Rayan

Outside/Room Temperature Sensor
Resistor Type: HOT-114P

Product Type

Resistor type temperature sensor.
Range of operation -20…55 °C / <100 % r. h.

Application

Obtaining open area/room temperature in heating, ventilation and air conditioning plants.

Order number description

Order number	Sensor type	Operating limits	Response time (No Air Move)
HOT-114P	Pt 100	-20...55 °C	~ 7 min
	Pt 1000	-20...55 °C	~ 7 min
	NTC 10k	-20...55 °C	~ 7 min

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Function

The sensor monitors the surrounding temperature via its sensing element. The resistance of the sensing element changes as a function of the ambient temperature. The resistance value is used for further handling by a suitable controller.

Mechanical design

The unit has been designed for wall mounting.

The units consist of a base and cover. The base carries the connection terminals. The body material is flame-retardant.

Cable entry is via a PG-9 gland. Be careful of tightening cable gland sufficiently in order to assure housing IP55 protection.

Disposal

These devices are considered electronics devices for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic waste.

* Dispose of the device via the channels provided for this purpose.
* Comply with all local and currently applicable laws and regulations.
* Plastic and metal sections are better to recycle separately.

Engineering notes

The permissible cable lengths are dependent on the type of controller with which the sensor is used. They are specified in the Data Sheet of the relevant controller.

In general, for Pt1000 and NTC10K sensors longer cables could be used.

Screened cable is necessary for noisy environments. Cable screen shall be connected to earth from controller side and consider gland size while assembling sensor.

Mounting notes

Prevent installation of sensor exposed to water or any liquid drain.

The unit must not be exposed to direct solar radiation.

The permissible ambient conditions should be observed.

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Technical Data

Functional Data	Range of use	Refer to "Page 1"
	Type of measurement & output	Temperature
		Pt100, Pt1000, NTC10K
Degree of protection	Safety class	Not defined
	Degree of protection for housing	IP55
Electrical connections	Screw terminals	Max. 3x1.5mm^2
	Perm. Cable lengths	Refer to "Engineering notes"
Environmental Conditions	Operation condition	Temperature: -20…55°C
		Humidity: 0…<100% r.h.

Internal diagram

Pt100 / Pt1000   NTC10K

1   2   3   1   2
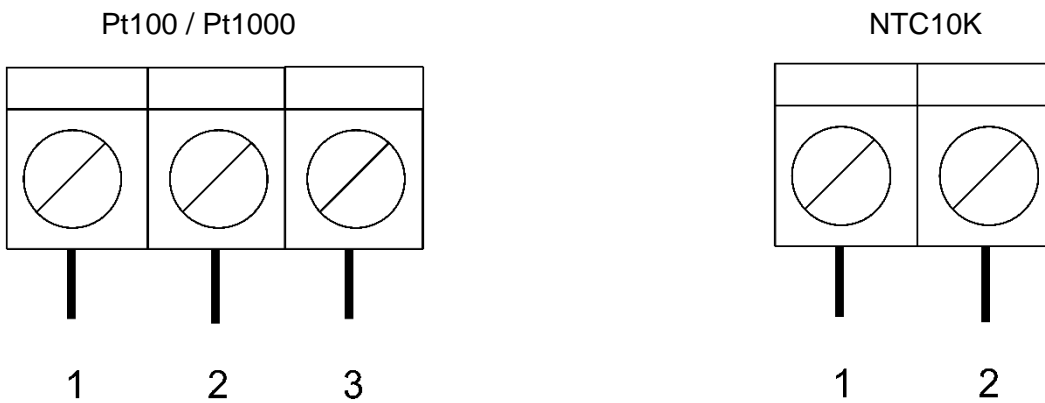
Pins 1 & 2 are connected to sensors same
pin. User shall wire terminals 2 & 3 in case
of 2-wire connection.

Dimensions (mm)

80 mm

60 mm

50 mm

8 mm

Backplane

4.5 mm

35 mm

55 mm