

Transimpedance Amplifier TZA400

FAST AND SENSITIVE!

Why?

- Fast
- Wide dynamic range
- Compact



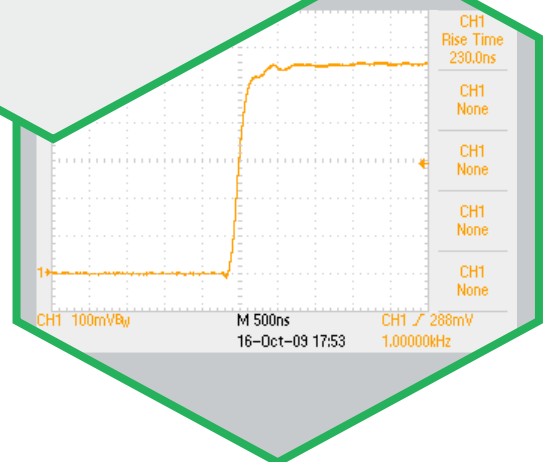
Our offer in detail:

The TZA400 is a fast, sensitive, wide dynamic range transimpedance amplifier for measuring the current output of a variety of sources. There are 16 gain ranges covering 5 decades of gain in a 1-2-5 pattern. The gain-to-gain accuracy of <1% allows confident measurements of power curves over the full range of sensitivity of the device: 6½ decades of measurement range. Thus even very demanding measurements such as the accurate and high speed, real-time determination of polarization extinction ratio becomes a simple task.

The compact design allows use direct 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.

Functional control is via a DB25 hardwire 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.



Specifications:

- Wide dynamic range: 500pA – 4mA
- Fast: <math><1\mu\text{s}</math> rise time ($10^3\text{-}5\times 10^3\text{ V/A}</math>); $<4\mu\text{s}>5\times 10^3\text{ V/A}</math>$$
- Bandwidth (-3dB): 350kHz
- Two versions available: 16 gain ranges (1-2-5 pattern) or 4 gain ranges (decade pattern)
- Optional channel counts: 1, 2, 3 or 4 channels per enclosure, all with the same footprint

Your problem is our challenge - flexibility is our standard:

We will gladly adapt, for example, the wavelength or the case style to suit your application.
 Let us know your requirements.

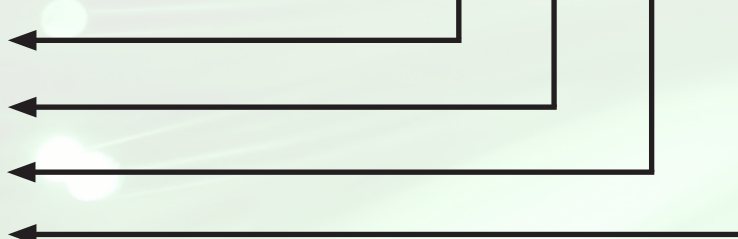
ORDER INFORMATION:

Full order code:

TZA 400 c g S n

Option Description

Case Style (c)	G L	OEM Style ¹ Lab Style
Number of gain ranges (g):	4 16	
Input topology:	S	Single ended
Number of channels (n):	1 to 4	



Specifications:

Parameter	Conditions	Min	Typ	Max	Units
Input					
Current ranges (full scale)	Maximum range Minimum range		4 40		mA nA
Noise equivalent current (NEI _{RMS})	Range: 4mA 40nA			2.5 500	µA pA
Impedance		0 (virtual short circuit)			Ω
Connectors		BNC			
Output					
Function		Linear analogue : $V_{out} = scale \times I_{in}$			
Output scale with 16 gain range option	Range: 4mA 40nA		1 0.1		V/mA V/nA
Output scale with 4 gain range option	Range: 4mA 4µA		1 1		V/mA V/µA
Connectors		BNC and DB25			
Output range (full scale)				4	V
Rise / Fall time (10% - 90%)	Gain: 10^3 - 5×10^3 V/A Gain: $>5 \times 10^3$ V/A		0.25	1 4	µs
Bandwidth (-3dB)				350	kHz
Setting time (1%)	Small signal (-1 → +1V) Large signal (-10 → +10V)			100 140	µs
Accuracy		± 1			%
Linearity			± 0.1	± 0.2	dB
Output impedance				50	Ω
Logic					
Current required for switching (5V)		-100	5	100	nA
Switching time				2 ²	µs
Power Supply					
Type		Wall plug (supplied)			
Dimensions:					
		130 x 106 x 116 mm (w x h x l)			mm

¹ Compact OEM-style case with gull wings for mounting.

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