

# THNF-C

DIGITAL THERMOCOUPLE CONNECTOR CONDITIONER  
1kHz Sampling Frequency, CAN Bus

Ref:

SN: Software version : v

Texys sensors are designed for data recording. If the user wants to include this sensor in a close loop system or active control, he must assume all responsibility.

|                     |   |                      |
|---------------------|---|----------------------|
| Range               | -100 min, 1800 max  | °C                   |
| Type                | B, E, J, K, N, R, S, T  |                      |
| Sampling frequency  | 1   | kHz                  |
| Sampling error      | 0.2   | %FS max              |
| Cold junction error | ± 0.25  | °C                   |
| CAN bus             | 2.0A  |                      |
| CAN bus termination | R=120Ω <input type="checkbox"/> yes <input type="checkbox"/> no |                      |
| Digital Output      | Data Format   | 2 bytes (signed int) |
|                     | Resolution  | 0.1 °/bit            |
|                     | Accuracy  | ± 0.5 °C             |
| Supply Voltage      | 6 to 25   | V                    |
| Supply Current      | < 25  | mA                   |
| Calibrator          | Calog Temperature   |                      |
| Dimension           | 38.8x18.7x10  | mm                   |
| Material            | Aluminum  |                      |
| Weight              | tbd   | g                    |
| Protection          | IP53  |                      |
| Vibration test      | 20Gpp5'   |                      |
| Shock               | 500   | G                    |
| Operating Temp      | -40 to +125   | °C                   |
| Storage Temp        | -40 to + 125  | °C                   |

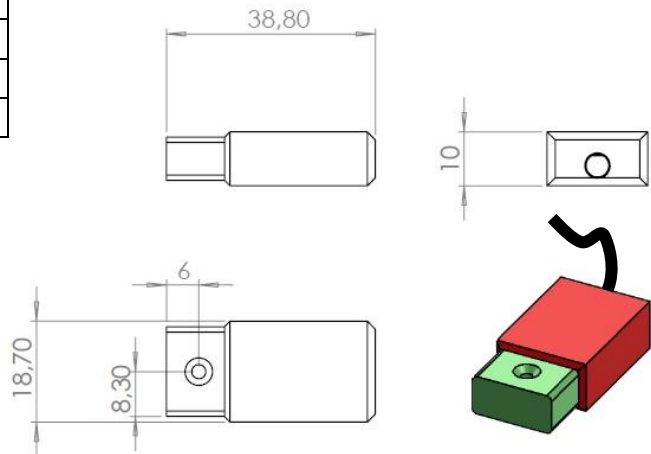
| Conditioner Characteristics |       |
|-----------------------------|-------|
| Type                        |       |
| Range                       | to °C |

| Sensor Readings            |  |
|----------------------------|--|
| mV at °C temperature probe |  |
| mV at °C temperature probe |  |

| CAN parameters           |   |     |
|--------------------------|---|-----|
| Baudrate                 |   | bps |
| Frequency                |   | Hz  |
| Rx trig ID               | 0x  | Hex |
| Tx1 ID                   | 0x  | Hex |
| Degree                   | Celsius Fahrenheit  | °   |
| CAN termination resistor | <input type="checkbox"/> Connected <input type="checkbox"/> Not Connected |     |

**Cable**  
 Type: 4x26AWG FEP tinned copper braided (250V 200°C)  
 Length: mm Tubing:  
 Connector:

| Pinout |                |     |
|--------|----------------|-----|
| Colour | Function       | Pin |
| Red    | Supply         |     |
| Black  | Ground 0V      |     |
| Green  | CAN High       |     |
| White  | CAN Low        |     |
| Yellow | Do Not Connect |     |
| Braid  |                |     |



### Ordering ref:

| THNF-C- | Type | Range   |
|---------|------|---------|
|         | K    | -20+200 |
|         | J    | -40+400 |
|         | T    | 0+1800  |
|         | ...  | ...     |

Ex: THNF-C-K-50+250 → type K, -50 to +250°C

## Data output

|                 |                      |               |
|-----------------|----------------------|---------------|
| Tx1 ID<br>0x3F0 | Byte 0<br>MSB        | Byte 1<br>LSB |
|                 | Temperature 1        |               |
|                 | Resolution: 0.1°/bit |               |

## Changing parameters

Must be setup according to Texense's CAN protocol, or by using the Texense Android Smart Tool (tAST®) with your android device. Contact us at [info@texense.com](mailto:info@texense.com)

### CAN parameters

| Address | Parameter          | Raw values | values           | Comments                     |                   |
|---------|--------------------|------------|------------------|------------------------------|-------------------|
| 0x00    | Baudrate           | 0x00       | CAN2.0A 1Mbps    | Default                      |                   |
|         |                    | 0x01       | CAN2.0A 500 Kbps |                              |                   |
|         |                    | 0x02       | CAN2.0A 250 Kbps |                              |                   |
|         |                    | 0x03       | CAN2.0A 125 Kbps |                              |                   |
| 0x01    | Emission frequency | 0x00       | Rx frame trig    | Triggering mode - 500Hz max. |                   |
|         |                    | 0x01       | 1 Hz             |                              |                   |
|         |                    | 0x02       | 10 Hz            | Default                      |                   |
|         |                    | 0x03       | 50 Hz            |                              |                   |
|         |                    | 0x04       | 100 Hz           |                              |                   |
|         |                    | 0x05       | 200 Hz           |                              |                   |
|         |                    | 0x06       | 500 Hz           |                              |                   |
|         |                    | 0x07       | 1kHz             |                              |                   |
| 0x02    | Rx frame ID        | 0 to 0x7F0 |                  | MSB                          | Default<br>0x07F0 |
| 0x03    |                    |            |                  | LSB                          |                   |
| 0x04    | Tx1 frame ID       | 0 to 0x7F0 |                  | MSB                          | Default<br>0x03F0 |
| 0x05    |                    |            |                  | LSB                          |                   |

### Digital Input parameters

|      |        |   |            |         |
|------|--------|---|------------|---------|
| 0x08 | Degree | 0 | Fahrenheit | Default |
|      |        | 1 | Celsius    |         |

For complete information, contact us at [info@texense.com](mailto:info@texense.com)