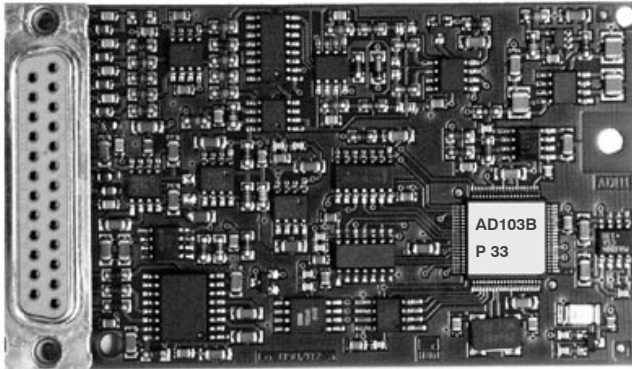


AD103B

Digital Transducer
Electronics

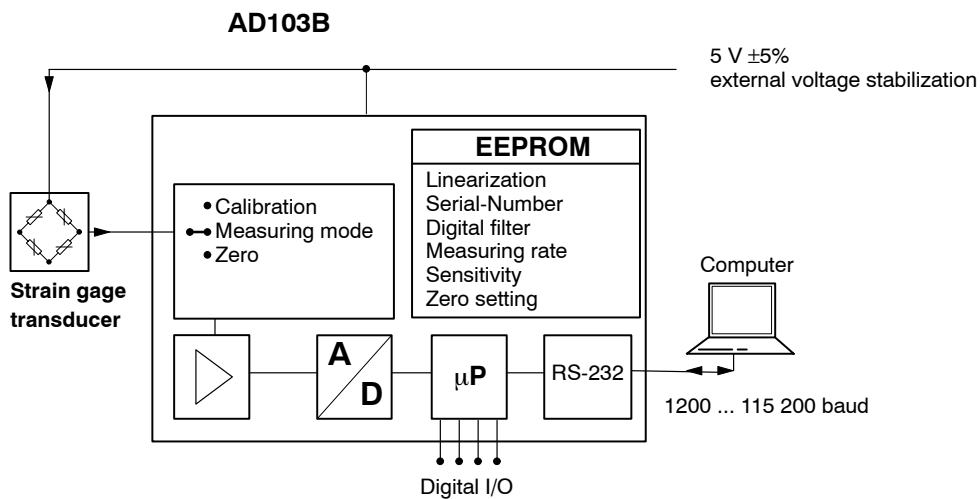
AD103B Amplifier PCB



Special features

- DC Amplifier for resistive transducers
- For static and dynamic applications
- Direct computer connection via RS-232 interface
- Test certificate TC2279 for 10 000 d, 0.5 $\mu\text{V}/\text{e}$, class III accord. to OIML
- High transmission rate and resolution
- Memory for user settings
- Command set for filling and dosing functions

Functional diagram



Specifications

Type	AD103B	
Accuracy class	0.005	
Number of trade values, accord. to EN 45 501 (R76)	d	10 000
Input sensitivity	$\mu\text{V/e}$	0.5
Measuring range	mV/V	± 2.0
Input signal range		± 3.0
Measuring signal resolution, max.	Bit	20 (with 1 Hz)
Measuring rate (depending on output format and baud rate)	Hz	600 ... 4.7
Cutt-off frequency of the digital filter, adjust. (± 3 dB)		40 ... 0.25
Bridge excitation voltage U_B ¹⁾	V_{DC}	$5 \pm 5\%$ (= operating voltage)
Measuring signal input, SG transducer (Full bridge)	Ω	$\geq 40 \dots 1000$
Transducer connection		6-wire connection
Input resistance (differentiell)	$M\Omega$	> 15
Transducer cable length	m	≤ 100 with calibration incl. cable
Interface cable length RS-232	m	≤ 15 (25-pol. Sub-D-female connector)
Calibration signal	mV/V	$2 \pm 0.01\%$
Temperature stability of the calibration signal	ppm/ $^{\circ}\text{C}$	2.5
Linearity deviation (related to full scale value)	%	± 0.002
Temperature effect on zero point (related to full scale value) measuring sensitivity (related to actual value)	%/10 K	typ. ± 0.0025 ; max. 0.005 typ. ± 0.0025 ; max. 0.005
Interface		RS-232
Baud rate, adjustable	baud	1200 ... 115 200
Operating voltage	V_{DC}	$5 \pm 5\%$ Residual ripple ≤ 1 mV (p.p.)
Current consumption (without load cell) ²⁾	mA	≤ 120
Nominal temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	$-10 \dots +40$ [14...104]
Service temperature range		$-20 \dots +70$ [-4...158]
Storage temperature range		$-40 \dots +85$ [-40...185]
Dimensions (LxWxH)	mm	93 x 53 x 17
Weight, approx.	g	40
Degree of protection to DIN 40050 (IEC 529)		IP00

1) Excitation from operating voltage

2) Current consumption $\leq 120\text{mA} +$ Excitation voltage U_B / Bridge resistance R_B

Accessories, to be ordered separately

Basic devices AED9201A and AED9301A (see separate Data Sheets), they offer:

- EMC protection
- Degree of protection IP 65
- Operating voltage range 18...30 V
- additional interfaces (RS-485, RS-232, Profibus)
- galvanic disconnected in-, and outputs

Documentation

- 1-AED/FIT-Doc (CD-ROM with operating manual and AED_Panel32 panel program)

Modifications reserved.
All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

Hottinger Baldwin Messtechnik GmbH

Postfach 10 01 51, D-64201 Darmstadt
Im Tiefen See 45, D-64293 Darmstadt
Tel.: +49/61 51/ 8 03-0; Fax: +49/61 51/ 8039100
E-mail: support@hbm.com www.hbm.com



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