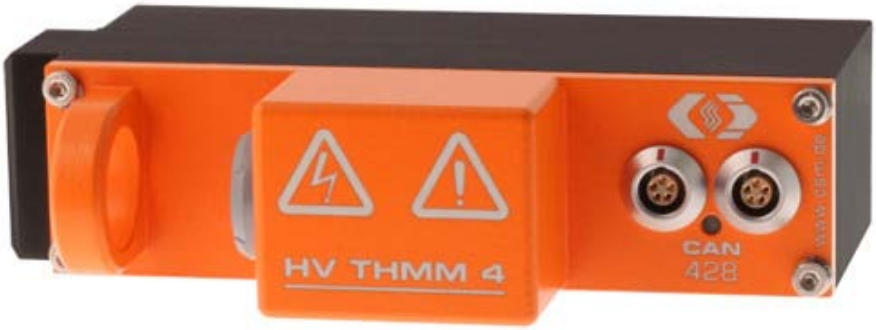
HV Thermo-Scan MiniModul



The measurement device HV Thermo-Scan MiniModul (HV THMM 4) is especially designed for safe temperature measurements on high-voltage live parts and is therefore excellently suited for mobile and stationary use in the area of e-mobility (electric and hybrid vehicles).

Key features

- NiCr-Ni (K type) temperature inputs, completely galvanically insulated
- Reinforced insulation up to 800 V unipolar
- Measurement device and signal cable are certified by an accredited laboratory according to safety standard EN 61010
- Outstanding measurement accuracy for all temperature ranges and environmental conditions
- Internal cold junction compensation per channel
- Very low power consumption
- Operating temperature: -40 °C to +100 °C
- Robust aluminum housing: IP67
- Extremely compact CAN bus measurement device

Shipping content

- MiniModul, Config Tool, documentation, DAkkS calibration certificate, HV insulation testing certificate

Maintenance

- HV insulation test according to EN 61010 at least every 12 months
- Recalibration every 12 months is highly recommended

Part number

- ART1290100 HV THMM 4

Accessories

- Cables for CAN and power supply, CAN connection cables, signal cables, CAN terminator plugs, mounting material, see data sheet “CSM MiniModule Accessories”.

Innovative Measurement and Data Technology

HV Thermo-Scan MiniModul Specifications

Technical Data	HV THMM 4
Inputs	4 NiCr-Ni (K type)
Measurement range	-100 °C to +1372 °C
Internal resolution	16 bit
Int. sampling rate / ch.	1000 Hz
Measurement data rate / ch.	1, 2, 5, 10 Hz
HW input filter	Low-pass filer 150 Hz
SW input filter	FIR filter (Finite Impulse Response) Threshold frequency automatically adjusted to measurement data rate
Broken sensor detection	Yes
Cold junction compensation	Internal cold junction per channel
Accuracy	
at 25°C	typ. 0.05 % of measured value
Temperature drift	typ. ± 10 ppm/K
Reinforced insulation	
Channel / channel	800 V unipolar
Channel / CAN	800 V unipolar
Channel / power supply	800 V unipolar
Functional insulation	
CAN / power supply	Designed for 12 V and 24 V supply voltage
CAN interface	CAN2.0B (active), High-Speed CAN (ISO 11898) 125 kBit/s to max. 1 MBit/s, data transfer is free running
Configuration	via CAN bus using CSM ConfigTool or CSM INCA AddOn Settings and configuration date are saved in the device
Power supply	approx. 6 V to 30 V DC
Power consumption	typ. 1 W
Display power / device state	LED: Power (green), Status (red)
Housing	Aluminum with HV designation on the front-side (RAL2003)
Protection class	IP67
Connection for ground cable	M6 threaded bore
Weight	approx. 350 g
Dimensions (w x h x d)	approx. 130 x 33 x 75 mm
Connectors	
CAN / power supply	LEMO 0B 5-pin
Signal input	HV- NiCr-Ni multi-connector
Operating / storage conditions	
Operating temperature	-40 °C to +100 °C
Relative humidity	5 % to 95 %
Altitude	max. 5,000 m over sea level
Pollution degree	4
Storage temperature	-40 °C to +100 °C
Conformity	CE
Device safety	EN 61010

For operating the device directly in systems with operation voltages of > 60 V, e.g. HV batteries of hybrid or electric vehicles, please do read the CSM document "Safety Instructions HV THMM 4".

For UK distribution contact:

LABCELL LTD

FOUR MARKS, ALTON, HAMPSHIRE GU34 5PZ
TEL: ++44 (0)1420 568150 FAX: ++44 (0)1420 568151
e: mail@labcell.com www.labcell.com

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