

## 1.1.2.4 Low - Medium Power Thermal Sensors - Apertures to 17mm

### 50mW to 150W

#### Features

- Special purpose SV and HE absorbers
- For concentrated beams and pulses
- Convection air cooled
- CW to 30 or 50W, intermittent to 150W
- Ø17mm aperture



| Model  | 30(150)A-HE-17                                   |        | 30(150)A-HE-DIF-17   |                               |
|--|--|--------|--|-------------------------------|
| Use  | High energy pulsed lasers                        |        | Concentrated beam high energy pulsed lasers - has removable diffuser |                               |
| Absorber Type  | HE   |        | HE   |                               |
| Spectral Range $\mu\text{m}$   | 0.19 - 0.625, 1.064, 2.1, 2.94                   |        | 0.19 - 3 except for 0.625 - 0.9 <sup>(b)</sup>                       |                               |
| Aperture mm  | Ø17mm  |        | Ø17mm  |                               |
| Power Mode   |  |        |  |                               |
| Power Range  | 50mW - 150W                                      |        | 50mW - 150W  |                               |
| Maximum Intermittent Power W   | 150W for 1.5min, 100W for 2.2min, 30W continuous |        | 150W for 1.5min, 100W for 2.2min, 30W continuous                     |                               |
| Power Scales   | 150W / 30W / 3W                                  |        | 150W / 30W / 3W  |                               |
| Power Noise Level  | 3mW  |        | 3mW  |                               |
| CW Maximum Power Density kW/cm <sup>2</sup>                            | 0.5  |        | 0.5  |                               |
| Pulsed Maximum Average Power Density kW/cm <sup>2</sup> <sup>(c)</sup> | NA   |        | NA   |                               |
| Response Time with Meter (0-95%) typ. s                                | 3.8  |        | 3.8  |                               |
| Calibration Uncertainty $\pm\%$  | 1.9  |        | 1.9  |                               |
| Power Accuracy $\pm\%$   | 3  |        | 5 <sup>(b)</sup>   |                               |
| Linearity with Power $\pm\%$   | 1.5  |        | 1.5  |                               |
| Energy Mode  |  |        |  |                               |
| Energy Range   | 60mJ - 200J                                      |        | 60mJ - 200J  |                               |
| Energy Scales  | 200J / 30J / 3J                                  |        | 200J / 30J / 3J  |                               |
| Minimum Energy mJ  | 60   |        | 60   |                               |
| Maximum Energy Density J/cm <sup>2</sup>                               | Pulse width <sup>(a)</sup>                       | Single | 10-50Hz  | Pulse width <100ns, 10 - 50Hz |
|  | <100ns   | 5      | 2  | Wavelength                    |
|  | 0.5ms  | 100    | 25   | 1064nm                        |
|  | 2ms  | 150    | 40   | 532nm                         |
|  |  |        |  | 355nm                         |
|  |  |        |  | DIF IN                        |
|  |  |        |  | DIF OUT                       |
|  |  |        |  | 5                             |
|  |  |        |  | 4                             |
|  |  |        |  | 1.5                           |
|  |  |        |  | 2                             |
|  |  |        |  | 2                             |
|  |  |        |  | 1                             |
| Cooling  | Convection                                       |        | Convection   |                               |
| Fiber Adapters Available (see page 120)                                | ST, FC, SMA, SC                                  |        | NA   |                               |
| Weight kg  | 0.3  |        | 0.4  |                               |
| Compliance   | CE, UKCA, China RoHS                             |        | CE, UKCA, China RoHS   |                               |
| Version  |  |        |  |                               |
| Part number  | 7Z02722  |        | 7Z02729  |                               |

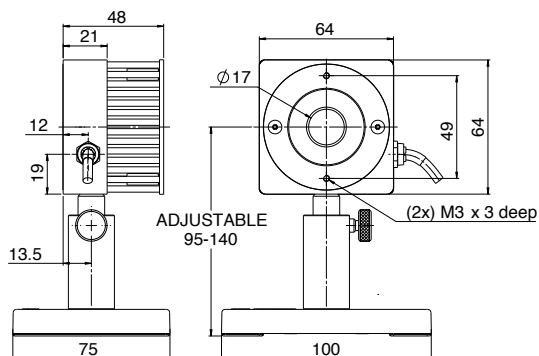
Notes: (a) At 1064nm. For shorter wavelengths derate maximum energy density to:

355nm 50% of above values  
266nm 50% of above values  
193nm 10% of above values

(b) With diffuser in, sensor is only calibrated for 1064nm, 532nm and 355nm wavelengths

(c) For repetition rates  $\geq 100\text{kHz}$

30(150)A-HE-17



30(150)A-HE-DIF-17

