



# ADMM 8 BNC



## Product description

The measurement module **ADMM 8 BNC** features 8 analog inputs and provides very good measurement accuracy. Sensors with BNC plug can be connected directly.

**ADMM 8 BNC** is particularly suited for use in protected places or at test benches.

## Shipping content

- ▶ Measurement module ADMM 8 BNC
- ▶ Configuration software CSMconfig
- ▶ Documentation
- ▶ Calibration certificate in accordance with DIN EN ISO/IEC 17025

## Key features

CAN

- ▶ **8 voltage inputs, galvanically isolated**
- ▶ **Measurement inputs adjustable per channel from  $\pm 100$  mV to  $\pm 60$  V**
- ▶ **Measurement data rate up to 2 kHz per channel**
- ▶ **Direct connection of sensors with BNC plug**


## Maintenance

- ▶ Calibration every 12 months recommended

## Accessories

- ▶ See datasheet "CAN Accessories".

## Technical data

<b>Type designation</b>	<b>ADMM 8 BNC</b>
	
<b>Inputs</b>	8 analog inputs
Measurement ranges	$\pm 100$ , $\pm 200$ , $\pm 500$ mV and $\pm 10$ , $\pm 20$ , $\pm 60$ V
Internal resolution	16 bit
Internal sampling rate per ch.	2 kHz
Measurement data rate per ch.	1, 2, 5, 10, 20, 50, 100, 200, 500 Hz and 1 kHz, 2 kHz
HW input filter	low-pass filter 3rd order, approx. 500 Hz
SW input filter	switchable 6th order Butterworth filter, range: 0.1 Hz to 500 Hz automatically adjusted to measurement data rate alternatively: threshold frequency adjustable per channel
Input protection <sup>1)</sup>	
Operational safety	$\pm 60$ V permanent
Device safety	$\pm 100$ V permanent, additional ESD protection
<b>Gain error</b>	
at 25 °C	max. $\pm 0.05$ % of measured value
Temperature drift	max. $\pm 10$ ppm/K
<b>Galvanic isolation <sup>2)</sup></b>	no safety isolation in terms of high-voltage applications
Channel / channel	500V
CAN / channel	500V
CAN / power supply	500V
<b>CAN interface</b>	CAN 2.0B (active), High Speed (ISO 11898-2:2016) 125 kbit/s to max. 1 Mbit/s, data transfer "free running"
Configuration	via CAN bus using CSMconfig or CSM INCA AddOn, settings and configurations stored in the module
<b>Power supply</b>	
Minimum	6V DC (-10 %)
Maximum	50V DC (+10 %)
Power consumption <sup>3)</sup>	typ. 1.3 W
LED indicator	Power (green) / status (red)
<b>Housing</b>	aluminium, blue anodized
Protection class	IP50
Weight	approx. 500 g
Dimensions (w × h × d)	approx. 200 × 35 × 50 mm, approx. 200 × 40 × 50 mm (Slide Case)

<b>Type designation</b>	<b>ADMM 8 BNC</b>
<b>Connectors</b>	
CAN / power supply	LEMO 0B, 5-pole, code G
Signal inputs	BNC
<b>Operating and storage conditions</b>	
Operating temperature range	-40 °C to +85 °C
Relative humidity	5 % to 95 %
Pollution degree	1
Storage temperature	-55 °C to +90 °C
<b>Conformity</b>	<b>CE</b>

<sup>1</sup> Observe information regarding the intended use. See CSM document "Safety Instructions MiniModule".

<sup>2</sup> These MiniModules are designed for measurements in vehicles with 12 V, 24 V, or 48 V on-board power supply systems. The maximum operating voltage at the measurement inputs is 60 V. Not suitable to be directly connected to systems with higher operating voltages, e.g. high-voltage batteries of hybrid or electric vehicles.

<sup>3</sup> As of hardware revision F, the typical power consumption of previous hardware revisions is 1.6 W.

## additional products

### ADMM pro

The ADMM pro measurement modules cover an extremely wide range of application. They can be used for "simple" voltage measurement, high-precision current measurement (via shunts), measurement of very low voltages (mV level), and the acquisition of higher frequency signals with measurement data rates up to 10 kHz.



### ECAT ADMM 4

The EtherCAT® measurement module ECAT ADMM 4 provides options to perform measurements with up to 10 kHz per channel at a high Ethernet bandwidth. The EtherCAT® mechanisms for time synchronization are fully supported. ECAT ADMM 4 is operated by using an EtherCAT® master via CANopen over EtherCAT® (CoE) or by using the Ethernet/EtherCAT® protocol converter XCP-Gateway in combination with an XCP-compatible data acquisition software.





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