

Duct / Immersion Temperature Sensor

Duct/Immersion temperature sensor for duct and pipe applications. NEMA 4X / IP65 rated enclosure. Various stainless steel probe lengths available. Stainless steel or brass thermowell pockets should be purchased with sensors intended for immersion applications.


Type Overview

Type	Output signal	Probe length	Probe diameter
01DT-5BH	PT1000	2" [50 mm]	0.24" [6 mm]
01DT-5BL	PT1000	4" [100 mm]	0.24" [6 mm]
01DT-5BN	PT1000	6" [150 mm]	0.24" [6 mm]
01DT-5BP	PT1000	8" [200 mm]	0.24" [6 mm]
01DT-5BR	PT1000	12" [300 mm]	0.24" [6 mm]
01DT-5BT	PT1000	18" [450 mm]	0.24" [6 mm]

Technical Data

Electrical Data	Electrical connection	removable spring loaded terminal block max. 11 GA [2.5 mm ²]
	Cable entry	Cable gland with strain relief Ø6...8 mm (1/2" NPT conduit adapter included)
Functional Data	Output signal passive temperature	PT1000
	Media	air water
Measuring Data	Measuring values	temperature
	Measuring range temperature	-60...320 °F [-50...160 °C]
	Accuracy temperature passive	±0.5 °F @ 32 °F [±0.3 °C @ 0 °C]
	Time constant t (63%) in the air duct	typical 210 s @ 0 m/s typical 46 s @ 3 m/s
Materials	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	UV resistant cover: lexan, orange base: lexan, orange seal: 0467 NBR70, black

Safety Data	Ambient humidity	max. 95% RH non-condensing
	Ambient temperature	-30...120 °F [-35...50 °C]
	Medium temperature	-60...320 °F [-50...160 °C]
	Housing surface temperature	max. 195°F [90°C]
	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.

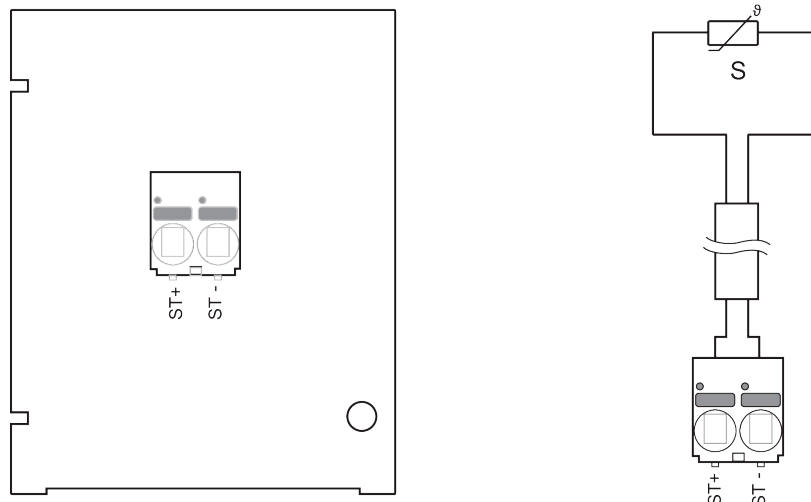
Scope of delivery

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

Accessories

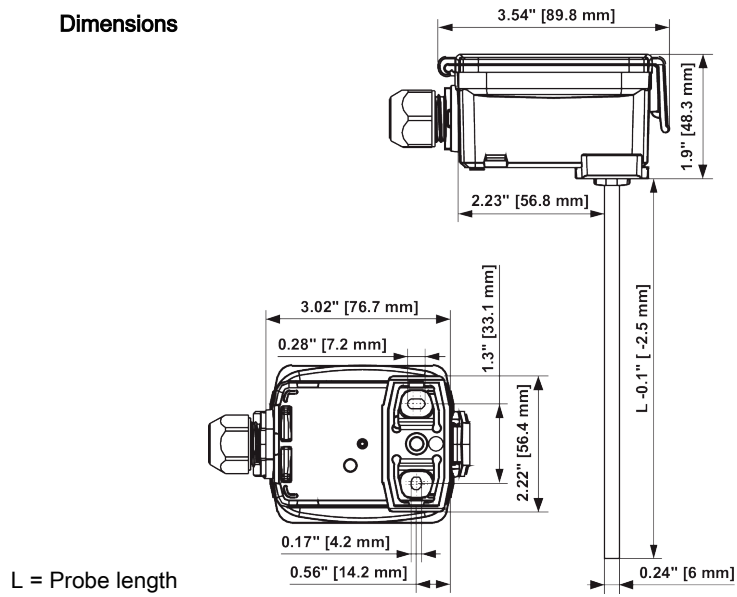
Optional accessories	Description	Type
	Conduit fitting 1/2" for cable 1 x 6 mm (Multi-pack 10 pieces)	A-22G-A04.1
Optional accessories air	Description	Type
	Mounting flange 0.24" [6 mm], Plastic (adjustable), up to max. 80 °C	A-22D-A03
	Mounting flange 0.24" [6 mm], brass, up to max. 500°F [260°C]	A-22D-A05
Recommended accessories water	Description	Type
	thermowell pocket, stainless steel (fabricated), 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A05
	thermowell pocket, stainless steel (fabricated), 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A07
	thermowell pocket, stainless steel (fabricated), 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A09
	thermowell pocket, stainless steel (fabricated), 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A11
	thermowell pocket, stainless steel (fabricated), 12" [300 mm], 1/2" NPT, wrench size 3/4"	A-22P-A13
	thermowell pocket, stainless steel (fabricated), 18" [450 mm], 1/2" NPT, wrench size 3/4"	A-22P-A15
	thermowell pocket, stainless steel (machined), 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A36
	thermowell pocket, stainless steel (machined), 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A37
	thermowell pocket, stainless steel (machined), 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A38
	thermowell pocket, stainless steel (machined), 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A39
	thermowell pocket, brass (fabricated), 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A17
	thermowell pocket, brass (fabricated), 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A19
	thermowell pocket, brass (fabricated), 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A21
	thermowell pocket, brass (fabricated), 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A23
	thermowell pocket, brass (fabricated), 12" [300 mm], 1/2" NPT, wrench size 3/4"	A-22P-A25
	thermowell pocket, brass (fabricated), 18" [450 mm], 1/2" NPT, wrench size 3/4"	A-22P-A27
	syringe thermal contact fluid	A-22P-A44

Wiring Diagram



Dimensions

Dimensions



Type	Probe length	Weight
01DT-5BH	2" [50 mm]	0.21 lb [0.095 kg]
01DT-5BL	4" [100 mm]	0.21 lb [0.10 kg]
01DT-5BN	6" [150 mm]	0.23 lb [0.10 kg]
01DT-5BP	8" [200 mm]	0.24 lb [0.11 kg]
01DT-5BR	12" [300 mm]	0.26 lb [0.12 kg]
01DT-5BT	18" [450 mm]	0.29 lb [0.13 kg]