

Thermo-Scan MiniModules classic

- ▶ Extremely compact CAN bus measurement modules
- ▶ 8 or 16 NiCr-Ni temperature inputs (Type K), completely electrically isolated
- ▶ Internal cold junction compensation per channel
- ▶ Very good measurement precision under all temperature and environmental conditions
- ▶ Unrivaled low power consumption
- ▶ Operating temperature: -40 °C to +125 °C
- ▶ Robust aluminum housing: IP65 / IP67
- ▶ Attractive price-performance ratio

The measurement modules of the CSM MiniModule family solve extreme and combine competing demands on automotive measurement technology. Developed for use inside engine compartment, they are designed for extreme temperature and environmental conditions and are very compact. All CSM MiniModules have excellent specifications and a very good price-performance ratio.

Customer driven, only for temperature measurement with thermocouples, 3 different housings are available, which can be combined in any way. Important for handling: All connectors are placed at the front side.

Thermo-Scan 8 classic (THMM 8 classic)

8-channel module with 8 NiCr-Ni Mini Thermo-Connectors. A proper solution for many applications. Cost-efficient, easy and flexible to use.

THMM 8 classic is mainly used inside the engine compartment.

This module is available with or without Slide Case mechanism.

Thermo-Scan MC 8 (THMC 8)

8-channel module with 1 NiCr-Ni Multi-Connector. This module can be installed in very small gaps. The signal cable consist of thermocouple wires with teflon cover. The pins of the Multi-Connector are made of NiCr-Ni material, which is very important for measurement accuracy.

This solution is preferred if modules often have to be changed quickly.



Accessories

Cables for CAN and power supply, adapter cable CAN, signal cable for THMC, CAN bus termination plug and mechanical mounting parts please see „**Accessories for CSM MiniModules**“.

Shipping Content:

CAN bus MiniModule, CSM ConfigTool, documentation, Calibration certificate according to DIN EN ISO/IEC 17025.

Part numbers:

THMM 8 classic	ART1012102 (Slide Case)
THMM 8 classic	ART1012101
THMC 8	ART0201013

We recommend a calibration interval of 1 year. For further technical information and references please ask our technical sales and distribution.

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Specifications Thermo-Scan MiniModules classic

Technical Data	THMM 8 classic	THMC 8
Inputs Measurement ranges Internal resolution Internal sampling rate per channel Measurement data rates per channel Input protection HW Input filter SW Input filter Broken sensor detection Cold junction compensation Galvanically Isolation Channel / Channel CAN / Channel CAN / Power Supply CAN Interface Configuration	8 NiCr-Ni (Type K) ¹⁾ -100 °C to +1372 °C 16 bit 1000 Hz 1, 2, 5, 10 Hz ±60 V permanent, additional ESD protection low-pass filter 250 Hz low-pass filter 15 Hz FIR-Filter (Finite Impulse Response) . Threshold frequency automatically adjusted to measurement data rate Yes internal reference per channel	
	500 V DC 500 V DC 500 V DC	
	CAN2.0B (active), High-Speed CAN (ISO 11898) 125 kBit/s up to 1 MBit/s, data transfer is free running via CAN bus with CSM Config Tool or CSM INCA AddOn all settings and configuration data stored in module alternatively: Configuration and data transfer using CANopen protocol ²⁾	
LED Power / Status	LED: Power (green), Status (red)	
Power Supply	approx. 5 V to 60 V DC	
Power Consumption	typ. 1.0 W	
Dimensions (W x H x D)	approx. 120 x 33 x 50 mm approx. 120 x 37 x 50 mm (Slide Case)	Front approx. 50 x 32 x 6 mm Housing approx. 35 x 29 x 100 mm
Weight	approx. 300 g	approx. 200 g
Operating temperature Storage temperature Relative Humidity	-40 °C to +125 °C -55 °C to +150 °C 5 % to 95 %	
Protection	IP65	IP67
Connectors CAN / Voltage	LEMO 0B 5-pole or Fischer Series 102, 7-pole	
Connectors signal inputs	Miniature Thermo-Connectors	LEMO 2B NiCr-Ni Multi-Connector
Housing	Aluminium – gold anodized	
Conformity	CE	

1) Other types on request 2) CANopen: see separate data sheet