

# ENERGY DETECTORS

QED attenuators

The QED attenuators increase the maximum energy, energy density, average power and average power density that the QE series detectors can handle. They are engineered to typically transmit 30-50% (at 1064 nm) of the incident radiation to the detector in a near Lambertian pattern (very wide diffusion pattern). Their slide-in casing make them easy to install and remove and they are held securely in place with the use of simple set screws. Since they become part of the detector, it is important to understand how they will affect the calibration.

## CALIBRATION OPTIONS

Depending on how you plan to use a QE detector and QED attenuator, different purchasing and calibration options are available.

### QE detector with QED attenuator included



Product name contains "-QED"

Ex: QE25LP-S-MB-QED-D0

This product is calibrated with the QED attenuator in place. You may remove the attenuator, but your measurements will not be calibrated with this configuration.

### QE detector and QED attenuator purchased separately



OR



Product name does not contain "-QED"

Ex: QE25LP-S-MB-D0 and QED-25

Three calibration options are available when you purchase the QE detector and the QED attenuator separately.

#### FULL CALIBRATION

The detector is fully calibrated both with and without attenuator. This configuration comes with a DB15 adaptor.

• QED-CAL-3

#### PARTIAL CALIBRATION

The detector is fully calibrated without attenuator, and is calibrated at a single wavelength with the attenuator.

• QED-CAL-1

#### NO EXTRA CALIBRATION

The QE detector is fully calibrated without attenuator only. You may add the attenuator, but your measurements will not be calibrated with this configuration.

Detector alone	Fully calibrated	Fully calibrated	Fully calibrated
Detector with attenuator	Fully calibrated when using the DB15 adaptor	Calibrated at 1064 nm only	Not calibrated

## SPECIFICATIONS

PHYSICAL CHARACTERISTICS	QED-12	QED-25	QED-50	QED-65	QED-95
Spectral range	266 - 2100 nm	266 - 2100 nm	266 - 2100 nm	266 - 2100 nm	266 - 2100 nm
Calibrated spectral range	532 - 2100 nm	308 - 2100 nm	308 - 2100 nm	308 - 2100 nm	308 - 2100 nm
Effective aperture	9 x 9 mm	22 x 22 mm	47 x 47 mm	62 x 62 mm	90 mm $\phi$
Dimensions	30.5H x 41W x 12.5D mm	44H x 55W x 12.5D mm	69H x 80W x 12.5D mm	85H x 97W x 12.5D mm	115H x 127W x 12.5D mm
For use with	QE12	QE25	QE50	QE65	QE95