

# Humidity Cum Temperature Transmitter (MODEL HT7S)

HT7S



Model HT7S transmitter series are designed for highly accurate humidity and temperature measurement for industrial and building automation applications. They are available as wall and duct mounting versions, with current output.

Model HT7S series transmitters provide linear output signals directly proportional to relative humidity and temperature. Ideal for HVAC, building automation, energy management, clean rooms, research laboratories, weather telemetry and many other industrial applications, these units provide high performance in a compact design. The series HT7S provides better than 2% RH accuracy and class A RTD with excellent long term stability. 4-20 mA DC output signals are provided for remote display, recorder, controller or SCADA.

Two-wire connections allow easy installation directly into air ducts or within a controlled area. The right choice of the filter cap enables usage in harsh environmental conditions.

Model HT7S comes with three variants, one is humidity transmitter, second is humidity transmitter with RTD pt 100 output and third one is humidity cum temperature transmitter. The Model HT7S uses capacitance based sensor for humidity measurement. This sensor is unaffected by high humidity, dust, fog etc.

A rugged weather proof enclosure is available to monitor space humidity and temperature.

## Features

- *High Accuracy*
- *Measuring range  
0-100 % RH*
- *Linearised analog  
4-20 mA signal  
output (2 wire loop  
powered)*
- *Interchangeable  
sensor*
- *Excellent long-term  
stability*
- *Replaceable  
humidity sensor  
assembly*
- *Wide range of  
models to suit many  
applications*
- *Class-A RTD  
Pt 100 sensor used  
for temperature  
measurement*

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# Humidity Cum Temperature Transmitter (MODEL HT7S)

HT7S

HARDWARE SPECIFICATIONS	HT7S00	Model HT7S10	Model HT7S11
<b>Relative Humidity</b>			
Working range	0-100 %RH	0-100 %RH	0-100 %RH
Transmitter Output	4-20 mA (two wire)	4-20 mA (two wire)	4-20 mA (two wire)
Accuracy at 25° C	± 2 %RH (0 to 90 %) ± 3 %RH (90 to 100 %)	± 2 %RH (0 to 90 %) ± 3 %RH (90 to 100 %)	± 2 %RH (0 to 90 %) ± 3 %RH (90 to 100 %)
Hysteresis	± 1.3 %RH of Operating humidity span	± 1.3 %RH of Operating humidity span	± 1.3 %RH of Operating humidity span
Repeatability	± 0.6 %RH	± 0.6 %RH	± 0.6 %RH
Stability	± 1 %RH typical at 50 %RH in 5 years	± 1 %RH typical at 50 %RH in 5 years	± 1 %RH typical at 50 %RH in 5 years
Sensor	Capacitive sensor	Capacitive sensor	Capacitive sensor
Sensor response time	15 sec in slowly moving air at 25 ° C	15 sec in slowly moving air at 25 ° C	15 sec in slowly moving air at 25 ° C
<b>Temperature</b>			
Sensor	--	Passive Pt-100 (Class A) 0 to 50°C	Pt-100 (Class A) 0 to 50°C
Output	--	Pt 100, 3W	4 - 20 mA (two wire)
Accuracy at 25° C	--	± 0.2% of FS	± 0.2% of FS
<b>General</b>			
Supply voltage	20-35 VDC for Resistive Load	20-35 VDC for Resistive Load	20-35 VDC for Resistive Load
4 - 20 mA loading	500 Ω @24 VDC	500 Ω @24 VDC	500 Ω @24 VDC
Electrical connection	Screw terminals max. 2.5 mm <sup>2</sup>	Screw terminals max. 2.5 mm <sup>2</sup>	Screw terminals max. 2.5 mm <sup>2</sup>
Housing	ABS	ABS	ABS
Cable gland	PG 7	PG 7	PG 7
Sensor protection	Sintered bronze filter	Sintered bronze filter	Sintered bronze filter
Temperature range	Working range : 0 to 50°C	Working range : 0 to 50°C	Working range : 0 to 50°C
Mounting	Wall / Surface mounted	Wall / Surface mounted	Wall / Surface mounted
Case dimensions	80 mm (H) x 82 mm (W) x 55 mm (D)	80 mm (H) x 82 mm (W) x 55 mm (D)	80 mm (H) x 82 mm (W) x 55 mm (D)
Weight	300 gms	300 gms	300 gms

## ORDERING CODE

**HT 7S 00** - Humidity Transmitter

**HT 7S 10** - Humidity Transmitter with Pt 100 output

**HT 7S 11** - Humidity cum Temperature Transmitter