1.1.2.6 Medium - High Power Fan Cooled Thermal Sensors

10mW to 150W

Features

- General purpose and high damage threshold
- Fan cooled
- Powers to 150W
- Ø17.5mm to Ø35mm apertures
- F50A-BB-18 very stable reading and wide dynamic range

F50A-BB-18 F100A-PF-DIF-33 F150A-BB-26

Model	F50A-BB-18	F100A-PF-DIF-33	F150A-BB-26
Use	**Monitoring stability of power**	**Short pulse lasers**	**General purpose**
Absorber Type	Broadband	PF type + diffuser	Broadband
Spectral Range µm	0.19 - 11	0.24 – 2.2	0.19 - 11
Aperture mm	Ø17.5mm	Ø33mm	Ø26mm
Power Mode			
Power Range	10mW – 50W [a]	50mW - 100W [d]	50mW - 150W [d]
Power Scales	50W / 5W / 500mW	100W / 30W /3W	150W / 30W / 3W
Power Noise Level	0.5mW	6mW [d]	3mW [d]
Maximum Average Power Density kW/cm²	17 at 50W 28 at 10W	>6	12 at 150W 17 at 50W
Response Time with Meter (0-95%) typ. s	0.8	2.5	1.5
Calibration Uncertainty ±%	1.9	1.9	1.9
Power Accuracy ±%	3 [e]	5 [c]	3 [e]
Linearity with Power ±%	1	1.5	1
Energy Mode			
Energy Range	6mJ - 50J [a]	60mJ - 200J	20mJ - 100J
Energy Scales	50J / 5J / 500mJ	200J / 30J / 3J	100J / 30J / 3J / 300mJ
Minimum Energy mJ	6	60 [d]	20 [d]
Maximum Energy Density J/cm²			
<100ns	0.3	4 [b]	0.3
0.5ms	2	15 [b]	5
2ms	2	35 [b]	10
10ms	2	50 [b]	30
Cooling	fan	fan	fan
Fiber Adapters Available (see page 126)	ST, FC, SMA, SC	NA	ST, FC, SMA, SC
Optional Protective Cover Accessory (see page 116A)	NA	NA	F150A-BB-26 Protective Cover (P/N 1G05448)
Weight kg	0.35	0.8	0.35
Compliance	CE, UKCA, China RoHS	CE, UKCA, China RoHS	CE, UKCA, China RoHS
Version	V1		V1
Part number: Standard Sensor	**7Z07121**	**7Z02744 (1.5m cable)**	**7Z07120**
BeamTrack Sensor: Beam Position & Size (p. 64)			**7Z07906**
Sensor with different cable length		**7Z02744B (5m cable)**	

Notes: (a) Fan should be on for power above 3W. Fan should be off for measuring very low power and for energy measurement.

Notes: (b) For shorter wavelengths derate maximum energy density as follows: Wavelength Derate to value:

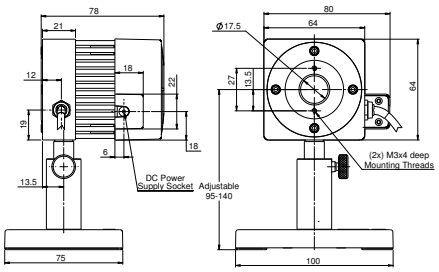
1064nm	not derated	355nm	60% of stated value
532nm	80% of stated value	266nm	40% of stated value
		193nm	NA

Notes: (c) Calibrated at specified wavelengths only: 266nm, 355nm, 532nm, 1064nm and 2100nm only

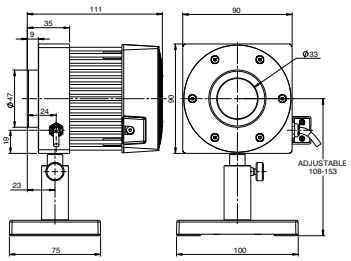
Notes: (d) For lower powers up to 30W it is recommended to work with the fan off and then the noise level is ~3 times lower. It is also recommended to measure energy with the fan off.

Notes: (e) ±4%. For wavelengths <240nm

F50A-BB-18



F100A-PF-DIF-33



F150A-BB-26