

## Duct/Immersion sensor Temperature

For measuring temperature in duct applications. In connection with a stainless steel or brass thermowell also applicable for pipe applications. IP65 / NEMA 4X rated enclosure.



## Type Overview

Type	Output signal	Probe length	Probe diameter
01DT-1DH	Ni1000TK5000	50 mm	6 mm
01DT-1DL	Ni1000TK5000	100 mm	6 mm
01DT-1DN	Ni1000TK5000	150 mm	6 mm
01DT-1DP	Ni1000TK5000	200 mm	6 mm
01DT-1DR	Ni1000TK5000	300 mm	6 mm
01DT-1DT	Ni1000TK5000	450 mm	6 mm

## Technical data

<b>Electrical data</b>	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm <sup>2</sup>
	Cable entry	Cable gland with strain relief ø6...8 mm
<b>Functional data</b>	Application	Air Water
	Output signal passive temperature	Ni1000TK5000
<b>Measuring data</b>	Measured values	Temperature
	Measuring range temperature	-50...160°C [-60...320°F]
	Accuracy temperature passive	±0.4°C @ 0°C [±0.7°F @ 32°F]
	Measuring current	<0.3 mA @ 0°C [32°F]
	Time constant τ (63%) in air duct	Typical 210 s @ 0 m/s Typical 46 s @ 3 m/s
	Time constant τ (63%) in water pipe	With thermowell A-22P-A.. and thermal contact fluid Typical 7 s with thermowell brass Typical 9 s with thermowell stainless steel
<b>Materials</b>	Cable gland	Plug Adapter: PA66, black Nut: PA6, black
	Housing	Cover: PC, orange Bottom: PC, orange Seal: NBR70, black UV resistant
	Probe material	V4A (1.4404)
<b>Safety data</b>	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
	EU Conformity	CE Marking
	Certification IEC/EN	IEC/EN 60730-1

<b>Safety data</b>	
Quality Standard	ISO 9001
UL Approval	cULus acc. to UL60730-1A/-2-9, CAN/CSA E60730-1/-2-9
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	-50...160°C [-60...320°F]
Housing surface temperature	Max. 90°C [195°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** 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**

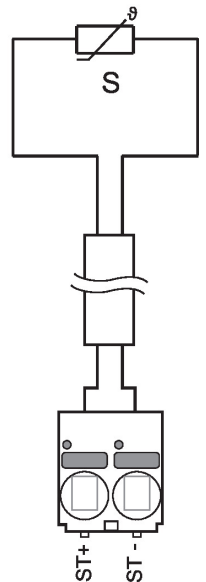
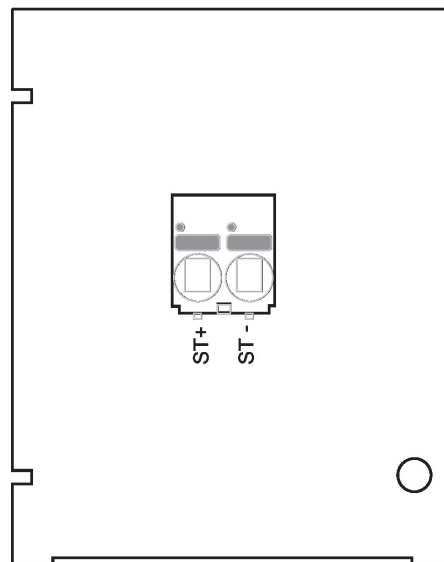
Parts included	Description	Type
	Mounting clip, with screws and adhesive foil	A-22D-A11

**Accessories**

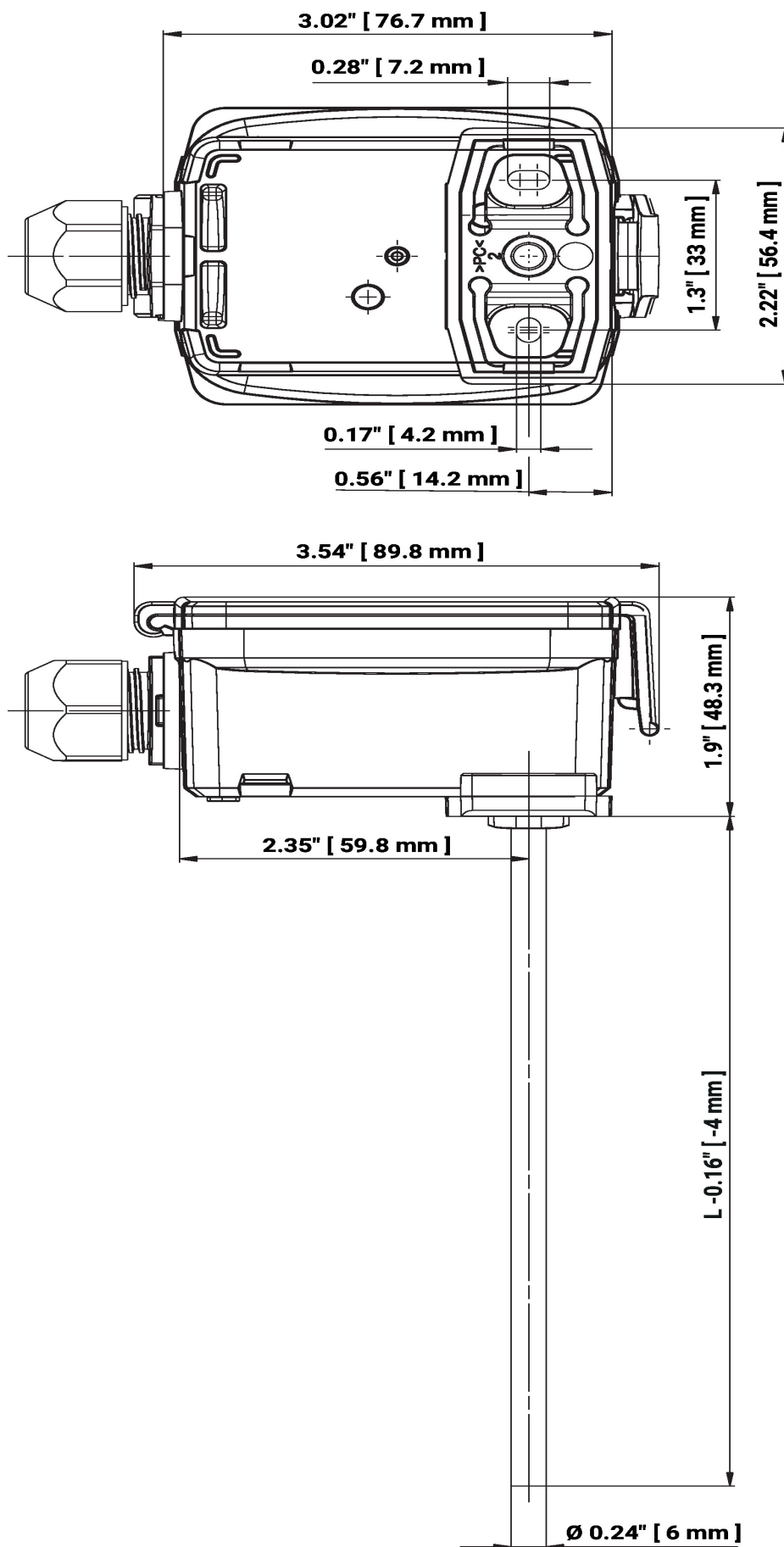
Optional accessories	Description	Type
	Mounting plate S housing	A-22D-A09
	Connection adapter flex conduit, M20x1.5, for cable gland 1 x 6 mm, Multipack 10 pcs.	A-22G-A01.1
Optional accessories air	Description	Type
	Mounting flange for sensor probe 6 mm, up to max. 120°C [248°F], Plastic	A-22D-A03
	Mounting flange for sensor probe 6 mm, up to max. 260°C, Brass	A-22D-A05

**Recommended accessories water**

Description	Type
Thermowell Stainless steel, 50 mm, G 1/2", SW27	A-22P-A06
Thermowell Brass, 50 mm, R 1/2", SW22	A-22P-A18
Syringe with thermal paste	A-22P-A44
Compression fitting, Stainless steel, G 1/4" (external thread) for 6 mm, with cutting ring	A-22P-A45
Thermowell Stainless steel, 100 mm, G 1/2", SW27	A-22P-A08
Thermowell Brass, 100 mm, R 1/2", SW22	A-22P-A20
Cold barrier, Plastic, L 50 mm, for thermowell A-22P-A..	A-22P-A51
Thermowell Stainless steel, 150 mm, G 1/2", SW27	A-22P-A10
Thermowell Brass, 150 mm, R 1/2", SW22	A-22P-A22
Adapter for Siemens thermowell	A-22P-A53
Thermowell Stainless steel, 200 mm, G 1/2", SW27	A-22P-A12
Thermowell Brass, 200 mm, R 1/2", SW22	A-22P-A24
Thermowell Stainless steel, 300 mm, G 1/2", SW27	A-22P-A14
Thermowell Brass, 300 mm, R 1/2", SW22	A-22P-A26
Thermowell Stainless steel, 250 mm, G 1/2", SW27	A-22P-A29
Thermowell Brass, 250 mm, R 1/2", SW22	A-22P-A30
Thermowell Stainless steel, 450 mm, G 1/2", SW27	A-22P-A16
Thermowell Brass, 450 mm, R 1/2", SW22	A-22P-A28

**Wiring diagram**


Dimensions



L = Probe length

Type	Probe length	Weight
01DT-1DH	50 mm	0.12 kg
01DT-1DL	100 mm	0.12 kg
01DT-1DN	150 mm	0.13 kg
01DT-1DP	200 mm	0.13 kg
01DT-1DR	300 mm	0.14 kg
01DT-1DT	450 mm	0.15 kg

**Further documentation**

- Installation instructions
- Resistance characteristics
- Sensor length calculator