TRD-200

Temporal Response Detector

Smart PMT detector with internal data acquisition electronics and USB interface, designed to measure time-varying luminance signals

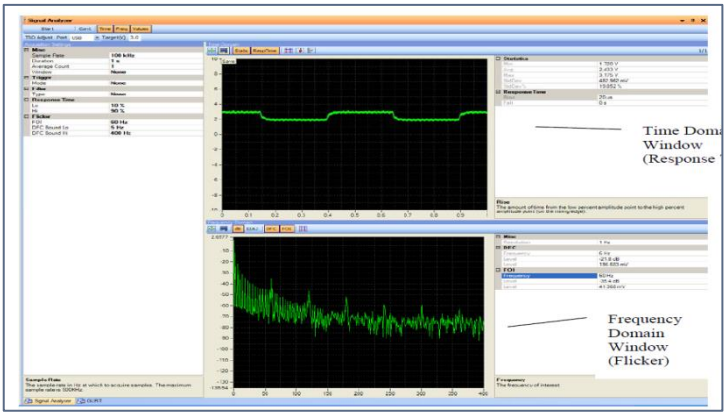
Overview

If you're looking for a PMT but don't have an oscilloscope or don't want to design and build custom PMT electronics, then the TRD-200 is the perfect all-in-one solution for you. The TRD-200 is a smart PMT detector with USB interface, designed to measure time-varying luminance signals.

The TRD-200 includes a Hamamatsu H10772 series PMT detector with a C-mount to couple to your optics and internal data acquisition electronics that digitize and capture the time-varying luminance of a light signal entering the detector. The TRD-200 provides internal level-sensitive triggering as well as external triggering. The captured signal is transferred via USB to a PC for display and analysis.

Powerful Signal Analyzer™ Software

The Signal Analyzer™ software provides control of the TRD and provides graphical display of the time and frequency domain response of the incident light signal. The software analysis of rise time and fall time and analysis of flicker including flicker weighted according to the EIA/ISO human flicker sensitivity function.



What's Included

- TRD-200 Temporal Response Detector
- USB Cable
- AC Power Adapter
- Signal Analyzer Software
- TRD-200 User's Manual

Features

Key Features

- High-sensitivity PMT-based detector
- C-mount for customizable optics
- Internal data acquisition and memory
- USB 2.0 interface
- Microprocessor controlled gain adjustment
- Peak detect gain adjustment – works with pulsed signals
- "Auto protect" shut down if PMT is saturated
- Easy to use, reliable, and accurate

Data Acquisition Features

The TRD-200 contains internal data acquisition electronics. The electronics provide control and data directly to a PC via a USB 2.0 bus. The electronics provide the following features:

- 500KHz sample rate
- 16-bit A/D resolution
- 4 Mega-sample buffer
- Trigger
  - Adjustable Trigger Level
  - Positive / negative edge
  - External trigger input (TTL)
- Peak detect gain adjustment – works with pulsed signals

Software Features

- PC-based software application to display time and frequency domain characteristics of the signal
- Measure rise time and fall time with configurable thresholds
- Measure flicker

Contact Us to Get Started

Call us for additional product information and pricing. We will work with you one-on-one to deliver an instrument that meets your unique requirements!

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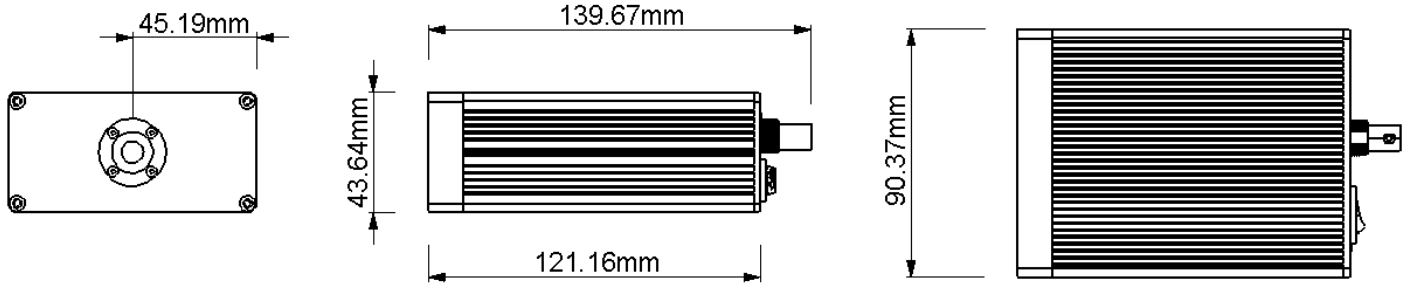
TRD-200 Temporal Response Detector

Dimensions



Spec Summary

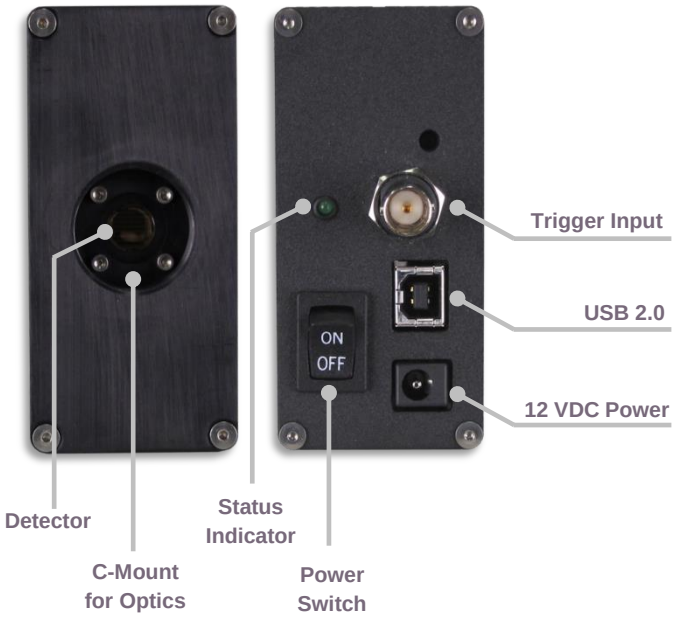
PMT	Specification
Type	Hamamatsu H10722-110
Spectral Response	230 nm to 700 nm
Frequency Bandwidth	DC to 20 kHz
Lens Type (lens not included)	C-Mount

System	Specification
Dimensions (H x L x D)	90.37 mm x 43.64 mm x 139.67 mm
Weight	2 Lbs. (0.91 Kg)
Control Interface	USB 2.0
Power	100-240 VAC, 50 or 60 Hz, 1.5A Max
Mounting	¼" x 20 Mounting Holes (2)
Optional Lens	• Standard • Fiber Optically Coupled Lens • Slit Aperture with CCD Viewfinder

Data Acquisition	Specification
Sample Rate	500 KHz
A/D Resolution	16-Bit
Buffer	4 Mega-sample
Trigger Types	• Adjustable Trigger Level • Positive / Negative Edge • External Trigger Input (TTL)
Gain Adjustments	Microprocessor controlled with peak detection (works with pulsed signals)

Signal Analyzer Software	Specification
Operating System	Windows XP, 7
Features	Signal Gain Setup, Sample Rate, Sample Time, Average Count, Window Functions, Trigger Modes, Signal Filtering, Response Time Bounds
Output	Rise Time, Fall Time, Flicker, Frequency Domain Plot, Time Domain Plot

Connector Reference



Lens Options

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