

## 2-10V Duct Humidity Sensor Installation Instructions

This document covers the operation and installation instructions for the following Condair duct humidity sensor:

Kit No.	Component No.	Description
2597926	1509857	2-10V Duct Humidity Sensor

The humidistat can be configured for either **humidity control** or as a **high limit safety device**.

### 1 – Mounting and Installation

#### Location:

The Condair CDC-NA is installed directly on the duct.

- Mounting in the extract air duct (recommended):  
Mount the CDC-NA in the extract air duct close to the air outlet of the room but downstream from an extract air fan if one is present.
- Mounting in the supply air duct:  
Mount the CDC-NA in the supply air duct at least 3 meters downstream from the nearest fan and coil and with a minimum distance of 5x the humidification distance to the steam distribution.

#### Installation:

Refer to installation overview in section 2.

1. At the place of location drill a hole with a diameter of 16 mm (5/8”) as well as 4 holes for the self-tapping screws into the duct.
2. Loosen the screw on the housing cover and open cover.
3. Lead connecting cable through the cable gland and connect wires to the terminate according to the wiring diagram.
4. Stick gasket on the sensor side centrally on the housing (self-adhesive).
5. Insert the probe into the hole in the duct, then fix the housing to the duct using the 4 self-tapping screws provided.
6. Close the cover and fix it with the screw (do not tighten the screw too much).

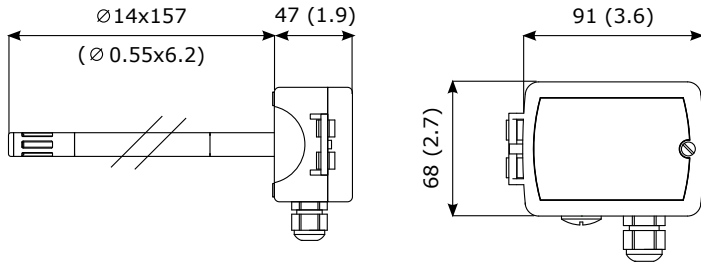
Note: We recommend using 18-gauge wire, and maximum <100 ft distance from the unit.

### 3 – Installation overview

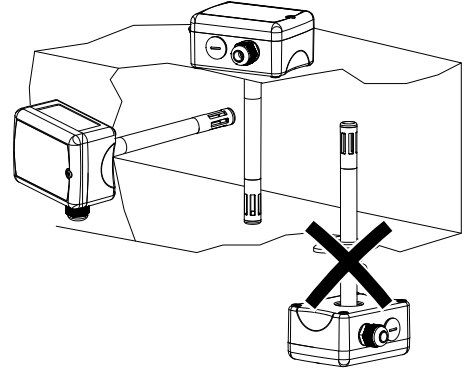


**CDC-NA**  
**2597926/1509857**

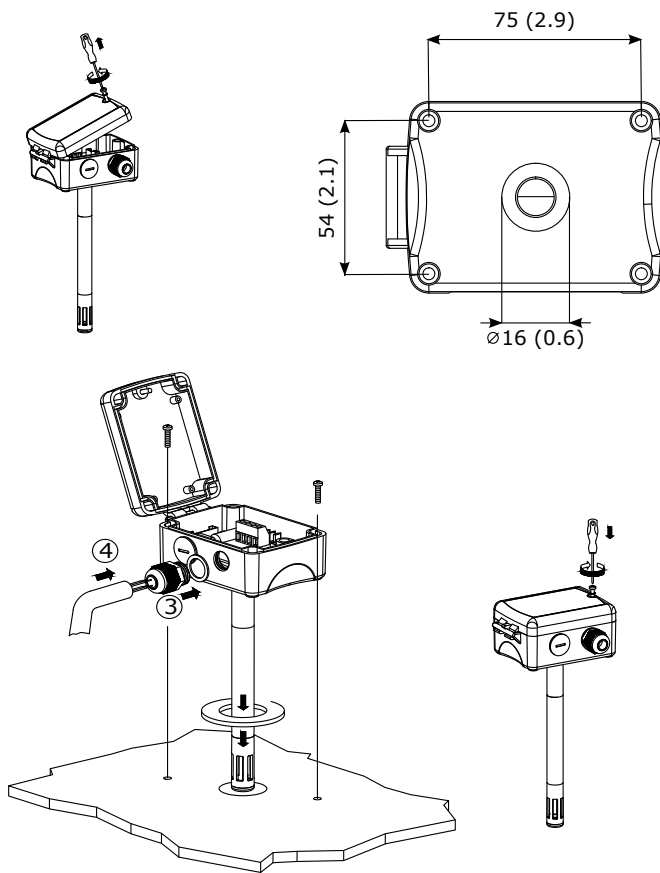
#### A mm (inch)



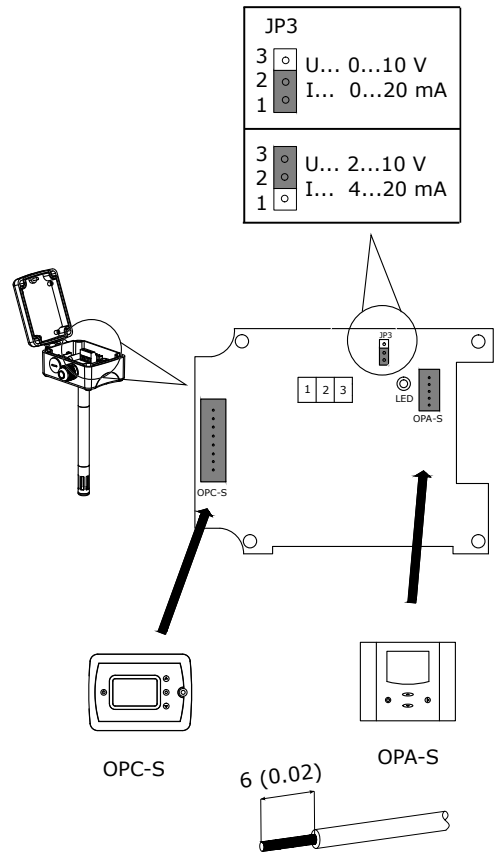
#### B



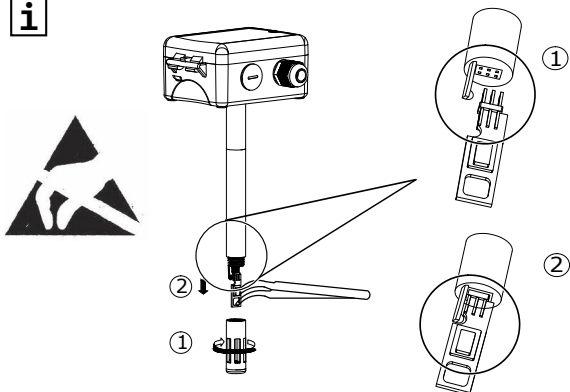
#### C



#### D



#### i



- 1: 0V GND
- 2: 24V AC 24 V 50-60 Hz, 24 VDC ±10%
- 3: RH 0(2)...10VDC, 0(4)...20mA



For Wiring Schematic:  
Get the Condair  
Sensor Connect App

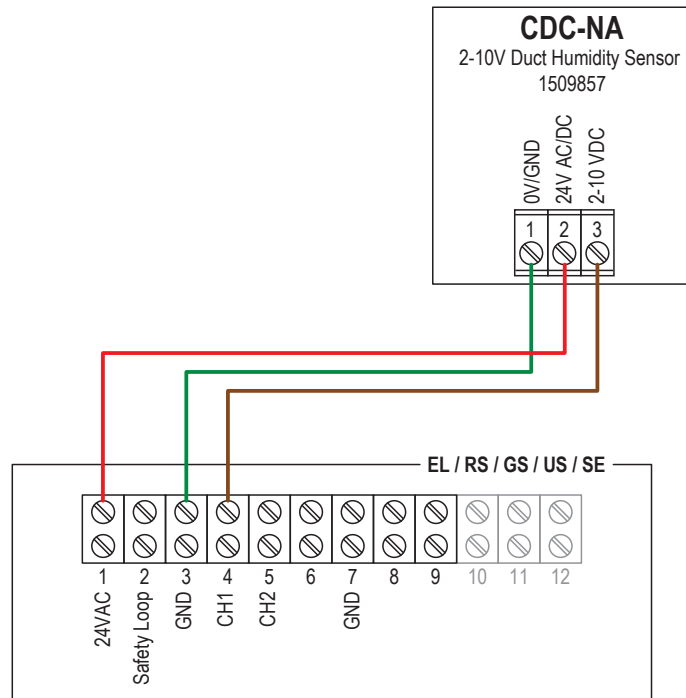


## 8 – Product Specification

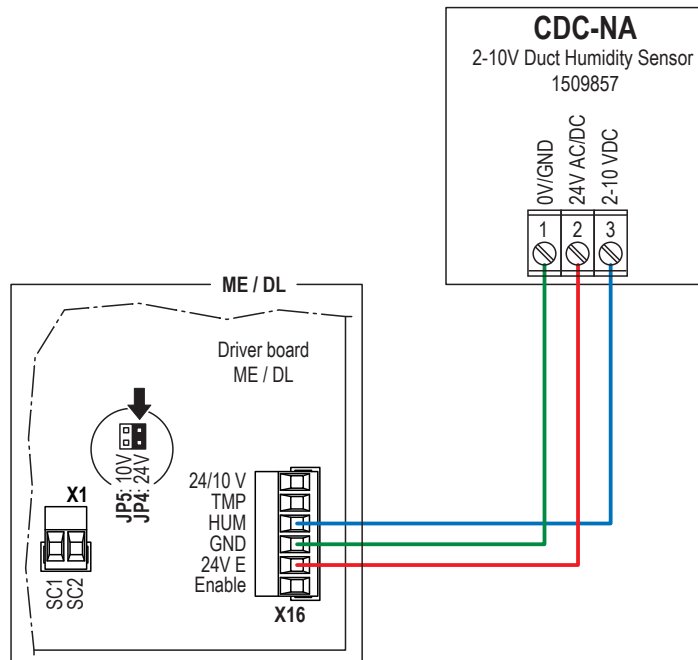
Power Supply	Operating Voltage Power Consumption Terminal Connections	24 V AC 50/60 Hz $\pm$ 10 % Max. 2 VA For wires 0.34...2.5 mm <sup>2</sup> (AWG 24...12)
Sensor Probe (Humidity Sensor)	Measuring element Range Accuracy Hysteresis Repeatability Stability	Capacitive measuring element 0...100 % RH $\pm$ 3.0 % at 25 °C $\pm$ 1% $\pm$ 0.1% < 0.5% / Year
Signal Outputs	Analog Outputs Analog Signal Resolution Maximum Load	0-10V / 2-10V 10 Bit 20 mA, 500 $\Omega$
Environment	Operation Temperature Humidity	IEC 721-3-3 -40...70°C (-40...158°F) <95 %rH not condensing
General	Housing Materials Filter material	PC and ABS PTFE coated 1 $\mu$ m pores

## 9 – Wiring Diagrams

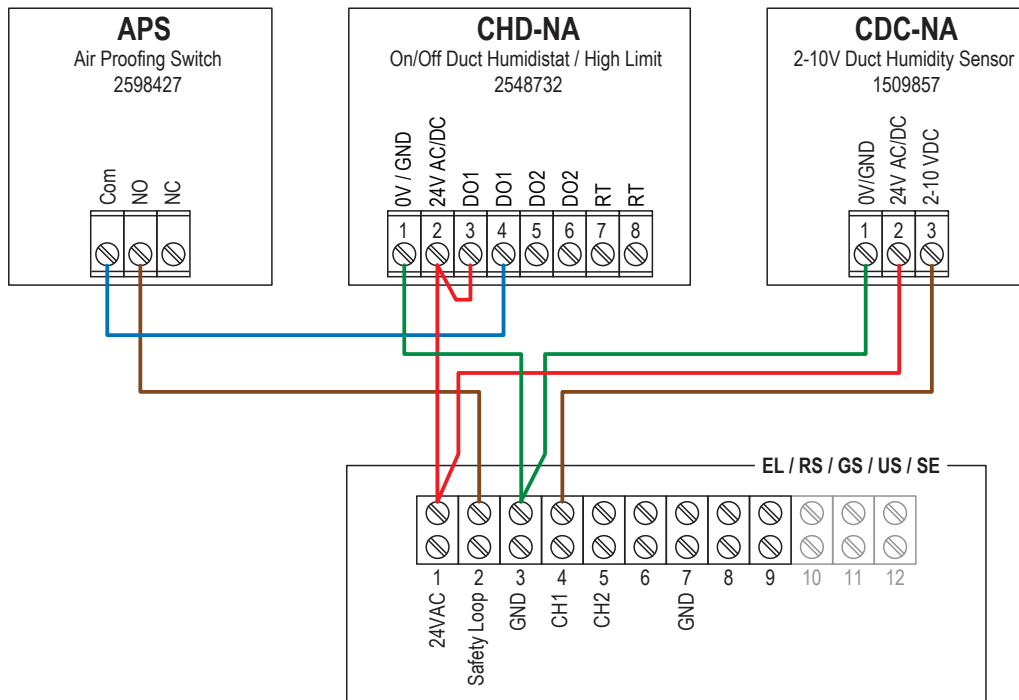
### Wiring diagram CDC-NA for RS, EL, GS, US and SE



### Wiring diagram CDC-NA for DL and ME



### Wiring diagram CDC-NA with CHD-NA and APS for RS, EL, GS, US and SE



### Wiring diagram CDC-NA with CHD-NA for DL and ME

