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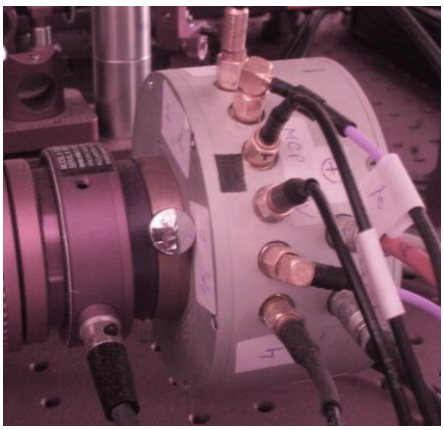
Sale Quotation:

Time and Space Correlated Single Photon Counting (TSCSPC) MCP based with delay line anode FLIM Detector



1) Used* full-functioning
   Detector-Head with Detector-Electronics
   (see specifications on the next page).
   Readout electronics is required:

   17.000 €

2) Automatic protection high voltage shutoff NIM module. Programmable high voltage settings and shutoff threshold (in max number of counts per second). Shutoff time – less than 75 ms after overflow:

   2.000 €

3) System acquisition, data management, data visualization and analysis (fast estimation of lifetime, FLIM, Phazor) software (Roentdek and Fast Comtec dataformats are currently supported):

   4.000 €

**The system has been used in the past 4 years at EuroPhoton in single-molecule research and FRET TRES imaging of living corals. The remaining detector lifetime is estimated to be around 80%. Manuscripts for publication are near completion and available.*

The detector has a 25 mm diameter Photec germanium-anode MCP-detector head (LNS20 photocathode with < 500 cps dark counts) with crossed-delay line (DL) XY photon position redout und low-noise proprietory detector electronics (timing amplifier and high voltage divider). Additional information can be found at www.europhoton.de.
Assistance with interfacing detector head and readout electronics is provided.

Test and acceptance measurement can be performed at EuroPhoton.
Limited warranty is 1 year, *excess-light-damage is not covered.*

Delivery Time: 1 month

Payment: 2 weeks after acceptance measurement

Specifications of TSCSPC system:

(i) IRF(time) < 80 ps FWHM (with 10 ps FWHM laser)
(ii) IRF (space) < 100 µm FWHM
(iii) $1x10^5$ cps throughput
(iv) dark signal: < 500 cps, full area
(v) dynamic range: $>10^5$
(vi) Q(eff) = 10% (550 nm) and 20% (450 nm)
(vii) single molecules (SM): SM of R6G/H2O could be observed at ex = 532 nm and em > 532 nm (TIRF with external prism).

Best values at EP: IRF (time) = 28 ± 3 ps FWHM, IRF (space) = 60 ± 5 µm FWHM, $>10^6$ cps throughput, see S. Stepanov et al., Proc. SPIE, 7376 (2010) 73760Z, 1-20.