

## PASSIVE TEMPERATURE SENSORS PTE-OI

Outside air temperature/illuminance sensor for HVAC applications



PTE-OI is a combination of a passive temperature and an illuminance sensor engineered for HVAC applications. PTE-OI is used to sense outside air temperature and ambient lighting conditions. In addition to the outside air temperature, the PTE-OI includes an ambient illuminance sensor. The illuminance sensor is hermetically sealed for protection.

PTE-OI is available with the following sensor types:

- NTC10k
- NTC20k
- Pt1000
- Ni1000
- Ni1000-LG



### APPLICATIONS

PTE-OI is commonly used in HVAC systems for:

- measuring outside air temperature
- controlling the outside lighting of buildings

### MODEL SUMMARY

Description	Model	Product code
Passive temperature sensor - outside with illuminance		
- with NTC10k sensor	PTE-OI-NTC10	505.011.101
- with NTC20k sensor	PTE-OI-NTC20	505.012.101
- with Pt1000 sensor	PTE-OI-Pt1000	505.013.101
- with Ni1000 sensor	PTE-OI-Ni1000	505.014.101
- with Ni1000-LG sensor	PTE-OI-Ni1000-LG	505.015.101

# PASSIVE TEMPERATURE SENSORS

## PTE-OI

### SPECIFICATIONS

#### Performance

**Illuminance**  
**measurement range (OI- only):**  
0...1000 lx

**Accuracy:**  
NTC10k  
± 0.25 °C @ 25 °C  
NTC20k  
± 0.25 °C @ 25 °C  
Pt1000  
± 0.3 °C @ 0 °C  
Ni1000  
± 0.4 °C @ 0 °C  
Ni1000-LG  
± 0.4 °C @ 0 °C

**Illuminance sensor (OI- only):**  
± 20 % @ 100 lx

**Protection class:**  
IP54

#### Technical Specifications

**Environment:**  
Operating temperature:  
-50 ... +50 °C

**Physical**  
**Housing material:**  
ABS  
**Cover material:**  
PMMA  
**Housing dimensions:**  
90.0 x 95.0 x 36.0 mm  
**Weight:**  
95 g

#### Conformance

Meets the requirements for CE marking:  
RoHS Directive 2011/65/EU  
WEEE Directive 2012/19/EU

COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 = ISO 14001 =



### HOW TO GENERATE A MODEL?

Example: PTE-OI-NTC10	Product series		
	PTE	Passive temperature sensor for gas	
		Installation type	
		-Cable	Cable
		-Duct	Duct
		-Room	Room
		-O	Outside
		-OI	Outside with Illuminance
		Sensor element	
		-NTC10	10 kΩ @ 25 °C
		-NTC20	20 kΩ @ 25 °C
		-Pt1000	1000 Ω @ 0 °C
		-Ni1000	1000 Ω @ 0 °C
		-Ni1000-LG	1000 Ω @ 0 °C
Model	PTE	-OI	-NTC10