



- Multielement laser radiation detector is a matrix, consisting of separate calorimetric active area elements the calorimetric active area elements the heating of which by incident laser beams is recorded by individual thermobatteries.
- Multielement laser radiation detector is aimed at measuring the energy distribution in cross-sections of laser radiation beams with high intensity.
- The benefit of such detector is the utilization of ceramics, stable to impacts of high intensity laser radiation, for active area elements and usage of semiconductor material specially developed for thermobatteries, permitting to exceed $5 \cdot 10^{-2} \div 50 \text{ J/cm}^2$ energy range.

Appearance of multielement laser radiation detector



**100 mV/J is the best energetic
sensitivity multielement laser
radiation detectors.**

- The electrical unit of multielement detector has a normalizing amplifier, a multiplexer and a device compatible with a computer. It has software, which permits to increase the bulk of the processed information, including energetic centre coordinates determination, laser beam section isoenergetic zones plotting, total beam energy determination, both in relative and absolute units and so on.
- There are modifications of such detectors numbering separate active area elements from 100 to 1024, which may be combined in the form of required topology geometrical figures.

Specification

№	Parameter, measurement unit	Value
1.	Spectral range, mcm	0.4 ÷ 11.0
2.	Pulse duration, s	$10^{-3} \div 5 \times 10^{-9}$
3.	Energetic range, J/cm ²	$5 \times 10^{-2} \div 50$
4.	Area of element, mm ²	1×1 ÷ 16×16
5.	Coefficient of conversion, no less then, mV/J	100
6.	Time conservation of readings on the level of 0.99 of peak amplitude, no less then, s	0.1
7.	Time between two measurements, no more then, s	5.0

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