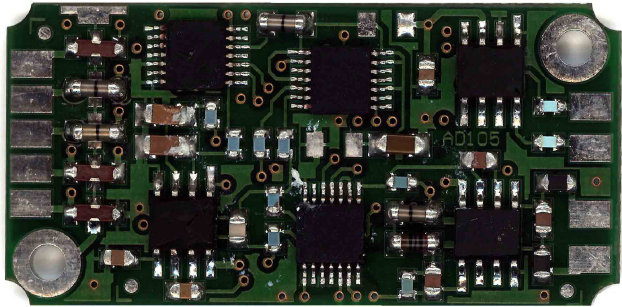


# AD 105

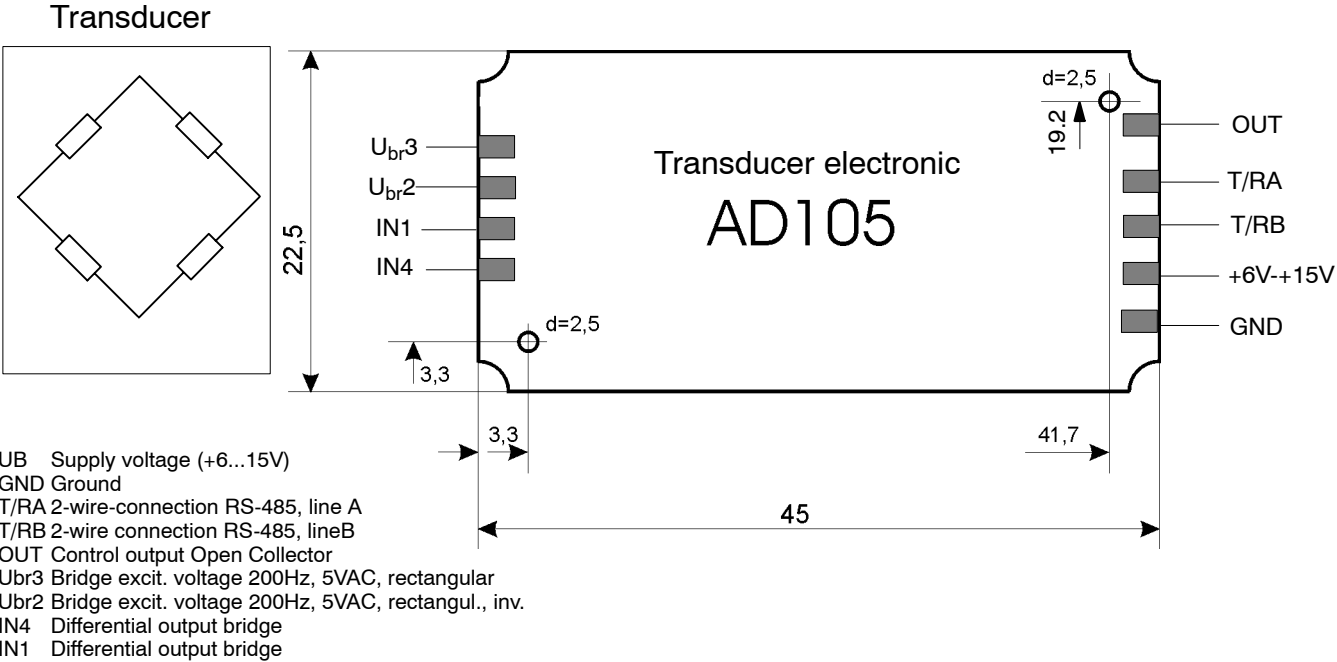
Digital transducer electronics



### Special features

- Serial interface (UART)  
RS-485-2 wire
- Digital filtering and scaling of the measured signal
- Communication via ASCII commands
- 1 limit switch with hysteresis
- Supply voltage / status indicator
- Panel program for parameter settings and measurement
- Power fail-safe parameter storage
- Predestined for process control

### Dimensions (in mm) and pin assignment



## Specifications

Type		AD105
Accuracy with $\geq 1.0 \mu\text{V/d}$	d	3000
Bridge resistance, transducer	$\Omega$	> 300
Bridge excitation voltage	V	5 (AC)
Max. Measuring range	mV/V	$\pm 2.4$
Nom. characteristic value (for works delivery)	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	Hz	8...0.05
Cable length between AED and computer with RS-485	m	$\leq 1000$
Linearity deviation, related to the characteristic value	%	$\pm 0.0025$
Temperature effect per 10K on the zero point, related to the nominal value on the measuring sensitivity, related to the nominal value	% %	$\pm 0.002$ $\pm 0.005$
Serial interfaces Electrical level (RS-485, differential)	V	Low: B-A < 0.35 High: B-A > 0.35
Baud rate, adjustable	Baud	1200; 2400; 4800; 9600; 19200; 38400
Max. voltage on the control output	V	15
Max. current load, control output	mA	40 (at 6V), 22 (at 15V)
Operating voltage (DC)	V	6...15
Current consumption (at 350- $\Omega$ -load cell)	mA	$\leq 45$
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 (LxBxH), pcb	mm	45 x 22.5 x 7
Degree of protection EN 60529, pcb		IP 00
Weight, pcb, approx.	g	50

**Attention:** The AD105 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 AD105 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 AD105 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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