

Outdoor sensor Temperature

For measuring temperature in outdoor areas.
Typical applications at cold stores, greenhouses,
production plants and warehouses. IP65 /
NEMA 4X rated housing.



Picture may differ from product

Type Overview

Type	Output signal passive temperature	Accuracy temperature	Measuring current
01UT-1A	Pt100	Class B, $\pm 0.3^{\circ}\text{C}$ @ 0°C [$\pm 0.5^{\circ}\text{F}$ @ 32°F]	<1 mA @ 0°C [32°F]
01UT-1B	Pt1000	Class B, $\pm 0.3^{\circ}\text{C}$ @ 0°C [$\pm 0.5^{\circ}\text{F}$ @ 32°F]	<0.3 mA @ 0°C [32°F]
01UT-1C	Ni1000	$\pm 0.4^{\circ}\text{C}$ @ 0°C [$\pm 0.7^{\circ}\text{F}$ @ 32°F]	<0.3 mA @ 0°C [32°F]
01UT-1D	Ni1000TK5000	$\pm 0.4^{\circ}\text{C}$ @ 0°C [$\pm 0.7^{\circ}\text{F}$ @ 32°F]	<0.3 mA @ 0°C [32°F]
01UT-1F	NTC1k8	$\pm 0.5^{\circ}\text{C}$ @ 25°C [$\pm 0.9^{\circ}\text{F}$ @ 77°F]	<0.1 mA @ 25°C [77°F]
01UT-1L	NTC10k (10k2)	$\pm 0.2^{\circ}\text{C}$ @ 25°C [$\pm 0.35^{\circ}\text{F}$ @ 77°F]	<2 mA @ 25°C [77°F]
01UT-1M	NTC10k Pre (10k3)	$\pm 0.2^{\circ}\text{C}$ @ 25°C [$\pm 0.35^{\circ}\text{F}$ @ 77°F]	<2 mA @ 25°C [77°F]
01UT-1N	NTC10k Carel	$\pm 0.2^{\circ}\text{C}$ @ 25°C [$\pm 0.35^{\circ}\text{F}$ @ 77°F]	<0.2 mA @ 25°C [77°F]
01UT-1Q	NTC20k	$\pm 0.2^{\circ}\text{C}$ @ 25°C [$\pm 0.35^{\circ}\text{F}$ @ 77°F]	<0.5 mA @ 25°C [77°F]

Technical data

	Electrical data	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm ²
		Cable entry	Cable gland with strain relief $\varnothing 6...8$ mm
	Functional data	Medium	Air
	Measuring data	Measured values	Temperature
Specification temperature passive		Measuring range	-35...50°C [-30...120°F]
		Time constant τ (63%) in the room	Typical 854 s
	Safety data	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
		Power source UL	Class 2 Supply
		Degree of protection IEC/EN	IP65
		Degree of protection NEMA/UL	NEMA 4X
		Housing	UL Enclosure Type 4X
		EU Conformity	CE Marking
		Certification IEC/EN	IEC/EN 60730-1
		Quality Standard	ISO 9001
		Type of action	Type 1
		Rated impulse voltage supply	0.8 kV
		Pollution degree	3
		Ambient humidity	Max. 95% RH, non-condensing
		Ambient temperature	-35...50°C [-30...120°F]
		Fluid temperature	-35...50°C [-30...122°F]
		Housing surface temperature	Max. 90°C [195°F]

Technical data

Materials	Housing	Cover: PC, white Bottom: PC, white Seal: NBR70, black UV resistant
	Cable gland	PA6, white
	Mounting plate	PC, grey RAL 7001

Safety notes



This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application. Unauthorised modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Remarks

General remarks concerning sensors	Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.
	When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

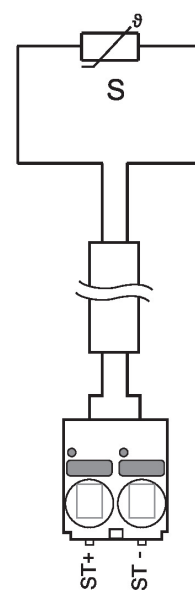
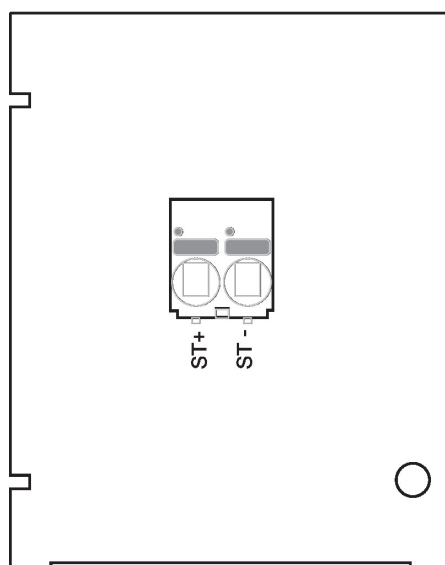
Parts included

Description	Type
Mounting plate S housing	A-22D-A09
Dowels	
Screws	

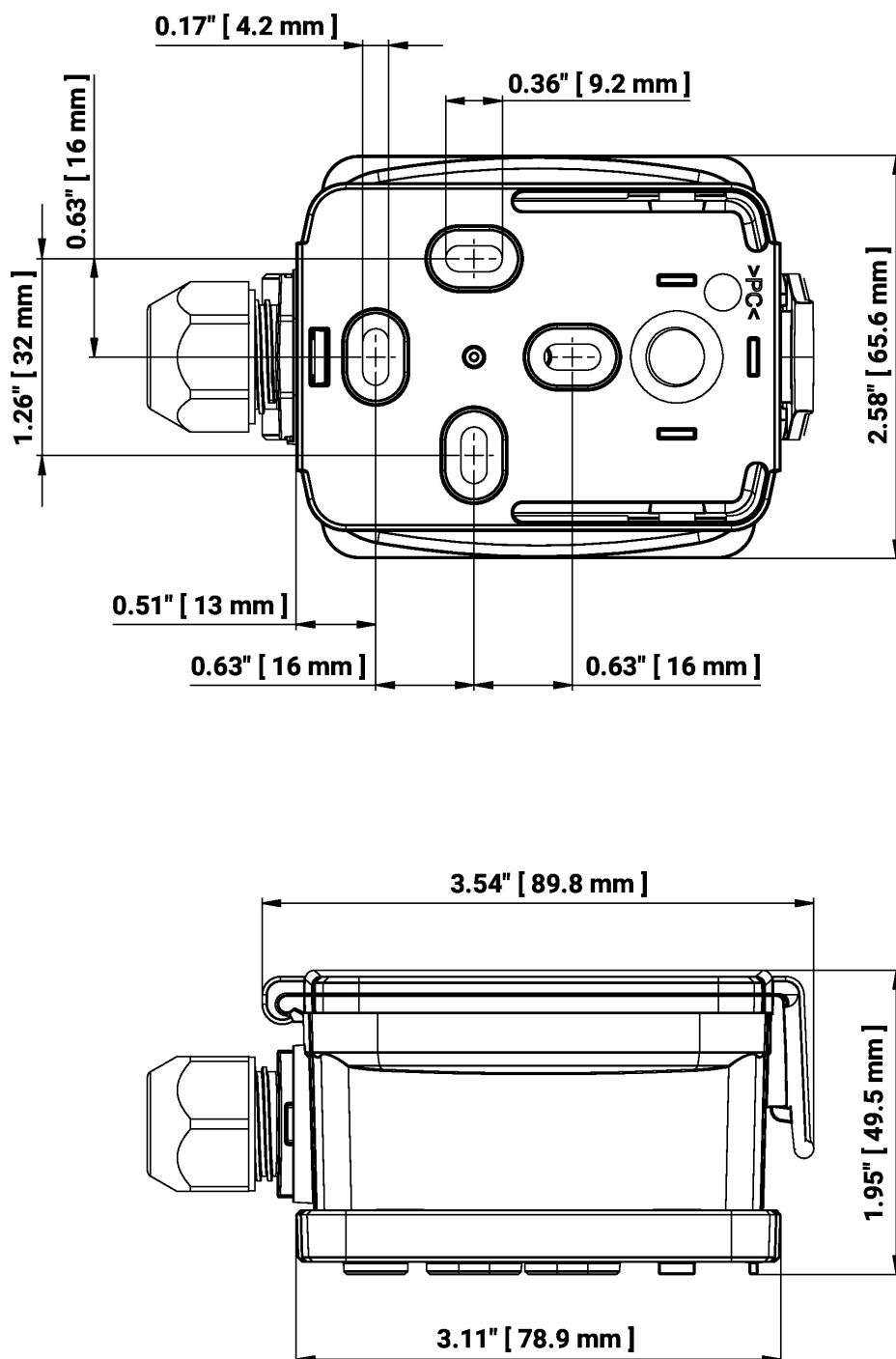
Accessories

Optional accessories	Description	Type
	Connection adapter flex conduit, M20x1.5, for cable gland 1x 6 mm, Multipack 10 pcs.	A-22G-A01.1

Wiring diagram



Dimensions



Type	Weight
01UT-1A	0.12 kg
01UT-1B	0.12 kg
01UT-1C	0.12 kg
01UT-1D	0.12 kg
01UT-1F	0.12 kg
01UT-1L	0.12 kg
01UT-1M	0.12 kg
01UT-1N	0.12 kg
01UT-1Q	0.12 kg

Further documentation

- Installation instructions
- Resistance characteristics