



TAF 010

## Technical Data

<b>Measuring range</b>	<b>0...+50°C</b>	0...100°C	0...150°C
	-50...+50°C	-20...+150°C	
<b>Linearity error</b>	0,6%/10K		
<b>Accuracy</b>			
<b>Zero point drift</b>	0,6%/10K		
<b>Voltage drift</b>	0,6%/10K		
<b>Auxiliary power influen</b>	0,2%/V		
<b>Tube</b>	Rod material, copper, plastic-coated with spring for buckling protection		
<b>Sleeve</b>	Stainless steel		
<b>Installation</b>	Observe minimum bending radius of 35mm and permissible vibration <1/2g		
<b>Sensor</b>	Active over the entire length		
<b>Linearisation</b>	Temperature linear according IEC751		
<b>Power Supply</b>	24Vdc +/-6V		
<b>Connection</b>	3-wire screened cable screw terminals 0,14 to 1,5mm <sup>2</sup>		
<b>Humidity</b>	max 95% RH non-condensing		
<b>Protection Class</b>	IP65		
<b>Housing</b>	Plastic, polyamide 30% glass-globe-reinforced <b>with quick-locking screws.</b> Colour pure white (similar RAL9010)		
<b>Ambient temperature</b>	-30...+70°C Transducer		
<b>Cable union</b>	M16, including strain relief		
<b>Dimensions</b>			
Probe diameter	5 mm		
Probe length	0,4, 3,0 or 6,0 metres metres		
Housing dia.	72x64x39,4mm		

This product meets the requirement of CE-approval

## Features

- Pre-calibrated for ease of commissioning
- Adjustable mounting plate for insulation stand-off
- Different length of tubes
- Pt100 Class B accuracy
- 5 different temperature ranges as standard
- Quick locking screws
- Head mounted electronics
- Display for actual temperature as option
- Temperature sensed along the probe
- Option of rated lengths up to 20metres

## Application

Average Temperature Transmitter for HVAC duct applications where point measurement is inadequate.

Temperature is sensed along entire length of the flexible tube.

## Design Features

The TAF sensing elements are housed in an 5mm diameter plastic-coated copper tube along the standard 0,4, 3 or 6m length, which is terminated in an IP65 sensor head.

## Function

The sensing element is a Pt100b.

The element change its resistance proportional to temperature and the electronics convert this resistance to 0-10Vdc

The voltage outputs are short-circuit proof against ground wire.

Applying voltage supply to the output terminals will destroy the device.

## Ordering Codes

<b>TAF 010/04/50</b>	0-10Vdc, 0-50°C, <b>0,4m</b> length
<b>TAF 010/30/50</b>	0-10Vdc, 0-50°C, <b>3,0m</b> length
<b>TAF 010/60/50</b>	0-10Vdc, 0-50°C, <b>6,0m</b> length
<b>/D</b>	8-digit display

**Other Standard Measurements Range available:**

-50...+50°C    0...100°C    0...+150°C    -20...150°C

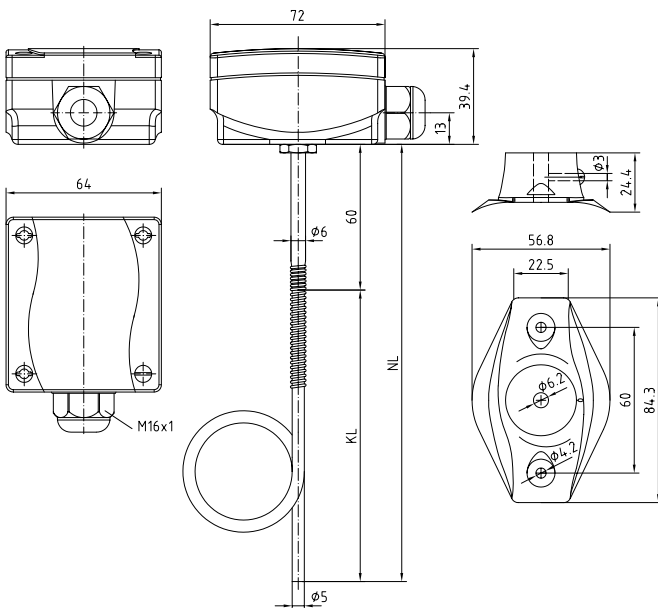


## Mounting and Installation

The following installation advice should be observed:

- Supply air temperature sensing;  
The sensor should be a minimum distance of 1,5m from heater battery.
- Return air temperature sensing;  
The sensor upstream of the extract fan so as to be representative of the room temperature
- Supply air low limit sensing;  
The sensor should be as close to discharge as possible
- Avoid duct locations where stratification may occur
- The sensor should be located away from any obstructions that could interfere with removal for servicing or replacement

## Dimensions



## Installation and Connection Details

All connections to DDC controllers, data recorders etc. should be made using screened cable.

Normally, the screen should be earthed at one end only (usually the controller end) to avoid earth hum loops which can create noise.

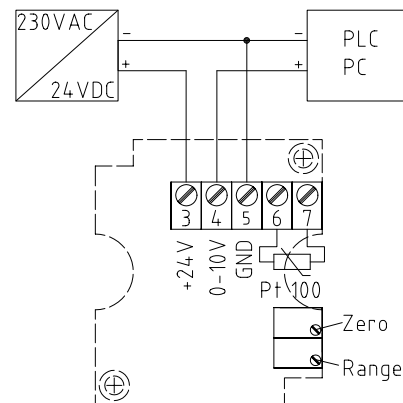
Low voltage signal and supply cables should be routed separately from high voltage or mains cabling.

Separate conduit or cable trays should be used.

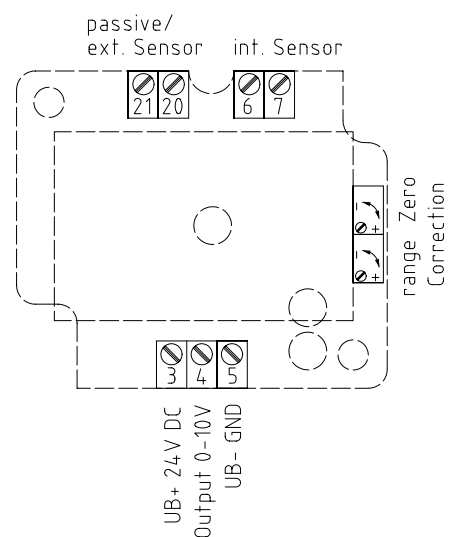
Where possible, the controller's earth should be connected to a FUNCTIONAL EARTH, rather than the mains safety earth. This will provide better immunity to high frequency noise.

Most modern buildings have a separate earth for this purpose

### 0-10V without display



### 0-10V with display



## Supply Voltage

For operating voltage reverse polarity protection, a one-way rectifier or reverse polarity protection diode is integrated in this device variant.

Operating dc-voltage input UB+ is to be used for 15-36Vdc supply and UB- or GND for ground wire.