OPERATION MANUAL

Temperature measurement system in wall housing

Description

Characteristic features

- Unconspicoous wall-housing
- Standard signal 0...10 V
- Linearised and temperature compensated temperature measurement
- High long-term stability, innovative technology
- Integrated sensor technology

Areas of application

- Temperature measurement in the inner area
- Building technology
- Industrial measurement and control technology
- Climatic record
- Home Automation

Technical Data

Temperature measurement	
Measureing range	-30...+70 °C
Accuracy	±0,7 °K (0...40°C)
Output scale	-30...70 °C FS
In general	
CE-conformity	2014/30/EU
EMV-noise emission	EN 61000-6-3:2011
EMV-oise withstanding	EN 61000-6-1:2007
Dimensions	see drawing
Housing	electronics
Connection	screw terminals 0,75 mm²
Operating voltage	12...24 V AC/DC
Overvoltage protector	varistor and RC filter

Features

In the building automation budget-priced measuring systems which are suitable for long-term work and protected against overvoltage and transients are needed. Further aspects are the choice between direct current and alternating current supply, a high long-term stability plus a good measurement accurecy during the application.
The B+B Temperature probe series –GLT have been developped especially for these requirements and are specifically suitable for working in this branche through the most modern sensor technology and the innovative installation using an ASIC. The measurement of temperature occurs with a precise and longterm stable resistance temperature detector. The processing oft he measurement values is linearised and temperature compensated. The power supply occurs optionally through alternating curent (AC) and direct current (DC) supply. Due tot he big exchange area and the labelled clamps a simple and fast connection is warranted.

Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.

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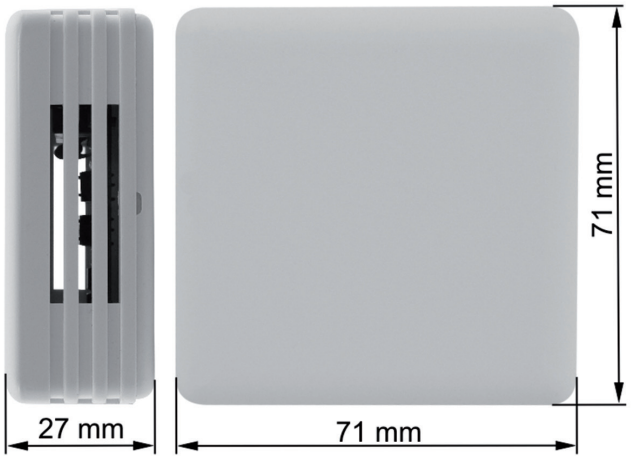
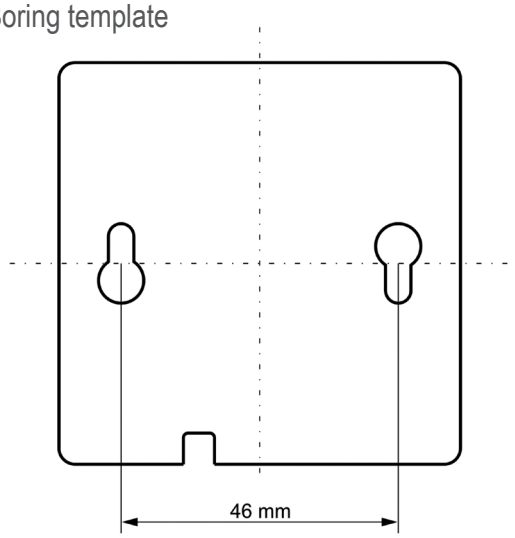
Drawing



Boring template



1 +DC 24 V
2 GND
3 TEMP 0-10 V

Feeding

The measurement probe can be fed alternatively with AC or DC or unsifted, rectified voltage.
At AC-feeding the ground mark of the transformator has to lay on the signal ground and the connectiion of further probes has to occur in-phase.
At feeding with unsifted, rectified voltage you have to switch Minus on the refreence ground and Plus on the +DC/AC 24 V. A wrong connection can lead to failure or to damage of the electroics.

Measurement of the signal voltage

To avoid mesurement failures by the cable resistance and the supply current through the earth cable in the 0…10 V model a separate earth cable for the signal voltage ist o be planned.

Connection

For the connection should bepreferentially used screened connection cables. Especially in EMI disturbed environment. The shielding ist o be grounded. Please check before connecting that the supply voltage agrees to the in the data sheet specified operating voltage.

Warranty

You get 24 month warranty on our high class measurement probes. Mechanically damaged sensor elements and interefrence in the electronics lead to loss of warranty claims. Calibration service is excluded from waranty.

Temperature measurement 0…10 V

Pin	Function	Description
1	+DC/AC 24 V	Operating voltage
2	GND 0 V	Reference potential
3	TEMP 0...10 V	Temperature signal 0…10 V

The measuring of output signals should occur with separate signal ground to avoid measurement failure through fall of voltage at the supply ground.

For further information, please visit our website:
www.bb-sensors.com

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