

PSH14E Scan Head

Focusing on high-end industrial laser applications



Typical Applications:

The PSH14E scan heads offer excellent suitability as entry-level choices for high-end laser processing applications, including marking, scribing, laser cleaning, processing on-the-fly, etc.

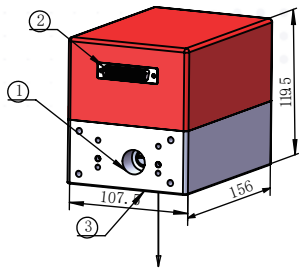
Featuring a compact and lightweight design, the PSH14E is an optimal and cost-effective solution that guarantees exceptional long-term stability.

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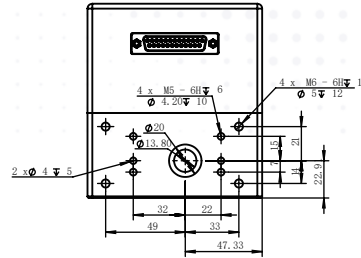


Mechanical Drawings (Dimensions in mm)

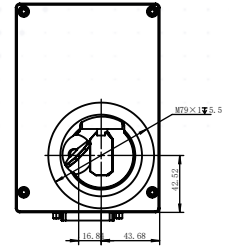


PSH14E Scan Head

- Legend:**
1. Beam in
 2. Electrical interface (XY2-100, power in)
 3. Beam out



Beam In & Mounting Bracket



Beam Exit Side

Specifications

Specifications	PSH14E
Maximum allowed average laser power ⁽¹⁾	300 W
Aperture	14 mm
Typical scan angle ⁽²⁾	± 10°
Tracking error	≤ 0.19 ms
Step response time (1% of full scale)	≤ 0.4 ms
Speed	
Positioning / Jump ⁽³⁾	< 12 m/s
Line scan ⁽³⁾	< 12 m/s
Vector scan ⁽⁴⁾	< 2.5 m/s
Good writing quality ⁽³⁾⁽⁵⁾	650 cps
Precision	
Linearity	99.8 %
Repeatability	2 μrad
Temperture drift	
Offset	25 μrad/°C
Gain	25 μrad/°C
Long-term drift (at constant ambient temperature around 25 °C)	
Over 8 hours long-term offset drift (after 30 mins warm-up)	50 μrad
Over 8 hours long-term gain drift (after 30 mins warm-up)	100 μrad
Operating Temperature Range	25 °C ± 10 °C
Signal interface	Analog: ± 10 V or ± 5 V Digital: XY ₂ - 100, PRS422 protocol
Input power requirement (DC)	± 15 V @ 5 A Max RMS

Note:

- (1) For laser wavelength 1030-1090 nm.
- (2) All angles are in mechanical degrees.
- (3) With F-Theta objective f = 163 mm. Speed value varies correspondingly with different focal lengths.
- (4) Repeatability and temperature drift are measured within this speed.
- (5) Single-stroke font with 1 mm height.