

HMD60UO/YO Outdoor Humidity & Temperature Transmitter & Solar Radiation/Precipitation Shield



Model HMD60YO Relative Humidity and Temperature HUMICAP® Sensors, combined with DTR503B Radiation Shield is easy to install and ideal for outdoor applications.

Features/Benefits

- Full 0...100 %RH measurement
- DTR503B radiation shield provides excellent ventilation while blocking direct and reflected solar radiation, and precipitation
- True two-wire transmitter with 4 to 20 mA loop powered output: compatible with most energy management systems
- Electromagnetically compatible
- Temperature compensated
- Excellent long-term stability
- Negligible temperature coefficient
- ±2% accuracy (0...90 %RH), ±3% (90%...100 %RH)
- NEMA 4 (IP65) housing

Stable performance in demanding outside environments

The HMD60UO and HMD60YO Duct-mount Transmitters measure relative humidity and temperature. They utilize Vaisala's HUMICAP® Humidity Sensor which is known for its excellent reliability, long-term stability, and reliable operation. In addition, the HUMICAP® Sensors are insensitive to dust and most chemicals, and are not damaged by condensation. The transmitters feature two wire connections that make retrofitting, upgrading and installations easy.

Fast, on-site calibration

The accuracy of the transmitters is easy to check by using Vaisala's HMK41 humidity calibration kit. The calibration can be done in seconds with a single potentiometer – without disturbing the operation, thus ensuring accuracy and saving hours of maintenance time.

Shield protects sensor

The maintenance-free, 12 plate DTR503B Radiation Shield is naturally ventilated, and protects the sensors from scattered, as well as, direct solar radiation and rain.

The plates are composed of a special plastic material that offers excellent thermal characteristics and UV stabilized construction. The white outer surface reflects radiation, while the black inside absorbs accumulated heat, resulting in more accurate measurement.

Easy-to-install

The easy-to-install DTR503B is suitable for a wide range of applications. It can be mounted on a vertical pole, horizontal beam or flat surface. (See page 86.)

On-site, one-point calibration

One-point calibration of RH and T can be done in the field using Vaisala's hand-held HMK41 field calibrator. (Page 26.)

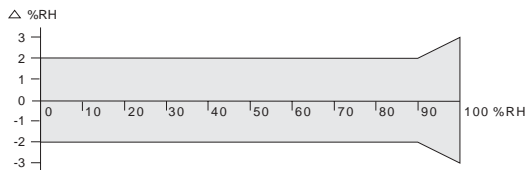
Technical Data

General

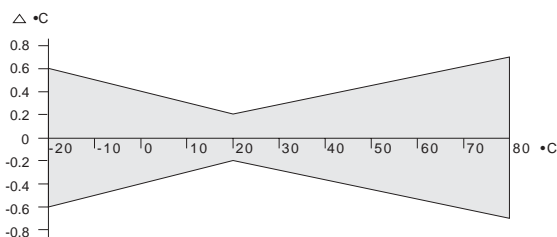
Supply voltage	10...35 VDC ($R_L = 0$ ohms)
	20...35 VDC ($R_L = 500$ ohms)
Output signal	4...20 mA
Operating temperature range:	
electronics	-40...+140 °F (-40...+60 °C)
sensor head	-40...+140 °F (-40...+60 °C)
Storage temperature range	-40...+176 °F (-40...+80 °C)
Connections	screw terminals 0.5...1.5 mm ²
Housing:	
sensor head	stainless steel
electronics housing	cast aluminum
Sensor protection	membrane filter
optional	stainless steel sintered filter

Relative Humidity

HMD60U and HMD60Y	
Measurement range	0...100 %RH
Accuracy at +68 °F (+20 °C)	

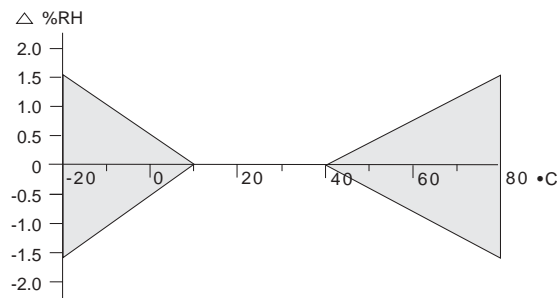


Temperature dependence	
Response time at +68 °F (+20 °C)	15 s with membrane filter
Sensor	HUMICAP® 180



Temperature (Y and T Models only)

Measurement range	-4...+140 °F (-20...+60 °C)
Output signal	-40...+140 °F (-40...+60 °C)

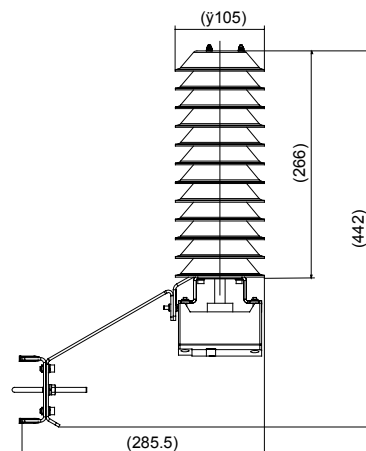


Accuracy	
Linearity	better than 0.18 °F (0.1 °C)
Sensor	PT 1000 IEC 751 class B
Specifications subject to change without notice.	

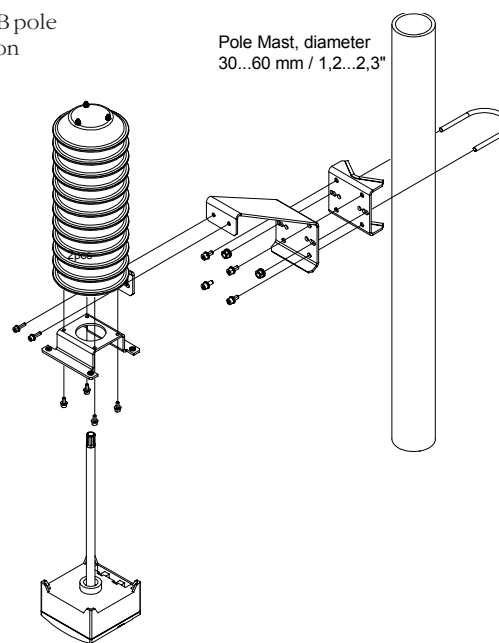
Dimensions

Dimensions in mm

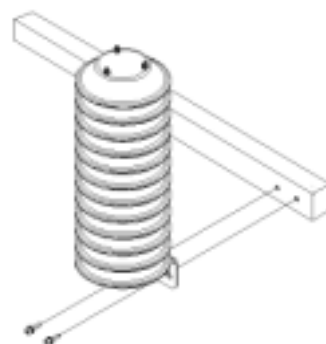
DTR503B dimensions



DTR503B pole installation



DTR503B horizontal beam installation.



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