



# QE-B

50 nJ - 3.6 mJ, Ultra-Low Energy Measurements



## KEY FEATURES

1. **VERY LOW NOISE LEVELS**  
Noise levels of a photodetector, but with the high energies of a pyroelectric:
  - 50 nJ with the MT coating
  - 100 nJ with the BL coating
2. **2 COATINGS AVAILABLE**
  - BL: Black coating, sensitivity of 900 V/J, readings up to 400 Hz
  - MT: Metallic coating, sensitivity of 2400 V/J, readings up to 1000 Hz
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



QE8SP-B-BL  
(8 mm-Organic Black)



QE8SP-B-MT  
(8 mm-Metallic)

## 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.



Pelican Carrying Case

*This product cannot be used with DB-15 extension cables*

## SEE ALSO

TECHNICAL DRAWINGS	62
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COMPATIBLE DISPLAYS & PC INTERFACES	
MAESTRO	18
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LIST OF ALL ACCESSORIES	206

## APPLICATION NOTES

MEASUREMENT LIMITS USING JOULEMETERS	<a href="#">201932</a>
LONG PULSE JOULEMETER IN BURST MODE	<a href="#">202153</a>

DISPLAYS & PC INTERFACES

ENERGY DETECTORS

POWER DETECTORS

HIGH POWER SOLUTIONS

PHOTODETECTORS

THZ DETECTORS

OEM DETECTORS

SPECIAL PRODUCTS

BEAM DIAGNOSTICS

## QE-B



\*Also traceable to NRC-CNRC

## SPECIFICATIONS

	QE8SP-B-BL	QE8SP-B-MT
<b>MAX MEASURABLE ENERGY</b>	3.6 mJ	1.3 mJ
<b>MAX REPETITION FREQUENCY</b>	400 Hz	1 000 Hz
<b>EFFECTIVE APERTURE</b>	7.8 X 7.8 mm	7.8 X 7.8 mm
<b>MEASUREMENT CAPABILITY</b>		
Spectral Range *	0.19 - 20 $\mu$ m	0.19 - 20 $\mu$ m
Max Measurable Energy		
With M-LINK	3.6 mJ	1.3 mJ
With S-LINK	2.9 mJ	1.1 mJ
With MAESTRO	2.5 mJ	0.93 mJ
Noise Equivalent Energy		
With M-LINK (with noise suppression) <sup>a</sup>	100 nJ	50 nJ (3 nJ)
With S-LINK	100 nJ	50 nJ
With MAESTRO	150 nJ	80 nJ
Sensitivity	900 V/J	2400 V/J
Max Repetition Frequency	400 Hz	1000 Hz
Max Pulse Width	10 $\mu$ s	10 $\mu$ s
Rise Time (0-100%)	30 $\mu$ s	30 $\mu$ s
Calibration Uncertainty	$\pm$ 4.0%	$\pm$ 4.0%
Repeatability	<0.5 %	<0.5 %
<b>DAMAGE THRESHOLDS</b>		
Maximum Average Power	0.5 W	0.5 W
Maximum Average Power Density		
1064 nm, 7 ns, 10 Hz	1 W/cm <sup>2</sup>	1 W/cm <sup>2</sup>
Maximum Energy Density		
1064 nm, 7 ns, 10 Hz	50 mJ/cm <sup>2</sup>	50 mJ/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>		
Effective Aperture	7.8 x 7.8 mm	7.8 x 7.8 mm
Absorber	Organic Black	Metallic
Dimensions	38.1 $\varnothing$ X 27.4D mm	38.1 $\varnothing$ X 27.4D mm
Weight	91 g	91 g
<b>ORDERING INFORMATION</b>		
Product Name	QE8SP-B-BL-D0	QE8SP-B-MT-D0
Product Number (without stand)	202017	201968
Add Extension for INTEGRA (USB)	-INT	-INT
Product Number (without stand)	202389	202391
Add Extension for INTEGRA (RS-232)	-IDR	-IDR
Add Extension for INTEGRA (Ext Trig)	-INE	-INE

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

\* For the calibrated spectral range, see the user manual.

a. Obtain a lower noise level using the Noise Suppression function in the PC M-LINK application. Setting the sampling size at 128 will get the lowest noise level possible.

\* For details, contact your Gentec-EO representative