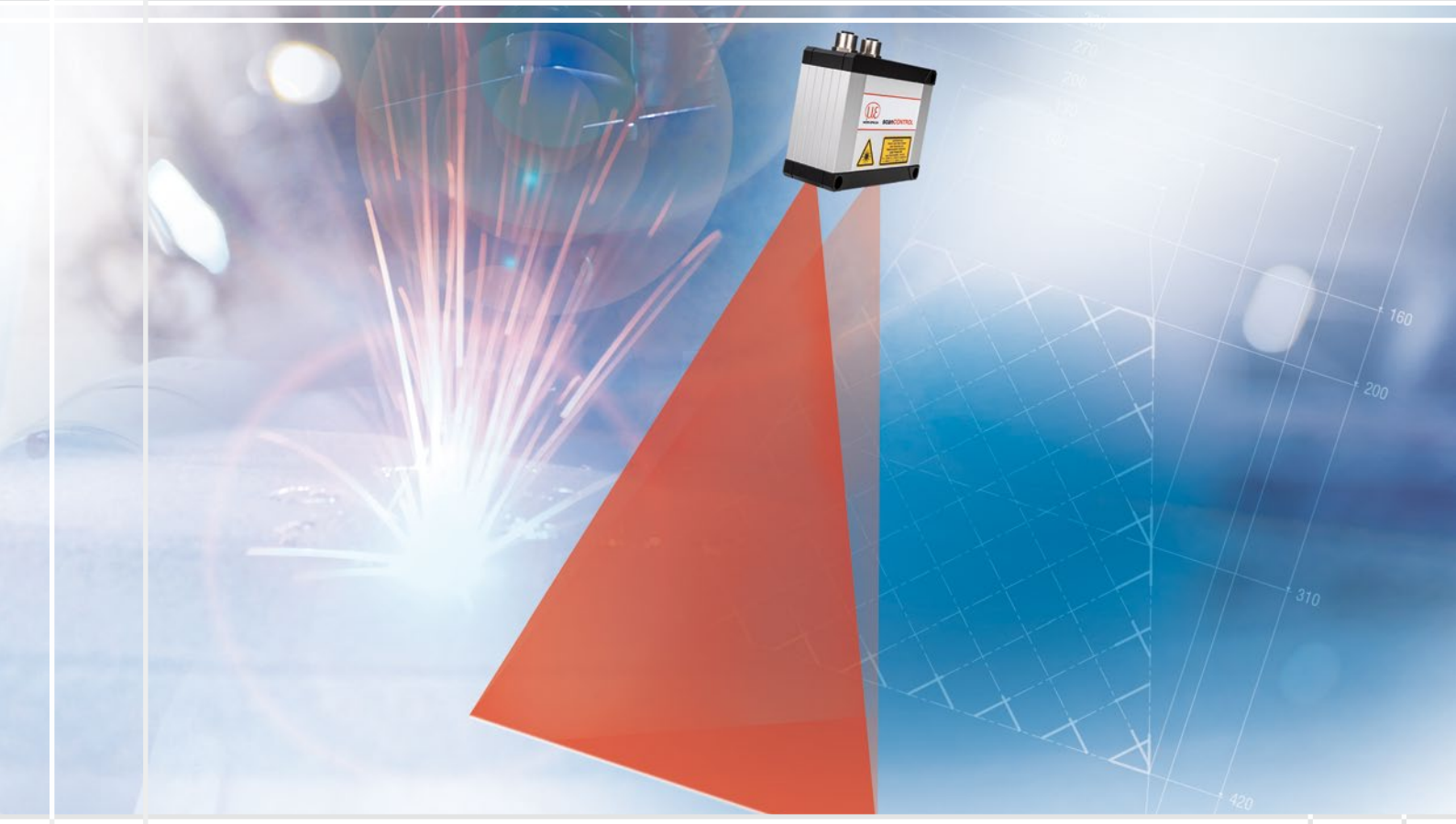
MICRO-EPSILON

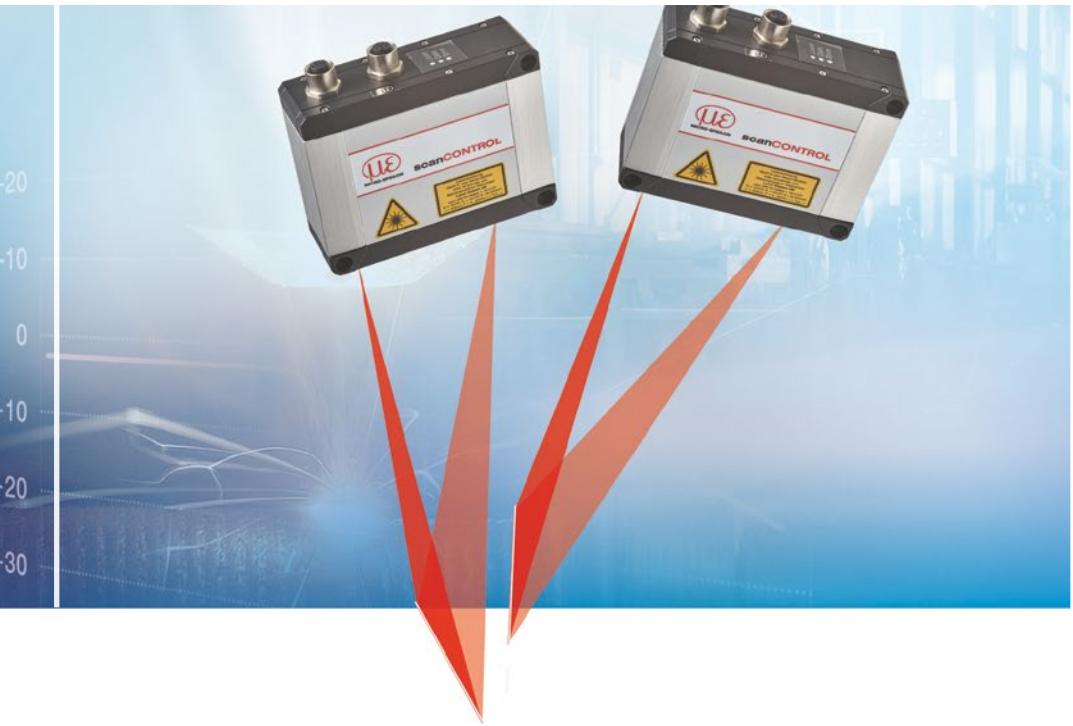
More Precision

scanCONTROL 30xx-200 // Large measuring range with highest precision



High precision 2D/3D laser scanner with large measuring range

scanCONTROL 30xx-200



- *Large measuring range and safe distance from the measurement object*
- *Profile frequency up to 10 kHz for monitoring of dynamic processes*
- *High resolution in x- and z-axis*
- *Comprehensive software included*
- *Numerous interfaces and possibilities for process integration*
- *Innovative exposure control*

Precise profile measurement with large measuring range

The scanCONTROL 30xx-200 offers a new and particularly large measuring range of 200 x 300 mm which now also enables the measurement of large components with the highest precision. For example, the scanCONTROL 30xx-200 is used in wood processing, the packaging industry, robot control, rail construction, as well as battery and automotive manufacturing.

Due to this new measuring range, scanCONTROL sensors are now available with measuring ranges from 10 mm to 200 mm. This enables a large number of industrial measurement tasks to be solved.

Fast and precise 2D/3D profile measurements

In terms of their size, accuracy and measuring rate, scanCONTROL laser scanners are among the highest performing laser profile sensors in the world. The latest LLT30xx laser profile scanners provide calibrated 2D profile data with up to 5.5 million points per second. The large measuring range in the X and Z axes enables large objects to be detected while maintaining a large offset distance.

Enabling profile frequency of 10 kHz, the HIGHSPEED models are used for monitoring tasks in dynamic processes. The sensor matrix offers a resolution of 2,048 points.

The easy way of machine integration with integrated controller

The design of the LLT30xx series is compact and lightweight. The controller is integrated in the sensor itself, which simplifies mechanical integration. Numerous interfaces such as digital switch signals, Ethernet, PROFINET, EtherNet/IP or EtherCAT allow for measured data to be output directly.

Innovative exposure control to master difficult surfaces

On inhomogeneous or dark surfaces, the HDR (High Dynamic Range) data acquisition mode and the improved auto exposure optimizes the measurement results.

In HDR mode, the rows of the sensor matrix are exposed differently but at the same time which avoids time offsets between the recordings. This is how moving objects can be detected reliably. The auto exposure feature enables individual selection of the areas to be exposed.

Top performances with selectable operating modes

Choose from three predefined operating modes for your specific measurement task: "High-Resolution" for maximum precision, "High Dynamic Range" for optimal profile detection on difficult surfaces and "High Speed" for ultra-fast measurements.

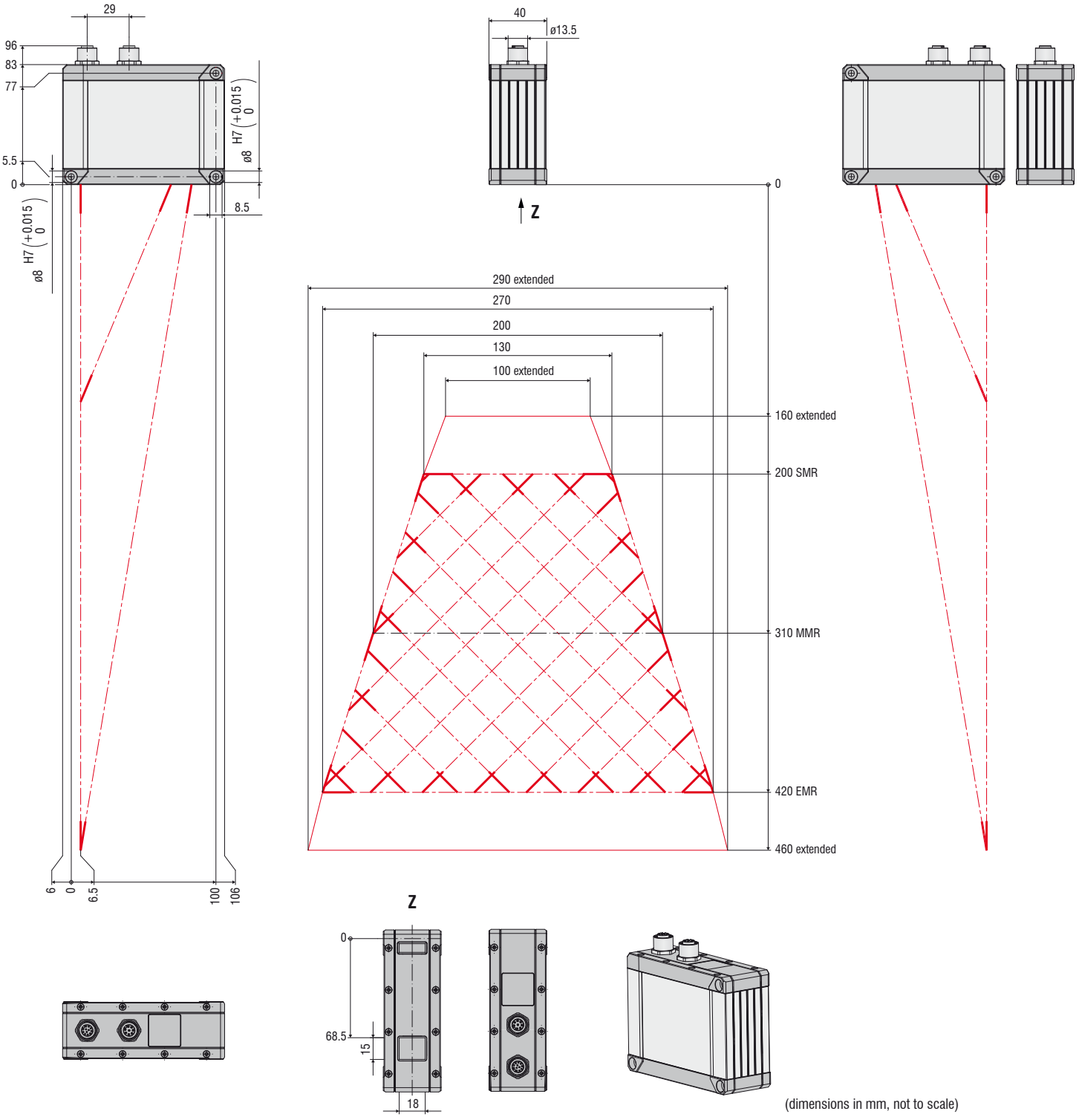
Inspection of car tires

Measuring the inside of the rail

	Model		LLT 30xx-200
Z-axis	Standard measuring range	Start of measuring range	200 mm
		Mid of measuring range	310 mm
		End of measuring range	420 mm
		Height of measuring range	220 mm
	Extended measuring range	Start of measuring range	160 mm
		End of measuring range	460 mm
	Linearity [1]	(2sigma)	±0.10 % FSO
	Reference resolution [2] [3]		26 µm
X-axis	Standard measuring range	Start of measuring range	130 mm
		Mid of measuring range	200 mm
		End of measuring range	270 mm
	Extended measuring range	Start of measuring range	100 mm
		End of measuring range	290 mm
	Resolution (x-axis)		2,048 points/profile
	Profile frequency	Standard	up to 300 Hz
		HIGHSPEED	up to 10,000 Hz
	Interfaces	Ethernet GigE Vision	Output of measurement values Sensor control Profile data transmission
		digital inputs	Mode switching Encoder (counter) Trigger
		RS422 (half-duplex) [4]	Output of measurement values Sensor control Trigger Synchronization
	Output of measurement values		Ethernet (UDP / Modbus TCP); RS422 (ASCII / Modbus RTU) analog [5]; switch signal [5] PROFINET [6]; EtherCAT [6]; EtherNet/IP [6]
	Display (LED)		1 x Laser ON/OFF, 1 x Data, 1 x Error
	Light source		Semiconductor laser 658 nm (red)
	Aperture angle of laser line		45°
	Laser power	Standard	≤ 12 mW (laser class 2M)
		optional	≤ 50 mW (laser class 3R)
	Laser switch-off		via software, hardware switch-off with /SI option
	Permissible ambient light (fluorescent light) [2]		10,000 lx
	Protection class (sensor)		IP67 (when connected)
	EMC requirements		According to DIN EN 61000-6-2: 2005, DIN EN61000-6-3: 2007, DIN EN61326-1:2013 and DIN EN50581:2012
	Vibration		2 g / 20 … 500 Hz
	Shock		15 g / 6 ms
	Operating temperature		0 … +45 °C
	Storage temperature		-20 … +70 °C
	Dimensions		96 x 112 x 40 mm
	Sensor weight (without cable)		415 g
	Power supply		11 … 30 VDC, nominal value 24 V, 500 mA, IEEE 802.3af class 2, Power over Ethernet

FSO = Full Scale Output
[1] Measuring range (standard)
[2] Measurement object: Micro-Epsilon standard object
[3] According to a one-time averaging across the measuring field (2,048 points
[4] RS422 interface, programmable either as serial interface or as input for triggering/synchronization
[5] Only with Output Unit
[6] Only with scanCONTROL Gateway

Dimensions:



(dimensions in mm, not to scale)

MICRO-EPSILON

MICRO-EPSILON Headquarters
Koenigbacher Str. 15 · 94496 Ortenburg / Germany
Tel. +49 (0) 8542 / 168-0 · Fax +49 (0) 8542 / 168-90
info@micro-epsilon.com · **www.micro-epsilon.com**