

UP SERIES + PCB

Thermal Sensor Heads with Internal PCB, 10 - 55 mm Ø, 50 µW - 700 W



KEY FEATURES

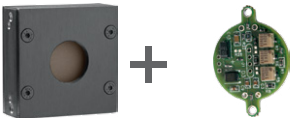
- 1. **FULLY INTEGRABLE THERMOPILE SENSOR HEADS**
OEM Sensors designed to integrate easily into existing systems
- 2. **WITH INTERNAL PCB**
Integrated amplification, anticipation and filtering
- 3. **MODULAR CONCEPT**
Increase the power capability of your detector : 5 different cooling modules
- 4. **VERY HIGH DAMAGE THRESHOLDS**
Up to 100 kW/cm² in average power density
- 5. **LARGEST CHOICE OF CONNECTORS**
DB-15, BNC, Molex or custom
- 6. **RS232 DIGITAL OUTPUT**
Use Serial Commands directly with your detector.
Available for UP19K-15S-H5-DR and UP19K-15S-H5-MDR only.

- 7. **integra OPTIONS**
We can customize the serial commands and cable length for any detector with INTEGRA options (see page 36 for details)

AVAILABLE MODELS

- UP10-H 10 mm Ø, 12 W, Standard Broadband Coating (H5), 50 µm Noise Level
- UP12-H 12 mm Ø, 10 W, With Rear Molex Output
- UP19-H 19 mm Ø, 15-30-50-110-150-200 W, Standard Broadband Coating (H5 or H9)
- UP25-H 25 mm Ø, 40-100-250-350 W, Standard Broadband Coating (H9 or H12)
- UP55-H/HD 55 mm Ø, 40-100-300-500-700 W, Standard Broadband Coating (H9/H12 or HD)
- UP19-W 17 mm Ø, 15-30-50 W, High Damage Threshold 100 kW/cm² Coating (W5)
- UP50-W 50 mm Ø, 40-50 W, High Damage Threshold 100 kW/cm² Coating (W9)

LEVELS OF INTEGRATION

- 1.  **Head Only**
 - Thermal Sensor Head (with natural response)
 - Connector
- 2.  **Head with PCB & Connector**
 - Thermal Sensor Head
 - Amplification - Anticipation - Filtering
 - Connector
 - Digital output available with -DR and -MDR models
- 3.  **Head & Display**
 - Thermal Sensor Head
 - Connector
 - Display

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SPECIFICATIONS

	UP10-H	UP12-H	UP19-H	UP25-H	UP55-H/HD	UP19-W	UP50-W
MAX AVERAGE POWER^a (CONTINUOUS / 1 MINUTE)	2 W / 2 W	10 W / 10 W	200 W / 200 W	350 W / 350 W	700 W / 700 W	50 W / 85 W	50 W / 85 W
EFFECTIVE APERTURE	10 mm Ø	12 mm Ø	19 mm Ø	25 mm Ø	55 mm Ø	17 mm Ø	50 mm Ø
MEASUREMENT CAPABILITY							
Spectral Range	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 10 µm	0.19 – 10 µm
Available Cooling Modules (Max. Power)							
Standalone (S)	2 W	10 W	15 W	40 W	40 W	15 W	40 W
Heatsink (H)	---	---	30 W	100 W	100 W	30 W	50 W
Large Heatsink (L)	---	---	50 W	---	---	50 W	---
Fan (F)	---	---	110 W	250 W	300 W	50 W	---
Water (W)	---	---	150 W	350 W	500 W	50 W	85 W
Water (W)	---	---	200 W	---	700 W (HD)	---	---
Noise Equivalent Power	0.05 mW ^b	0.2 mW	0.2 mW	1-10 mW	2-45 mW	0.2 mW	3 mW
Rise Time (anticipated)	0.8 sec	0.3 sec	0.5 sec	1.3 sec	2-5 sec	1.4 sec	3.5 sec
Sensitivity (typ into 10 MΩ load)	1 V/W	400 mV/W	30-400 mV/W	24-150 mV/W	8-150 mV/W	400 mV/W	120-150 mV/W
Maximum Average Power Density ^c	36 kW/cm ²	36 kW/cm ²	36-45 kW/cm ²	45 kW/cm ²	45 kW/cm ²	100 kW/cm ²	100 kW/cm ²
PHYSICAL CHARACTERISTICS							
Effective Aperture	10 mm Ø	12 mm Ø	19 mm Ø	25 mm Ø	55 mm Ø	17 mm Ø	50 mm Ø
Absorber	H5	H5	H5/H9	H9/H12	H9/H12/HD	W5	W9
Dimensions ^d	50H x 50W x 25.6D mm	38H x 38W x 28.6D mm	50H x 50W x 25.6D mm	89H x 89W x 32D mm	89H x 89W x 32D mm	50H x 50W x 25.6D mm	89H x 89W x 32D mm
Weight ^d	200 g	200 g	200 g	680 g	620 g	200 g	620 g
ORDERING INFORMATION^d							
Standalone	UP10K-2S-H5-L-MT	UP12E-10S-H5-MT-B	UP19K-15S-H5-MT	UP25N-40S-H9-MT	UP55N-40S-H9-MT	UP19K-15S-W5-MT	UP50N-40S-W9-MT
Digital Output (DB-9 connector)	---	---	UP19K-15S-H5-DR	---	---	---	---
Digital Output (Molex connector)	---	---	UP19K-15S-H5-MDR	---	---	---	---
Heatsink	---	---	UP19K-30H-H5-MT	UP25N-100H-H9-MT	UP55N-100H-H9-MT	UP19K-30H-W5-MT	UP50N-50H-W9-MT
Large Heatsink	---	---	UP19K-50L-H5-MT	---	---	UP19K-50L-W5-MT	---
Fan-Cooled	---	---	UP19K-110F-H9-MT	UP25N-250F-H12-MT	UP55N-300F-H12-MT	UP19K-50F-W5-MT	---
Water-Cooled	---	---	UP19K-150W-H5-MT	UP25M-350W-H12-MT	UP55M-500W-H12-MT	UP19K-50W-W5-MT	UP50M-50W-W9-MT
	---	---	UP19K-200W-H9-MT	---	UP55M-700W-HD-MT	---	---

* Other Sizes Available Upon Request

Specifications are subject to change without notice

a. For model with the most efficient cooling module available.

b. 0.2 mW with anticipation.

c. At 1064 nm, 10 W, CW.

d. For convection-cooled models. Contact Gentec-EO for the weights and dimensions of the other cooling modules or see the specifications sheets of the corresponding UP Detectors.