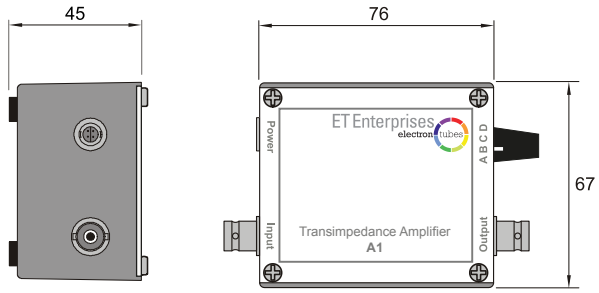
transimpedance amplifier
A1 data sheet

1 description

The A1 amplifier is an inverting FET trans-impedance amplifier designed for use in photo-multiplier applications where the anode signal response time is greater than 20ns. The A1 effectively transforms the high impedance output of the PMT to a low impedance output suitable for line driving to other measuring equipment.

The amplifier is provided with four conversion gains from 1mV/μA to 1V/μA selected via a rotary gain switch. A low impedance output driver provides sufficient current to drive a full 10V into 1k Ωor 5V into 50 Ω

The unit is housed in a small metal box and may be powered from the auxiliary LV output of the ET Enterprises photomultiplier power supply HVLAB3000.



2 specification

range	mV/μA	rise time	bandwidth
A	1	20 ns	17.5 MHz
B	10	200 ns	1.75 MHz
C	100	2 μs	175 kHz
D	1000	20 μs	17.5 kHz
noise output			1 mV p-p (range D) 10 V max into 1kΩ* 5 V max into 50Ω*
power requirements			+15V at 100 mA -15 V at 100 mA
weight			200 g

*Can be operated from ±12V with a slightly reduced output voltage.

3 connections

Signal Input and Output	50Ω BNC Socket
Power Input	4 Pin Lemo series 1
Pin	Function
1	+15V in
2	-15V in
3	not connected
4	0V

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