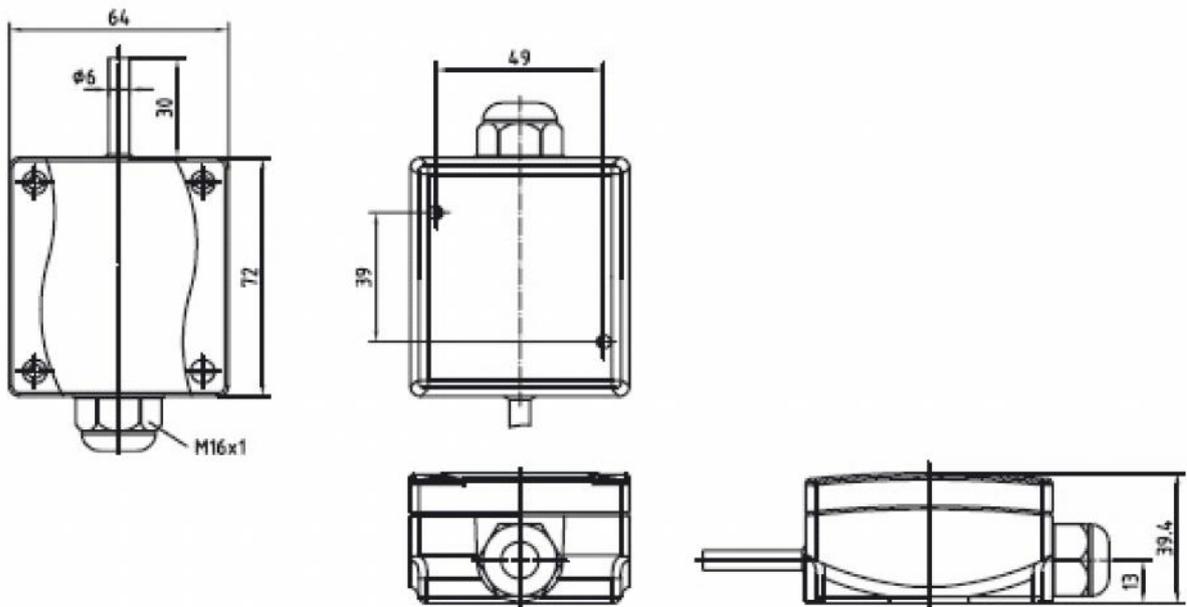**TOTP**

Without display

With display

Features

- **Active transmitters   0-10 Vdc or 4-20 mA output
  Pt100**

- **8 different temperature ranges in same unit,
  selectable via jumpers on pcb:**

  **-20°C to +150°C, -50°C to +50°C, -20°C to +80°C,
  -30°C to +60°C, 0 to +40°C, 0 to +50°C, 0 to +100°C
  and 0 to +150°C**

  other temperature ranges on request

- **With or without display**

- **IP65 housing**

- **External element (inside probe)**

Dimensions (mm)

8 different temperature ranges in same unit, selectable via jumpers on pcb

Measuring ranges (adjustable)	JP 1	JP 2	JP 3	JP 4
-20°C ... +150°C	●	●	●	●
-50°C ... +50°C	○	●	●	●
-20°C ... +80°C	●	○	●	●
-30°C ... +60°C	○	○	●	●
0°C ... +40°C	●	●	○	●
0°C ... +50°C	○	●	○	●
0°C ... +100°C	●	○	○	●
0°C ... +150°C	○	○	○	●

Ordering

Type no.	Output	Display
TOTP	Pt100	No
TOTP 010	0-10 Vdc	No
TOTP 420	4-20 mA	No
TOTP 010D	0-10 Vdc	Yes
TOTP 420D	4-20 mA	Yes
TSSS	Sensor shield	

Technical data

Measuring ranges	8 different temperature ranges in same unit as standard selectable via jumpers on pcb. with manual zero point correction (+/-10K)
Sensing element	PT1000, DIN EN 60751, class B sensor inside external stainless steel sensor probe, 1.4571, V4A
Accuracy	0.3 K (Kelvin)
Connections	3-wire for 0-10 Vdc 2-wire for 4-20 mA
Power supply	24 Vac/dc +/- 10% for output 0-10 Vdc 15-35 Vdc for output 4-20 mA
Ambient temperature	-30°C to +70°C
Humidity	< 95% r.H. non-precipitating air
Protection type	IP65 (according to EN 60529)'
Protection class	III (according to EN 60730)
Housing material	Plastic, material polyamide, 30% glass-globe-reinforced with quick-locking screws colour pure-white (similar RAL9010)
Housing dimensions	72x64x39 mm excluding cable entry gland
Cable gland	M16, including strail relief
Standards	CE conformity, electromagnetic compatibility accoring to EN 61326:2006 according to EMC directive 2004/108/EC
Display	single line display with illumination, cutout 37x15 mm (W x H), for displaying actual temperature (only for TOTP 010D and TOTP 420D)

TOTP

Application/Description

Outdoor temperature transmitter TOTP is used for sensing temperature outside and indoors where IP65 is required.

The TOTP is used in heating, ventilation and air conditioning systems as reference sensor for wheather-compensated control, measuring sensor, e.g. for optimization, or for measured value display, or for connection to a building management system

The TOTP outdoor temperature transmitters available with 4-20 mA and 0-10 Vdc output with 8 measuring temperature ranges selectable via jumpers on pcb, other ranges are available.

The IP 65 plastic housing is supplied with a plastic cable entry gland, connection terminal is under the cover.

The sensing element is placed in a probe outside the housing (external).

Always install the outdoor temperature sensor on north facing wall and at least 2.5 metres above ground.

Avoid to expose the unit for direct sunlight, if mounting the unit in sunlight it is recommended to use the sensor shield TSSS.

Do not mount the unit close to heat sources such windows, doors etc.

The cable entry should be pointing downwards.

TOTP 010

TOTP 420