

**SOMAT<sup>CR</sup>**

# From ice cold to white hot

Rugged, mobile temperature acquisition with SomatCR



- \_\_\_ High precision in extreme temperatures and severe conditions
- \_\_\_ Shock resistant
- \_\_\_ Compatible with any CAN input
- \_\_\_ High channel density
- \_\_\_ Easy wiring





## From ice cold ...

### Maximum flexibility and highest security... for your temperature data acquisition in industrial applications

Capture temperatures simply and easily using the new SomatCR, the latest addition to HBM's product range of rugged data acquisition systems. The HBM SomatCR (CAN Ruggedized Series) Isolated Thermocouple module is part of the new product family of rugged, mobile, CAN-based data acquisition modules.

### Advantages

- \_\_\_ Compact for a flexible distributed network of HBM world class signal conditioning in any environment
- \_\_\_ Engineered to operate within extreme temperature ranges from  $-40$  to  $125^{\circ}\text{C}$
- \_\_\_ Fully sealed unit / IP65 degree of protection allowing direct measurements in the test object, which reduces cabling, test setup and overall costs
- \_\_\_ Each channel has individual cold junction compensation with isolation up to 500 volts and an independent software selectable sample rate from 0.2 to 200 Hz
- \_\_\_ 16 contiguous inputs in one rugged package
- \_\_\_ Excellent precision (low pass/digital filtering, linearization, temperature compensation)
- \_\_\_ Configuration of all CAN parameters (standard CAN, sample point, identifier)
- \_\_\_ Ease of use SomatCR Assistant software for configuration
- \_\_\_ Accredited calibration
- \_\_\_ Power supply range ideal for all automotive power systems 12/24/42V



### Applications

Possible test objects include engine enclosures, gearboxes, pumps, power generators and many other industrial applications. SomatCR modules are easy to install in compact spaces and can be effortlessly secured through simple zip-ties.

$-40^{\circ}\text{C}$



... to white hot



#### Technical specifications at a glance

Inputs	16 NiCr-Ni (type K, J or T)
Measurement range	-100 °C to +1372 °C
ADC resolution	16 bit
Channel sample rates (per channel)	0.2 to 200 Hz
Input protection	±60V permanent with additional ESD protection
Galvanic isolation	500VDC (chnl/chnl chnl/CAN pwr/CAN)
CAN interface type	CANopen complies with CAN 2.0B HS 11898
Status indication	LEDs
Connectors – CAN/pwr (integrated)	LEMO 5 pin (power int)
Connectors – channel	Miniature thermo connectors
Power requirements	8 – 42 VDC
Dimensions	W200 mm x H33 mm x D50 mm
Weight	Approx. 500 g
Operating temperature	-40 °C to +125 °C
Case protection	IP65



+125 °C

## Integral part of the HBM Somat eDAQ product group

SomatCR modules are also ideally designed to interface with HBM Somat eDAQ, eDAQlite, MGCplus and QuantumX. A single module can be powered directly from the CAN connectors on a Vehicle Network Communications (ECOM or ELCOM) layer.



### Maximum flexibility and compatibility

Each module can have up to 16 thermocouples applied with just one CAN line connecting it to your chosen DAQ system or PC, thus reducing time and space requirements.

- \_\_\_ Compatible with any CAN ISO 11898 2.0B-based system or directly onto a vehicle network
- \_\_\_ Full support of the CANopen standard
- \_\_\_ Communication parameters through various configurable items such as selectable CAN baud rate from 20 kbps to 1 Mbps
- \_\_\_ Nearly unlimited channel counts by connecting multiple modules



More information at

[www.hbm.com/somat-cr](http://www.hbm.com/somat-cr)

#### HBM Test and Measurement

[www.hbm.com](http://www.hbm.com)

Email: [info@hbm.com](mailto:info@hbm.com)

Tel. +49 6151 803-0

Fax +49 6151 803-9100

measure and predict with confidence

