

Duct/Immersion Temperature Sensor



## Type Overview

Type	Output signal	Probe length
01DT-5QH	NTC20k	50 mm
01DT-5QL	NTC20k	100 mm
01DT-5QN	NTC20k	150 mm
01DT-5QP	NTC20k	200 mm
01DT-5QR	NTC20k	300 mm
01DT-5QT	NTC20k	450 mm

## Technical Data

<b>Electrical data</b>	Electrical connection	Removable spring loaded terminal block max. 2.5 mm <sup>2</sup>
	Cable entry	Cable gland with strain relief Ø6...8 mm (1/2" NPT conduit adapter included)
<b>Functional data</b>	Output signal passive temperature	NTC20k
	Media	Air Water
<b>Measuring data</b>	Measuring values	Temperature
	Measuring range temperature	-50...150 °C [-60...300 °F]
	Accuracy temperature passive	±0.2 °C @ 25 °C [±0.3 °F @ 77 °F]
	Time constant t (63%) in the air duct	typical 210 s @ 0 m/s typical 46 s @ 3 m/s
<b>Materials</b>	Time constant t (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
	Cable gland	Plug Adapter: PA66, black Nut: PA6, black
	Housing	Cover: Lexan, orange Bottom: Lexan, orange Seal: 0467 NBR70, black

<b>Safety data</b>	Ambient humidity	Max. 95% r.h., non-condensing
	Ambient temperature	-35...50 °C [-30...120 °F]
	Medium temperature	-50...150 °C [-60...300 °F]
	Housing surface temperature	Max. 90 °C [195 °F]
	Protection class IEC/EN	III Protective extra-low voltage (PELV)
	Protection class UL	UL Class 2 Supply
	EU Conformity	CE-Kennzeichnung
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-9
	Certification UL	cULus acc. to UL60730-1A/-2-9, CAN/CSA E60730-1:02/-2-9, CE acc. to 2004/108/EC and 2006/95/EC, NEMA 4X, IP65, UL Enclosure Type 4X
	Degree of protection IEC/EN	IP65
	Degree of protection NEMA/UL	NEMA 4X
	Quality Standard	ISO 9001

**Safety notes**


The installation and assembly of electrical equipment should only be performed by authorized personnel.

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 human, animals or assets.

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

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

**Remarks**
**General remarks concerning sensors**

Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy, so it should not exceed 1 mA.

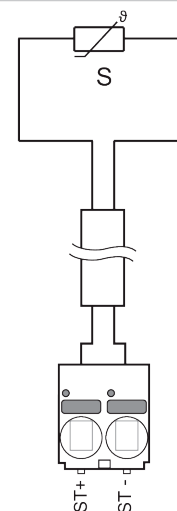
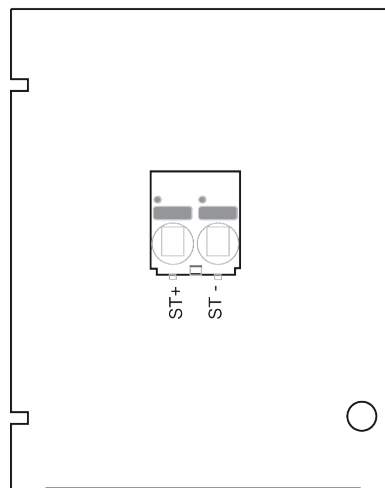
When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one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

**Scope of delivery**

Scope of delivery	Description	Type
	Mounting Clip with screws and adhesive foil	A-22D-A11
	1/2" NPT conduit adapter	

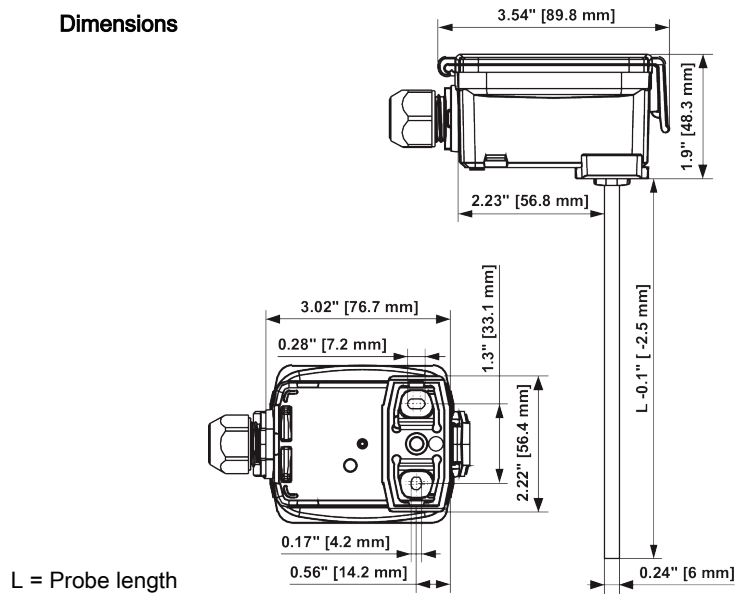
**Accessories**

Optional accessories	Description	Type
	Conduit fitting 1/2" for cable 1 x 6 mm (Multi-pack 10 pieces)	A-22G-A04.1
Optional accessories air	Description	Type
	Mounting flange 6 mm, Plastic (adjustable), up to max. 80 °C	A-22D-A03
	Mounting flange 6 mm, Brass, up to max. 260 °C	A-22D-A05
Recommended accessories water	Description	Type
	Thermowell pocket Stainless steel (fabricated), 50 mm, 1/2" NPT, SW=3/4"	A-22P-A05
	Thermowell pocket Stainless steel (fabricated), 100 mm, 1/2" NPT, SW=3/4"	A-22P-A07
	Thermowell pocket Stainless steel (fabricated), 150 mm, 1/2" NPT, SW=3/4"	A-22P-A09
	Thermowell pocket Stainless steel (fabricated), 200 mm, 1/2" NPT, SW=3/4"	A-22P-A11
	Thermowell pocket Stainless steel (fabricated), 300 mm, 1/2" NPT, SW=3/4"	A-22P-A13
	Thermowell pocket Stainless steel (fabricated), 450 mm, 1/2" NPT, SW=3/4"	A-22P-A15
	Thermowell pocket Stainless steel (machined), 50 mm, 1/2" NPT, SW=3/4"	A-22P-A36
	Thermowell pocket Stainless steel (machined), 100 mm, 1/2" NPT, SW=3/4"	A-22P-A37
	Thermowell pocket Stainless steel (machined), 150 mm, 1/2" NPT, SW=3/4"	A-22P-A38
	Thermowell pocket Stainless steel (machined), 200 mm, 1/2" NPT, SW=3/4"	A-22P-A39
	Thermowell pocket Brass (fabricated), 50 mm, 1/2" NPT, SW=3/4"	A-22P-A17
	Thermowell pocket Brass (fabricated), 100 mm, 1/2" NPT, SW=3/4"	A-22P-A19
	Thermowell pocket Brass (fabricated), 150 mm, 1/2" NPT, SW=3/4"	A-22P-A21
	Thermowell pocket Brass (fabricated), 200 mm, 1/2" NPT, SW=3/4"	A-22P-A23
	Thermowell pocket Brass (fabricated), 300 mm, 1/2" NPT, SW=3/4"	A-22P-A25
	Thermowell pocket Brass (fabricated), 450 mm, 1/2" NPT, SW=3/4"	A-22P-A27
	Syringe thermal contact fluid	A-22P-A44

**Wiring diagram**


## Dimensions

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Type	Probe length	Weight
01DT-5QH	50 mm	0.095 kg
01DT-5QL	100 mm	0.10 kg
01DT-5QN	150 mm	0.10 kg
01DT-5QP	200 mm	0.11 kg
01DT-5QR	300 mm	0.12 kg
01DT-5QT	450 mm	0.13 kg