New!

More Information at:

high speed scanning in pocket size

The exceptionally compact **scan heads** of the new *SCAN*cube® III series establish industry standards for accuracy and dynamic performance.

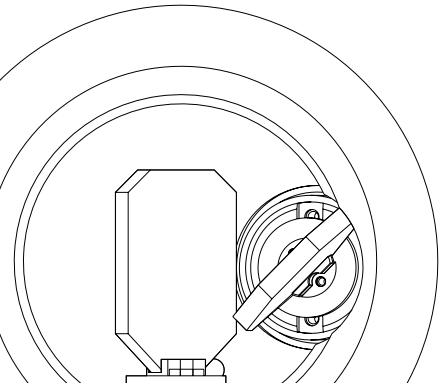
- Far higher scan speeds (up to 100%)
- Significantly improved dynamic performance (up to 50%)
- Much lower long-term drift (- 50%)
- Substantially reduced temperature drift (more than 40%)
- Clearly lower heat generation (approx. 50%)

*SCAN*cube® III scan heads take advantage of the new dyn*AXIS*® 3 series galvanometer scanners for the first time. In conjunction with new electronics, these galvos deliver highest dynamic performance, lowest drift and best linearity.

The *SCAN*cube® III series of scan heads continue to feature a robust, sealed housing for protection against water and dust. And the housing's extremely compact dimensions facilitate easy integration into your production lines. Full mechanical and electronic compatibility with previous *SCAN*cube® series is retained, thus simplifying upgrades.

Typical Applications:

- Marking applications
- Materials processing in the semiconductor industry
- Microstructuring
- Processing-on-the-fly



SCANLAB
innovators for industry

Specifications

	*SCAN*cube® III 10	*SCAN*cube® III 14
Aperture	10 mm	14 mm
Tracking error	0.12 ms	0.15 ms
Step response time [1]		
1% of full scale	0.30 ms	0.35 ms
10% of full scale	0.80 ms	0.90 ms
Typical speeds [2]		
Marking speed	3.0 m/s	2.0 m/s
Positioning speed	16.0 m/s	14.0 m/s
Writing speed		
Good writing quality	925 cps	740 cps
High writing quality	700 cps	500 cps
Long-term drift (8-h-drift after 30 min warm-up) [3]		
Offset	< 100 µrad	< 100 µrad
Gain	< 100 ppm	< 100 ppm
Temperature drift		
Offset	< 25 µrad/K	< 25 µrad/K
Gain	< 25 ppm/K	< 25 ppm/K

(all angles are in optical degrees)

[1] settling to 1/1000 of full scale
[2] with F-Theta objective, f = 160 mm
[3] at constant ambient temperature and load, without water cooling;

Quality

The high quality of SCANLAB's scan solutions is the result of years of experience in the development and manufacture of galvanometer scanners and scan systems. In addition, every scan system must first pass the *SCAN*check burn-in test before it is released for shipment to the customer.

Options

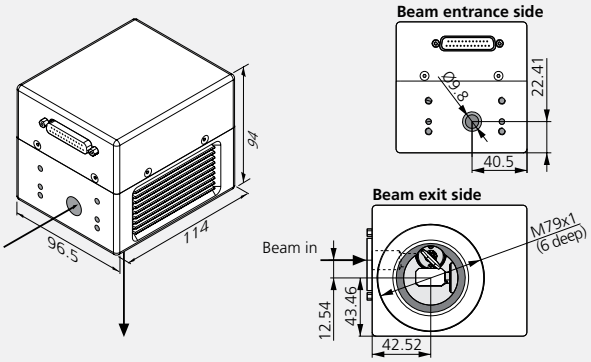
- Assortment of objectives
- varioSCAN: upgrade to a 3-axis scan system
- Camera adapter for optical process monitoring

Common Specifications

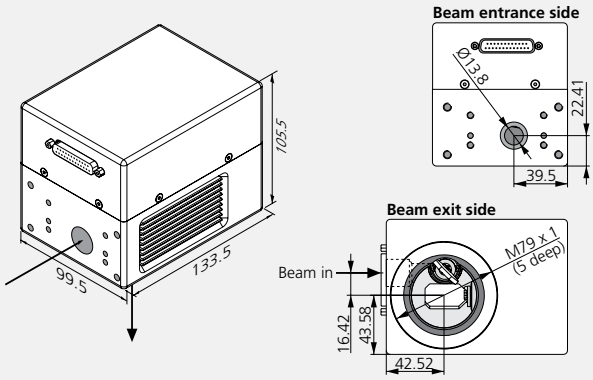
Repeatability (RMS)	< 2 µrad
Resolution (16 bit)	11 µrad
Optical performance	
Typical scan angle	±0.35 rad
Gain error	< 5 mrad
Zero offset	< 5 mrad
Nonlinearity	< 0.9 mrad / 44°
Power requirements	±15 V DC, max. 3 A each
Interface	
Digital version	SL2-100 or XY2-100
Analog version	±4.8 V
Operating temperature	25 °C ± 10 °C

(all angles are in optical degrees)

*SCAN*cube® III 10



*SCAN*cube® III 14



	*SCAN*cube® III	
Aperture	10 mm	14 mm
Beam displacement	12.54 mm	16.42 mm
Weight	1.9 kg	2.3 kg

The housings of the *SCAN*cube® III series are identical with those of the *SCAN*cube® scan heads.

all dimensions in mm

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