

DALI Temp



Datasheet

Temperature Sensor

DALI sensor unit for temperature measurements

Art. Nr. 86459544

DALI Temp Temperature Sensor

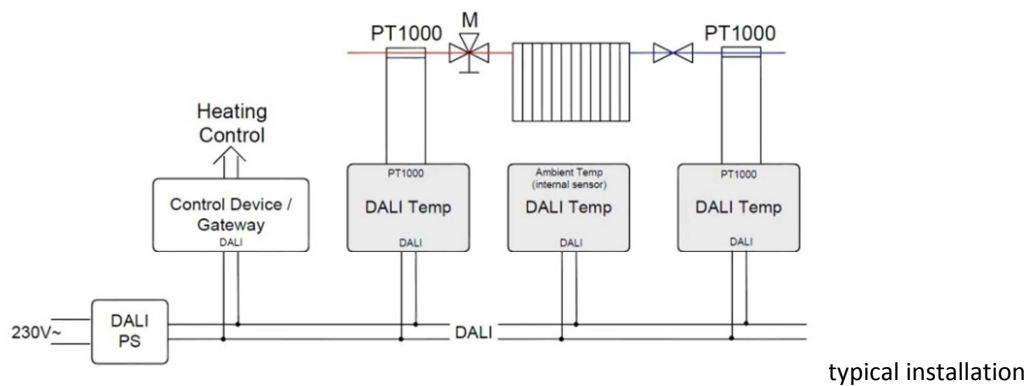
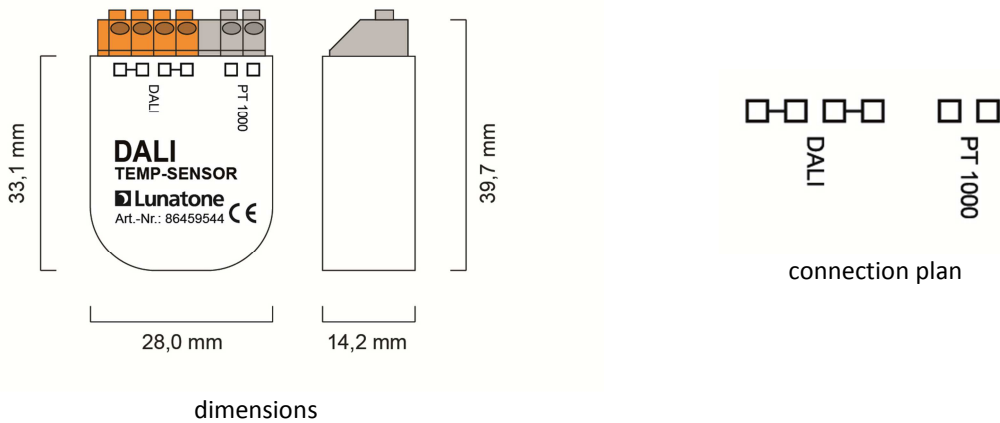
Overview

- DALI sensor unit for temperature measurements
- Internal sensor and terminals for connecting an external PT1000 (other external sensors on request)
- The measurement values of internal and external sensor can be queried via DALI
- Suitable for measuring and monitoring temperature e.g. for heating and ventilation technology
- The module does not require an additional power supply, it is supplied by the DALI-line directly
- Double DALI terminals – the DALI signal line is connected through

Specification, Characteristics

type	DALI Temp
article number	86459544
electrical data:	
power supply	via DALI- Bus
typ. current consumption	2.6 mA
output	DALI
number of used DALI addresses	1
input (optional)	PT1000
technical data:	
temperature measurement range (internal sensor)	0°C to... +75°C
accuracy (internal sensor)	0.5°C
temperature measurement range (external PT1000)	-25°C ... +125°C
accuracy (external PT1000)	0.4°C
storing and transportation temperature	-25°C ... +75°C
operational ambient temperature	-25°C ... +75°C
protection class	IP20
connecting wire cross section	0.5-1.5 mm ²
dimensions	39,7mm x 28mm x 14mm
mounting	back box

Application in heating technology e.g. for:
 measurement of flow temperatures
 measurement of return temperatures
 measurement of ambient temperatures



Querying and Evaluating Temperature Values

Query Measurement Values

The measurement values of the internal and the external sensor can be queried via scene values. Each measurement value is a 16bit value (2bytes), for low resolution (1°C) reading out the high byte only is sufficient.

Internal sensor:

HiByte: Scene 0 (Command: QUERY SCENE 0)

LoByte: Scene 1 (Command: QUERY SCENE 1)

External sensor:

HiByte: Scene 2 (Command: QUERY SCENE 2)

LoByte: Scene 3 (Command: QUERY SCENE 3)

Evaluating the temperature

Formula for combining the two bytes and generating a value in °C:

$$\text{Temp}[^{\circ}\text{C}] = \text{HiByte} + \text{LoByte}/256$$

range HiByte (signed): [-128 ... +127]

range LoByte (unsigned): [0...255]

For measurements with low resolution reading the HiByte only is sufficient. The value of the HiByte corresponds directly to the temperature value in °C. For higher resolutions the LoByte can be queried after having read out the HiByte.

Example:

-5,75°C: HiByte=-6, LoByte= 64;

+5,75°C: HiByte=5, LoByte=192;

Purchase Information

Art.Nr. 86459544: DALI Temp, temperature sensor (internal: 0°C ... +75°C), external PT1000 (-25°C ... +125°C), back box

Additional Information and Equipment

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
<http://lunatone.at/en/downloads/Lunatone-DALI-Cockpit.zip>

Lunatone DALI products
<http://www.lunatone.at/en/>

Lunatone datasheets and manuals
<http://lunatone.at/en/downloads/>

Contact

Technical Support: support@lunatone.com

Requests: sales@lunatone.com

www.lunatone.com

Disclaimer

Subject to change. Information provided without guarantee.
The datasheet refers to the current delivery.

The compatibility with other devices must be tested in advance to the installation.