

# Gamma-ray scintillation detector

(scintillator assembly p-i-n photodiode)

## DSG2500-25/ DSG3000-25

### 1. Assembly unit data

1.1 Dimension	DSG2500-25	DSG3000-25
Length, mm	30,0-0,5	35,0+0.5
Width, mm	15,0+0,5	
Depth, mm	15,0+0,5	

### 1.2. Spectrometric:

Energy Resolution R,%:

$E_{\gamma} = 662 \text{ keV } (^{137}\text{Cs})$	6,5
$E_{\gamma} = 59.5 \text{ keV } (^{241}\text{Am})$	33

1.3. Radiation resistance, Rad:  $10^4$

### 2.Scintillator

Material	CsI(Tl)	
Dimension (LxWxD), mm	25x10x10	30x10x10
Effective volume, mm <sup>3</sup>	2347	2847
Luminescence wavelength, $\lambda$ ,nm	540	

### 3 Silicon p-i-n photodiode

Dimension (LxWxD), mm	10.5x8x1.8
Photo-sensitive surface area, mm <sup>2</sup>	25
Electrical capacitance ( $U_{\text{bias}} - 30\text{V}$ ), pF	33
Dark current ( $U_{\text{bias}} - 50\text{V}, t-20^{\circ}\text{C}$ ), nA	0,37