

Pyroelectric Energy Sensors

1mJ to 2μJ

Features

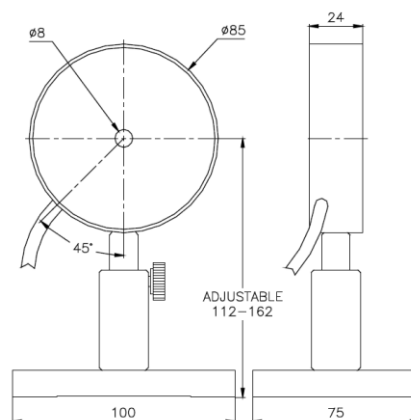
- φ8mm aperture
- Repetition rates up to 25,000Hz
- Highest sensitivity sensors
- Pulse widths up to 15μs

PE9 / PE9-F



Model	PE9	PE9-F ^(d)
Use	Most sensitive	Highest rep rate
Aperture mm	φ8	φ8
Absorber Type	metallic	metallic
Spectral Range μm ^(a)	0.15 - 12	0.15 - 12
Surface Reflectivity % approx.	50	50
Calibration Accuracy +/- % ^(a)	3	3
Max Pulse Width Setting	15μs	0.5μs
Energy Scales	1mJ to 2μJ	1mJ to 2μJ
Lowest Measurable Energy μJ	<0.2	0.3
Max Pulse Width μs	15	0.5
Maximum Pulse Rate pps	4kHz	25kHz
Noise on Lowest Range μJ	0.03	0.03
Additional Error with Frequency %	±2.5% to 3kHz, ±8% to 4kHz	±3% to 20kHz, -6% to 25kHz
Damage Threshold J/cm ²		
<100ns	0.1	0.1
1μs	0.2	0.2
300μs	3	3
Linearity with Energy	±1% ±10nJ ^(c)	±1% ±10nJ ^(b, c)
Maximum Average Power W	2	2
Maximum Average Power Density W/cm ²	30	30
Fiber Adapters Available (see page 74)	ST, FC, SMA, SC	ST, FC, SMA, SC
Weight kg	0.25	0.25
Version	V2	
Part Number: Standard Sensor	7Z02877	7Z02882
StarLink Sensor: Direct USB link to PC (p.73)	787151	
Notes: (a) Calibrated curve is checked and adjusted at the following wavelengths (μm)		0.193, 0.355, 1.064, 1.48-1.6
For other wavelengths in the curve there is additional calibration error as stated.		240 – 800nm add ±4%, 2-3μm add ±8%, 10.6μm add ±15%
Note: (b) On lowest scale, offset can reach -100nJ for frequencies below 5kHz		
Note: (c) For >10% of full scale		
Note: (d) PE9-F sensor does not operate with Nova.		

PE9 / PE9-F



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