

Outdoor Humidity, Temperature Sensor

±2% accurate humidity and temperature sensor for outdoor applications. Temperature is available with dual active 4 to 20 mA outputs or passive only for temperature. NEMA 4X /IP65 rated enclosure standard. Field selectable output for RH, absolute humidity, dew point or enthalpy.


Type Overview

Type	Output Signal Active Temperature	Output Signal Active Humidity
22UTH-530X	4...20 mA	4...20 mA

Technical Data

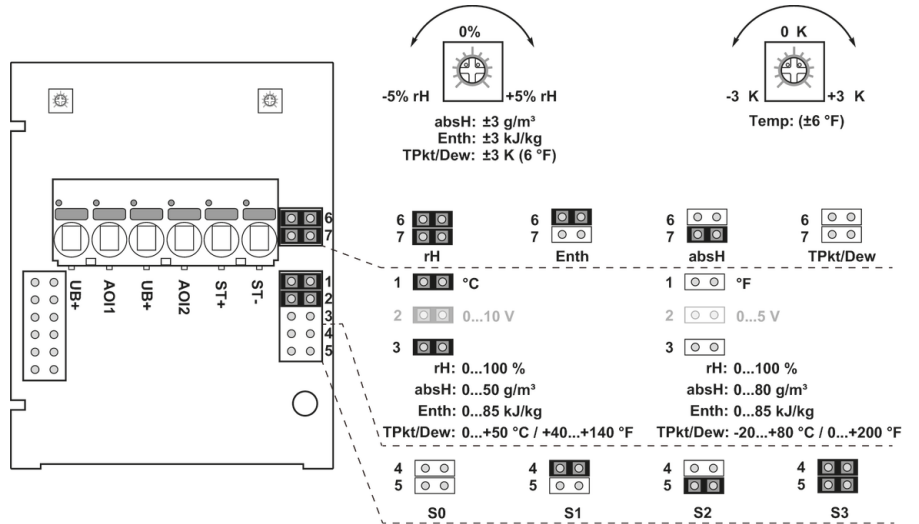
Electrical Data	Power Supply DC	15...24 V, ±10%, 0.5 W
	Electrical Connection	removable spring loaded terminal block max. 11 GA [2.5 mm ²]
	Cable Entry	cable gland PG11 Ø6 to 10 mm, with strain relief Ø6 to 8 mm, 1/2" conduit adapter included
Functional Data	Multirange	4 fields selectable
	Output Signal Active Note	current outout: max. 500 Ω load
	Media	air
Measuring Data	Measured Values	temperature relative humidity dew point enthalpy absolute humidity
	Measuring Range Humidity	0 to 100% RH non-condensing
	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 -40°C to 60°C -40°F to 160°F
		S1 0°C to 50°C 40°F to 140°F
		S2 -15°C to 35°C 0°F to 100°F
		S3 -20°C to 80°C 0°F to 200°F ✓
	Measuring Range Absolute Humidity	adjustable at the transducer: 0 to 50 g/m ³ (default setting) 0 to 80 g/m ³
	Measuring Range Enthalpy	0 to 85 kJ/kg
	Measuring Range Dew Point	adjustable at the transducer: 40°F to 140°F [0°C to 50°C] (default setting) 0°F to 200°F [-20°C to 80°C]
Accuracy Humidity	±2% between 10 to 90% RH @ 70°F [21°C]	
Accuracy Temperature	±0.9°F @ 77°F [±0.5°C @ 25°C]	
Operating Condition Air Flow	max. 40 ft/s [12 m/s]	

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	-30°F to 120°F [-35°C to 50°C]
	Operating Condition Air Flow	max. 40 ft/s [12 m/s]
	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 60730-2-13
	Certification UL	pending
	Degree of Protection IEC/EN	IP65
	Degree of Protection NEMA/ UL	NEMA 4X
	Quality Standard	ISO 9001
	Weight	0.24 lbs

Accessories

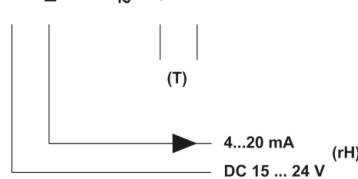
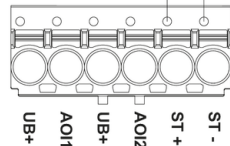
Scope of Delivery	dowel screws cable gland nut conduit 1/2" NPT
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Wiring Diagram

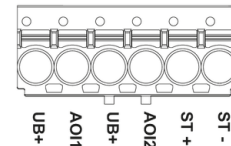


rH Relative humidity
 absH Absolute humidity
 Enth Enthalpy
 TPkt/Dew Dew point

22..TH-..3..
4...20 mA + ST



22..TH-..3..
2 x 4...20 mA



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	-40°C to 60°C	-40°F to 160°F	✓
S1	0°C to 50°C	40°F to 140°F	
S2	-15°C to 35°C	0°F to 100°F	
S3	-20°C to 80°C	0°F to 200°F	

Dimensions

