

Outdoor sensor Temperature

Active sensor (4...20 mA) for measuring temperature in outdoor areas. Typical applications at cold stores, greenhouses, production plants and warehouses. NEMA 4X / IP65 rated enclosure.



Type Overview

Type	Output signal active temperature	Additional features
22UT-14	4...20 mA	External sensor

Technical data

Electrical data	Nominal voltage	DC 24 V
	Nominal voltage range	DC 13.5...26.4 V
	Power consumption DC	0.5 W
	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm ²
	Cable entry	Cable gland with strain relief Ø6...8 mm
Functional data	Sensor Technology	Based on Pt1000 1/3 DIN
	Application	Air
	Multirange	8 measuring ranges selectable
	Current output	1x 4...20 mA, max. resistance 500 Ω
Measuring data	Measured values	Temperature
	Measuring range temperature	Active sensor: range selectable Attention: max. measuring temperature is restricted by max. fluid temperature (see Safety data)
		Setting Range Range FactoryDiscontinuedDiscontinuedDiscontinued [°C] [°F] setting AM AP EU
		S0 -50...50 -30...130 ✓
		S1 -10...120 0...250
		S2 0...50 40...140
		S3 0...250 30...480
		S4 -15...35 0...100
		S5 0...100 40...240
		S6 -20...80 40...90
	S7 0...160 0...150	
	Accuracy temperature active	±0.5°C @ 21°C [±0.9°F @ 70°F] @ measuring range setting S2 and S4
	Long-term stability	±0.04°C p.a. @ 21°C [±0.07°F p.a. @ 70°F]
	Time constant τ (63%) in the room	Typical 542 s
Materials	Cable gland	PA6, white
	Mounting plate	PC, grey RAL 7001
	Housing	Cover: PC, white Bottom: PC, white Seal: NBR70, black UV resistant
Safety data	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP65

Safety data	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
	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. 70°C [160°F]

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 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 When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one for the measuring current.

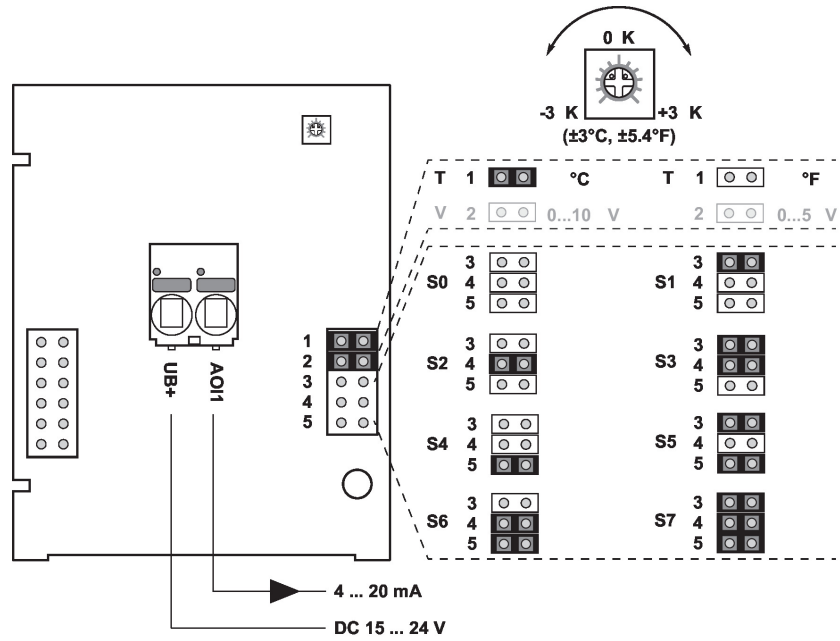
Sensing devices with a transducer should always be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage (± 0.2 V). When switching the supply voltage on/off, onsite power surges must be avoided.

Parts included

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

Accessories

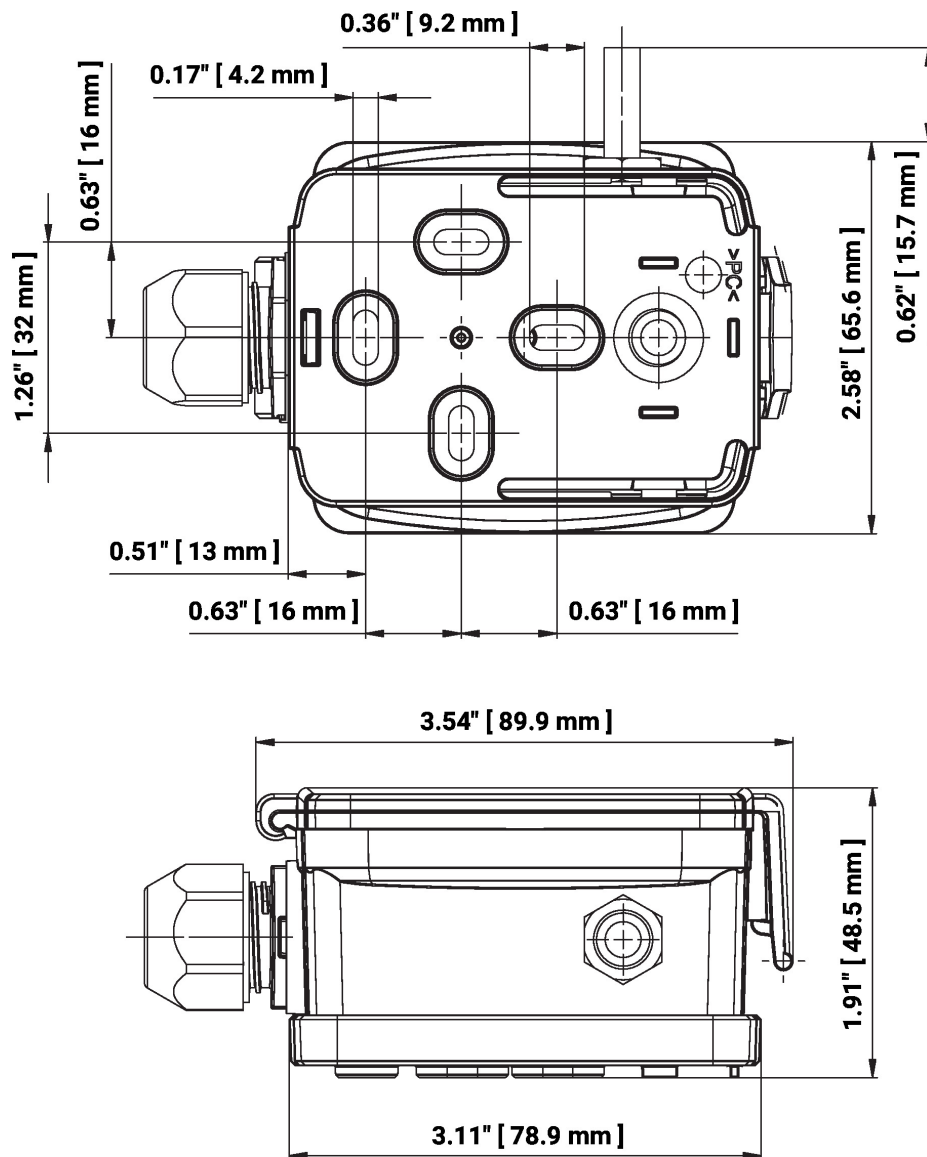
Optional accessories	Description	Type
	Connection adapter flex conduit, M20x1.5, for cable gland 1 x 6 mm, Multipack 10 pcs.	A-22G-A01.1



The adjustment of the measuring ranges is made by changing the bonding jumpers. The output value in the new measuring range is available after 2 seconds.

Setting	Range [°C]	Range [°F]	Factory setting	Discontinued AM	Discontinued AP	Discontinued EU
S0	-50...50	-30...130	✓			
S1	-10...120	0...250				
S2	0...50	40...140				
S3	0...250	30...480				
S4	-15...35	0...100				
S5	0...100	40...240				
S6	-20...80	40...90				
S7	0...160	0...150				

Dimensions



Type	Probe length	Weight
22UT-14	25 mm	0.13 kg

Further documentation

- Installation instructions