

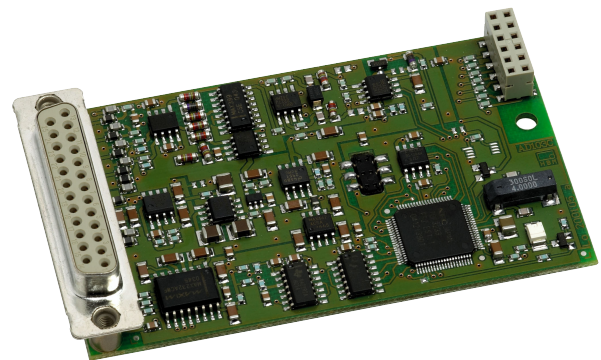
DATA SHEET

AD103C

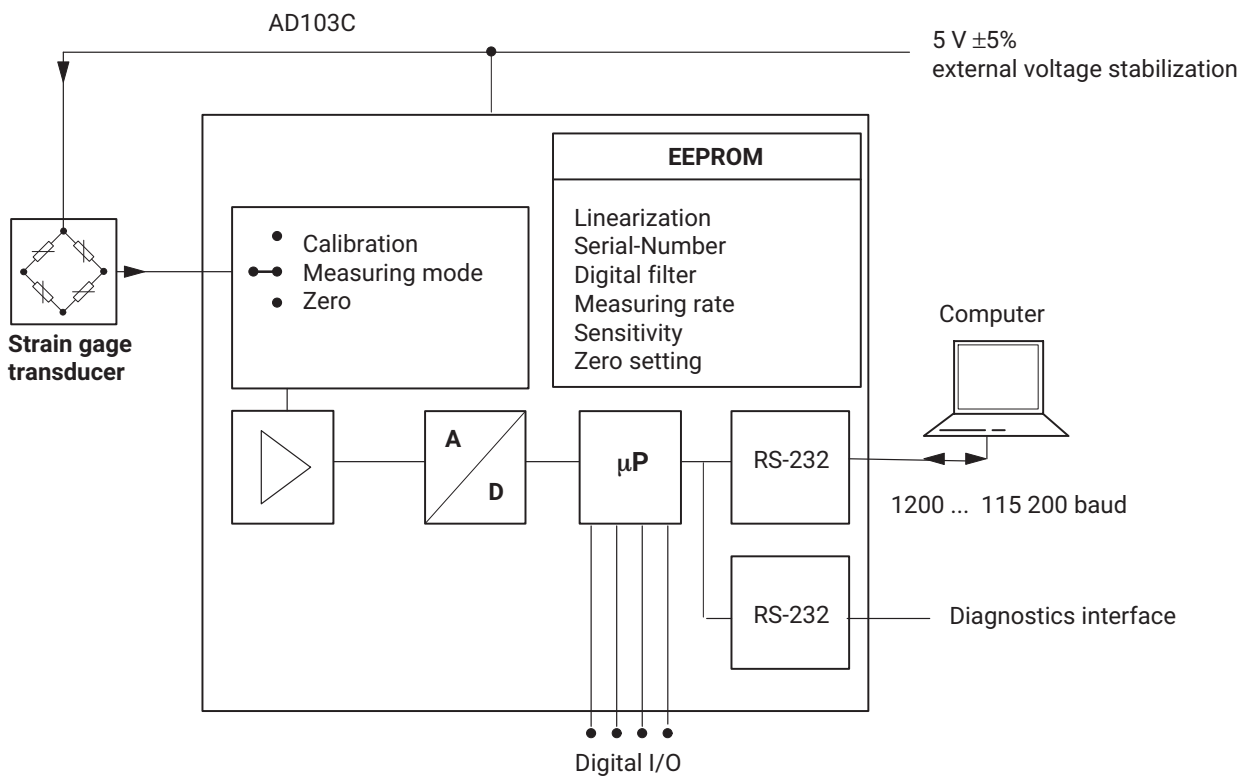
Digital Transducer Electronics

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, class III according to OIML available
- High transmission rate and resolution
- Memory for user settings
- Command set for filling and dosing functions
- Diagnostics interface for analyzing and additional indication



FUNCTIONAL DIAGRAM



SPECIFICATIONS

Type		AD103C
Accuracy class		0.01
Number of trade values, accord. to EN 45 501 (R76)	e	10 000
Input sensitivity	$\mu\text{V}/e$	0.5
Measuring range	mV/V	± 2.0
Input signal range, max.		± 3.0
Measuring signal resolution, max.	bit	24
Measuring rate (depending on output format and baud rate)	Hz	1200 ... 4.7
Cutt-off frequency of the digital filter (-3 dB), adjust.		200 ... 0.25
Bridge excit. voltage U_B (Excit. from supply voltage)	V_{DC}	$5 \pm 5\%$ (= supply voltage)
Measuring signal input, SG transducer (Full bridge)	Ω	$\geq 40 \dots 4000^1$
Transducer connection		6-wire circuit
Input resistance (differentiell)	$M\Omega$	> 15
Transducer cable length	m	≤ 100 , 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)	$\%/10\text{ K}$	typ. ± 0.0025 ; max. 0.005
Measuring sensitivity (related to actual value)		typ. ± 0.0025 ; max. 0.005
Interface		RS-232
Baud rate, adjustable	bit/s	1200 ... 115 200
Diagnostics interface (RS-232)		
Protocol		ASCII/Binary
Baud rate	kbit/s	38.4
Node address		0...89
Length of interface cable, max.	m	≤ 15
Supply voltage	V_{DC}	$5 \pm 5\%$; Residual ripple $\leq 10\text{ mV}$ (p.p.)
Current consumption (without load cell)	mA	≤ 90
Nominal temperature range		-10 ... +40 [14...104]
Operating temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-10 ... +60 [-4...140]
Storage temperature range		-25 ... +85 [-13...185]
Dimensions (LxWxH)	mm	93 x 53 x 17
Weight, approx.	g	40
Degree of protection to EN60529 (IEC 529)		IP00

¹⁾ Depending on the external customer side supply voltage or from the basic unit

ORDERING DESIGNATION

1-AD103C

ACCESSORIES, TO BE ORDERED SEPARATELY

Basic devices (see separate Data Sheets)

1-AED9101D, 1-AED9201B, 1-AED9301B, 1-AED9401A and 1-AED9501A, they offer:

- EMC protection
- Degree of protection IP 65
- Larger supply voltage range
- Additional interfaces (Diagnostics bus, RS-485, RS-232, Profibus, CANOpen, DeviceNet)
- Galvanic disconnected in-, and outputs (not with AED9101D and AED9501A)

The complete documentation as well as parameterization and visualization software PanelX are available as a free download on the AED website: <https://www.hbm.com/en/2561/aed-digital-transducer-electronics/>

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