BELIMO

Outdoor sensor Temperature

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

Technical data sheet 01UT-5..

5-year warranty

Type Overview

Type	Output signal passive temperature
01UT-5A	Pt100
01UT-5B	Pt1000
01UT-5E	Ni1000 (JCI)
01UT-5L	NTC10k (10k2)
01UT-5M	NTC10k3 (Precon)
01UT-5Q	NTC20k

Technical data

Electrical Data	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm²
	Cable entry	Cable gland with strain relief ø6...8 mm (1/2" NPT conduit adapter included)
Functional Data	Application	air
	Output signal passive temperature	Pt100 Pt1000 Ni1000 (JCI) NTC10k (10k2) NTC10k3 (Precon) NTC20k
Measuring Data	Measured values	Temperature
	Measuring range temperature	-30...120°F [-35...50°C]
	Accuracy temperature passive	Passive sensors depending on used type Pt.. : ±0.5°F @ 32°F [±0.3°C @ 0°C] Ni.. : ±0.7°F @ 32°F [±0.4°C @ 0°C] NTC.. : ±0.35°F @ 77°F [±0.2°C @ 25°C]
	Measuring current	Pt100: <1 mA @ 32°F [0°C] Pt1000: <0.3 mA @ 32°F [0°C] Ni1000 (JCI): <5 mA @ 21°C [70°F] NTC10k2: <2 mA @ 77°F [25°C] NTC10k3: <2.7 mA @ 77°F [25°C] NTC20k: <0.5 mA @ 77°F [25°C]
	Time constant τ (63%) in the room	Typical 854 s
Materials	Cable gland	PA6, black
	Mounting plate	PC, grey RAL 7001
	Housing	Cover: PC, orange Bottom: PC, orange Seal: NBR70, black UV resistant UL94 5VA

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
	Enclosure	UL Enclosure Type 4X
	EU Conformity	CE Marking
	Certification IEC/EN	IEC/EN 60730-1
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Type of action	Type 1
	Rated impulse voltage supply	0.8 kV
	Installation method	Independently mounted control
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-35...50°C [-30...122°F]
	Fluid temperature	-35...50°C [-30...122°F]
	Housing surface temperature	max. 195°F [90°C]

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. Unauthorized 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 authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied 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

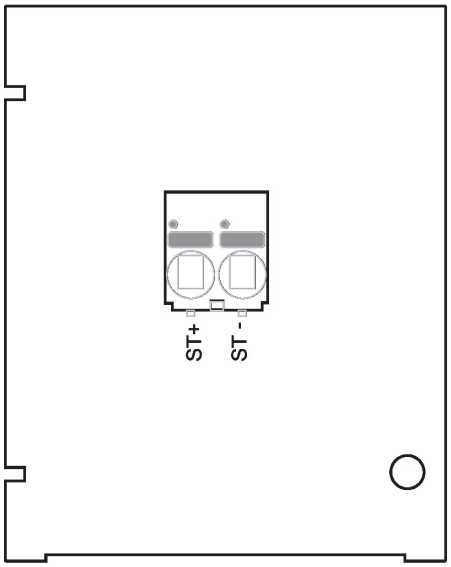
Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.

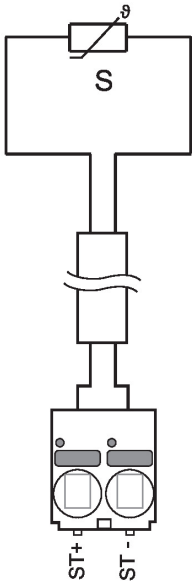
When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

Parts included

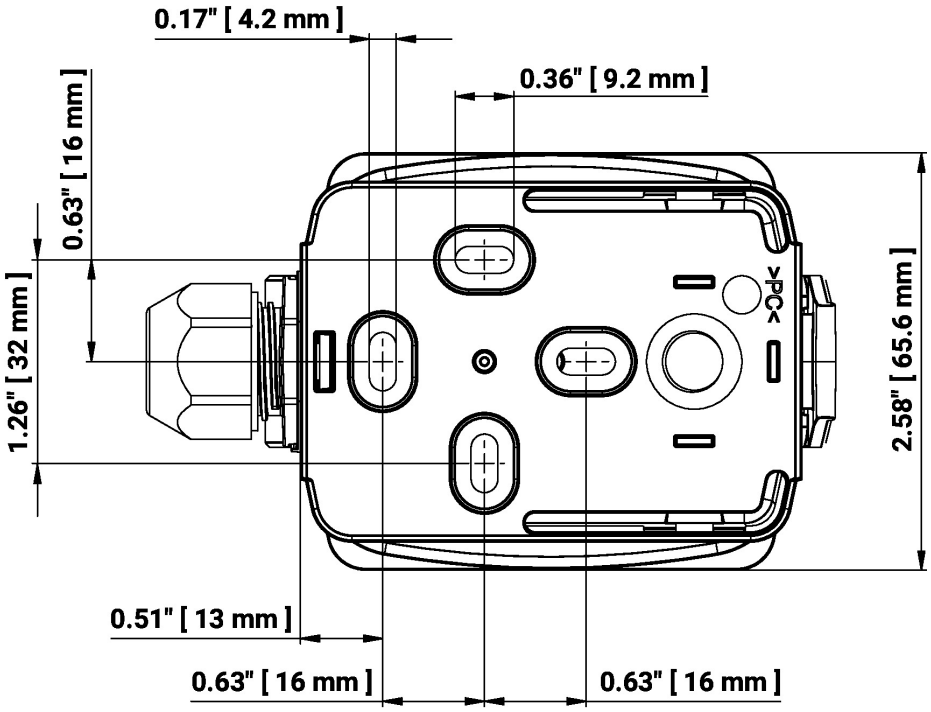
Parts included	Description	Type
	Mounting plate S housing	A-22D-A09
	Dowels	
	Screws	
	1/2" NPT conduit adapter	

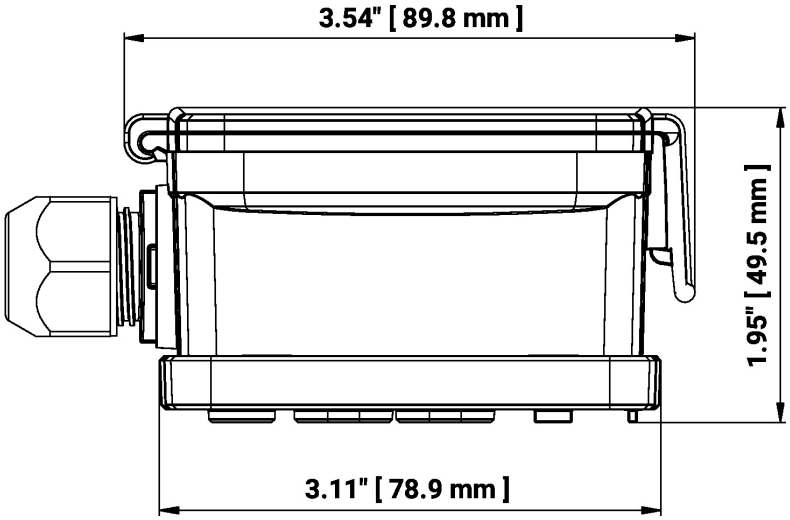
Wiring Diagram





Dimensions





Type	Weight
01UT-5A	0.26 lb [0.12 kg]
01UT-5B	0.26 lb [0.12 kg]
01UT-5E	0.26 lb [0.12 kg]
01UT-5L	0.26 lb [0.12 kg]
01UT-5M	0.26 lb [0.12 kg]
01UT-5Q	0.26 lb [0.12 kg]

Further documentation

- Installation instructions
- Resistance characteristics