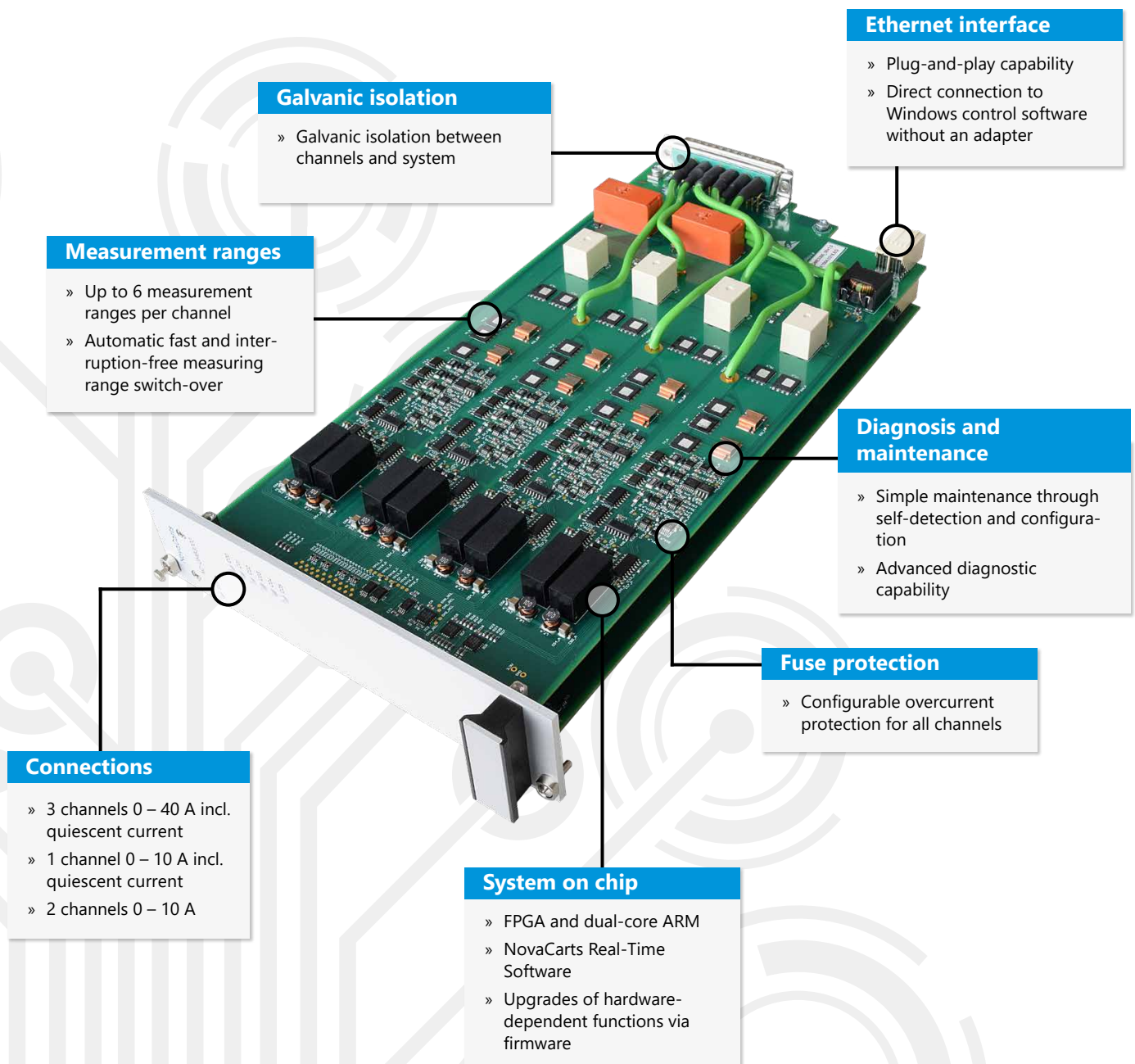


NovaCarts Current Measurement Board

This component is a universal current measurement board with additional relays, which can be plugged on top of a base card. Currently, the NovaCarts Multi I/O Board – NC-GMB3000 is supported. Since the current measurement is accurate in a wide range of currents, the board is suitable to measure currents from the double-digit ampere range to the microampere range.

The board offers three channels ranging from 0 to 40 A and one channel with a measurement range from 0 to 10 A, all of which include the measurement of quiescent current. Two channels with a measurement range from 0 to 10 A complement the board. Furthermore, the board allows test engineers to measure and switch the voltage of the output pin based on Ground for five channels. In addition, every channel has an electronic fuse capability, which makes it possible to define a fuse current in the software for every channel.



Data Sheet

Module name: **NC-GME3300**

Data sheet version: **1V1**

Features

Current measuring channels	6
Supply voltage	24 V
Operating temperature	0 to +55 °C
Storage temperature	-20 to +70 °C
Humidity	10 to 90 % (no condensation)
Dimensions	Height: 4 U, Width: 8 U (incl. base board)
Connection to RT system	Ethernet via base board (currently NC-GMB3000)



Data Sheet

Module name: **NC-GME3300**

Data sheet version: **1V1**

Specifications

Current Measuring Channels 0 – 2	Number of channels	3
	Input current range	0 – 40 A
	Overcurrent protection (configurable)	0.1 - 40 A
	Switchable	Yes
	Input voltage range	0 – 60 V
	Measurement ranges	6
Current Measuring Channel 3	Number of channels	1
	Input current range	0 – 10 A
	Overcurrent protection (configurable)	0.1 – 10 A
	Switchable	Yes
	Input voltage range	0 – 60 V
	Measurement ranges	5
Measuring Ranges	Accuracy:	
	1mA measurement range	+/- 10 μ A, +/- 0.5 %*
	10mA measurement range	+/- 10 μ A, +/- 0.5 %*
	100mA measurement range	+/- 100 μ A, +/- 0.5 %*
	1A measurement range	+/- 100 μ A, +/- 0.5 %*
	10A measurement range	+/- 1 mA, +/- 0.5 %*
	40A measurement range	+/- 10 mA, +/- 0.5 %*
		* of the measured value
Voltage measurement	+/- 50 mV, +/- 1 % of the measured value	
Resolution	16 bit	
Current Measuring Channels 4 – 5	Number of channels	2
	Input current range	0 – 10 A
	Switchable	Yes
	Input voltage range	0 – 60 V
	Overcurrent protection (configurable)	0.1 – 10 A
	Accuracy	\pm 30 mA / \pm 1 % of the measured value
	Resolution	14 bit
Galvanic Isolation	Functional isolation channel to channel	200 V
	Functional isolation channel to system	200 V

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