

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	Probe Length	Probe Diameter	Weight
	Passive Temperature			
01DT-1AH	PT100	50 mm	6 mm	-
01DT-1AL	PT100	100 mm	6 mm	-
01DT-1AN	PT100	150 mm	6 mm	-
01DT-1AP	PT100	200 mm	6 mm	-
01DT-1AR	PT100	300 mm	6 mm	-
01DT-1AT	PT100	450 mm	6 mm	-
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	-
01DT-1CH	Ni1000	50 mm	6 mm	-
01DT-1CL	Ni1000	100 mm	6 mm	-
01DT-1CN	Ni1000	150 mm	6 mm	-
01DT-1CP	Ni1000	200 mm	6 mm	-
01DT-1CR	Ni1000	300 mm	6 mm	-
01DT-1CT	Ni1000	450 mm	6 mm	-
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	-
01DT-1FL	NTC1k8	100 mm	6 mm	-
01DT-1FN	NTC1k8	150 mm	6 mm	-
01DT-1FP	NTC1k8	200 mm	6 mm	-
01DT-1FR	NTC1k8	300 mm	6 mm	-
01DT-1FT	NTC1k8	450 mm	6 mm	-
01DT-1HP	NTC5k	200 mm	6 mm	-
01DT-1LH	NTC10k (10k2)	50 mm	6 mm	-
01DT-1LL	NTC10k (10k2)	100 mm	6 mm	-
01DT-1LN	NTC10k (10k2)	150 mm	6 mm	-

01DT-1LP	NTC10k (10k2)	200 mm	6 mm	-
01DT-1LR	NTC10k (10k2)	300 mm	6 mm	-
01DT-1LT	NTC10k (10k2)	450 mm	6 mm	-
01DT-1MN	NTC10k Pre (10k3)	150 mm	6 mm	-
01DT-1MP	NTC10k Pre (10k3)	200 mm	6 mm	-
01DT-1QH	NTC20k	50 mm	6 mm	-
01DT-1QL	NTC20k	100 mm	6 mm	-
01DT-1QN	NTC20k	150 mm	6 mm	-
01DT-1QP	NTC20k	200 mm	6 mm	-
01DT-1QR	NTC20k	300 mm	6 mm	-
01DT-1QT	NTC20k	450 mm	6 mm	-

Technical Data

Electrical data	Electrical connection	Removable spring loaded terminal block max. 2.5 mm ²	
	Cable entry	Cable gland PG11 Ø6...10 mm, with strain relief Ø6...8 mm	
Functional data	Output signal passive temperature	PT100 PT1000 Ni1000 Ni1000TK5000 NTC1k8 NTC5k NTC10k (10k2) NTC10k Pre (10k3) NTC20k	
	Media	Air Water	
	Measuring data	Measured values	Temperature
		Measuring range temperature	PT... Ni.. : -50...160 °C [-60...320 °F] NTC.. : -50...150 °C [-60...300 °F]
		Accuracy temperature passive	Passive Sensors depending on used type PT.. : Class B, ±0.3 °C @ 0 °C [±0.5 °F @ 32 °F] Ni.. : ±0.4 °C @ 0 °C [±0.7 °F @ 32 °F] NTC.. : ±0.2 °C @ 25 °C [±0.3 °F @ 77 °F]
Materials	Cable gland	Plug Adapter: PA66, black Nut: PA6, black	
	Housing	Cover: Lexan, Belimo orange NCS S0580-Y6OR Bottom: Lexan, Belimo orange NCS S0580-Y6OR Seal: 0467 NBR70, black	

Safety data	Ambient humidity	85% r.H., non-condensing
	Ambient temperature	-35...50 °C [-30...120 °F]
	Medium temperature	PT... Ni... : -50...160 °C [-60...320 °F] NTC... : -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 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
	Weight	0.095 lbs

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

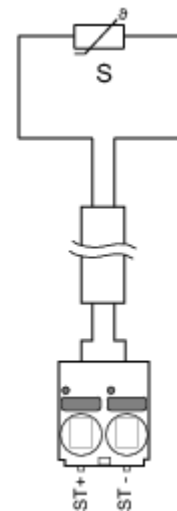
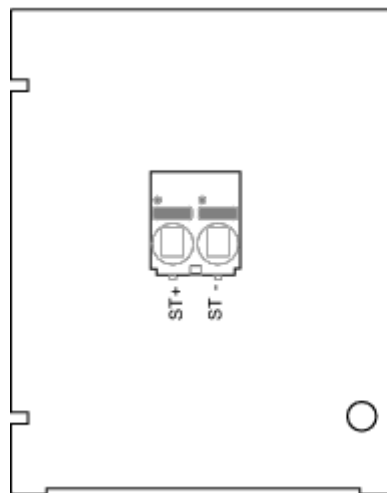
Remarks
General remarks concerning sensors

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.

Accessories

Scope of delivery	Mounting Clip Screws Adhesive foil	
Optional accessories air	Description	Type
	Mounting flange 6 mm, Plastic (adjustable), up to max. 120 °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, 50 mm, G1/2", SW27	A-22P-A06
	Thermowell pocket Stainless steel, 100 mm, G1/2", SW27	A-22P-A08
	Thermowell pocket Stainless steel, 150 mm, G1/2", SW27	A-22P-A10
	Thermowell pocket Stainless steel, 200 mm, G1/2", SW27	A-22P-A12
	Thermowell pocket Stainless steel, 300 mm, G1/2", SW27	A-22P-A14
	Thermowell pocket Stainless steel, 450 mm, G1/2", SW27	A-22P-A16
	Thermowell pocket Brass, 50 mm, G1/2", SW22	A-22P-A18
	Thermowell pocket Brass, 100 mm, G1/2", SW22	A-22P-A20
	Thermowell pocket Brass, 150 mm, G1/2", SW22	A-22P-A22
	Thermowell pocket Brass, 200 mm, G1/2", SW22	A-22P-A24
	Thermowell pocket Brass, 300 mm, G1/2", SW22	A-22P-A26
	Thermowell pocket Brass, 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

