



**NEW**

## MOVIA

Compact 2-Axis Analog Scan Head for Industrial Marking, Coding, and Micromachining Systems

### Product Highlights

Our next generation of 2-axis scan heads feature a compact, industrial design with improved throughput and uptime. Designed for easy system integration due to its compact size and industry-standard interfaces, MOVIA is well-suited for a variety of marking and coding processes. Specifically those that require high throughput and consistent, reliable quality when repeating marks. MOVIA is ideal for non-contact marking of logos, alpha-numeric codes, barcodes, graphics, expiration dates, and many other applications. It has passed numerous extreme condition tests to ensure reliability and safety and is IP50 rated.

### Next generation 2-axis scan heads with improved performance

- Easily integrated into existing systems due to its small size and support of industry standard interface and connectors
- High quality character marking resulting from improved electronics and tuning design
- Tested to perform under extreme conditions to ensure high quality and reliability
- Tested with other Novanta products including Synrad's CO<sub>2</sub> lasers and Cambridge Technology's ScanMaster Controller

# MOVIA

## 2-Axis Analog Scan Head

Product Specifications	MOVIA-10
Tune Type	Vector tune
Scan Angle	$\pm 20^\circ$
Beam Displacement	12.05 mm
Step Response Time 1% of Full Scale <sup>1</sup>	<210 $\mu$ s
Typical Marking Speed <sup>2</sup>	3 m/s
Typical Positioning Speed <sup>2</sup>	16 m/s
Repeatability	<3.5 $\mu$ rad
Tracking Error	<130 $\mu$ s
Linearity	> 99.9% over 20°
Wavelength Options <sup>3</sup>   Max Power	CO <sub>2</sub> : 9.2 - 10.6 $\mu$ m      125 W Fiber: 1040 - 1090 nm      125 W Green: 532 nm      check with factory UV: 353 - 357 nm      check with factory
Gain Error	<5 mrad
Zero Offset	<5 mrad
Long Term Offset Drift <sup>4</sup>	<100 $\mu$ rad
Long Term Scale Drift <sup>4</sup>	<150 ppm
Temperature Offset Drift	<20 $\mu$ rad/°C
Temperature Scale Drift	<20 ppm/°C
Command Resolution	16 bit
Communication Interface	XY2 - 100
IP Rating	IP50
Power Requirements	$\pm 15$ V, 3A RMS
Operating Temperature	15 °C - 35 °C
Weight (approximate)	1.5 kg
Dimensions	114 mm x 86 mm x 97 mm

Note:

All angles are in optical degrees, unless otherwise specified. All specifications subject to change without notice.

References:

1. Settling to within 1% of position. 2. With 160mm F-Theta lens. 3. Supports HeNe laser band.
4. During 24 hours of operation after 30 minutes of warm up, per axis.

**CAMBRIDGE**  
**TECHNOLOGY**

A Novanta Company

[www.CambridgeTechnology.com](http://www.CambridgeTechnology.com)

# MOVIA

2-Axis Scan Head, 10mm

## Example of Typical Character Marking<sup>1</sup>

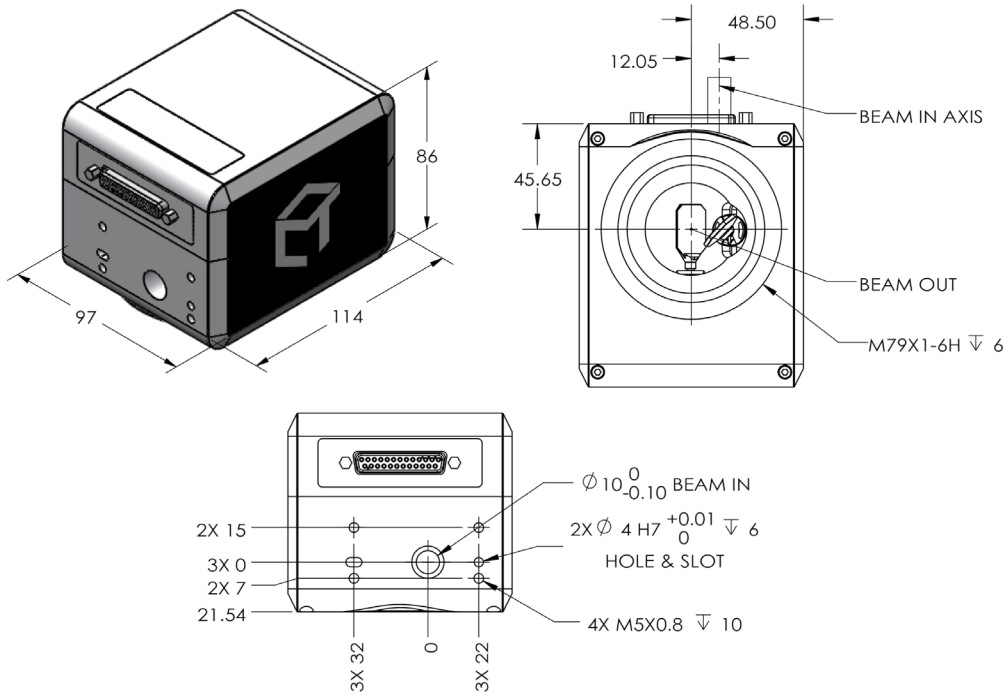
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
 abcdefghijklmnopqrstuvwxyz  
 0123456789

CPS 800

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
 abcdefghijklmnopqrstuvwxyz  
 0123456789

CPS 1000

## 10mm Drawing



Note:  
 All angles are in optical degrees, unless otherwise specified. Drawing measurements are in mm. All specifications subject to change without notice

Contact factory for accessories inquiries.

References:  
 1. Examples shown using 160 mm F-Theta lens and single stroke 1 mm characters, SIMPLEX font. Used with ScanMaster Controller. More examples and full parameter set available upon request.

## About Cambridge Technology

With close to 50 years of expertise, Cambridge Technology designs, develops, and manufactures innovative beam steering solutions including polygon- and galvanometer-based optical scanning components, 2-axis and 3-axis scan heads, scanning subsystems, high power scanning heads, and controlling hardware and software. We excel in collaborating with our key OEM partners to engineer products that meet their needs from the largest engineering solution to the smallest component. Key market applications include advanced industrial processes like additive manufacturing, laser converting, laser marking, and via-hole drilling, and medical applications such as laser treatment and optical coherence tomography. Cambridge Technology is a Novanta company.

**CAMBRIDGE TECHNOLOGY: AMERICAS**  
 +1 (781) 266 5800 | support-us@cambridgetechnology.com

**CAMBRIDGE TECHNOLOGY: EMEA**  
 +49 (0)89 31707 0 | support-eu@cambridgetechnology.com

**CAMBRIDGE TECHNOLOGY: JAPAN**  
 +81 (3) 5753 2462 | support-jp@cambridgetechnology.com

**CAMBRIDGE TECHNOLOGY: CHINA, SINGAPORE, MALAYSIA, THAILAND & INDONESIA**  
 +86 (512) 6283-7080 | support-cn@cambridgetechnology.com

**CAMBRIDGE TECHNOLOGY: KOREA & SOUTH EAST ASIA**  
 KR: support-kr@novanta.com | SEA: support-sea@novanta.com