

U1B0B10A

➤ Voltage Measurement Module

Properties

- Small housing
- 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 made available to a matching circuit at the output. Thus, the galvanically isolated connection and measurement of the input voltage are possible with a measuring system.

➤ Dimensions

- Body: W x H x D: 70 x 46 x 32 mm
- Base plate: W x H x D: 95 x 32 x 3 mm
- Hole spacing: 83 mm ($\varnothing 5.4$ mm)

Technical Data Sheet



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Technical specification

	Unit	Value	Comment
Measuring range	kV	±1.0	
Sensitivity ¹⁾	mV/V	1.0	Option: 2.5 mV/V
Output signal ^{1), 2)}	V	1.0	Option: 2.5 V
Input resistance	MΩ	10	
Zero signal ¹⁾	mV	≤ 12	
Amplitude non-linearity ³⁾	%	≤ 1.0	
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:			
Appliance sockets	mm	4.0	
Fixed cord	mm	9.2	Option
Temperature range	°C	-30...+70	
Weight (approximate)	g	200	

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