

# Technical Data Sheet



## U3B0C10A

### Voltage Measurement Module 3 Channels

#### Properties

- Measurement range  $\pm 1$  kV
- Shock resistant for use in crash testing
- Low linearity error
- High bandwidth

#### Application

- General test and measurement
- Fatigue
- Vehicle crash

#### Measurement principles

- Voltage divider
- Galvanic isolation
- Signal processing

#### Options

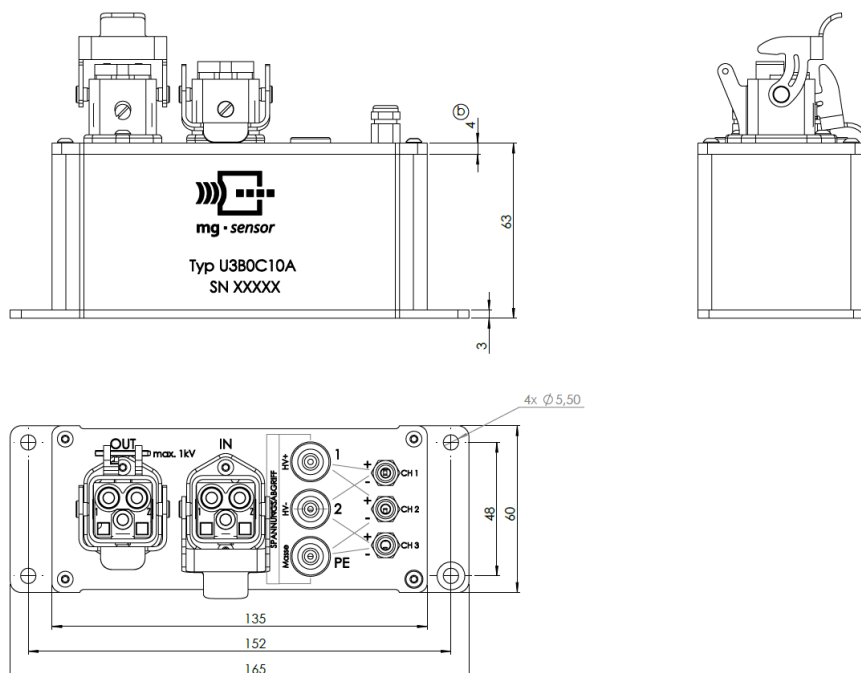
- ID-Module integrated in measurement module



#### Technical description

The voltage, measured at the input is galvanically isolated using a voltage divider, and provided to a circuit at the output. This allows the galvanically isolated connection and measurement of the input voltage with a measuring system.

### Dimensions



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**mg · sensor**  
PURE PRECISION

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### Technical specification

	Unit	Value	Comment
Measuring range	kV	±1.0	3 channels, as delta circuit
Sensitivity <sup>1)</sup>	mV/V	1.0	Option: 2.5 mV/V
Output signal <sup>1), 2)</sup>	V	1.0	Option: 2.5 V
Input resistance	MΩ	10	
Zero signal <sup>1)</sup>	mV	≤ 1.0	
Amplitude non-linearity <sup>3)</sup>	%	≤ 0.5	
Hysteresis <sup>3)</sup>	%	≤ 0.5	
Current consumption	mA	25 15	With 5 V supply With 10 V supply
Supply voltage	V	5–12	
Galvanic isolation <sup>4)</sup>	kV	1.5	
Insulation resistance	MΩ	> 100	
Connection cable: High voltage connectors			Harting Han Q 2/0 <sup>5), 6)</sup> : Contact 1 banana socket 1 (red) Contact 2 banana socket 2 (black) Contact ⊕ banana socket 3 (yellow) <sup>5)</sup>
Output signal	m	2.0	Fixed cord, length and connector customized
Temperature range	°C	-30...+70	
Weight (approximate)	g	750	

All values measured at 10 V sensor supply voltage and at 23 °C.

<sup>1)</sup> Typical value

<sup>2)</sup> At nominal load

<sup>3)</sup> Relative nominal range

<sup>4)</sup> Input to output

<sup>5)</sup> **Contact ⊕ and banana jack #3 (yellow) have direct connection to the case!**

<sup>6)</sup> **Rated voltage of the contacts according to the manufacturer: 400 V**