Duct Averaging Temperature Sensor

Active sensor (0 to 5/10 V) for measuring the averaging temperature in duct applications. NEMA 4X / IP65 rated enclosure. Supplied with one continuous sensing element across the whole length of the probe to ensure optimum accuracy and eliminate air stratification problems.

5 YEAR WARRANTY

Type Overview

Type	Output Signal Active Temperature	Probe Length
22MT-524	DC 0...5 V, DC 0...10 V	10 ft [3 m]
22MT-525	DC 0...5 V, DC 0...10 V	20 ft [6 m]

Technical Data

Electrical Data	Power Supply DC	15...24 V, ±10%, 0.4 W
	Power Supply AC	24 V, ±10%, 0.8 VA
	Electrical Connection	removable spring loaded terminal block max. 11 GA [2.5 mm²]
	Cable Entry	cable gland PG11 Ø6 to 10 mm, with strain relief Ø6 to 8 mm, 1/2" conduit adapter included
Functional Data	Multirange	8 fields selectable
	Output Signal Active Note	output DC 0 to 5/10 V with jumper adjustable voltage output: min. 5 kΩ load
	Media	air
Measuring Data	Measured Values	temperature
	Measuring Range Temperature Settings	Activ sensor: range selectable. Attention: max. measuring temperature is restricted by max. medium temperature (see Safety data)

Setting	range [°C]	range [°F]	Factory setting
S0	-50°C to 50°C	-30°F to 130°F	
S1	-10°C to 120°C	0°F to 250°F	
S2	0°C to 50°C	40°F to 140°F	
S3	0°C to 250°C	30°F to 480°F	
S4	-15°C to 35°C	0°F to 100°F	
S5	0°C to 100°C	40°F to 240°F	
S6	-20°C to 80°C	40°F to 90°F	✓
S7	0°C to 160°C	0°F to 150°F	

	Accuracy Temperature	±1% of measuring range @ 70°F [21°C]
Materials	Cable Gland	PA6, black
	Housing	cover: lexan, Belimo orange NCS S0580-Y6OR base: lexan, Belimo orange NCS S0580-Y6OR seal: 0467 NBR70, black

Safety Data

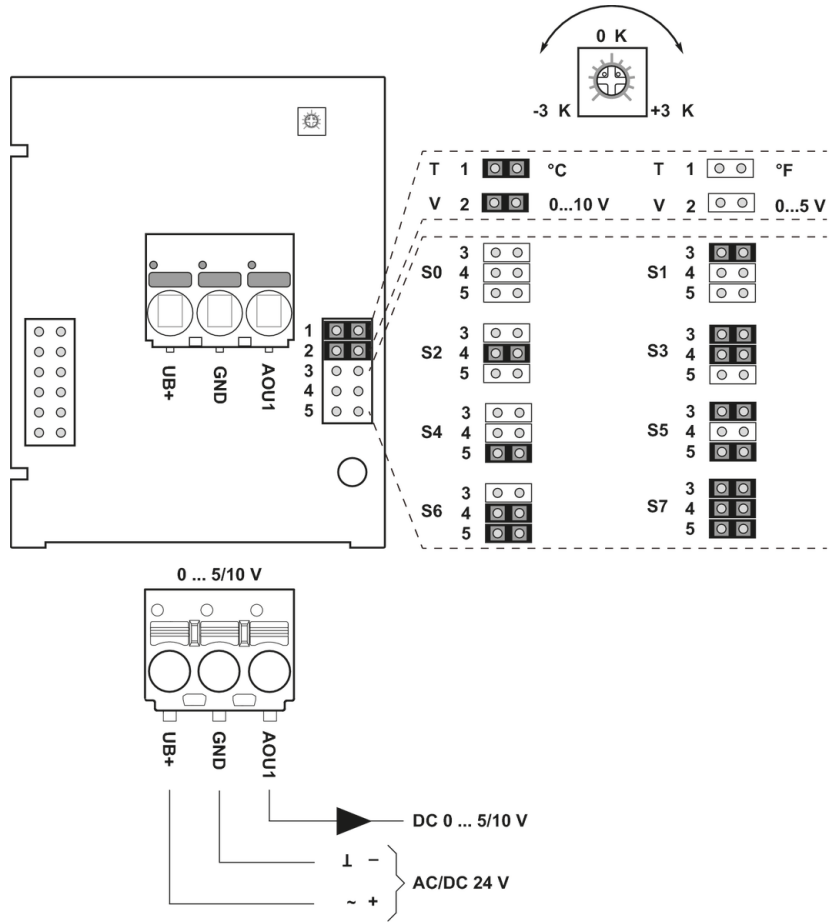|	
Ambient Humidity	85% RH non-condensing
Ambient Temperature	-30°F to 120°F [-35°C to 50°C]
Medium Temperature	-60°F to 175°F [-50°C to 80°C]
Housing Surface Temperature (Tsurf)	max. 160°F [70°C]
Protection Class IEC/EN	III safety extra-low voltage (selv)
Protection Class UL	UL Class 2 Supply
EU Conformity	CE Marking
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-9
Certification UL	pending
Degree of Protection IEC/EN	IP65
Degree of Protection NEMA/ UL	NEMA 4X
Quality Standard	ISO 9001
Weight	0.25 lbs

Safety Notes

⚠️ The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorized modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, 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

Wiring Diagram

the adjustment of the measuring ranges is made by changing the bonding jumpers
the output value in the new measuring range is available after 2 seconds

Setting	range [°C]	range [°F]	Factory setting
S0	-50°C to 50°C	-30°F to 130°F	
S1	-10°C to 120°C	0°F to 250°F	
S2	0°C to 50°C	40°F to 140°F	
S3	0°C to 250°C	30°F to 480°F	
S4	-15°C to 35°C	0°F to 100°F	
S5	0°C to 100°C	40°F to 240°F	
S6	-20°C to 80°C	40°F to 90°F	✔
S7	0°C to 160°C	0°F to 150°F	

Dimensions

3.54" [89.8 mm]

1.95" [49.5 mm]

2.3" [58.5 mm]

3.11" [78.9 mm]

0.24" [6 mm]

0.26" [6.5 mm]

L 10/20 ft. [3 m/6 m]

0.18" [4.5 mm]

0.25" [6.4 mm]

1.25" [31.9 mm]

0.63" [16 mm]

0.36" [9.2 mm]

0.17" [4.2 mm]

2.58" [65.6 mm]

0.51" [13 mm]

0.63" [16 mm]

0.63" [16 mm]