

Current Offer!

Transimpedance Amplifier TZA500



Highlights:

- Flexible setup
- Easy to use
- Compact

Our offer in Detail:

The TZA500 is a versatile transimpedance amplifier for measuring the current output of a wide range of sources such as

- photodiodes
- photomultipliers (PMTs)
- scanning tunneling microscopes (STM)

The compact design allows use directly at the source for low noise and pickup. The sturdy enclosure with mounting wings serves use in the lab as well as for OEM applications. This instrument can be delivered with various inputs

- single ended
- single ended with external bias input
- differential

Functional control is via the USB interface or via the DB25 hardware interface for direct, sub μ s control of all parameters. This feature is useful for OEM implementation in feedback loops such as fibre alignment applications.

The graphical user interface is intuitive to use and easy to read! The software includes a scope function, data logging and a large, digital display - perfect for daily use in the lab or in the field. Further functions such as autogain, offset nulling, bandwidth control and various storage formats are also included.

The TZA500 is small and is USB controlled. Not only the small size qualifies this instrument for OEM applications. It is very simple and flexible to integrate into your project. The unit comes delivered with drivers for direct communication or to be used as a virtual COM-port. Furthermore, we provide a full software development kit including the source code for the GUI application as well as a demo LabView-VI®.

Specifications:

- USB controlled
- 30 Hz update rate with GUI, 1000 Hz as data logger
- 6 gain ranges from 100nA to 10mA full scale (30pA NE!!)
- Selectable bandwidth limitation



Your problem is our challenge - flexibility is our standard:

We will gladly adapt, for example, the gain or the case style to suit your application.

Let us know your requirements.

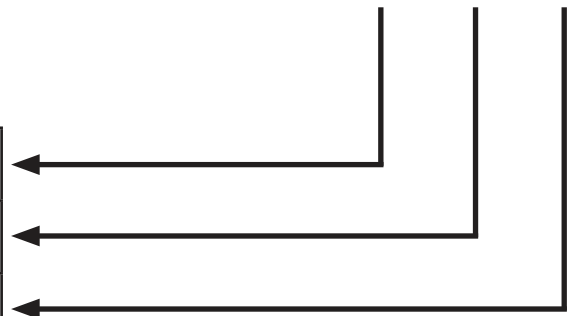
* Labview is a registered trade mark of National Instruments Corporation.

Ordering Information

Full order code: TZA 500 i r b

Option Description

Input (i):	D S	Differential Single ended
Receptacle (r):	B T	BNC BR2
Bias (b):	bias	Without bias With bias



Specifications

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Current ranges (full scale)			10 1 100 10 1 100		mA " μA " " nA
Noise equivalent current (NEI_{RMS}) in 100kHz measurement bandwidth	Range: 10mA, BW 10kHz 10mA, BW 10Hz Range: 100mA, BW 10kHz 100mA, BW 10Hz		40 20 6 0.4	100 50 20 1	nA nA pA pA
Impedance		0 (virtual short circuit)			Ω
Connectors		BNC and BR2 ¹			
OUTPUT					
Function		Linear analogue : $V_{out} = scale \times I_{in}$			
Output scale	Range: 10mA 1mA 100μA 10μA 1μA 100nA		10 ³ 10 ⁴ 10 ⁵ 10 ⁶ 10 ⁷ 10 ⁸		V/A
Connectors		BR2 ¹ and DB25			
Output range (full scale)		0		10	V
Rise / Fall time (10% - 90%)	(0 → +1V) (0 → +10V)		35	45	μs
Setting time (1%)	(-1 → +1V) (-10 → +10V)		75	100	μs
Accuracy	Signal ≥ 5% of scale			± 1	%
Linearity			± 0.1	± 0.2	dB
Output impedance				50	Ω
LOGIC					
Current required for switching (5V)		-10	0.01	10	μA
Switching time				150 ²	μs
POWER SUPPLY					
Type		Wall plug (supplied)			
Dimensions		30 x 50 x 60			mm
DIMENSIONS					
		130 x 45 x 116 mm (w x h x l)			mm

¹ Adapters for other connector systems available upon request

² Logic switching < 1μs. Effective switching time limited by setting time.