

AT50 Measuring Amplifier



The AT50 amplifiers, converts and feeds signals into PC. It can be operable manually via display, control panel or 100% computer-controlled. It is designed for measurements with transducers operating on the strain-gauge principle.

You can use the AT50 amplifier for measurements of relative strain, vibration, torque and bending moment, force, weight, pressure and other physical values. The AT50 amplifier works from DC network with a voltage from 12 up to 30 V

Special Features

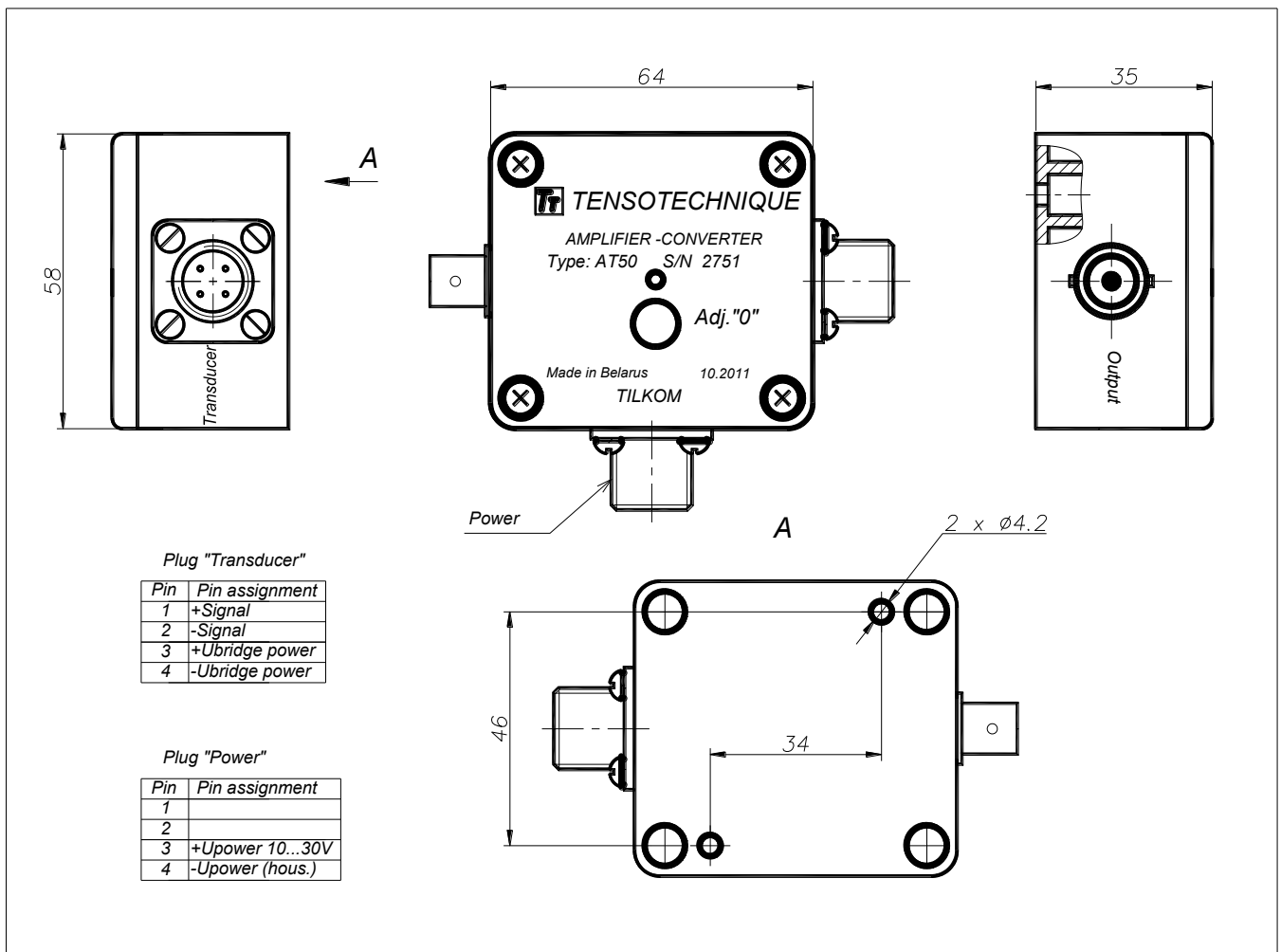
Number of channels		1
Sample rate	kHz	5
Connectable transducers	S.G. full or half bridges	
Strain gauge impedance	Ω	≥ 100
Measuring range	mV/V	± 4
Input amplifier bandwidth on level - 3 dB	kHz	≥ 2.5
Linearity deviation	%	≤ 0.1
Accuracy class	%	≤ 0.2
Temperature zero drift	$\mu\text{V/V } ^\circ\text{C}$	$\geq 1 \times 10^{-5}$
Common-mode rejection (CMR)	dB	≤ 60
Voltage noise density	mV/V	1×10^{-3}
S.G. excitation voltage	V	5 ± 0.5
Supply voltage DC	V	12 ... 30
with ripple	V	1
Power consumption	W	6
Nominal temperature range	$^\circ\text{C}$	- 20 ... + 50
Dimensions	mm	64 x 58 x 35
Weight, approx.	kg	0.1
Vibration resistance:		
- Displacement at frequency range 10 ... 60 Hz	mm	≤ 0.35
- Acceleration at frequency range 60 ... 500 Hz	m/s ²	≤ 49
Impact resistance:		
Number of impacts	n	1000
Duration	ms	2 ... 10
Acceleration	m/s ²	≤ 150

Scope of supply

AT50 measuring amplifier	1
Signal cable, 3 m long	1
Power plug 2PM14	1
Windows based software	1
Operating manual	1

Dimensions in mm

The AT5 amplifier is in a sealed housing made of light alloy. There are a plug for a transducer connecting, a power supply plug and an output signal plug on the vertical sides. The system LED is on the top, indicating if there is a power supply and that the amplifier is on. The Tara button (zero adjustment) is on the top cover.

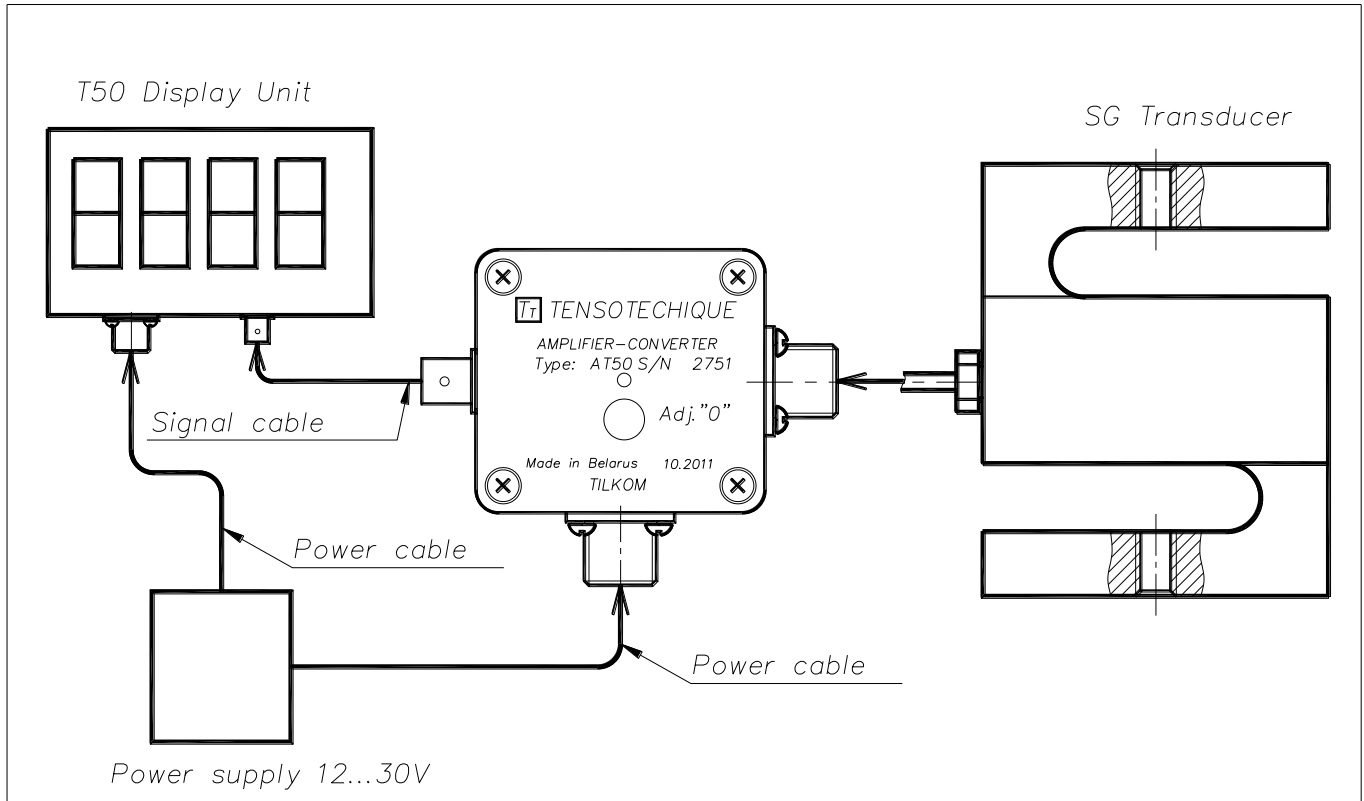


AT50 Connection

Connect in series a SG transducer and the power supply (12 ... 30 V) to the AT50 amplifier. The T50 display unit is connected to the amplifier output with PK-50 cable. To be connected to a PC the AT50 amplifier should have the DB9 plug (it's ordered optionally). The software included in the scope of supply enables you real-time digital and graphical displaying of measurement signals, recording and storing measurement data.

A trimmer resistor is on the AT50 mother board to adjust the sensitivity.

A zero adjustment is performed with the Tara button on the top cover.



Specifications may change at any time without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.