

# Humidity & Temperature Transmitter

- Integrated humidity and temperature sensors
- 4...20mA and 0...10VDC output options
- RS-485 type M interface with optional Modbus
- One-way breathing vent for waterproof and dustproof enclosure
- Fast response time
- Long term stability



## About

The P427 is widely used to monitor and maintain fresh air, energy savings, emission standards and more within a host of industry applications. Common critical parameter measurements include duct temperature, humidity, dew point temperature, enthalpy and wet bulb temperature.

## Applications

- ✓ HVAC
- ✓ Data Centers
- ✓ Food Production
- ✓ Pharmaceuticals
- ✓ Commercial Buildings
- ✓ Parking Garages
- ✓ Museums
- ✓ Laboratories
- ✓ Schools
- ✓ Hospitals

# Build Your Part Number

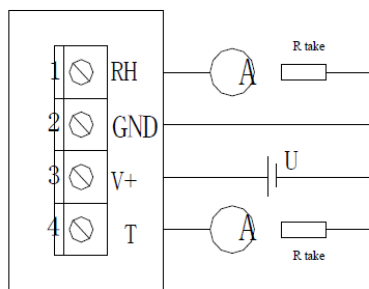
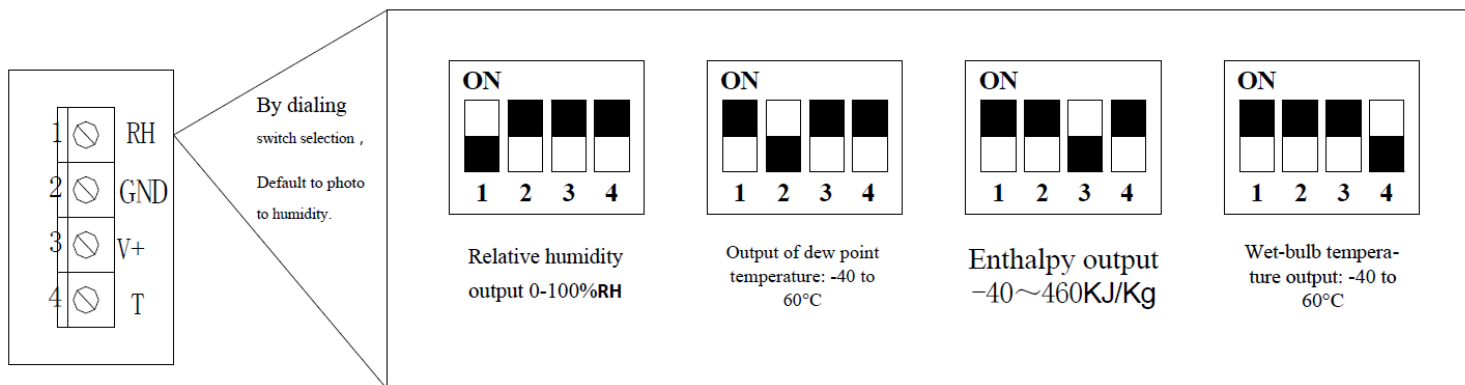
## Series P427

Series
P427

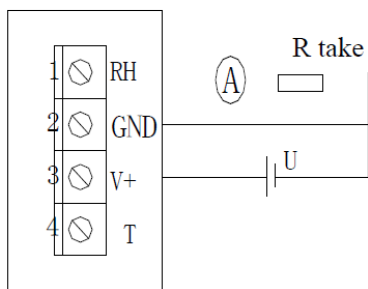
Output Signal - select one	Supply
A 4 ... 20 mA	12 ... 24 VDC
C 0 ... 10 VDC	15 ... 24 VDC

Technical Parameters		
<b>Electrical</b>	Outputs	4...20mA (supply 12...24VDC); 0...10VDC (supply 15...25VDC)
	Load Capacity	Two wire system less than $VDD7V / 0.02$ ; Three wire system (current type) less than $250\Omega$ , Voltage type greater than $10K\Omega$
	Electrostatic Protection	Contact discharge = 6kV; Air discharge = 8kV
	Surge Protection	$\pm 2000V$ , waveform 1.2/50us, internal resistance $12\Omega$
	Terminal blocks	Recommended 16AWG minimum
<b>Environmental</b>	Temperature	-40°C...+80°C selectable Accuracy: $\leq \pm 0.3^\circ C @ 25^\circ C / \leq \pm 0.5^\circ C$ across full temperature range Long Term Stability: $< 0.1^\circ C$ per year Response Time: $< 15S$
	Humidity	0% RH ~ 100% RH Accuracy: $\leq \pm 3\%$ (20...80%) / $\leq \pm 5\%$ across full humidity range Long Term Stability: $< 0.5\%$ relative humidity per year Response Time: $< 12S = 63\%$
	Dew Point Temperature	-40°C...60°C Accuracy: According to the temperature and humidity calculation, $\leq \pm 1.0^\circ C$ typ. Maximum uncertainty: $\leq \pm 2.0^\circ C$
	Enthalpy	-40...+46 Kj/Kg Accuracy: According to the temperature and humidity calculation, $\leq \pm 1.0^\circ C$ typ. Maximum uncertainty: $\leq \pm 2.0^\circ C$
	Wet Bulb Temperature	-40...60°C Accuracy: According to the temperature and humidity calculation, $\leq \pm 1.0^\circ C$ typ. Maximum uncertainty: $\leq \pm 2.0^\circ C$
	Ingress Protection	IP65
	Housing Material	ABS & PC plastic
	Storage Temperature	-40...80°C

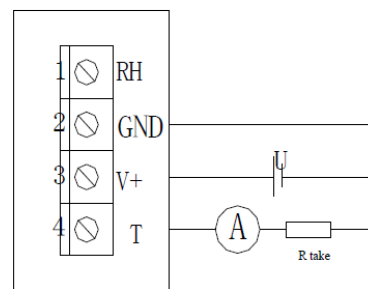
# Technical Parameters



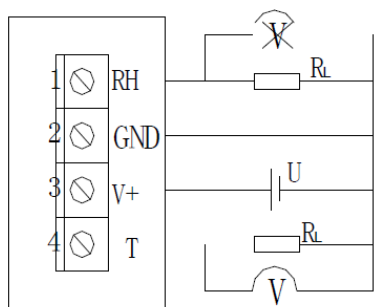
Three-wire current type temperature and humidity or dew point, enthalpy, and wet-bulb temperature measurement



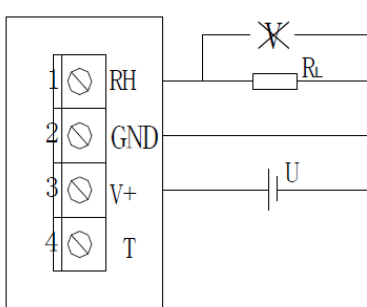
Three-wire current type humidity or dew point, enthalpy, wet-bulb temperature measurement



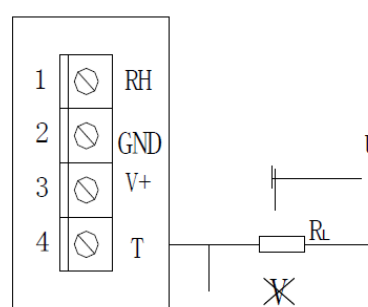
Single temperature measurement of three wire current type



Three-line voltage temperature plus dew point, enthalpy and wet bulb temperature measurement



Measurement of Three-Wire System Electrical Voltage Type Humidity or Dew Point, Enthalpy, and Wet-Ball Temperature



Single temperature measurement of three-line voltage type

- 1、 During installation and use, avoid direct sunlight or direct contact with heat sources/cold sources.
- 2、 Always turn off the power supply when installing or replacing transmitters.
- 3、 Direct connection to 220VAC power supply may damage the product.
- 4、 The recommended product should be calibrated every 12 months.
- 5、 Some technical specifications of the product may be modified. Please refer to the specifications on the product label for accurate information.