

SpotOn Analog Optical Beam Position and Power Measurement System Analog Version



9x9mm

Main Applications:

- Measures laser displacement in real time, at a rate of up to 30 KHz bandwidth.
- Measurement of fast steering mirrors
- Monitors vibration and deflection at high bandwidth from long stand-offs
- Perfect for closed loop applications



4x4mm



For fast and extremely accurate laser position sensing

- **Versatile:**
Measures both Position and power using two-dimensional position sensitive detectors: compatible with our Lateral Effect PSD's 4mmX4mm or 9mmX9mm

■ **Precise:**
Large area detection with sub-micron resolution and linearity better than 0.5%

■ **Easy to use:**
Just connect the output to a scope or DVM to observe movement in μm units (1Volt=1000 μm)

■ **Compact:**
Slim design sensor heads and electronics box.

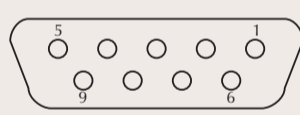


DUMA OPTRONICS LTD.

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Specifications

General Parameters			PIN Assignment Input/Output Connector (D-Type 9 pin Female)			
Parameters	Symbols	Value	PIN No.	Name	Contents	
Power Supply Voltage	Vs	$\pm 15\text{V}$	1	GND	Ground	
Input Voltage	Vin	$\pm 15\text{V}$	2	-V	-15V input	
Operating Temperature	Topt	0°-50°C	3	+V	+15V input	
Current Consumption	Is	$\pm 15\text{mA}$	4	V4	Y-direction output	
			5	V5	X-direction output	
			6	V1	Differential output of Y-direction head amp	
			7	V _R	Monitor output for PSD reverse bias voltage	
			8	V2	Differential output of X-direction head amp	
			9	V3	Monitor output for incident light	

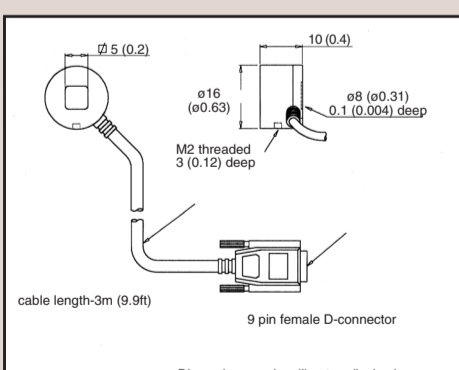
General Specifications		
Parameters	High Amplification modules (Low light Appl.)	Low Amplification modules
Max operating laser power (HeNe)	1 μWatt -250 μWatt	10 μWatt -2500 μWatt
Response time (T)	<60 μsec for 9X9mm PSD <20 μsec for 4X4mm PSD	<60 μsec for 9X9mm PSD <20 μsec for 4X4mm PSD
Resolution	Better than 1mV	Better than 1mV

Note: Conversion factor: 1000mV = 1000 μm

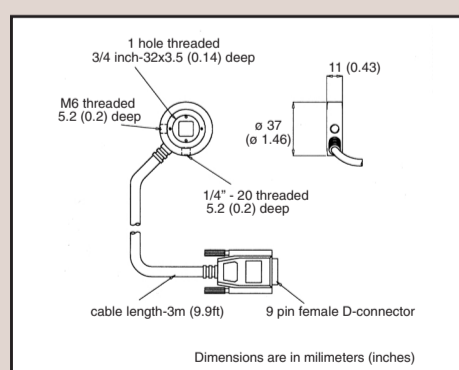


Dimensions

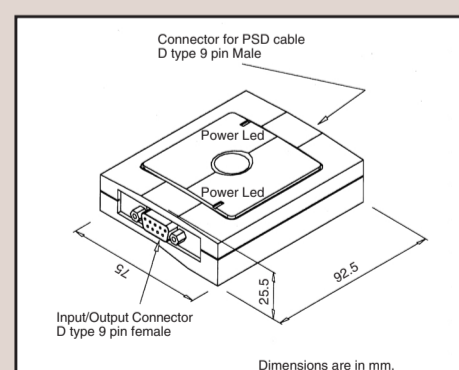
4x4mm head (120gr with cable)



9x9mm head (140gr with cable)



Electronics box (125gr)





Ordering Information

Complete system based on a Lateral Effect detector head, with a 3m long attached cable and an electronics box
SPOTANA-4: System with 4mmX4mm PSD
SPOTANA-9: System with 9mmX9mm PSD
Accessories:
 - A variety of ND filters in housing (C-Mount). Filters include: NG4, NG9, NG10
 - Additional hood (55mm length) for ambient light suppression



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