

Precise. Rugged. Universal.

CSMshunt

- ▶ Universal applicable, shunt-based and precise, adapter solution for current measurement under extreme environmental condition, to insert into current path
- ▶ Suitable for connection to CSM AD-Scan MiniModules via CSM standard connector LEMO 0B 6-pole or customer-specific connector
- ▶ Available in several current ranges
- ▶ Integrated electronic signal processing and signal amplification
- ▶ Operating temperature: -40 °C to +85 °C
- ▶ Excellent price-performance-ratio



The **CSMshunt** expands the usability of the AD-Scan MiniModule. It enables the user to measure current in a **precise and accurate** way, even under hard environmental conditions.

The CSMshunt is directly inserted into the current path. The already existing original fusing completely persists. Additionally, we can offer a solution with customer's standard plugs. This allows to rebuilt the original functional and save capability of the current loop after measurement.

The shunt-based measurement solution characterizes not only the optimum matching to AD-Scan Mini Modules in particular by the **high temperature-resistance**, but also its **excellent accuracy**.

In addition, the power supply of the integrated electronic signal-processing and signal-amplification of the CSMshunt is electrically isolated. The electronic isolation of the measurement signal is carried by the measuring module, so that interspersion will not cause any measurement errors.

Typical field of application

- ▶ Acquisition and monitoring of current in operational mode.
- ▶ Acquisition and monitoring of current in sleep mode.
- ▶ Detection of "electricity hogs" to avoid battery problems in serial production.

- ▶ Monitoring of sleep- and recovery behaviour of ECUs.
- ▶ Measurement of discharge and charge current of the battery (charge balance).
- ▶ Monitoring and logging of the battery status for vehicle transport, particularly ocean transport.
- ▶ Error analysis in the service garage for error identification in "non-mobility vehicles" and other electric-/electronic-problem vehicles.
- ▶ Long term monitoring of vehicle current during continuous vehicle operation.

Customer modification

In addition to the standard version of the CSMshunt (Input: open wires 2.5 mm, Output: 0B LEMO 6-pole connector), almost any custom input/output connector combinations are practicable. **Please contact us personally!**

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Specifications CSMshunt

Technical Data	CSMshunt
Input Measurement Range	$\pm 25 \text{ A}$ (Shunt 2 mOhm) ¹⁾
Threshold Frequency	1.4 kHz
Accuracy at 25 ° C	0.6 % of measurement value $\pm 2.5 \text{ mA}$
Temperature Drift	typ. $\pm 60 \text{ ppm/K}$
Galvanic Isolation Supply Measurement Signal	500 V DC none ²⁾
Power Supply	12 V – 15 V DC
Current Consumption	typ. 12.5 mA at 12 V DC
Output Voltage	$\pm 10 \text{ V}$ at $\pm 25 \text{ A}$ input current
Maximum Load	$R_L > 20 \text{ kOhm}$
Dimensions (W x H x L) Weight	approx. 20 x 20 x 100 mm plus cable approx. 120 g
Operating Temperature Protection Class	-40 °C to +85 °C ³⁾ IP67
Storage Temperature Relative Humidity	-55 °C to +125 °C 5 % to 95 %
Connectors Input Output	Open end, 2.5 mm ² copper wire LEMO 0B 6-pole, LEMO 1B 6-pole or Fischer 6-pole ⁴⁾
Conformity	CE

1) Other variants on request

2) The galvanic isolation of the measurement signal must be done within the measurement module. This is ensured by using the AD-Scan MiniModule (pro).

3) Derating curve for T > 85 °C in work

4) See part numbers

Part numbers:

CSMshunt 025A 2,0m LEMO 0B 6-pole	ART0201701
CSMshunt 025A 2,0m LEMO 1B 6-pole	ART0201702
CSMshunt 025A 2,0m Fischer 6-pole	ART0201703

For further technical information and references, please contact our technical sales.