

## H1N Room Temperature & Humidity Transmitter



### Applications & Features

- Apply for indoor air T/RH measurement with good performance digital sensor & circuit. The sensor is 100% field changeable without re-calibration
- Good long term stability, reliability and fast response
- State of art housing. All electrical terminals are on the inside bottom, avoid any possible destroy to PCB when wiring
- Multiple outputs optional, over voltage and reverse polarity protection, and good anti-interference capability
- LCD & function keys can set parameters and calibrate output, so the product can be a stand alone controller

### Specifications

#### Relative Humidity

**Sensor:** Digital polymer

**Range:** 0~100%RH

**Output:** 4~20mA (2 wires), 0~10VDC (3 wires), RS485/Modbus

**Accuracy:** 2, 3%RH (25°C, 20~80%RH)

**Hysteresis:** <±1%RH

**Response time:** <10s (25°C, in slow air)

**Drift:** <±0.5%RH/year

#### Temperature

**Sensor:** Digital, RTD or thermistor, see models

**Range:** 0~50°C

**Output:** see Models

**Accuracy:** transmitter: <±0.4°C(0.3°C) @ 5~60°C, see models

**Power:** Current: 18.5~35VDC ( $R_L=500\Omega$ ); 8.5~35VDC ( $R_L=0\Omega$ )

Voltage: 16~28VAC/ 16~35VDC

**Output Load:** ≤500Ω (current), ≥2KΩ (voltage)

**Relay output:** 2×SPST, 3A/30VDC, 3A/250VAC

**Display and Keys:** 4 bits LCD, with unit indication, backlight (4~20mA N/A), 3 keys, see details on LCD & Keys operation

**Display Resolution:** 0.1°C, 0.1%RH

**Temp. Limit:** -20~70°C, 5~95%RH (Non cond.)

**Storage Temperature:** -20~80°C

**Housing:** fire retardant PC(UL94V-0), **Protection:** IP30

**Weight:** 110g

**Approval:** CE

### Models

Model	H1N						Room T/RH transmitter
RH Accuracy		2					±2%RH (0.3°C)
		3					±3%RH (0.4°C)
RH Output		1					0~10VDC (3 wires)
		2					4~20mA (2 wires)
		8					RS485/Modbus
Temp. Output				0			No
				1			0~10VDC (3 wires)
				2			4~20mA (2 wires)
				3			PT1000, ±0.2°C@25°C
				4			PT100, ±0.2°C@25°C
				5			NTC20K, ±0.2°C@25°C
				6			Ni 1000, ±0.5°C@25°C
				7			NTC10K-II, 0.2°C@25°C
				8			RS485/Modbus
				9			NTC10K-III, 0.3°C@25°C
				A			NTC10K-A, 0.3°C@25°C
Temp. Range				0			No
				1			0~50°C
				7			others
Relay				0			No
				1			2×SPST (4~20mA N/A)
LCD & Keys				0			No
				1			LCD
				2			LCD & Keys

1. Current output products are powered on RH circuit, so RH circuit must be powered.

2. When temp. output is 1 or 2, the range 1-7 is applicable. Otherwise, always use 0.

3. See resistance table on page 1 of this catalog.

## H3Ex Explosion-Proof Temperature/Humidity Transmitter



### Applications & Features

- T/RH measurement in harsh and combustible, explosive or toxic areas. Moisture and corrosion resistant, IP66
- Industrial die cast aluminum housing, with the sensor placed in the separated metal chamber, ensure electrically isolated. The sensor assembly is easy to maintain or replace
- High-performance temperature/humidity sensor and circuit, accurate measurement and compensation, high accuracy, fast response, good long-term stability
- Meet Explosion Proof standards GB 3836.1-2010 and GB 3836.2-2010 with certificate Exd II CT6Gb. Suitable for Zone 1 & 2 hazardous areas where there are explosive mixtures of IIA, IIB, IIC, T1-T6 combustible gas, vapor and air

### Specifications

	Hum.	Temp.
<b>Range</b>	0~100%RH	0~50°C etc.
<b>Accuracy</b>	Typ. 3%@25°C, 20~80%RH	Typ. ±0.5°C@ 0~50°C
<b>Hys. &amp; Rep.</b>	<±0.8%RH@ 25°C	±0.1°C
<b>Response</b>	<60s (25°C, in slow air)	<3min
<b>Drift</b>	<±0.25%RH/year	<±0.1°C /year

**Sensor:** High precision digital sensor

**Power:** 18.5~35VDC

**Output:** 2x 4~20mA (3 wires), RS485/Modbus

**Range:** humidity 0~100%RH; temperature 0~50(default)/100/-20~80/-40~60°C, selected by switch

**Load:** ≤500Ω (4~20mA)

**Display:** LCD, with backlight

**Operating condition:** -20~60°C, 5~95%RH(Non-cond.)

**Housing:** die cast aluminum housing, SS probe and SS mesh filter

**Protection:** IP66

**Approval:** CE, Exd II CT6Gb, EMC(2014/30/EU, EN50270)

**Weight:** 1.8kg

### Models

Model	H3Ex	Ex-proof Temp. /Hum. Transmitter
Output	2	2 x 4~20mA (3 wires)
	8	RS485/Modbus