



compact and economic

SCANLAB's basiCube scan heads are the ideal entry-level 2D scan systems for deflecting and positioning laser beams in the working plane.

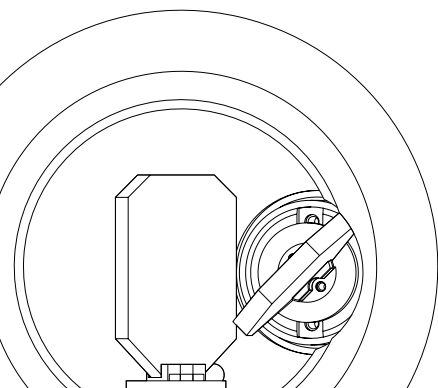
Key Features

- Compact & light-weight design
- Very fast writing speed
- Excellent price/performance ratio

The basiCube scan head series offers superior cost effectiveness and is optimized for coding and marking.

Typical Applications

- Marking
- Processing-on-the-fly



Specifications

Dynamics

	basiCube 10
Aperture [mm]	10
Tracking error [ms]	0.14
Typical speeds ⁽¹⁾	
Marking speed [m/s]	2.5
Positioning speed [m/s]	12.0
Writing speed ⁽²⁾	
Good writing quality [cps]	800
High writing quality [cps]	570
Step response time ⁽³⁾	
1% of full scale [ms]	0.35
10% of full scale [ms]	1.0

⁽¹⁾ with F-Theta objective, f = 160 mm

⁽²⁾ single-stroke characters of 1 mm height

⁽³⁾ settling to 1/1000 of full scale

Precision & Stability

	basiCube
Repeatability (RMS) [μrad]	< 2.0
Positioning resolution [Bit] ⁽⁴⁾	16
Nonlinearity	< 3.5 mrad/44° ⁽⁶⁾
Temperature drift	
Offset [μrad/K]	< 30
Gain [ppm/K]	< 160
Long-term drift	
8-h-drift (after 30 min warm-up) ⁽⁵⁾	
Offset [μrad]	< 100
Gain [ppm]	< 250

⁽⁴⁾ based on the full angle range (e.g. positioning resolution 11 μrad for angle range ±0.36 rad)

⁽⁵⁾ at constant ambient temperature and load

⁽⁶⁾ 44° = 0.768 rad

Further Specifications

	basiCube
Optical performance	
Typical scan angle [rad]	±0.35
Gain error [mrad]	< 5
Zero offset [mrad]	< 5
Power requirements	±15 V DC, max. 3 A each
Interface (digital)	SL2-100, XY2-100
Operating temperature [°C]	25 ± 10

(all angles are in optical degrees)

Options & Variants

Extensions

- varioSCAN: Extension into a 3-axis scan system

Optics

- Coatings for the following wavelengths: 355 nm, 532 nm, 1064 nm, 10600 nm
- Suitable objectives available for various image fields and focal lengths

Control Boards

- RTC4 (PCIe, Ethernet) and RTC5

Software

- correXion pro: System-specific customizing of correction files
- Flexible calibration solutions: correXion pro, CALsheet

SCANcalc App

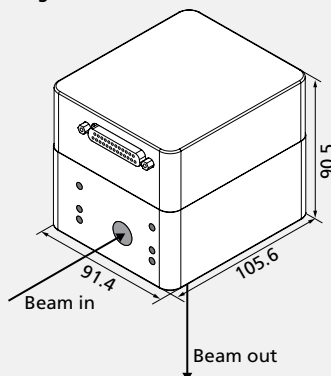


Google Play

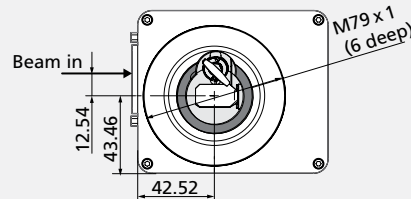
App Store

Housing

Diagonal View



Beam exit side



	basiCube 10
Aperture	10 mm
Beam displacement	12.54 mm
Weight	1.5 kg

all dimensions in mm

06/2018 information is subject to change without notice. Product photos are non-binding and may show customized features.