

Current Offer!

Kokyo

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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.

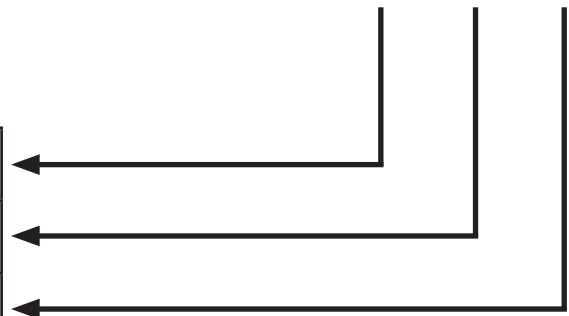
* Labview is a registered trade mark of National Instruments Corporation.

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.