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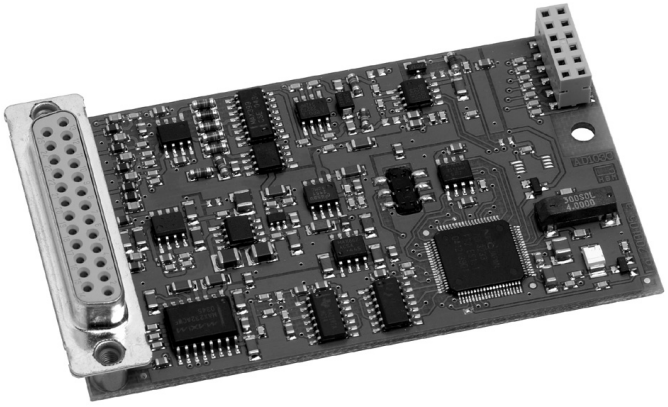
AD103C

Digital Transducer Electronics

Data Sheet

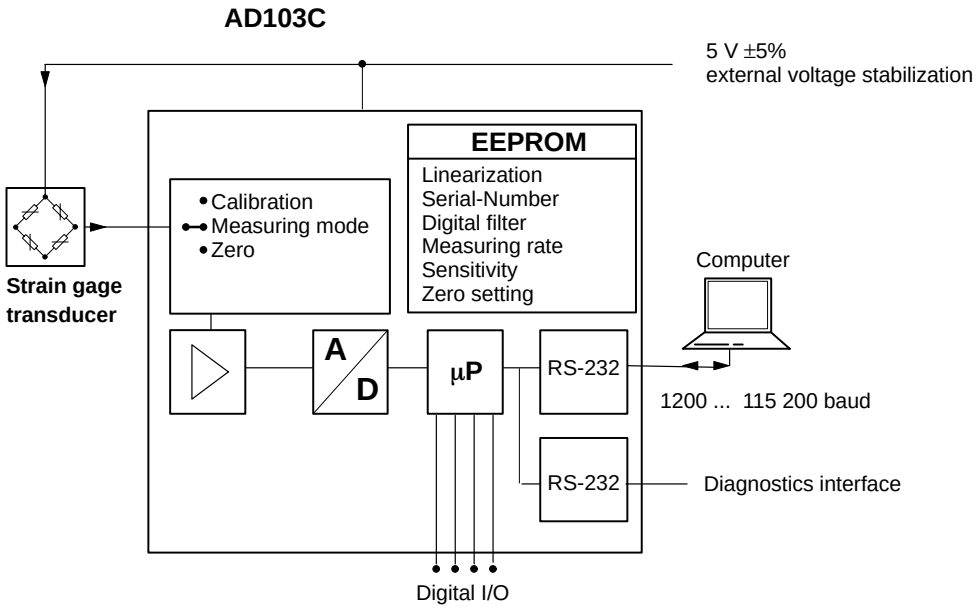
AD103C Amplifier board



Special features

- **DC Amplifier for resisitive 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



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Specifications

Type		AD103C
Accuracy class		**0.01**
Number of trade values, accord. to EN 45 501 (R76)	e	10 000
Input sensitivity	µV/e	0.5
Measuring range	mV/V	±2.0
Input signal range, max.	mV/V	±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.	Hz	200 ... 0.25
Bridge excit. voltage U_B (Excit. from supply voltage)	V_{DC}	5 ±5 % (= supply voltage)
Measuring signal input, SG transducer (Full bridge) Transducer connection Input resistance (differentiell)	Ω MΩ	≥40...4000[1)] 6-wire circuit >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±0.01 %
Temperature stability of the calibration signal	ppm/°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	bit/s	1200 ... 115 200
Diagnostics interface (RS-232) Protocol Baud rate Node address Length of interface cable, max.	 kbit/s m	 ASCII/Binary 38.4 0...89 ≤15
Supply voltage	V_{DC}	5 ±5 %; Residual ripple ≤10 mV (p.p.)
Current consumption (wthout load cell)	mA	≤ 90
Nominal temperature range **Operating temperature range** **Storage temperature range**	°C [°F]	−10 ... +40 [14...104] −20 ... +60 [−4...140] −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-AED9101C, 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 AED9101C and AED9501A)

Legal-for-trade digital scale display (see separate Data Sheet)

1-DWS2103

Documentation

- **1-FIT-AED-DOC** (CD-ROM with operating manual and AED_Panel32 panel program

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