

1.1.2.5 Medium Power Large Aperture Thermal Sensors - Apertures 50mm

100mW to 150W

Features

- Thin profile
- CW to 35W or 50W, intermittent to 150W
- Pulse energies up to 4000 Joules
- For continuous, long pulse and Excimer lasers.
For measuring high power lasers by exposure to <1s pulses

L40(150)A / L40(150)A -LP1



L40(150)A -EX



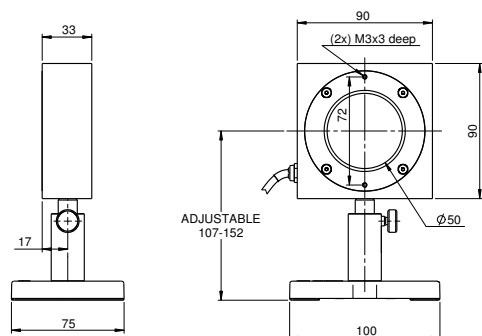
L50(150)A



Model	L40(150)A	L40(150)A-LP1	L40(150)A-EX	L50(150)A
Use	General purpose	Long pulse lasers	Excimer lasers	General purpose
Absorber Type	Broadband	LP1	EX	Broadband
Spectral Range μm	0.19 - 20	0.25 - 2.2, 2.94	0.15 - 0.7, 10.6	0.19 - 20
Aperture mm	$\varnothing$ 50mm	$\varnothing$ 50mm	$\varnothing$ 50mm	$\varnothing$ 50mm
Power Mode				
Power Range	100mW - 150W	100mW - 150W	100mW - 150W	100mW - 150W
Maximum Intermittent Power	150W for 3min, 80W for 5.5min, 35W continuous			150W for 4min, 100W for 6min, 50W continuous
Power Scales	150W / 20W	150W / 20W	150W / 20W	150W / 20W
Power Noise Level	5mW	10mW	5mW	5mW
Maximum Average Power Density kW/cm ²	12 at 150W 20 at 35W	38 at 150W 90 at 35W	2	12 at 150W 17 at 50W
Response Time with Meter (0-95%) typ. s	2.5	2.5	2.5	2.5
Power Accuracy +/- %	3	3 ^(a)	3	3
Linearity with Power +/- %	1	1	1	1
Energy Mode				
Energy Range	100mJ - 4000J	100mJ - 4000J	100mJ - 200J	100mJ - 4000J
Energy Scales	4kJ / 400J / 40J / 4J	4kJ / 400J / 40J / 4J	200J / 30J / 3J	4kJ / 400J / 40J / 4J
Minimum Energy mJ	100	100	100	100
Maximum Energy Density J/cm ²				
<100ns	0.3	0.05	0.5	0.3
1 μs	0.4	0.3	0.6	0.4
0.5ms	5	20	6	5
2ms	10	50	12	10
10ms	30	250	25	30
Cooling	convection / ballistic	convection / ballistic	convection / ballistic	convection / ballistic
Fiber Adapters Available (see page 63)	ST, FC, SMA, SC	ST, FC, SMA, SC	NA	ST, FC, SMA, SC
Weight kg	0.6	0.6	0.6	0.6
Version	V2	V2	V1	
Part number	7Z02626	7Z026855	7Z02614	7Z02633

Notes: (a) LP1 sensors have relatively large spectral variation in absorption and have a calibrated spectral curve at all wavelengths in their spectral range to the above specified accuracy. Nova, Orion and LaserStar meters do not support this feature and when used with those meters, accuracy will be $\pm 3\%$ for 532nm, 808nm, 1064nm and 2940nm and $\pm 6\%$ for other wavelengths in the spectral range 400 - 1100nm.

L40(150)A / L40(150)A -LP1 / L40(150)A -EX



L50(150)A

