

**Cable Temperature Sensor**

Used as a duct temperature sensor with a mounting flange or as an immersion temperature sensor in combination with an immersion sleeve. With stainless steel probe and plenum-rated cable.


**Type Overview**

Type	Output signal	Probe length	Probe diameter
01CT-5AH	Pt100	2" [50 mm]	0.24" [6 mm]
01CT-5BH	Pt1000	2" [50 mm]	0.24" [6 mm]
01CT-5EH	Ni1000 (JCI)	2" [50 mm]	0.24" [6 mm]
01CT-5LH	NTC10k (10k2)	2" [50 mm]	0.24" [6 mm]
01CT-5MH	NTC10k3 (Precon)	2" [50 mm]	0.24" [6 mm]
01CT-5QH	NTC20k	2" [50 mm]	0.24" [6 mm]

**Technical Data**

<b>Electrical Data</b>	Electrical connection	cable 2 m, 2-wire
	Cable specification	1 pair shielded plenum cable, 22AWG tinned copper, green jacket, -40...300°F [-40...150°C], 300 V
<b>Functional Data</b>	Output signal passive temperature	Pt100 Pt1000 Ni1000 (JCI) NTC10k (10k2) NTC10k3 (Precon) NTC20k
	Application	air water
<b>Measuring Data</b>	Measuring values	Temperature
	Measuring range temperature	-40...300°F [-40...150°C]
	Accuracy temperature passive	Passive sensors depending on used type Pt.. : ±0.5°F @ 32°F [±0.3°C @ 0°C] Ni.. : ±0.7°F @ 32°F [±0.4°C @ 0°C] NTC.. : ±0.35°F @ 77°F [±0.2°C @ 25°C]
	Measuring current	Pt100: <1 mA @ 32°F [0°C] Pt1000: <0.3 mA @ 32°F [0°C] Ni1000 (JCI): <5 mA @ 21°C [70°F] NTC10k2: <2 mA @ 77°F [25°C] NTC10k3: <2.7 mA @ 77°F [25°C] NTC20k: <0.5 mA @ 77°F [25°C]
	Time constant t (63%) in the air duct	typical 155 s @ 0 m/s typical 35 s @ 3 m/s
	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
<b>Safety Data</b>	Ambient humidity	max. 95% r.H., non-condensing
	Ambient temperature	-40...300°F [-40...150°C]

Fluid temperature	-40...300°F [-40...150°C]
Protection class IEC/EN	III Safety Extra-Low Voltage (SELV)
Protection class UL	UL Class 2 Supply
EU Conformity	CE Marking
Certification IEC/EN	IEC/EN 60730-1
Certification UL	cULus acc. to UL60730-1A/-2-9, CAN/CSA E60730-1:02/-2-9
Degree of protection IEC/EN	IP67
Degree of protection NEMA/UL	NEMA 4X
Quality Standard	ISO 9001

**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. Unauthorized 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**

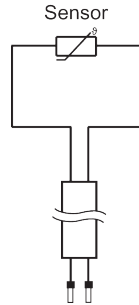
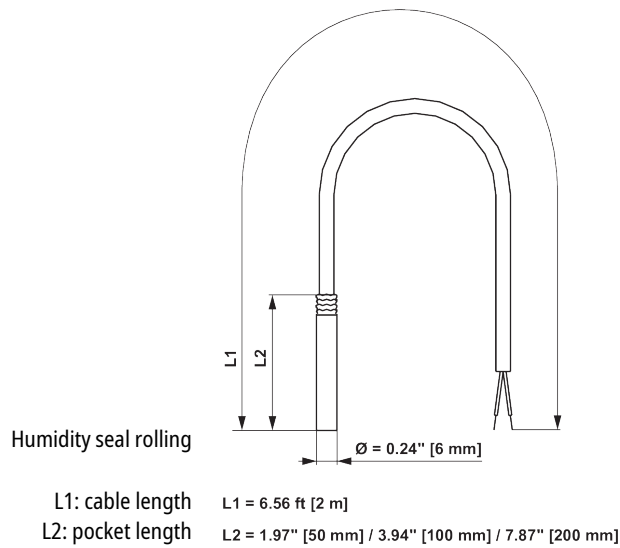
Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.

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.

**Accessories**

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 pocket (fabricated) Stainless steel, 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A05
	Thermowell pocket (fabricated) Stainless steel, 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A07
	Thermowell pocket (fabricated) Stainless steel, 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A09
	Thermowell pocket (fabricated) Stainless steel, 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A11
	Thermowell pocket (fabricated) Stainless steel, 12" [300 mm], 1/2" NPT, wrench size 3/4"	A-22P-A13
	Thermowell pocket (fabricated) Stainless steel, 18" [450 mm], 1/2" NPT, wrench size 3/4"	A-22P-A15
	Thermowell pocket (fabricated) Brass, 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A17
	Thermowell pocket (fabricated) Brass, 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A19
	Thermowell pocket (fabricated) Brass, 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A21
	Thermowell pocket (fabricated) Brass, 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A23
	Thermowell pocket (fabricated) Brass, 12" [300 mm], 1/2" NPT, wrench size 3/4"	A-22P-A25
	Thermowell pocket (fabricated) Brass, 18" [450 mm], 1/2" NPT, wrench size 3/4"	A-22P-A27
	Thermowell pocket (machined) Stainless steel, 2" [50 mm], 1/2" NPT, wrench size 3/4"	A-22P-A36

Thermowell pocket (machined) Stainless steel, 4" [100 mm], 1/2" NPT, wrench size 3/4"	A-22P-A37
Thermowell pocket (machined) Stainless steel, 6" [150 mm], 1/2" NPT, wrench size 3/4"	A-22P-A38
Thermowell pocket (machined) Stainless steel, 8" [200 mm], 1/2" NPT, wrench size 3/4"	A-22P-A39
Syringe with thermal paste	A-22P-A44
Cold barrier, Plastic, L 50 mm, for thermowell pocket A-22P-A..	A-22P-A51

**Wiring Diagram**

**Dimensions**


Type	Probe length	Weight
01CT-5AH	2" [50 mm]	0.14 lb [0.065 kg]
01CT-5BH	2" [50 mm]	0.14 lb [0.065 kg]
01CT-5EH	2" [50 mm]	0.14 lb [0.065 kg]
01CT-5LH	2" [50 mm]	0.14 lb [0.065 kg]
01CT-5MH	2" [50 mm]	0.14 lb [0.065 kg]
01CT-5QH	2" [50 mm]	0.14 lb [0.065 kg]