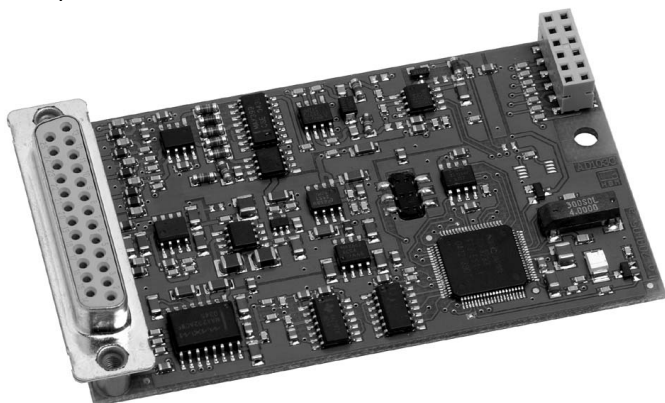


AD103C

Digital Transducer
Electronics

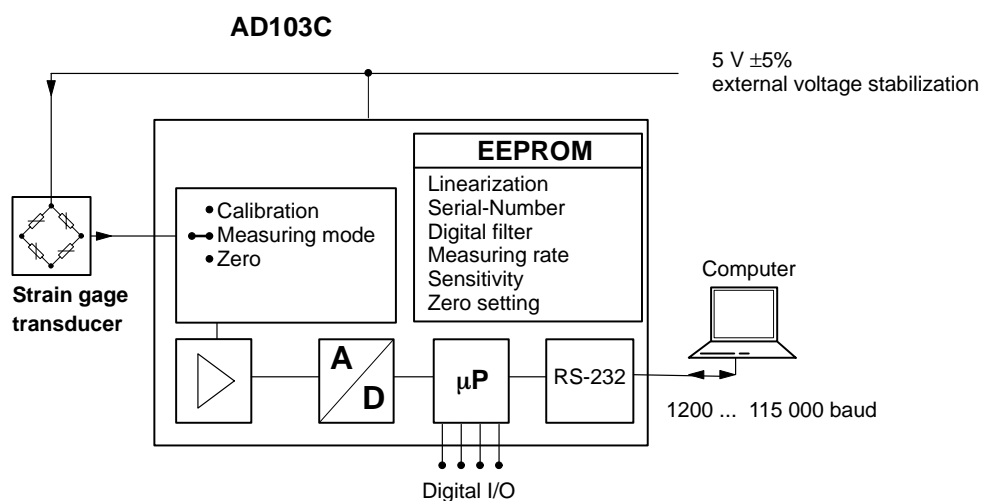
Amplifier board AD103C



Special features

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

Functional diagram



Specifications

Type	AD103C	
Accuracy class	0.01	
Number of trade values, accord. to EN 45 501 (R76)	e	10 000
Input sensitivity	$\mu\text{V}/\text{e}$	0.5
Measuring range	mV/V	± 2.0
Input signal range, max.		± 3.0
Measuring signal resolution, max.	Bit	24 (with 1 Hz)
Measuring rate (depending on output format and baud rate)	Hz	1200 ... 4.7
Cutt-off frequency of the digital filter, adjust. (± 3 dB)		200 ... 0.25
Bridge excitation voltage U_B ¹⁾	V_{DC}	$5 \pm 5\%$ (= operating voltage)
Measuring signal input, SG transducer (Full bridge)	Ω	$\geq 40 \dots 4000$ (depending on used basic device)
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 ... 115 000
Operating voltage	V_{DC}	$5 \pm 5\%$ Residual ripple ≤ 10 mV (p.p.)
Current consumption (without load cell) ²⁾	mA	≤ 120
Nominal temperature range		$-10 \dots +40$ [14...104]
Operating temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	$-20 \dots +70$ [-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 $\leq 120\text{mA} + \text{Excitation voltage } U_B / \text{Bridge resistance } R_B$

Ordering designation

1-AD103C

Accessories, to be ordered separately

Basic devices

1-AED9101A, 1-AED9201A, 1-AED9301A, 1-AED9401A (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, CANOpen, DeviceNet)
- galvanic disconnected in-, and outputs

Documentation

- 1-FIT-AED-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.

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