

## 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 $\text{kW}/\text{cm}^2$                            | 0.5                                              |        |         | 0.5                                                                  |        |         |
| Pulsed Maximum Average Power Density $\text{kW}/\text{cm}^2$ <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 $\text{J}/\text{cm}^2$                               | Pulse width <sup>(a)</sup>                       | Single | 10-50Hz | Pulse width <100ns, 10 - 50Hz                                        |        |         |
|                                                                             |                                                  |        |         | Wavelength                                                           | DIF IN | DIF OUT |
|                                                                             | <100ns                                           | 5      | 2       | 1064nm                                                               | 5      | 2       |
|                                                                             | 0.5ms                                            | 100    | 25      | 532nm                                                                | 4      | 2       |
|                                                                             | 2ms                                              | 150    | 40      | 355nm                                                                | 1.5    | 1       |
| Cooling                                                                     | Convection                                       |        |         | Convection                                                           |        |         |
| Fiber Adapters Available (see page 126)                                     | 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                                                              |        |         |

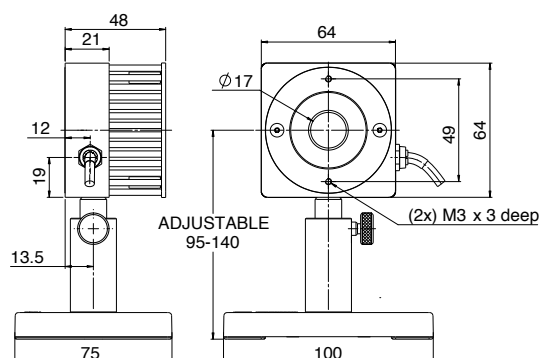
Notes: (a) At 1064nm. For shorter wavelengths derate maximum energy density to:

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

