

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:

- NTC1.8k
- 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
- with NTC1.8k sensor	PTE-OI-NTC1.8	505.016.101

PASSIVE TEMPERATURE SENSORS

PTE-OI

SPECIFICATIONS

Performance

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

Accuracy:
NTC1.8k
± 0.5 °C @ 25 °C
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:	Product series		
PTE-OI-NTC10	PTE	Passive temperature sensor for gas	
		Installation type	
		-OI	Outside with Illuminance
		Sensor element	
		-NTC1.8k	1.8 kΩ @ 25 °C
		-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