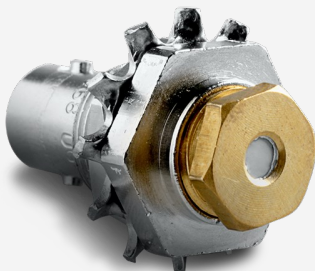


## QE4SP-S-MT-D0

Pyroelectric detector for laser energy measurement up to 0.043 J.



### PRODUCT FAMILY KEY FEATURES

#### CUSTOM-BUILT

[Contact us](#) with your requirements for a version tailored to your needs

#### OUR SMALLEST ENERGY DETECTOR

Slightly larger than a BNC connector

#### LOW NOISE LEVEL

Only 1  $\mu$ J noise (with the MT absorber)

#### FAST RESPONSE

Measure all pulses at up to 6000 Hz

#### BNC-MOUNTED

For direct reading with an oscilloscope

## SPECIFICATIONS

### MEASUREMENT CAPABILITIES

|  |                    |
|--|--------------------|
| Spectral range <sup>1</sup>            | 0.193 - 20 $\mu$ m |
| Typical rise time                      | 20 $\mu$ s         |
| Repeatability                          | <0.5%              |
| Maximum repetition frequency           | 6000 Hz            |
| Typical energy sensitivity             | 200 V/J            |
| Maximum measurable energy <sup>2</sup> | 0.043 J            |
| Noise equivalent energy <sup>3</sup>   | 1 $\mu$ J          |
| Maximum pulse width                    | 10 $\mu$ s         |
| Energy calibration uncertainty         | $\pm 4$ %          |

1. For the calibrated spectral range, see the user manual.

2. At 1064 nm, 7 ns, 10 Hz. Increasing pulse width increases maximum measurable energy.

3. Nominal value. Actual value depends on electrical noise in the measurement system.

### DAMAGE THRESHOLDS

|  |                       |
|--|-----------------------|
| Maximum average power density <sup>1</sup> | 10 W/cm <sup>2</sup>  |
| Maximum energy density <sup>2</sup>        | 0.4 J/cm <sup>2</sup> |
| Maximum power                              | 0.3 W                 |

1. May vary with wavelength and average power.

2. At 1064 nm, 7 ns, 10 Hz. May vary with wavelength and pulse width.

### PHYSICAL CHARACTERISTICS

|                   |                      |
|-------------------|----------------------|
| Cooling           | Convection           |
| Aperture diameter | 3.7 mm               |
| Absorber          | MT                   |
| Dimensions        | 20H x 17.5W x 30D mm |
| Weight            | 0.02 kg              |

### ORDERING INFORMATION

QE4SP-S-MT-D0

## INTERESTED IN THIS PRODUCT?

GET A QUOTE

Find your local sales representative at [gentec-eo.com/contact-us](https://gentec-eo.com/contact-us)