

# STD410



## SPECIFICATIONS

Part No. . . . . .	see table on page 3
Range . . . . .	see table
Signal output . . . . .	0 – 10 V
Power. . . . .	24 Vac +/- 10%
	15 – 36 VDC

### Time constant

STD 410-04 air velocity 1.5 m/s . . . . .	approx. 14 s
STD 410-04 air velocity 3.0 m/s . . . . .	approx. 9 s
STD 410-30/60 air velocity 1.5 m/s . . . . .	approx. 8 s
STD 410-30/60 air velocity 3.0 m/s . . . . .	approx. 5 s

### Materials

Immersion tube STD410-04 . . . . .	copper
Immersion tube STD410-30 and STD400-60 . . . . .	polyolefin
Connection box . . . . .	polyamide plastic
Enclosure rating . . . . .	IP 65
Dimensions. . . . .	according to figure and table
Accuracy . ±0.4 % of range at ambient temp. of 25 °C and UG= 24 V	
Temperature dependence. ±0.4 % °C/°C at ambient temp. of 25 °C and UG= 24 V	
Voltage dependence. . . . .	0.1 °C when UG0 15 to 36 V
Temperature drift . . . . .	0.04 °C/°C
Load resistance . . . . .	> 50 kohm
Current consumption, typical . . . . .	15 mA
Ambient temperature (amplifier) . min. -20 °C (-4 °F)	
	Max. +70 °C (158 °F)

### Standards

EMC. . . . .	EN 50081-1, EN 50082-1
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## Duct Average Temperature Transmitter 0-10 V

STD410 is an electronic average transmitter that converts the average from temperature measurements in to one electric signal 0-10 V.

The transmitter is used for temperature measurement in air ducts.

Two versions available:

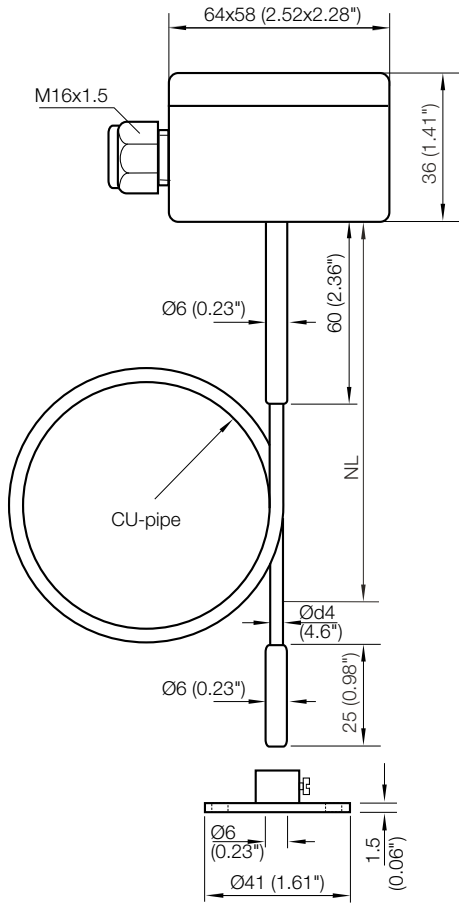
- The transmitter with an immersion length of 0.4 m. The measure is done in 5 points equally spread over the length. A copper tube protects the 5 measuring points. The tube can be bent (max R = 50 mm) to fit in the duct.
- For larger ducts use the transmitters with immersion length of 3 m or 6 m. The measurement is done over entire sensor length.

The transmitter is delivered as a complete unit, comprising a junction box with amplifier and sensors.

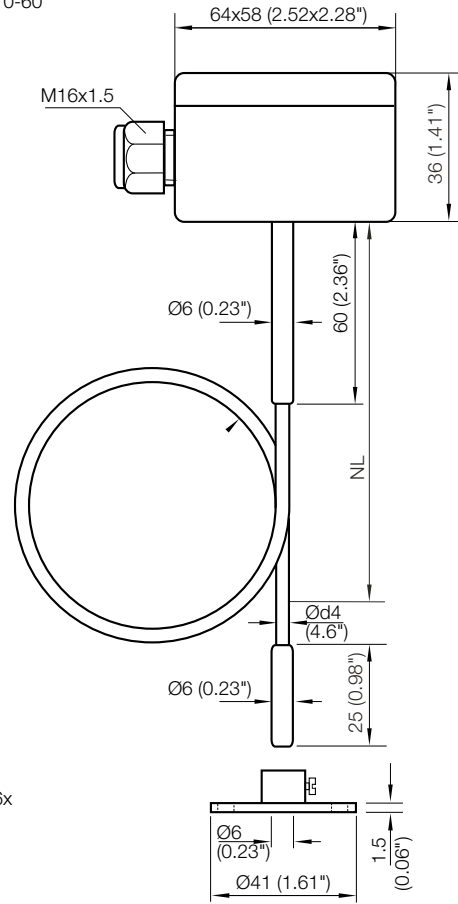
The transmitter shall be connected with a 3-wire cable.

**DIMENSIONS mm (in)**

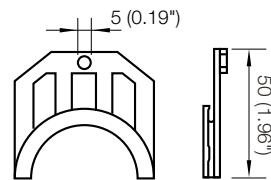
STD410



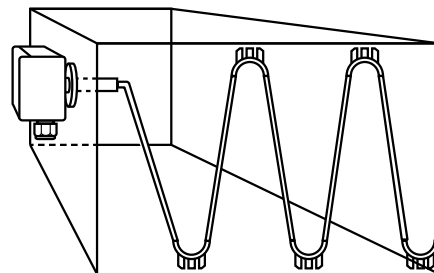
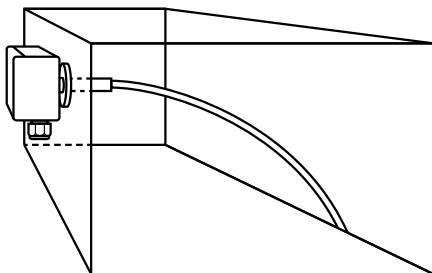
STD410-30 and  
STD410-60



4x/6x



**MOUNTING**



## PART NUMBER

Part Number	Model Number	Range		NL		Weight	
		°C	°F	m	yd.	g	lb.
006920840	ST410-04 0/100	0/100	32/212	0.4	0.44	130	0.29
006920860	ST410-04 50/50	-50/50	-58/122	0.4	0.44	130	0.29
006920880	ST410-30 0/100	0/100	32/212	3	3.3	135	0.30
006920900	ST410-30 50/50	-50/50	-58/122	3	3.3	135	0.30
006920920	ST410-60 0/100	0/100	32/212	6	6.6	155	0.34
006920940	ST410-60 50/50	-50/50	-58/122	6	6.6	155	0.34

## WIRING AND ADJUSTMENTS

Cable: 0.2-1.5 mm<sup>2</sup>.

**⚠ Note: Avoid contact with the sensor terminals if the connection wires are live.**

The transmitter is factory calibrated for the required range within the specified accuracy, prior to delivery. Any further calibration should normally not be necessary. The sensor and the electronic unit are calibrated together. If either of these are replaced, the transmitter is no longer in calibration.

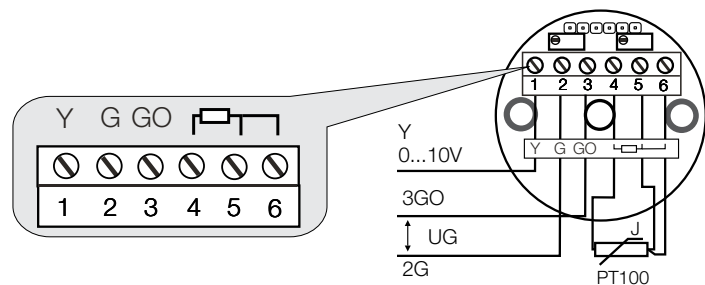
The built in amplifier is equipped with two trim potentiometers:

- ZERO to adjust the lower end of the range, 0 V.
- SPAN to adjust the upper end of the range, 10 V.

When calibrating, adjust ZERO first and then SPAN. Because of a certain degree of interaction, the adjustment process must be repeated several times.

## WIRING AND ADJUSTMENTS

0...10V



UG=15...36 VDC / 24VAC

