

**Duct/Immersion Temperature Sensor**

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


**Type Overview**

Type	Output signal passive temperature	Probe length	Probe diameter
01DT-1BH	PT1000	50 mm	6 mm
01DT-1BL	PT1000	100 mm	6 mm
01DT-1BN	PT1000	150 mm	6 mm
01DT-1BP	PT1000	200 mm	6 mm
01DT-1BR	PT1000	300 mm	6 mm
01DT-1BT	PT1000	450 mm	6 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
<b>Functional data</b>	Media	Air Water
	<b>Measuring data</b>	Measuring values
Measuring range temperature		-50...160 °C [-60...320 °F]
Accuracy temperature passive		Class B, ±0.3 °C @ 0 °C [±0.5 °F @ 32° F]
Time constant $\tau$ (63%) in the air duct		typical 210 s @ 0 m/s typical 46 s @ 3 m/s
<b>Materials</b>	Time constant $\tau$ (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...160 °C [-60...320 °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 Marking
	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.

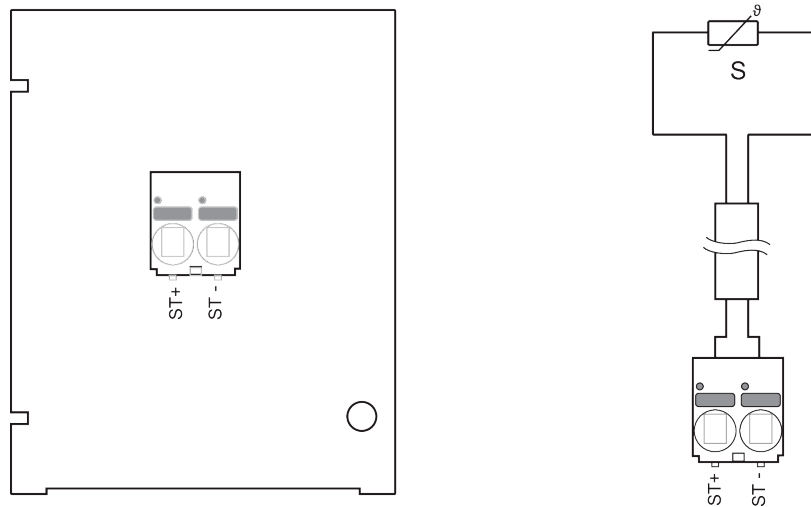
When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one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

**Scope of delivery**

Scope of delivery	Description	Type
	Mounting Clip with screws and adhesive foil	A-22D-A11

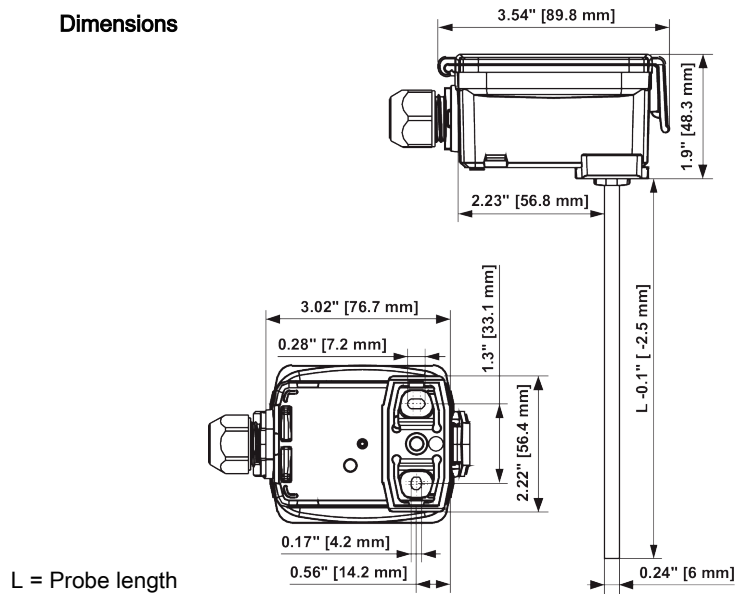
**Accessories**

Optional accessories	Description	Type
	Condensation barrier 50 mm	A-22P-A51
	Connection adapter M20 for cable 1 x 6 mm (Multi-pack 10 pieces)	A-22G-A01.1
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, G1/2", SW27	A-22P-A06
	Thermowell pocket Stainless steel (fabricated), 100 mm, G1/2", SW27	A-22P-A08
	Thermowell pocket Stainless steel (fabricated), 150 mm, G1/2", SW27	A-22P-A10
	Thermowell pocket Stainless steel (fabricated), 200 mm, G1/2", SW27	A-22P-A12
	Thermowell pocket Stainless steel (fabricated), 300 mm, G1/2", SW27	A-22P-A14
	Thermowell pocket Stainless steel (fabricated), 450 mm, G1/2", SW27	A-22P-A16
	Thermowell pocket Brass (fabricated), 50 mm, G1/2", SW22	A-22P-A18
	Thermowell pocket Brass (fabricated), 100 mm, G1/2", SW22	A-22P-A20
	Thermowell pocket Brass (fabricated), 150 mm, G1/2", SW22	A-22P-A22
	Thermowell pocket Brass (fabricated), 200 mm, G1/2", SW22	A-22P-A24
	Thermowell pocket Brass (fabricated), 300 mm, G1/2", SW22	A-22P-A26
	Thermowell pocket Brass (fabricated), 450 mm, G1/2", SW22	A-22P-A28
	Syringe thermal contact fluid	A-22P-A44
	Compression fitting with cutting ring, Stainless steel, G 1/4" (external thread) for 6 mm	A-22P-A45

**Wiring diagram**


## Dimensions

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Type	Probe length	Weight
01DT-1BH	50 mm	0.095 kg
01DT-1BL	100 mm	0.10 kg
01DT-1BN	150 mm	0.10 kg
01DT-1BP	200 mm	0.11 kg
01DT-1BR	300 mm	0.12 kg
01DT-1BT	450 mm	0.13 kg