



1.1.2.11 Short Exposure High Power Sensors 1.1.2.11.4 Comet Power Pucks

20W to 10kW

Features

- Comet power pucks measure heat rise from 10s exposure to laser
- Accurate, built in temperature compensation algorithm
- Up to 10kW
- Up to 100mm apertures

Comet 1K	Comet 10K	Comet 10K-HD

Model	Comet 1K	Comet 10K	Comet 10K-HD		
Use	For powers to 1kW	For powers to 10kW	For high power density beams		
Absorber Type	Broadband	Broadband	Broadband with reflective cone beam		
	0.2 - 20	0.00.1.07 and 10.6	spreader		
Spectral Range µm	0.2 - 20 Ø50mm	0.98-1.07 and 10.6 0.98-1.07 and 10.07 and 10.			
Aperture mm Power Mode	ØSUMIM	ØTOOMM	00001111		
Power Range	20W to 1kW	200W to 10kW	200W to 10kW		
Repeatability	±1% for same initial temperature				
Maximum Average Power Density kW/cm ²	Power Damage Threshold	Power Damage Threshold	Power Damage Threshold		
Maximum Average Fower Density KW/Cm	Fower Damage Infestion	Fower Damage mieshold	Beam dia <40 Beam dia >40		
	100W 10	1kW 3.5	1kW 10 7		
	200W 8	2kW 2.8	2kW 10 6		
	300W 6	3kW 2.5	3kW 8 5		
	500W 5	5kW 1.5	5kW 6 3		
	1kW 4	10kW 1	10kW 4 2		
Power Accuracy ±%	5	5	5		
Linearity with Power ±%	±2% ±1W from 20W to 1kW	±2% from 1kW to 10kW	±2% from 1kW to 10kW		
	100W 4	1kW 4	1kW 4		
Number of readings before probe must be	300W 3	3kW 3	3kW 3		
cooled (for 25°C starting temp.)	400W 2	4kW 2	4kW 2		
	1kW 1	10kW 1	10kW 1		
Maximum Energy Density J/cm ²					
<100ns	0.3	0.3	1		
10µs	0.8	0.8	3		
1ms	10	10	30		
10ms	50	50	150		
Time to Reading		Initial reading 20s after exposure, final reading 40s after exposure	Initial reading 30s after exposure, final reading 70s after exposure		
Temperature Compensation	Temperature compensated to give accurate readings independent of starting probe temperature				
Maximum Permitted Probe Temperature	70°C before measurement, 140°C after measurement				
Display	2x8 character LCD. Character height 5mm. CE Approved.				
Operation Mode	AUTO: Automatic measurement with laser set to 10s timed exposure. Unit senses temperature rise and measures automatically. MANUAL: User places probe in front of beam for 10s. Unit beeps to indicate start and stop measurement points. History: Stores last three readings. Calibration: Can be recalibrated by user.				
Battery	2 x AA. Lifetime in normal use approximately 1 year.				
Weight kg	0.3	1.2	1.2		
Compliance	CE, UKCA, China RoHS	CE, UKCA, China RoHS	CE, UKCA, China RoHS		
Version		V1	V2		
Part number	7Z02702	7Z02705	7Z02706		

Comet 1K





Comet 10K

Comet 10K-HD



Sensors