AVAILABLE WITH integra
See page **36** for details

PE-B

8 fJ - 150 nJ, Our Lowest Energy Measurements

KEY FEATURES

1. **VERY LOW NOISE LEVEL**
   Take measurements with a noise level as low as 8 fJ with the M-LINK, MAESTRO and S-LINK

2. **3 SENSORS AVAILABLE**
   - PE-B-Si family: 3 and 10 mm Ø Silicon sensors for 0.21 to 1.08 µm
   - PE5B-Ge: 5 mm Ø, Germanium sensor for 0.8 to 1.65 µm
   - PE3B-In: 3 mm Ø, InGaAs sensor for 0.9 to 1.7 µm

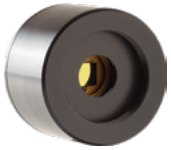
3. **SMART INTERFACE**
   Containing all the calibration data

4. **integra OPTIONS**
   - Standard: USB Output (-INT)
   - In Option: RS-232 Output (-IDR) and External Trigger (-INE)

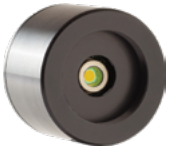
AVAILABLE MODELS

PE3B-Si
(3 mm - UV-Silicon)

PE10B-Si
(10 mm - UV-Silicon)



PE5B-Ge
(5 mm - Germanium)



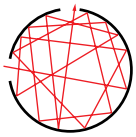
PE3B-In
(3 mm - InGaAs)

ACCESSORIES

Stand with Delrin Post
(Model Number: 200428)

Fiber Adaptors & Connectors
(FC, ST or SMA)

APM Analog Power Supply
(Model Number: 201848)
See page 57 for specs.



Integrating Sphere

Pelican Carrying Case

This product cannot be used with DB-15 extension cables

SEE ALSO

PE-B

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	PE3B-Si	PE10B-Si	PE5B-Ge	PE3B-In
MAX MEASURABLE ENERGY*	24 pJ	81 nJ	2.4 nJ	245 pJ
EFFECTIVE APERTURE	3 mm Ø	10 mm Ø	5 mm Ø	3 mm Ø
MEASUREMENT CAPABILITY				
Spectral Range	210 - 1080 nm	210 - 1080 nm	800 - 1650 nm	900 - 1700 nm
Maximum Measurable Energy*				
With M-LINK	22 pJ at 634 nm	75 nJ at 634 nm	2.2 nJ at 1310 nm	223 pJ at 1310 nm
With S-LINK	24 pJ at 634 nm	81 nJ at 634 nm	2.4 nJ at 1310 nm	245 pJ at 1310 nm
With MAESTRO	20 pJ at 634 nm	69 nJ at 634 nm	2.0 nJ at 1310 nm	200 pJ at 1310 nm
With INTEGRA	24 pJ at 634 nm	81 nJ at 634 nm	2.4 nJ at 1310 nm	245 pJ at 1310 nm
Noise Equivalent Energy [a]	8 fJ at 634 nm	1.5 pJ at 634 nm	1 pJ at 1310 nm	30 fJ at 1310 nm
Rise Time (0-100%)	15 µs	30 µs	25 µs	12 µs
Max Repetition Rate	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Max Pulse Width	10 µs	10 µs	10 µs	10 µs
Sensitivity	100 GV/J at 634 nm	30 MV/J at 634 nm	1 GV/J at 1310 nm	10 GV/J at 1310 nm
Calibration Uncertainty [b]	± 4% [c]	±18 % (210 - 229 nm)	±5 % (800 - 1049 nm)	± 4% [d]
		±8.0 % (230 - 254 nm)	±3.5 % (1050 - 1559 nm)	
		±6.5 % (255 - 399 nm)	±7 % (1560 - 1607 nm)	
		±2.5 % (400 - 899 nm)	ã/. # ⅈ/41. + /43. I k'	
		±4.0 % (900 - 1009 nm)		
		±7.5 % (1010 - 1080 nm)		
DAMAGE THRESHOLDS				
Max Energy Density	N/A	5 µJ/cm²	5 µJ/cm²	N/A
Max Average Power Density	N/A	65 mW/cm² at 532 nm	320 mW/cm² at 1064 nm	N/A
PHYSICAL CHARACTERISTICS				
Effective Aperture	3 mm Ø	10 mm Ø	5 mm Ø	3 mm Ø
Distance to Sensor Face	13.7 mm	13.7 mm	10.5 mm	N/A
Sensor	UV-Silicon	UV-Silicon	Germanium	InGaAs
Dimensions	38.1Ø x 27.4D mm	38.1Ø x 27.4D mm	38.1Ø x 27.4D mm	38.1Ø x 27.4D mm
Weight	91 g	91 g	91 g	91 g
ORDERING INFORMATION				
Product Name	PE3B-Si-D0	PE10B-Si-D0	PE5B-Ge-D0	PE3B-In-D0
Product Number (without stand)	Call	202019	202020	Call
Add Extension for INTEGRA (USB)	-INT	-INT	-INT	-INT
Product Number (without stand)	Call	202651	202653	Call
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR	-IDR
Add Extension for INTEGRA (Ext Trig)	-INE	-INE	-INE	-INE

Specifications are subject to change without notice // Compatible stand: P/N 200428

** See curves (p. 126-127) for maximum power at other wavelengths*

a. Nominal value. Depends on environmental electromagnetic interference and wavelength.
b. With Gentec-EO display or PC interface.
c. This detector is NIST Traceable at the calibration wavelength of 634 nm. Typical values are used at other wavelengths.
d. This detector is NIST Traceable at the calibration wavelength of 1310 nm.
Typical values are used at other wavelengths.

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