

## 1.1.2.6 High Power Water Cooled Thermal Sensors and Power Pucks

### 100W to 30kW

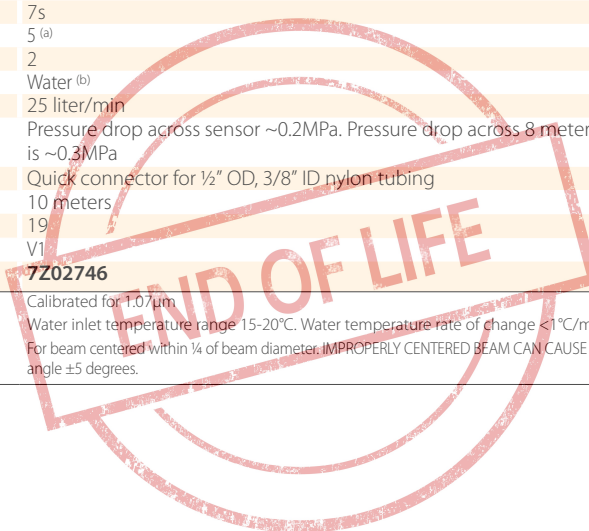
#### Features

- Highest powers
- Water cooled
- Up to 30kW
- $\phi 74$ mm apertures

30K-W



Model	30K-W
<b>Use</b>	<b>Highest powers to 30kW</b>
Absorber Type	Beam deflector + broadband absorber
Spectral Range $\mu\text{m}$	0.8 – 2, 10.6 $\mu\text{m}$ <sup>(a)</sup>
Aperture mm	$\phi 74$ mm
Power Range	100W – 30kW
Power Scales	30kW / 6kW / 600W
Power Noise Level	1W
Backscattered Power	Approximately 4%
Maximum Average Power Density kW/cm <sup>2</sup>	10kW/cm <sup>2</sup> anywhere in the beam <sup>(c)</sup>
Response Time with Display (0-95%) typ. s	7s
Power Accuracy +/-%	5 <sup>(a)</sup>
Linearity with Power +/-%	2
Cooling	Water <sup>(b)</sup>
Minimum Water Flow Rate at Full Power	25 liter/min
Water Pressure Requirements	Pressure drop across sensor ~0.2MPa. Pressure drop across 8 meters of 1/2" tubing with 9.5mm ID is ~0.3MPa
Water Connectors	Quick connector for 1/2" OD, 3/8" ID nylon tubing
Cable Length	10 meters
Weight Kg	19
Version	V1
<b>Part number</b>	<b>7Z02746</b>
Notes: (a)	Calibrated for 1.07 $\mu\text{m}$
Notes: (b)	Water inlet temperature range 15-20°C. Water temperature rate of change <1°C/min.
Notes: (c)	For beam centered within 1/4 of beam diameter. IMPROPERLY CENTERED BEAM CAN CAUSE DAMAGE TO SENSOR. Maximum tilt angle $\pm 5$ degrees.



30K-W

