1.1.2.6 Medium - High Power Fan Cooled Thermal sensors

10mW to 150W

F50A-BB-18

F100A-PF-DIF-33

F150A-BB-26

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

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 [d]	10mW – 50W [a]	50mW - 100W	50mW - 150W
Power Scales	50W / 5W / 500mW	100W / 30W /3W	150W / 30W / 3W
Power Noise Level [d]	0.5mW	6mW	3mW
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 [d]	6	60	20
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 83)	ST, FC, SMA, SC	NA	ST, FC, SMA, SC
Weight kg	0.35	0.8	0.35
Version			
Part number: Standard Sensor	**7Z02718**	**7Z02744**	**7Z02727**
BeamTrack Sensor: Beam Position & Size (p. 50)			**7Z07901**

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

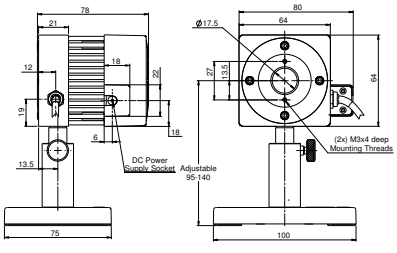
Notes: (b) For shorter wavelengths derate maximum energy density as follows: Wavelength Derate to value:

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

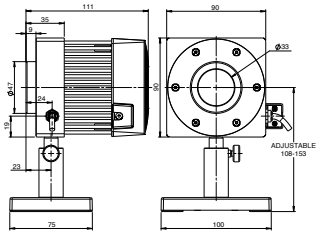
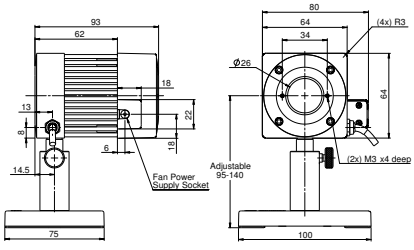
Notes: (c) Calibrated at specified wavelengths only: 266nm, 355nm, 532nm, 1064nm and 2100nm only

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

F50A-BB-18



F100A-PF-DIF-33



F150A-BB-26