

## UD19-150-H5

Uncalibrated thermal disk sensor for laser power measurement up to 150 W.



### KEY FEATURES

#### DESIGNED FOR INTEGRATION

With a broad bandwidth and high power densities

#### VERY THIN PROFILES

Starting at only 2 mm in thickness

#### VARIOUS APERTURE SIZES

Choose your aperture from 10 mm to 55 mm.

#### 2 LEVELS OF INTEGRATION

- Disk alone
- Disk + PCB



## SPECIFICATIONS

### MEASUREMENT CAPABILITIES

|  |                         |
|--|-------------------------|
| Maximum average power                  | 150 W                   |
| Maximum average power (fan-cooled)     | 50 W                    |
| Noise equivalent power                 | 1 mW                    |
| Spectral range                         | 0.19 - 20 $\mu\text{m}$ |
| Typical rise time <sup>1</sup>         | 2.8 sec                 |
| Typical power sensitivity <sup>2</sup> | 0.65 mV/W               |
| Recommended load impedance             | 100 k $\Omega$          |
| Maximum divergence                     |                         |

1. These characteristics depend on the thermal management and electronics provided by the user. Packaging, cooling and electronics similar to our UP series detectors will provide similar performances. See UP series specifications sheets for more details. Actual performance depends on the tradeoffs in a user's design. It may be possible to enhance some performance parameters at the expense of others.

2. Without anticipation algorithm or circuitry.

### MEASUREMENT CAPABILITIES (ENERGY MODE)

|  |           |
|--|-----------|
| Typical energy sensitivity             | 0.65 mV/J |
| Maximum measurable energy <sup>1</sup> | 15 J      |
| Noise equivalent energy                | 20 mJ     |

1. For 360  $\mu\text{s}$  pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).

### DAMAGE THRESHOLDS

|                                     |                       |
|-------------------------------------|-----------------------|
| Maximum average power density       | 45 kW/cm <sup>2</sup> |
| Maximum energy density <sup>1</sup> | 1 J/cm <sup>2</sup>   |

1. At 1064 nm, 7 ns, 10 Hz.

### PHYSICAL CHARACTERISTICS

|                   |                          |
|-------------------|--------------------------|
| Aperture diameter | 19 mm                    |
| Absorber          | H5                       |
| Dimensions        | 44 $\varnothing$ x 3D mm |

## INTERESTED IN THIS PRODUCT?

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