

# TFC3-CTHV

Display-Setpoint / CO<sub>2</sub>,Temp, Hum and VOC Sensors

fortune<sup>UK</sup>

## Description

Stylish flush mount Sensor with slotted vents for airflow across the sensors, double gang flush mounted plate and only 12mm deep. TFT LCD Display and Rotary encoder setpoint for:-

Temperature only, Temperature and Fan Speed, Temperature and On/Off

CO<sub>2</sub>, Temperature, Humidity and VOC sensors 5 off 0 -10 outputs.

## Material

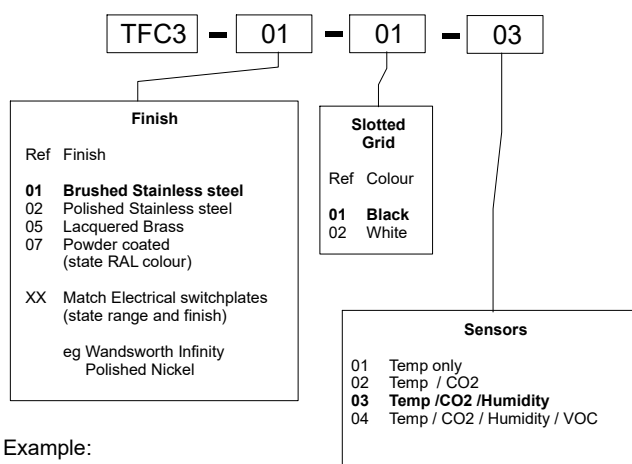
Available in a wide range of materials and finishes  
Brushed stainless steel, Polished stainless steel, Lacquered Brass, Powder coated in RAL colours. Any plated finish to match existing electrical hardware (See our leaflet for the range of finishes).

## Specification

- Plate: 146 x 86mm x 12mm deep. Metal plate with choice of black or white slotted grid fits standard double gang back box mounted portrait (minimum 35mm deep)
- Setpoint: Rotary encoder to set Temp and Fan Speed
- Sensor types: Choice of Air quality sensor types ( see over) 0 - 10Vdc outputs
- Connections: Two part plug-in terminal blocks
- Display: Wide angle TFT LCD Graphic display Displays Actual temp / setpoint and all values of connected sensors
- Engineers Setup: Engineers settings accessible via menu or by using our Smartphone App and NFC Technology
- App available for iPhone or Android phones (contact Sales Office for more details)
- Power supply: 24Vac/dc Max 100mA with all sensor types



## Ordering information



Example:

TFC3 - 01 - 01 - 03  
Stainless steel plate, Black grid, Temp, CO<sub>2</sub> and Humidity sensors

**Bold = Standard item available from stock**

## Associated Products

BACnet version  
CO<sub>2</sub> / Temp / Humidity sensors  
Well Building sensors including  
VOC PM2.5, PM10

If this product doesn't quite suit your application - Contact us to discuss a bespoke version

**Sensor types**

- Temperature Sensor: Range: 5 - 30 degC Output: 0 - 10Vdc  
If VOC sensor is included the Temp output is a Thermistor (default 10K3A1 but can be specified when ordering)
- CO<sub>2</sub> Sensor: Non dispersive Infra-red technology. Self calibrating ABC algorithm which monitors and adjusts the calibration (for non continuous occupation applications)  
Range: 0 - 2000ppm  
Output: 0 - 10Vdc
- Humidity Sensor: Range 0 - 100% (3% accuracy)  
Output: 0 - 10Vdc
- VOC sensor: Fast responding MOS technology  
Intelligent algorithms which monitor a wide range of VOCs. No calibration required. The sensor includes control algorithms that correct sensor drift and ageing to provide a long term consistent solution  
Range: 0 - 100% VOC  
Output: 0 - 10Vdc

**Inputs**

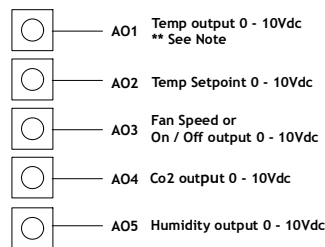
- Analogue input: 0 - 10Vdc input which can be set to drive the "Actual Temp" Display or override the Setpoint value from the BMS
- Digital Input: VFC contacts to reset Temp setpoint and Fan Speed to mid position
- Remote sensor: When a remote 10K3A1 sensor is connected the Controller uses this sensor instead of the in-built sensor. Please ensure power is switched off before connecting
- Additional Sensor: Additional Thermistor sensor can be included (default 10K3A1 but can be specified) This is connected to separate terminal block so does not drive the "Actual Temp" display.  
When the specification includes a VOC sensor then this Temp output is available instead of A01 which is used for the VOC output

**Menu settings**

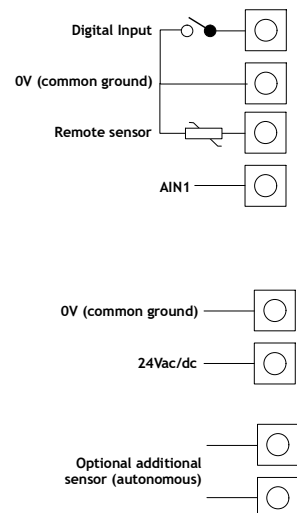
The controller has an Engineers menu which is accessible via a simple code using the rotary encoder or by using a smartphone application and NFC technology (contact our Sales Office for details to obtain the App)

See setup Data sheet for full information

- Application setup: 4 different applications selectable. When Application is selected then only those functions are available on the user screen
  - 1/ Temp setpoint only
  - 2/ Temp, Fan Speed (Lo, Med, Hi, Auto)
  - 3/ Temp, AC On / Off (Off = 0Vdc, On = 10Vdc)
  - 4/ Temp, Fan Speed ( Lo, Med, Hi)
- Temp Offset: Applies temp offset to Temp display / output
- Temp Range: Set min and max temp range for display / output. Default 5 - 30 deg C
- Temp Setpoint: Set min and max range for setpoint Default 18 - 24 degC
- Power On reset: Define Setpoint and Fan speed on Power on
- AIN1 Function: Defines function of AIN1 to either drive the "Actual Temp" display or to override the Temp setpoint from the BMS



Note:  
If VOC sensor is included the 0 - 10Vdc output A01 is allocated to VOC and the Temperature output is only available as a Thermistor output via separate terminals



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