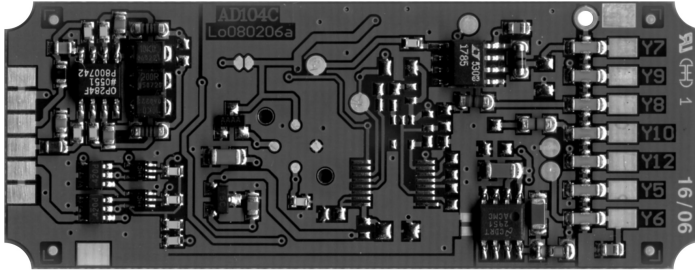


AD 104C

Digital Transducer Electronics



Special features

- Serial interface (UART)
RS-485-4 wire, RS-232
- Digital filtering and scaling of the measured signal
- Communication via ASCII commands
- Trigger function (external or level trigger)
- Panel-program for parameter settings and measurement
- Usable for load cells with shielded 4- or 6-wire cable
- Power fail-safe parameter storage

Dimensions (in mm; 1 mm = 0.03937 inches) and pin assignment

Type: AD104C-R5

RB (+) = 4-wire connect. receiv. AED, line B
 TB (+) = 4-wire connect. transmit.AED, line B
 RA (-) = 4-wire connect. receiv. AED, line A
 TA (-) = 4-wire connect. transmit. AED, line A
 GND = Ground
 UB = Supply voltage +5.6...+15V DC
 TRG = External trigger signal

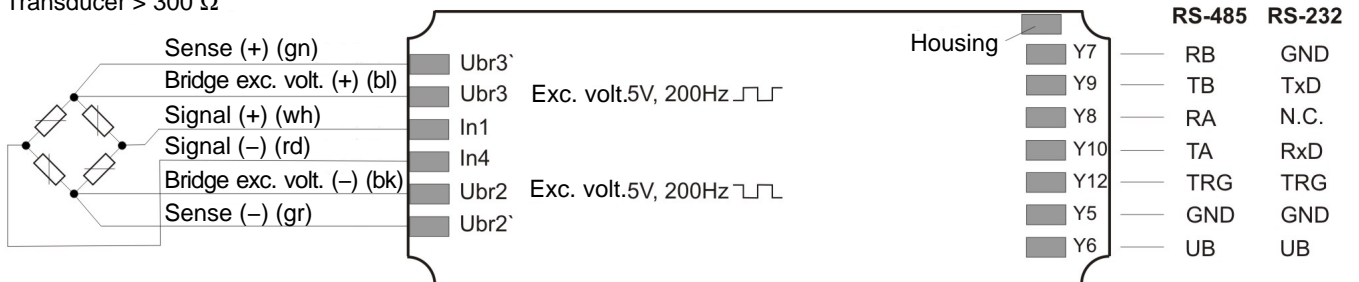
Shield: twisted, tinned

Type: AD104C-R2

GND = Ground
 TxD = Transmit data (UART, RS-232)
 RxD = Receive data (UART, RS-232)
 TRG = External trigger signal
 GND = Ground
 UB = Supply voltage +5.6...+15V DC
 n.c.

Shield: twisted, tinned

Transducer > 300 Ω



Dimension (LxWxH): 75 mm x 29 mm x 7 mm

Specifications

Type		AD104C
Accuracy with $\geq 0.5 \mu\text{V/d}$	d	6000
Bridge resistance, transducer	Ω	> 300
Bridge excitation voltage	V	5 (AC)
Max. Measuring range	mV/V	± 3.0
Nominal value (Sensitivity)	mV/V	2.0
Measurement signal resolution	Bit	24 (at 1Hz)
Sampling rate (depending on output format and baud rate)	Hz	200; 100; 50; 25; 12; 6; 3; 2; 1
Cut-off frequency of digital filters, adjustable; at -3dB	Hz	20...0.05
Cable length between AED and computer with RS-232	m	≤ 15
RS-485	m	≤ 500
Linearity deviation, related to the nominal value	%	± 0.0025
Temperature effect per 10K on the zero point, related to the nominal value	%	± 0.002
on the measuring sensitivity, related to the nominal value	%	± 0.005
Serial interfaces electrical level AD104-R2 (RS-232)	V	Low: -3...-12V High: +3...+12V
electrical level AD104-R5 (RS-485, differential)	V	Low: B-A < 0.35 High: B-A > 0.35
Baud rate, adjustable	Baud	1 200...115 200
Supply voltage (DC)	V _{DC}	6...15
Current consumption (without transducer)	mA	≤ 40 (typ.) ≤ 50 (max.)
Nominal temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-10...+40 [14...104]
Operating temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-10...+50 [14...122]
Storage temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-25...+75 [-13...167]
Dimensions (LxWxH), pcb	mm	75 x 29 x 7
Dimensions (LxWxH), with housing	mm	102 x 31 x 15
Protection class according to EN 60529, pcb		IP 00
Weight, pcb, approx.	g	50

Attention: The AD104C board is not protected against electrostatic discharges. Appropriate safety precautions must be taken for handling during assembly into the transducer.

Important notes for EMC protection

The AD104C board has to be assembled in a shielded housing. The wires has to be shielded. All shieldings need to be connected with the load cell and the housing of the AD104C board.

Additional information are described in the manual.

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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