

UP SERIES + PCB

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




KEY FEATURES

- FULLY INTEGRABLE THERMOPILE SENSOR HEADS**
OEM Sensors designed to integrate easily into existing systems
- WITH INTERNAL PCB**
Integrated amplification, anticipation and filtering
- MODULAR CONCEPT**
Increase the power capability of your detector : 5 different cooling modules
- VERY HIGH DAMAGE THRESHOLDS**
Up to 100 kW/cm² in average power density
- LARGEST CHOICE OF CONNECTORS**
DB-15, BNC, Molex or custom


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

- 

Head Only

 - Thermal Sensor Head (with natural response)
 - Connector
- 

Head with PCB & Connector

 - Thermal Sensor Head
 - Amplification - Anticipation - Filtering
 - Connector
- 

Head & Display

 - Thermal Sensor Head
 - Connector
 - Display

SEE ALSO

HOW IT WORKS	14
CALIBRATION	6
TECHNICAL DRAWINGS	88
ABSORPTION CURVES	92
COMPATIBLE MONITORS	
MAESTRO	20
TUNER	24
UNO	26
S-LINK	28
P-LINK	30
M-LINK	32
LIST OF ALL ACCESSORIES	186

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*Also traceable to NRC-CNRC

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
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.