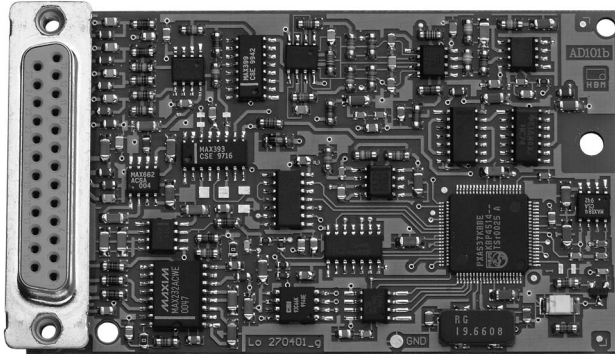


AD101B

Digital transducer electronics

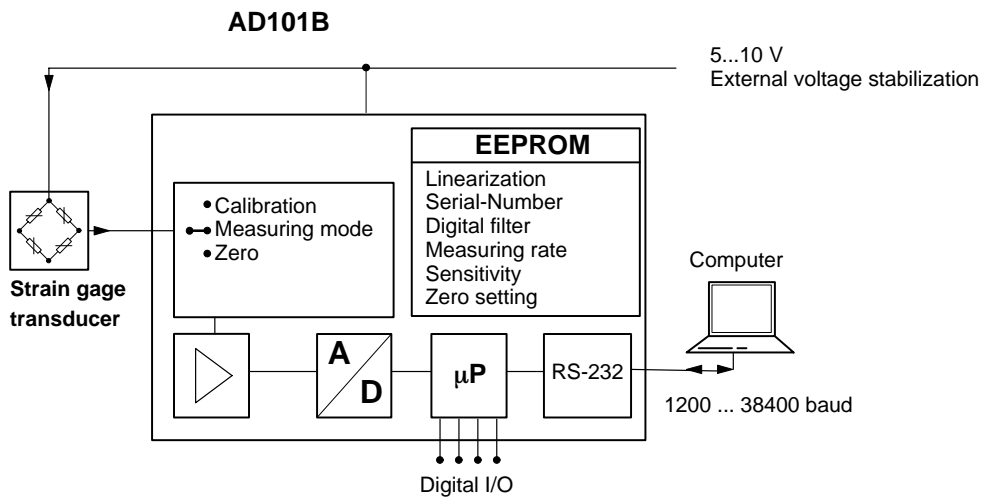
AD101B Amplifier PCB



Special features

- DC Amplifier PCB for Strain gage transducers
- For static and dynamic applications
- Direct computer connection via RS-232 interface
- Test certificate for 6000 digits class III available
- High transmission rate and resolution
- Memory for users settings

Functional diagram



Specifications

Type	AD101B	
Accuracy class	0.015	
Number of trade values, acc. to EN 455501 (R76) (with internal calibration)	d	6000
Input sensitivity	$\mu\text{V/e}$	1
Measuring range	mV/V	± 2.0
Input signal range		± 3.0
Measuring signal resolution, max.	bit	20 (at 1 Hz)
Measuring rate (depending on output format and baud rate)	Hz	600 ... 4.7
Cut-off frequency of the digital filter (-3 dB), adjustable	Hz	40 ... 0.25
Bridge excitation voltage U_B (Excitation from supply voltage)	V_{DC}	5 ... 10 (= supply voltage!)
Measuring signal input, Strain gage transducers (Full bridge)	Ω	$\geq 40 \dots 4000^1$
Transducer connection		6-wire circuit
Input resistance (differential)	$M\Omega$	> 15
Transducer cable length	m	≤ 100 , in case of calibration incl. cable
Interface cable length RS-232	m	≤ 15 (25 pol. female connector)
Calibration signal	mV/V	$2 \pm 0.01 \%$
Temperature stability of the calibration signal	ppm/ $^{\circ}\text{C}$	≤ 2.5
Linearity error (related to full scale)	%	± 0.01
Temperature effect on zero point (related to full scale)	%/10K	typ. ± 0.005 ; max. 0.01
measuring sensitivity (related to actual value)		typ. ± 0.005 ; max. 0.01
Interface		RS-232
Baud rate, adjustable	bit/s	1200 ... 38400
Supply voltage	V_{DC}	5 ... 10 residual ripple ≤ 10 mV (p.p.)
Current consumption (without load cell)	mA	≤ 80
Temperature range:		
Nominal temperature	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-10...+40 [+14...+104]
Service temperature		-20...+60 [-4...+140]
Storage temperature		-25...+85 [-13...185]
Dimensions	mm	93 x 53 x 17
Weight, approx.	g	40
Degree of protection according to EN 60529 (IEC 529)		IP00

¹⁾ Depending on the external supply voltage

Accessories, to be ordered separately

Basic devices AED9101C, AED9201B (see separate Data Sheets) offering:

- EMC protection
- Degree of protection IP65
- Supply voltage range 6...30 V
- Additional interfaces
- Electrically isolated in- and outputs

Documentation

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

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