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 - 20	0.24 – 2.2	0.19 - 20
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	0.5	12 at 150W 17 at 50W
Response Time with Meter (0-95%) typ. s	0.8	2.5	1.5
Power Accuracy +/-%	3	5 [c]	3
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 86)	ST, FC, SMA, SC	NA	ST, FC, SMA, SC
Weight kg	0.35	0.8	0.35
Compliance	CE, China RoHS	CE, China RoHS	CE, China RoHS
Version			
Part number: Standard Sensor	**7Z02718**	**7Z02744**	**7Z02727**
BeamTrack Sensor: Beam Position & Size (p. 53)			**7Z07901**

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

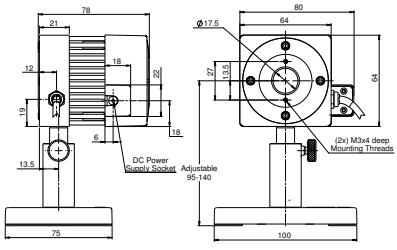
Notes: (b) For shorter wavelengths derate maximum energy density as follows: Wavelength Derate to value:

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

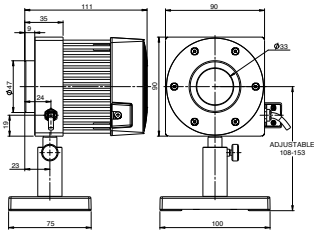
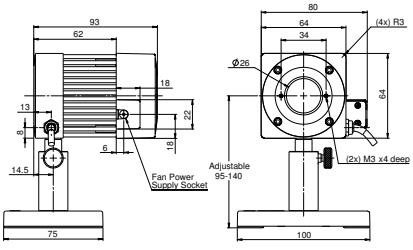
Notes: (c) Calibrated at specified wavelengths only: 266nm, 355nm, 532nm, 1064nm and 2100nm only

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.

F50A-BB-18



F100A-PF-DIF-33



F150A-BB-26