

MU-Thermocouple1 CAN FD

Configurable System for Temperature Measurement with CAN FD Interface

With the MU-Thermocouple1 CAN FD, measurement data of thermocouples is captured, preprocessed, and transmitted via CAN FD. The temperature is measured via 8 connectors, which are specified for the temperature measuring ranges J, K or T, depending on the product version. Temperatures can be captured in Celsius, Fahrenheit, or Kelvin and processed with an individual scale and offset. The measurement data is then transmitted via CAN FD or classic CAN.

Data processing, message transmission, and LED indication are set up with the free Windows software Thermocouple FD Configuration. The configuration created on the computer is transferred via the CAN bus to the MU-Thermocouple1 CAN FD which then runs as an independent CAN node. Multiple devices can be configured independently on a CAN bus.



Specifications

- ___ 8 Mini sockets for thermocouple types J, K, or T
- ___ 4 galvanically isolated measuring modules, each with 2 thermocouple sockets of the same type
- ___ Measuring ranges:
 - J: -210 to +1121 °C (-346 to +2050 °F)
 - K: -200 to +1370 °C (-328 to +2498 °F)
 - T: -200 to +400 °C (-328 to +752 °F)
- ___ Measurement accuracy: 0.2 % or 1 K
- ___ Accuracy of the reference temperature sensors at +25 °C ambient temperature: typically ±0.5 K, maximum ±1.0 K
- ___ Maximum resolution of temperature data: 1/16 °C
- ___ High-speed CAN connection (ISO 11898-2) for data transfer and configuring
 - Complies with CAN specifications 2.0 A/B and FD
 - CAN FD bit rates for the data field (64 bytes max.) from 25 kbit/s up to 10 Mbit/s
 - CAN bit rates from 25 kbit/s up to 1 Mbit/s
 - NXP TJA1044GT CAN transceiver
 - Galvanic isolation up to 500 V
- ___ LEDs for measurement channels and power supply
- ___ Configuration with the Windows software Thermocouple FD Configuration
- ___ Aluminum casing with flange. DIN rail fixing option available on request
- ___ Voltage supply from 8 to 30 V
- ___ Extended operating temperature range from -40 to +85 °C (-40 to +185 °F)

Ordering information

Designation	Part No.
MU-Thermocouple1 CAN FD (Measuring Range J)	IPEH-004005-J
MU-Thermocouple1 CAN FD (Measuring Range K)	IPEH-004005-K
MU-Thermocouple1 CAN FD (Measuring Range T)	IPEH-004005-T

Scope of supply

- ___ MU-Thermocouple1 CAN FD in aluminum casing
- ___ Mating connector for voltage supply
- ___ Configuration software Thermocouple FD Configuration for Windows 11 (x64), 10 (x86/x64)
- ___ Manual in PDF format

Requirements

- ___ The configuration requires a PEAK CAN interface

Please note: Thermocouple probes are not included in the scope of supply.