

Technical Data Sheet



U3B0E10A

Voltage Measurement Module 3 Channels

Properties

- Measurement range ± 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

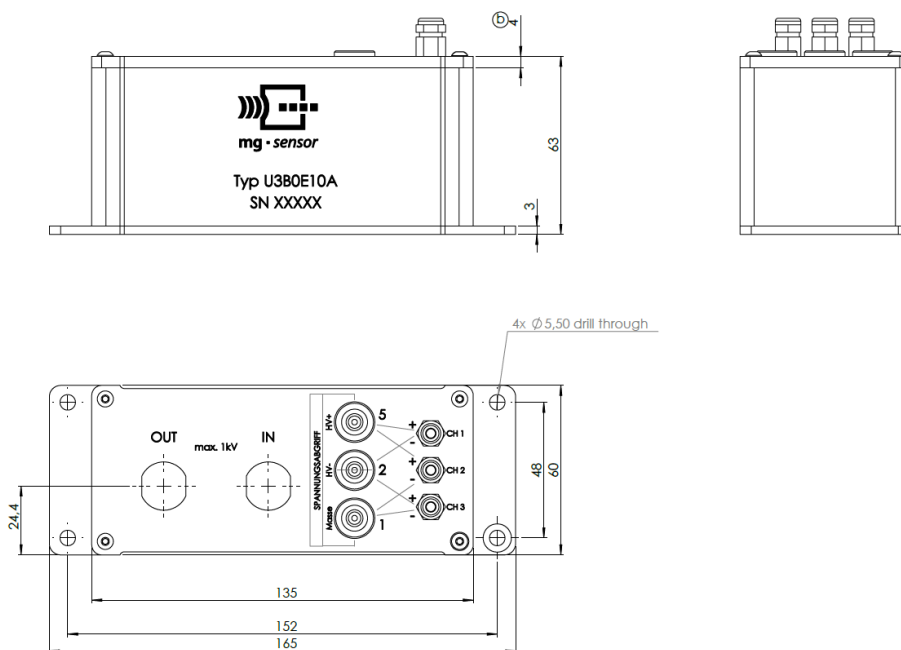
- ID-Module integrated in measurement module

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
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Technical specification

	Unit	Value	Comment
Measuring range	kV	±1.0	3 channels, as delta circuit
Sensitivity ¹⁾	mV/V	1.0	
Output signal ^{1), 2)}	V	1.0	
Input resistance	MΩ	10	
Zero signal ¹⁾	mV	≤ 30	
Amplitude non-linearity ³⁾	%	≤ 0.5	
Hysteresis ³⁾	%	≤ 0.5	
Current consumption	mA	35 25	With 5 V supply With 10 V supply
Supply voltage	V	5–12	
Galvanic isolation ⁴⁾	kV	1.5	
Insulation resistance	MΩ	> 100	
Connection cable: High voltage connectors			ODU MEDI-SNAP® HIGH-VOLTAGE Contact 3 HV+ Contact 4 HV- Contact 1 vehicle mass
Output signal			3 x cable, custom configuration
Temperature range	°C	-30...+70	
Weight (approximate)	g	600	

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

¹⁾ Typical value

²⁾ At nominal load

³⁾ Relative nominal range

⁴⁾ Input to output