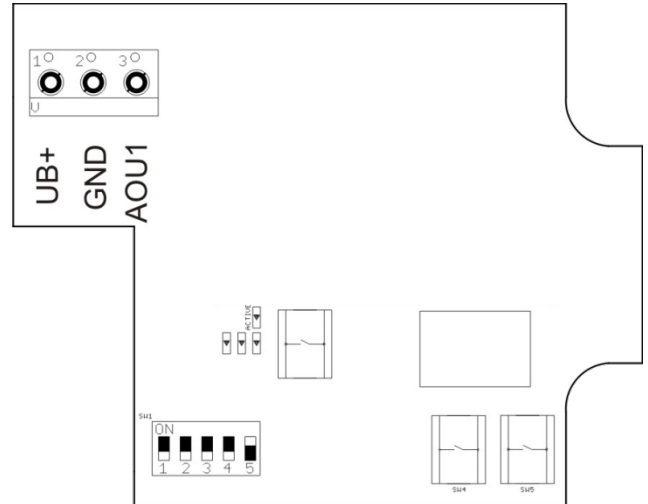
DIP 1	DIP 2	DIP 3	Range
OFF	OFF	OFF	0..+2500 Pa (default setting)
ON	OFF	OFF	0..+2000 Pa
OFF	ON	OFF	0..+1500 Pa
ON	ON	OFF	0..+1000 Pa
OFF	OFF	ON	0..+500 Pa
ON	OFF	ON	0..+250 Pa
OFF	ON	ON	0..+100 Pa
ON	ON	ON	-100..+100 Pa

DIP 4 Response time

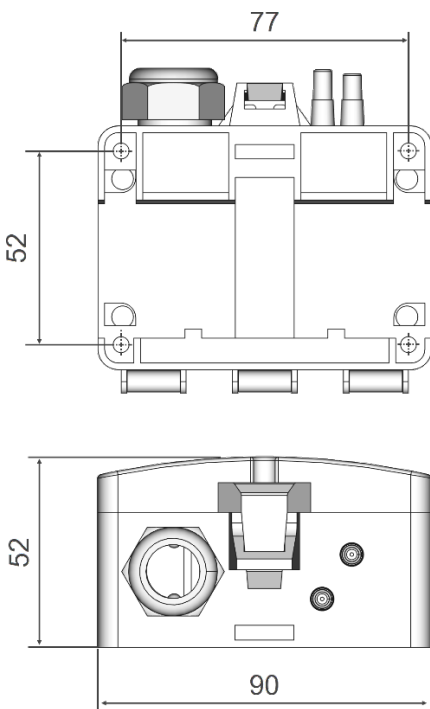
DIP 4	Response time
OFF	4 s (default setting)
ON	10 s

DIP 5 Display settings

DIP 5	LCD Backlight
OFF	Backlight OFF
ON	Backlight ON (default setting)



» DIMENSIONS (MM)



To gain protection IP 65 according to EN 60527 the cover has to be bolted, e.g. using a screw 3,5x10 mm according to EN 7981.

» **ACCESSORIES (ENCLOSED IN SHIPMENT)**

2 fixing screws
2 plastic duct flanges
2 m PVC connection tube \varnothing 4/7 mm
Spring for mounting on DIN rail TS35

Item No. 289870
Item No. 484596
Item No. 484268
Item No. 255165