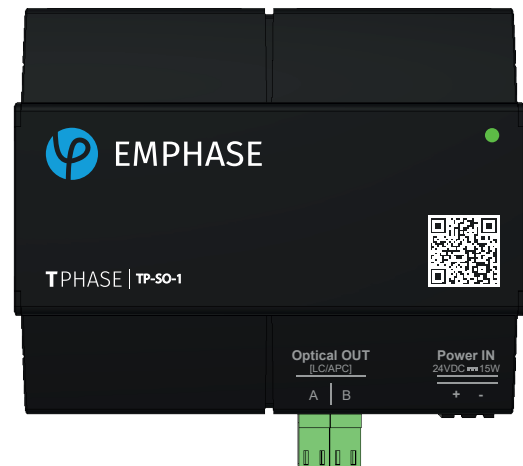




Description

The SOURCE module of the TPHASE temperature sensor includes the laser equipment which launches its power via the optical fiber.

The TPHASE sensor, consisting of the SENSOR module and the SOURCE module, is based on fiber optic technology. It carries out a double measurement of the temperature, namely the measurement of variation of the temperature, linear, over long distances, and the point measurement of the absolute temperature in several points, distributed on a bus. The first measurement carried out via an optical fiber, following a principle that analyzes the rate of distributed rise in temperature. Spot measurements of the absolute temperature are carried out via a network with a maximum of 20 digital sensors integrated in a cable and interfaced via a data bus.



All measurements, absolute and relative, are processed in the central module, the SENSOR. According to pre-defined thresholds, alerts can be triggered if the temperature increases or decreases excessively with respect to these instructions. TPHASE easily connects to a fire detection center, for all types of BMS. The monitoring of the module, the setting of thresholds, the monitoring of variations and temperature measurements is done via a dedicated web interface.

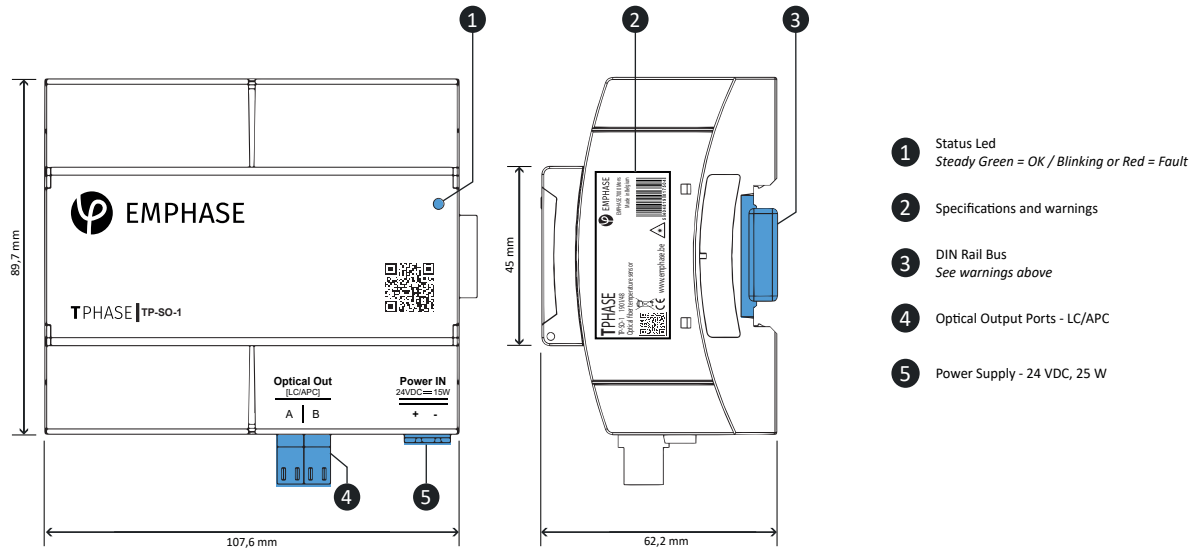
Applications

Buildings: cable trays, reinforced security premises, ...
Data Center: detection of overheating or subcooling zones
Industry: gutters, heating networks, tanks, ...
Infrastructures: tunnels, underground cables, car parks, ...

Main characteristics of the TPHASE sensor

Max distance measurement via optical fiber: 2 km
Detection temperature: -40 ° C to + 200 ° C in standard fiber, or according to fiber type
Minimum threshold of detection of a variation: 0.01 ° C / min

Dimensions



Technical characteristics

Power Requirements

- **Nominal voltage:** 24 VDC
- **Operating voltage range:** 20 VDC to 30 VDC
- **Maximum power consumption:** 25 W

Physical

- **Operating Temperature:** -10°C to 70°C
- **Size(mm):** W 107.6, H 62.2, D 89.7
- **Weight:** 300g
- **Enclosure Material:** Polycarbonate
- **Enclosure Flame Rating (UL 94):** VO
- **IP20**

Outputs

- **Laser**
 - **Center wavelength:** 850 nm typical
 - **Optical power:** 1 mW max
 - **Safety:** Class I

Connectors

- **Power:** 2P Terminal (5mm)
- **Optic:** Duplex LC/APC

Regulatory compliance

EMC, Safety and Environment.

Installation, specifications

Fixed on horizontal DIN Rail.
Optical Connectors must be facing down.

WARNINGS

CAUTION : Consider that the optical output emits an invisible laser beam at all-time.

Avoid direct eye exposure with the output



Read the *installation instructions* document (EM-SO-II-18-EN1) before starting to wire the device.

Do not remove protective caps on the DIN rail bus if not instructed.

All information mentioned in this document is subject to change without notice. They can not constitute an engagement on our part and do not engage us only after express confirmation.

EM-SO-DS-18-EN1

www.emphase.be/en/tphase