CE

HTY7843

Remote Temperature/Humidity Sensor

The HTY7843 is a highly precise and reliable sensor that uses a Pt100 platinum RTD (JIS C 1604 Class A) as the temperature sensing element and a polymer capacitive film as the humidity sensing element (the Yamatake-designed FP3™). This sensor has a wide measuring range and excellent stability. Therefore, it is suitable for measurement of the outside air and for various industrial locations, such as the inside of air-conditioner ducts and chambers.

Specifications

Sensing range	Temperature	-20 to +80°C (under limited operating conditions)	
	Humidity	0 to 100% RH (no condensation allowed)	
Detection accuracy	Temperature	±0.3°C (Pt100 output)	
		±0.5°C (1-5Vdc output)	
		±0.5°C (4-20mAdc output)	
	Humidity	±3% RH (30 to 70% RH at 25°C)	
		±5% RH (20 to 80% RH at 15 to 35°C)	
Output signal	Temperature	JIS Pt100 (3-wire type)	
		1–5Vdc (Temperature range is specified by model.). Max. input impedance is 50kΩ.	
		4–20mAdc (2-wire type). Max. load resistance at a power voltage of 24Vdc is 500Ω.	
	Humidity	1–5Vdc / 0–10Vdc (Linear to 0 to 100% RH). Max. input impedance is 50kΩ.	
		4–20mAdc (2-wire type). Max. load resistance at a power voltage of 24Vdc is 500Ω.	
Time constant	Temperature	3min or less	At wind velocity of 2m/s
	Humidity	30s or less	
Power		24Vdc ±10%	
Power consumption		0.2W or less (when voltage output is used for humidity output)	
Dielectric strength		Leakage current is 1mA or less when 500Vac is applied for 1 min (between case and power terminal)	
Insulation resistance		20MΩ or more when measured using 500Vdc megger (between case and power terminal)	
Protective structure		Probe is dustproof and splash-proof (IP54) when filter is attached.	
Accessories		Cable tie (1 unit), sponge pad (1 unit)	
Mass		Approx. 150g (probe: approx. 60g)	

Selection Guide

I II III IV V Example: **HTY7843D1100**

Segment	Model No. selection		↓	↓	Description
I	Basic No.	**HTY7843**	O	O	Remote temperature/humidity sensor
II	Power	**D**	O	O	24Vdc
III	Humidity output	**1**	O	−	Voltage output, 1–5V / 0–100% RH
		4	−	O	Current output (2-wire type), 4–20mA / 0–100% RH
IV	Temperature output	**1**	O	−	Voltage output, 1–5V / 0–50°C
		4	−	O	Current output (2-wire type), 4–20mA / 0–50°C
		A	O	−	Voltage output, 1–5V / 15–35°C
		P	O	O	Resistance output, JIS Pt100 (3-wire type)
V	(Fixed)	**00**	O	O	−

• A circle (o) denotes availability.

Accessories (sold separately)

Model No.	Description
FL-PA112	Wall mounting bracket
83104098-003	Sealed connector without filter
83104098-004	Sealed connector with filter
83162951-002	Filter

Dimensions

(Unit: mm)

12 dia.
60
100
60
53
60
29
Cable length : 1000