

BN100A

Bridge Calibration Unit

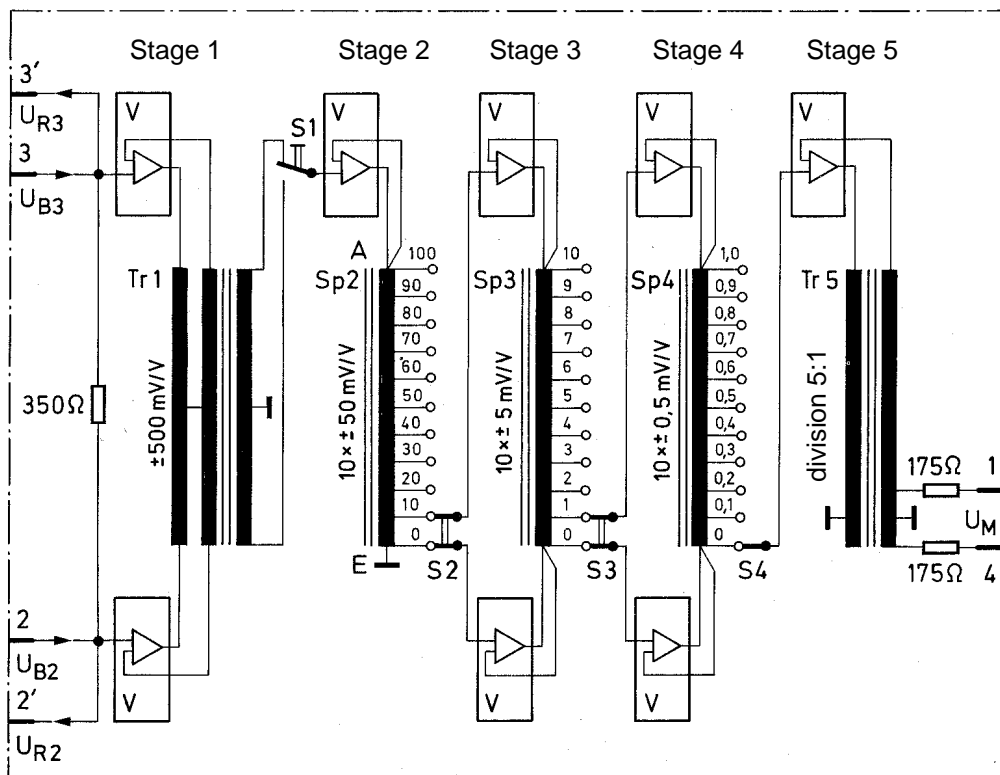
Special features

- High-precision simulation of defined output signals of strain-gauge full-bridge transducers
- Calibration signal adjustable in 0.1 mV/V steps in the range from -100 mV/V to +100 mV/V
- Accuracy class 0.0005
- For transducer excitation with 225 Hz carrier frequency

Data sheet



Block diagram



Specifications

Type	BN100A	
Accuracy class	0.0005	
Supply voltage	V	AC voltage 230, 50 Hz AC voltage 115, 60 Hz
Degree of pollution Max. Altitude for operation	m	2 2000
Over-voltage category	II	
Power consumption	VA	20
Calibration signal	mV/V	-100...+100
Steps	mV/V	0.1
Grading error of range steps ¹⁾	mV/V	0.00001
Grading error, relative to the level value concerned	%	0.0005
Absolute zero error ^{1), 2)}	mV/V	0.00001
Non-linearity	%	0.0005
Calibration signal deviation on changing polarity, related to 2 mV/V	%	0.0004
Output noise voltage in permissible frequency range	nV/√Hz	<20
Nominal temperature range	°C	+15 ... +30
Permissible ambient temperature range	°C	0 ... +50
Storage temperature range	°C	-20 ... +60
Maximum relative humidity for temperatures up to 31 °C Linearly decreasing rel. humidity at 40 °C up to	% %	80 50
Nominal value of the bridge excitation voltage (rms value)	V	10
Permissible bridge excitation voltage ²⁾ (rms value)	V	1...15
Nominal frequency of the bridge excitation voltage	Hz	225 ± 2
Permissible frequency of the bridge excitation voltage	Hz	225 ± 10
Input resistance	Ω	350 ± 4
Output resistance	Ω	350 ± 4
Dimensions (w x h x d)	mm	255 x 171 x 367
Degree of protection	IP20 per EN60529	
Weight	kg	7.2

1) Corresponds to 0.0005 % at 2 mV/V

2) Traceable to PTB; typically at 2.5 V, 5 V and 10 V

Accessories, included in scope of delivery

KAB0238A-3, 3 m long, 6 cores (MS3106A16S-1P / MS3106A16S-1S)

KAB133A (MS3101A16S-1S / DB-15P)

The bridge calibration unit BN100A is only available in conjunction with a DKD calibration certificate for voltage ratio (2 mV/V calibration range, 5 V excitation voltage). This calibration is not included in the scope of supply.

Order-no.: K-CAL-VD or
K-CAL-VZ

Subject to modifications.

All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability.

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