

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

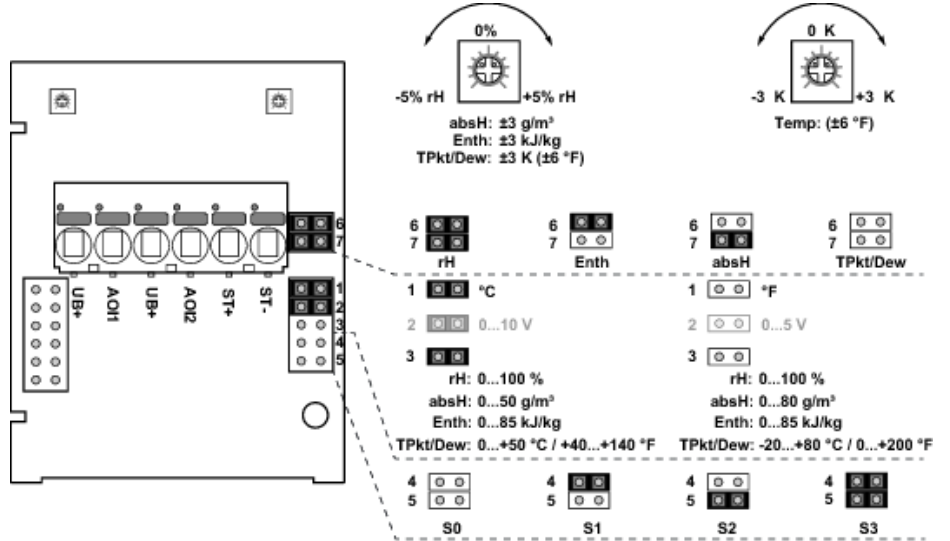
Electrical Data	Power Supply DC	15...24 V, ±10%, 0.5 W
	Electrical Connection	removable spring loaded terminal block max. 11 GA [2.5 mm ²]
	Cable Entry	cable gland PG11 Ø6 to 10 mm, with strain relief Ø6 to 8 mm, 1/2" conduit adapter included
Functional Data	Multirange	4 fields selectable
	Output Signal Active Note	current output: 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	Active sensor: range selectable Attention: max. measuring temperature is restricted by max. medium temperature (see Safety data) <table border="1"> <thead> <tr> <th>Setting</th> <th>range [°C]</th> <th>range [°F]</th> <th>Factory setting</th> </tr> </thead> <tbody> <tr> <td>S0</td> <td>-40°C to 60°C</td> <td>-40°F to 160°F</td> <td></td> </tr> <tr> <td>S1</td> <td>0°C to 50°C</td> <td>40°F to 140°F</td> <td></td> </tr> <tr> <td>S2</td> <td>-15°C to 35°C</td> <td>0°F to 100°F</td> <td></td> </tr> <tr> <td>S3</td> <td>-20°C to 80°C</td> <td>0°F to 200°F</td> <td>✓</td> </tr> </tbody> </table>	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	✓
	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 active	±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	cULus acc. to UL60730-1A/-2-9/-2-13, CAN/CSA E60730-1:02/-2-9, CE acc. to 2004/108/EC and 2006/95/EC, NEMA 4X, IP65, UL Enclosure Type 4X																				
	Degree of Protection IEC/EN	IP65																				
	Degree of Protection NEMA/ UL	NEMA 4X																				
	Quality Standard	ISO 9001																				
	Weight	0.24 lbs																				

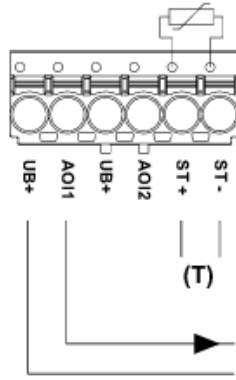
Accessories

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

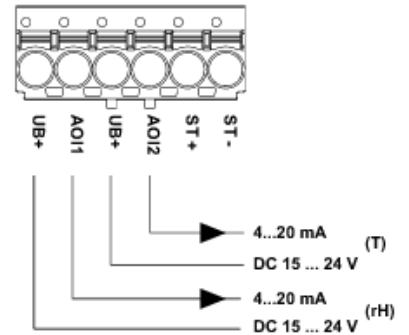
Wiring Diagram



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



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



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

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

