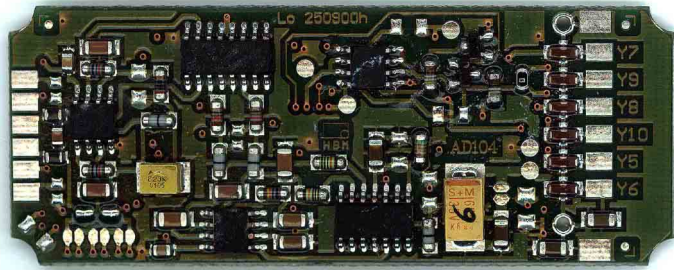


AD 104

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
- External. Internal trigger function
- Panel-program for parameter settings and measurement
- Usable for load cells with shielded 4 and 6-wire cable
- Power fail-safe parameter storage

Dimensions (in mm) and pin assignment

Type: AD104-R5

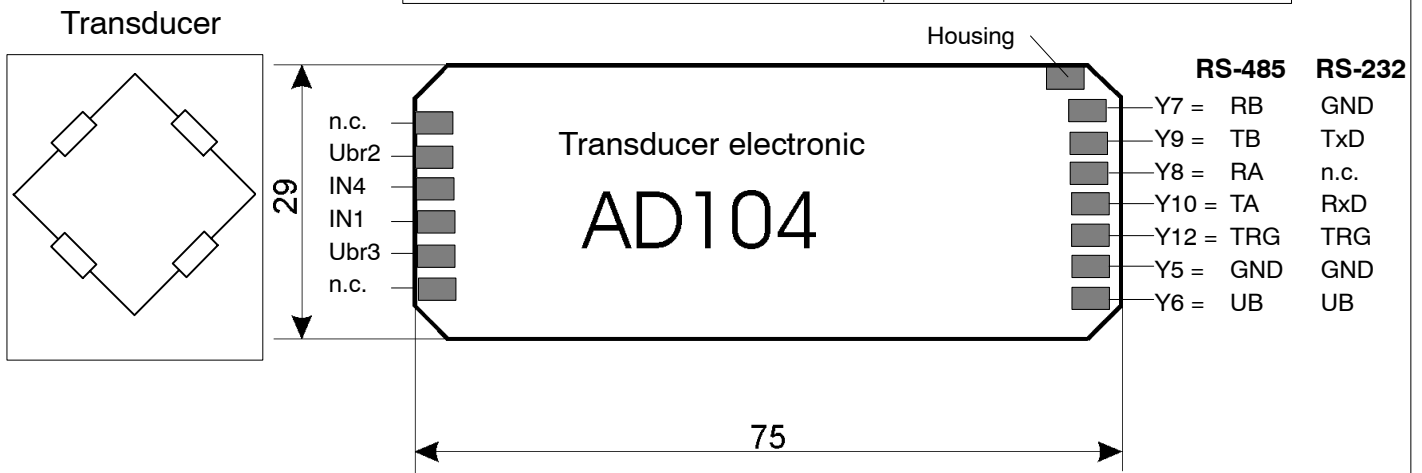
RB (+) = 4-wire connect. receiv. AED, line B
 TB (+) = 4-wire connect. transmit. AED, line B
 RA (-) = 4-wire connect. receiv. AED, line A
 TA (-) = 4-wire connect. transmit. AED, line A
 GND = Ground
 UB = Supply voltage +5.6...+15V DC
 TRG = External trigger signal

Shield = twisted, tinned

Type: AD104-R2

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

Shield: twisted, tinned



Specifications

Type		AD104
Accuracy with $\geq 1.0 \mu\text{V/d}$	d	3000
Bridge resistance, transducer	Ω	> 300
Bridge excitation voltage	V	5 (AC)
Max. Measuring range	mV/V	± 2.6
Sensitivity	mV/V	2
Measuring signal resolution	Bit	20 (at 1Hz)
Measuring rate (depending on output format and baud rate)	Hz	100; 50; 25; 12; 6; 3; 2; 1
Cut-off frequency of digital filters, adjustable; at -3dB Filter mode 0	Hz	8...0.05
	Hz	8...3
Cable length between AED and computer with RS-232	m	≤ 15
	m	≤ 500
Linearity deviation, related to the nominal value	%	± 0.005
Temperature effect per 10K on the zero point, related to the nominal value	%	± 0.002
	%	± 0.005
Serial interfaces electrical level AD104-R2 (RS-232)	V	Low: -3...-12V High: +3...12V
	V	Low: B-A < 0.35 High: B-A > 0.35
Baud rate, adjustable	Baud	1200; 2400; 4800; 9600; 19200; 38400
Operating voltage (DC)	V _{DC}	5.6...15
Current consumption (without transducer)	mA	≤ 30 (typ.) ≤ 40 (max.)
Nominal temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	-10...+40 [14...104]
Service 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
Degree of protection EN 60529, pcb		IP 00
Weight, pcb, approx.	g	50

Attention: The AD104 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 AD104 board has to be assembled in a shielded housing. The wires has to be shielded. All screens need to be connected with the load cell and the housing of the AD104 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.

Hottinger Baldwin Messtechnik GmbH

Postfach 10 01 51, D-64201 Darmstadt
Im Tiefen See 45, D-64293 Darmstadt
Tel.: +49/61 51/ 8 03-0; Fax: +49/61 51/ 8039100
E-mail: support@hbm.com www.hbm.com



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