

# SpotOn Compact

## Compact Optical Beam Positioning & Power Measurement



- Measures laser displacement and power on its detector's surface in real time
- Ideal for flatness and alignment testing of mechanical surfaces
- Monitors vibrations and deflections of laser beams
- Fully integrated system into a compact configuration of 50x45x16 mm with direct USB connector

### Specifications

Detector	L - Lateral Effect	L04	Q - Four Quadrant
Size	9 x 9 mm	4 x 4 mm	10 x 10 mm
Type	Dual axis Si, No glass cover	Dual axis Si, No glass cover	4x Si sectors separated by 30 µm gap, No glass cover
Usable beam size	∅50µm to ∅9 mm	∅50µm to ∅4 mm	∅50µm to ∅5 mm
Position measurement range	∅9 mm	∅4 mm	One beam radius up to ±2.5 mm
Position resolution	Down to 0.1 µm at 50 Hz digital filter plus averaging	Down to 0.1 µm at 50 Hz digital filter plus averaging	Down to 0.25% of beam size
Position accuracy	±12.5 µm over 9 mm dia.	±6 µm over 4 mm dia.	±1µm or ±0.025% of beam size
Update rate	Max. 150 Hz at 500 Hz digital filters		
Operational Spectral range	350 – 1100 nm		
Power range	10 µW to 10 mW with attenuating ND filters		
Power accuracy (*)	±5%		

(\*) – To maintain full calibration accuracy, attenuating optical filters may be necessary for operation with beams greater than 1 mW. Saturating “non-linear” effects depend on the beam size, type and wavelength, but caution should be exercised when using the 4Quad PSD above 3-6 mW or the Lateral Effect PSD above 1-m mW

### Ordering Information

**SPOTCOM** - Complete system including sensor head, USB2.0 mini 1.8m cable, software and user manual on CD, Carrying case. Select anyone of the heads, calibration files are saved on the PSD heads and load automatically to the software:

- L - Lateral effect PnP 9mmX9mm, no glass cover
- Q - Four quadrant PnP 10mmX10mm with 30um gap, no glass cover
- L04 - Lateral effect PnP 4mmX4mm, no glass cover

Optional accessories:  
NG4/NG9/NG10 filter - ND filter in housing (3/4" - 32 thread)  
Hood - 55mm long, for ambient light suppression

### Hardware Requirements

Pentium 4, 2.4 GHz and above with  
128MB RAM, 15 MB HDD free, once CD  
ROM, Windows XP/Vista, VGA 8 MB  
1024x768 resolution, 16 bit, one USB2.0  
socket

## DUMA OPTRONICS LTD.

Website: <http://www.dumaoptronics.com>

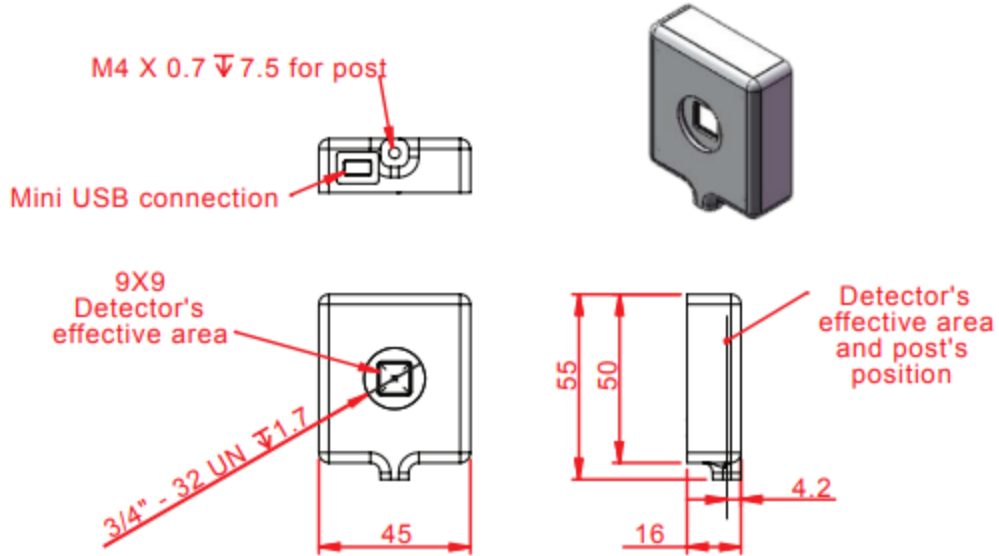
E-mail: [sales@duma.co.il](mailto:sales@duma.co.il)

December 2019

# SpotOn Compact

## Compact Optical Beam Positioning & Power Measurement

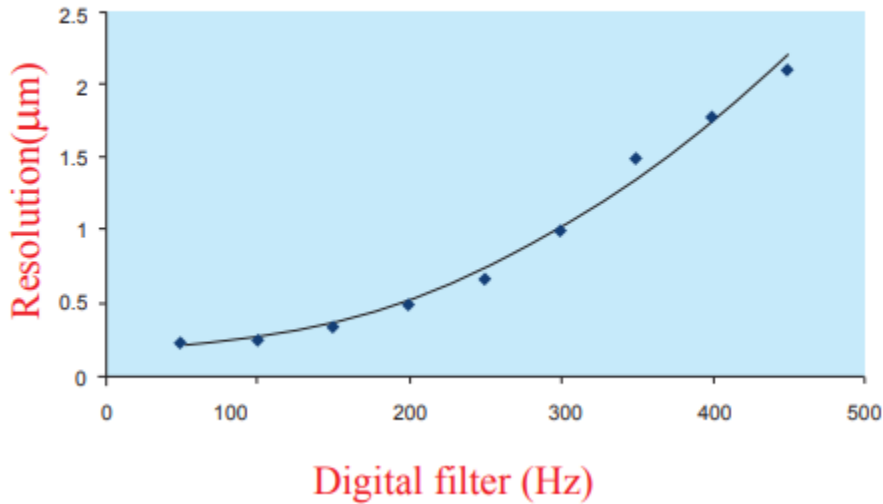
### Sensor Head Dimensions



Dimensions are in mm

### Resolution vs Digital Filter Bandwidth

#### Lateral Effect



DUMA OPTRONICS LTD.