BELIMO

Duct/Immersion sensor Temperature

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

Technical data sheet 01DT-1L..

5 YEAR WARRANTY

Type Overview

Type	Output signal	Probe length	Probe diameter
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

Technical Data

Electrical data	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm²
	Cable entry	Cable gland with strain relief Ø6...8 mm
Functional data	Application	Air Water
	Output signal passive temperature	NTC10k (10k2)
Measuring data	Measured values	Temperature
	Measuring range temperature	-50...150°C [-60...300°F]
	Accuracy temperature passive	±0.2°C @ 25°C [±0.35°F @ 77°F]
	Measuring current	<2 mA @ 25°C [77°F]
	Time constant τ (63%) in air duct	Typical 210 s @ 0 m/s Typical 46 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
Materials	Cable gland	Plug Adapter: PA66, black Nut: PA6, black
	Housing	Cover: PC, orange Bottom: PC, orange Seal: NBR70, black UV resistant
	Probe material	V4A (1.4404)
Safety data	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-35...50°C [-30...120°F]
	Fluid temperature	-50...150°C [-60...300°F]
	Housing surface temperature	Max. 90°C [195°F]
	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)

Safety data

Power source 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/-2-9
Degree of protection IEC/EN	IP65
Degree of protection NEMA/UL	NEMA 4X
Quality Standard	ISO 9001
Mode of operation	Type 1
Pollution degree	3
Rated impulse voltage supply	0.8 kV
Construction	Independently mounted control

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.

Scope of delivery

Scope of delivery

Description	Type
Mounting clip, with screws and adhesive foil	A-22D-A11

Accessories

Optional accessories

Description	Type
Mounting plate S housing	A-22D-A09
Connection adapter, M20x1.5, for cable 1x6 mm, Multipack 10 pcs.	A-22G-A01.1

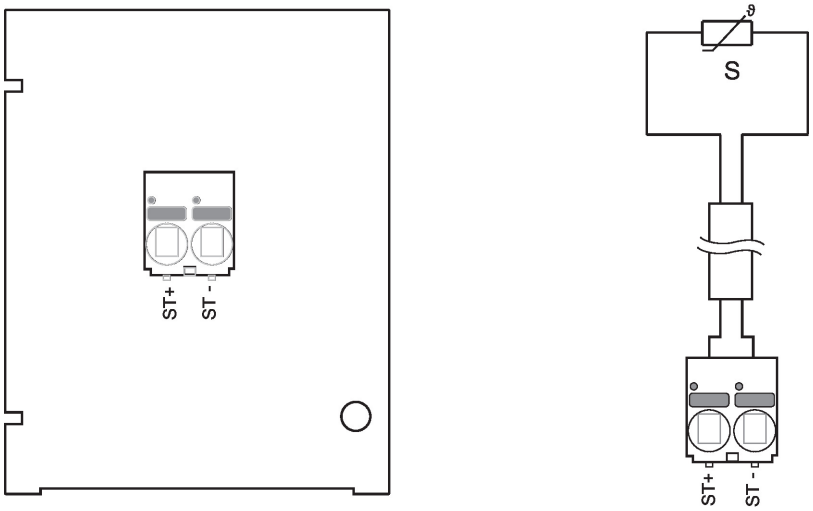
Optional accessories air

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

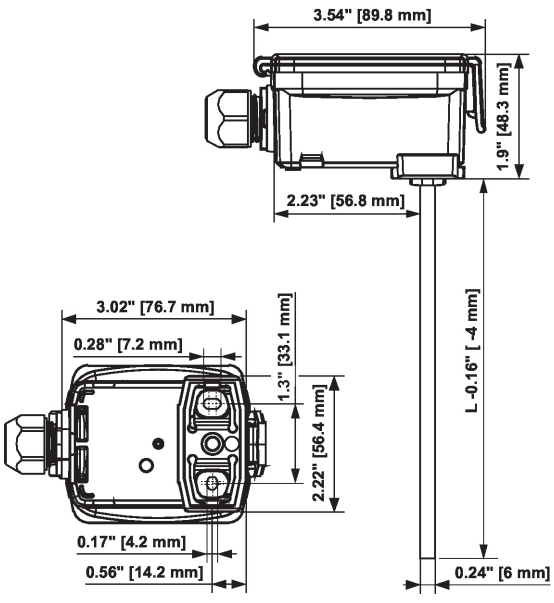
Recommended accessories water

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 A-22P-A..	A-22P-A51
Adapter for Siemens thermowell	A-22P-A53

Wiring diagram



Dimensions



L = Probe length

Type	Probe length	Weight
01DT-1LH	50 mm	0.12 kg
01DT-1LL	100 mm	0.12 kg
01DT-1LN	150 mm	0.13 kg
01DT-1LP	200 mm	0.13 kg
01DT-1LR	300 mm	0.14 kg
01DT-1LT	450 mm	0.15 kg