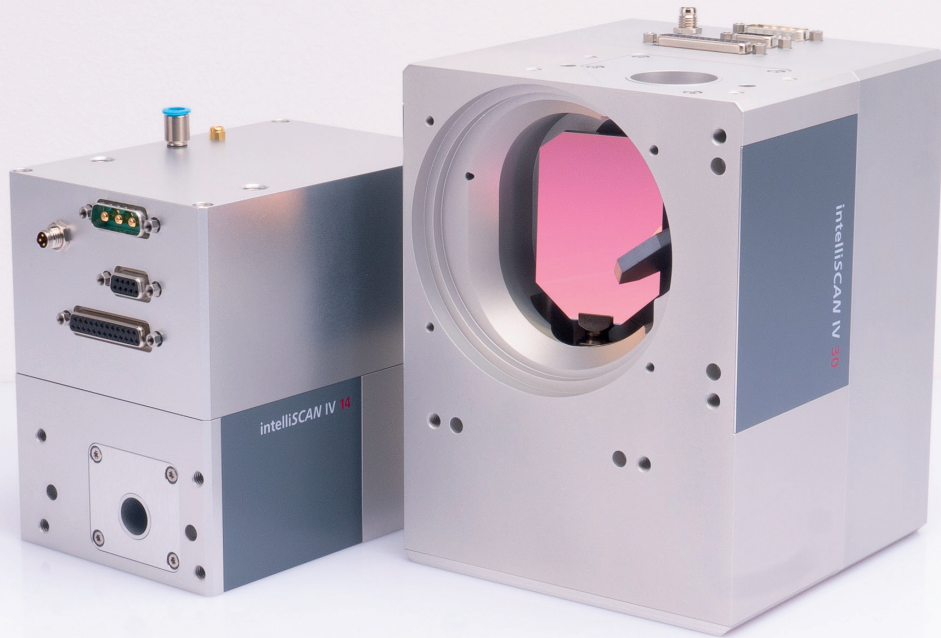


NEW!



intelliSCAN IV



Smart and High Dynamic Scanning

The intelliSCAN IV is the latest product in the successful intelliSCAN series. In addition to the traditional intelliSCAN highlights, we have equipped it with the following new ones:

Outstanding Dynamics

- 48 V power supply
- Classic tracking error tuning or SCANAhead control available
- SCANmotionControl support
- New cooling concept specially adapted for high dynamics

SCANahead Control

- Fully utilized galvo dynamics for increased throughput
- No tracking error
- Fast marking of circles without necking effects
- Auto delay function of the RTC6: Laser and scanner delays are set automatically

More information in the SCANAhead video:



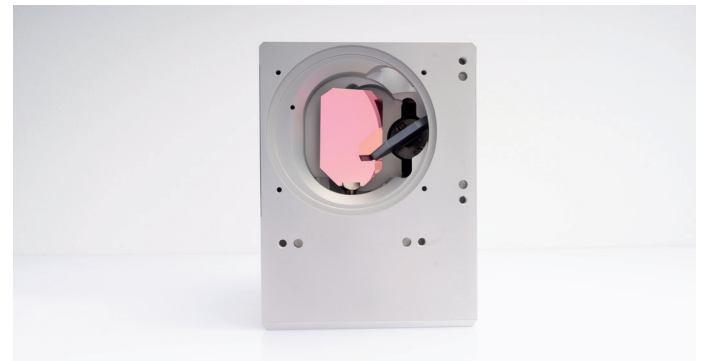
Easy Integration and Installation

- Compact, dust- and water-proof housing (IP 66)
- 20-Bit (SL2-100) and 16-Bit (XY2-100) control with automatic recognition
- Interlock connection for integration into a safety circuit

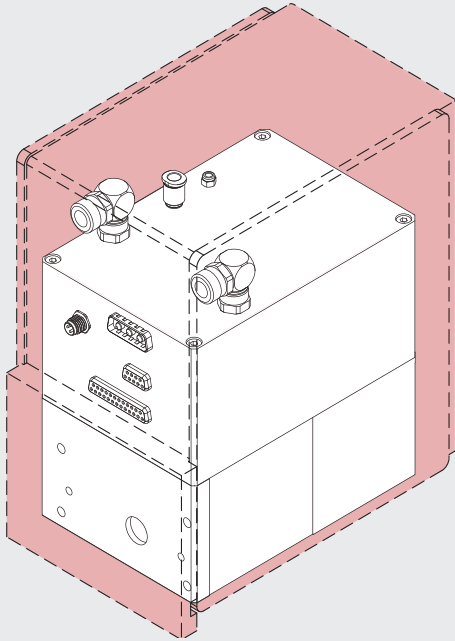
Ready for SCANmotionControl

- Highest accuracy and precise laser control through trajectory planning
- Shortest process times through optimal use of scanner dynamics and laser power
- Advanced Spot Distance Control (SDC) function
- Simple job planning and simulation: 'What you see is what you get'
- Multi-head and multi-instance capable (up to four scanners)

More information in the SCANmotionControl video:



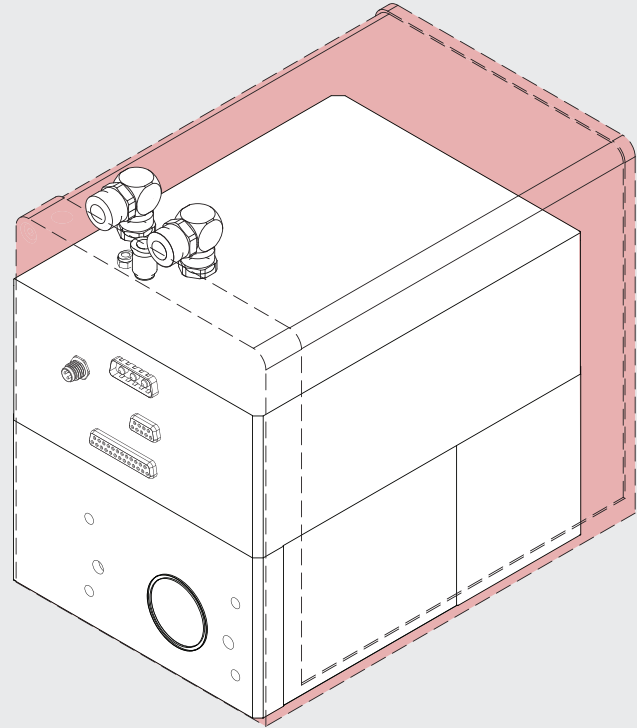
intelliSCAN IV 14



	intelliSCAN (III)	intelliSCAN IV
Height	156	141
Width	118	101
Depth	165	146

all dimensions are in mm

intelliSCAN IV 30



	intelliSCAN (III)	intelliSCAN IV
Height	180	143.7
Width	140	140
Depth	206.9	185

all dimensions are in mm

Preliminary Specifications

Dynamics	intelliSCAN IV 14		intelliSCAN IV 30	
	SCANahead	Vector	SCANahead	Vector
Tuning				
Tracking error [ms]	0	0.12	0	0.32
Acceleration [rad/s ²]	400,000	n.a.	80,000	n.a.
Maximum speed [rad/s]	240	120	56	50
[m/s] ⁽¹⁾	38.4	19.2	8.9	8.0
Writing speed				
Good writing quality [cps]	1150	740		
High writing quality [cps]	940	510		

Precision & Stability

Repeatability (RMS) [μrad]	< 2
Dither (RMS) [μrad]	< 5
Nonlinearity [μrad] ⁽²⁾	< 0.7
Temperature drift	
Offset [μrad/K]	< 15
Gain [ppm/K]	< 25
Long-term drift	
8-h-drift (after 30 min warm-up) ⁽³⁾	
Offset [μrad]	< 100
Gain [ppm]	< 100
24-h-drift (after 3 h warm-up) ⁽³⁾	
Offset [μrad]	< 100
Gain [ppm]	< 100

Further Specifications

Optical value

Typical scan angle [rad]	±0.35
Deviation of the scan angle [mrad]	< 5
Deviation from the zero position [mrad]	< 5

Power requirements (RMS)	48 V, 5 A
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Interfaces	SL2-100 & XY2-100
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Cooling water circuit material	Aluminum
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Weight [kg]	
intelliSCAN IV 14	ca. 3.5 kg
intelliSCAN IV 30	ca. 5.5 kg

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

⁽²⁾ related to 0.77 rad

⁽³⁾ at constant ambient temperature and load
(all angles are in optical degrees)



More information in the intelliSCAN IV video: