BELIMO

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 PVC cable.

Technical data sheet 01CT-1NH5

5 YEAR WARRANTY

Type Overview

Type	Output signal	Probe length	Probe diameter
01CT-1NH5	NTC10k Carel	50 mm	6 mm

Technical Data

Electrical data	Electrical connection	Cable 6 m, 2-wire
Functional data	Output signal passive temperature	NTC10k (10k2)
	Application	Air Water
Measuring data	Measuring values	Temperature
	Measuring range temperature	-35...100°C [-30...210°F]
	Accuracy temperature passive	±0.26°C @ 25°C [±0.48°F @ 77°F]
	Measuring current	<2 mA @ 25°C [77°F]
	Time constant τ (63%) in air duct	Typical 155 s @ 0 m/s Typical 35 s @ 3 m/s
	Time constant τ (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
Safety data	Ambient humidity	Max. 95% r.H., non-condensing
	Ambient temperature	-35...100°C [-30...210°F]
	Fluid temperature	-35...100°C [-30...210°F]
	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
	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. Unauthorised 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

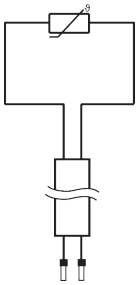
Description	Type
Mounting flange for sensor probe 6 mm, up to max. 120°C [248°F], Plastic	A-22D-A03
Mounting flange for sensor probe 6 mm, up to max. 260°C, Brass	A-22D-A05

Recommended accessories water

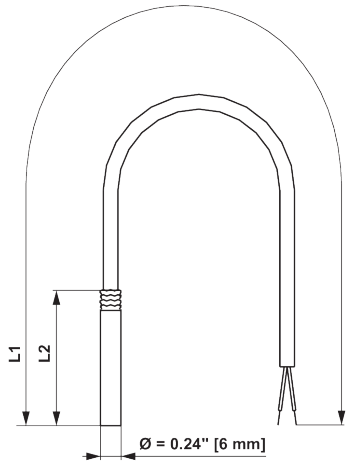
Description	Type
Thermowell pocket Stainless steel, 50 mm, G1/2", SW27	A-22P-A06
Thermowell pocket Stainless steel, 100 mm, G1/2", SW27	A-22P-A08
Thermowell pocket Stainless steel, 150 mm, G1/2", SW27	A-22P-A10
Thermowell pocket Stainless steel, 200 mm, G1/2", SW27	A-22P-A12
Thermowell pocket Stainless 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, R1/2", SW22	A-22P-A18
Thermowell pocket Brass, 100 mm, R1/2", SW22	A-22P-A20
Thermowell pocket Brass, 150 mm, R1/2", SW22	A-22P-A22
Thermowell pocket Brass, 200 mm, R1/2", SW22	A-22P-A24
Thermowell pocket Brass, 300 mm, R1/2", SW22	A-22P-A26
Thermowell pocket Brass, 450 mm, R1/2", SW22	A-22P-A28
Syringe with thermal paste	A-22P-A44
Compression fitting, Stainless steel, G 1/4" (external thread) for 6 mm, with cutting ring	A-22P-A45
Cold barrier, Plastic, L 50 mm, for thermowell pocket A-22P-A..	A-22P-A51

Wiring diagram

Sensor



Dimensions



L1 = 19.69 ft [6 m]

L2 = 1.97" [50 mm] / 3.94" [100 mm] / 7.87" [200 mm]

Type	Probe length	Weight
01CT-1NH5	50 mm	0.19 kg