



More Precision

scanCONTROL // 2D/3D Laser profile sensors



Model		LLT 30x2-430	LLT 30x2-600	
Available laser type		Red Laser	Red Laser	
z-axis	Measuring range	Start of measuring range	330 mm	530 mm
		Mid of measuring range	515 mm	770 mm
		End of measuring range	700 mm	1010 mm
		Height of measuring range	370 mm	480 mm
	Extended measuring range	Start of measuring range	330 mm	450 mm
		End of measuring range	720 mm	1050 mm
Line linearity ¹⁾²⁾		15 μ m	22 μ m	
		± 0.0041 %	± 0.0045 %	
x-axis	Measuring range	Start of measuring range	324 mm	456 mm
		Mid of measuring range	430 mm	600 mm
		End of measuring range	544 mm	762 mm
	Extended measuring range	Start of measuring range	324 mm	408 mm
		End of measuring range	560 mm	788 mm
Resolution		1,024 points/profile		
Profile frequency		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) ³⁾	Output of measurement values Sensor control Trigger Synchronization		
Output of measurement values		Ethernet (UDP / Modbus TCP); RS422 (ASCII / Modbus RTU) analog ⁴⁾ ; switch signal ⁴⁾ PROFINET ⁵⁾ ; EtherCAT ⁵⁾ ; EtherNet/IP ⁵⁾		
Control and display elements		3x color LEDs for laser, data and error		
Light source	Red Laser		≤ 26 mW	
			Standard: laser class 2M, semiconductor laser 660 nm	
			≤ 100 mW	
	Laser switch-off		Option: laser class 3R, semiconductor laser 660 nm via software, hardware switch-off with /SI option	
Aperture angle of laser line		60 °		
Permissible ambient light (fluorescent light) ¹⁾		5,000 lx		
Protection class (DIN EN 60529)		IP67 (when connected)		
Vibration (DIN EN 60068-2-27)		2 g / 20 ... 500 Hz		
Shock (DIN EN 60068-2-6)		15 g / 6 ms		
Temperature range	Storage	-20 ... +70 °C		
	Operation	0 ... +45 °C		
Weight		2620 g (without cable)		
Supply voltage		11 ... 30 VDC, nominal value 24 V, 500 mA, IEEE 802.3af class 2, Power over Ethernet (PoE)		
Connections		Sockets, cable outlets on top (/PT)		

¹⁾ Based on the measuring range; measuring object: Micro-Epsilon standard object

²⁾ According to a one-time averaging over the measuring field (1,024 points)

³⁾ RS422 interface, programmable either as serial interface or as input for triggering/synchronization

⁴⁾ Only with 2D/3D Output Unit

⁵⁾ Only with 2D/3D Gateway

Model		LLT 30x0-430	LLT 30x0-600	
Available laser type		Red Laser	Red Laser	
z-axis	Measuring range	Start of measuring range	330 mm	530 mm
		Mid of measuring range	515 mm	770 mm
		End of measuring range	700 mm	1010 mm
	Extended measuring range	Height of measuring range	370 mm	480 mm
		Start of measuring range	330 mm	450 mm
		End of measuring range	720 mm	1050 mm
Line linearity ¹⁾²⁾		12 μm	15 μm	
		±0.0032 %	±0.0031 %	
x-axis	Measuring range	Start of measuring range	324 mm	456 mm
		Mid of measuring range	430 mm	600 mm
		End of measuring range	544 mm	762 mm
	Extended measuring range	Start of measuring range	324 mm	408 mm
		End of measuring range	560 mm	788 mm
Resolution		2,048 points/profile		
Profile frequency		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) ³⁾	Output of measurement values Sensor control Trigger Synchronization		
Output of measurement values		Ethernet (UDP / Modbus TCP); RS422 (ASCII / Modbus RTU) analog ⁴⁾ ; switch signal ⁴⁾ PROFINET ⁵⁾ ; EtherCAT ⁵⁾ ; EtherNet/IP ⁵⁾		
Control and display elements		3x color LEDs for laser, data and error		
Light source	Red Laser		≤ 26 mW	
			Standard: laser class 2M, semiconductor laser 660 nm	
			≤ 100 mW	
	Laser switch-off	Option: laser class 3R, semiconductor laser 660 nm via software, hardware switch-off with /SI option		
Aperture angle of laser line		60 °		
Permissible ambient light (fluorescent light) ¹⁾		5,000 lx		
Protection class (DIN EN 60529)		IP67 (when connected)		
Vibration (DIN EN 60068-2-27)		2 g / 20 ... 500 Hz		
Shock (DIN EN 60068-2-6)		15 g / 6 ms		
Temperature range	Storage	-20 ... +70 °C		
	Operation	0 ... +45 °C		
Weight		2630 g (without cable)		
Supply voltage		11 ... 30 VDC, nominal value 24 V, 500 mA, IEEE 802.3af class 2, Power over Ethernet (PoE)		
Connections		Sockets, cable outlets on top (/PT)		

¹⁾ Based on the measuring range; measuring object: Micro-Epsilon standard object

²⁾ According to a one-time averaging over the measuring field (2,048 points)

³⁾ RS422 interface, programmable either as serial interface or as input for triggering/synchronization

⁴⁾ Only with 2D/3D Output Unit

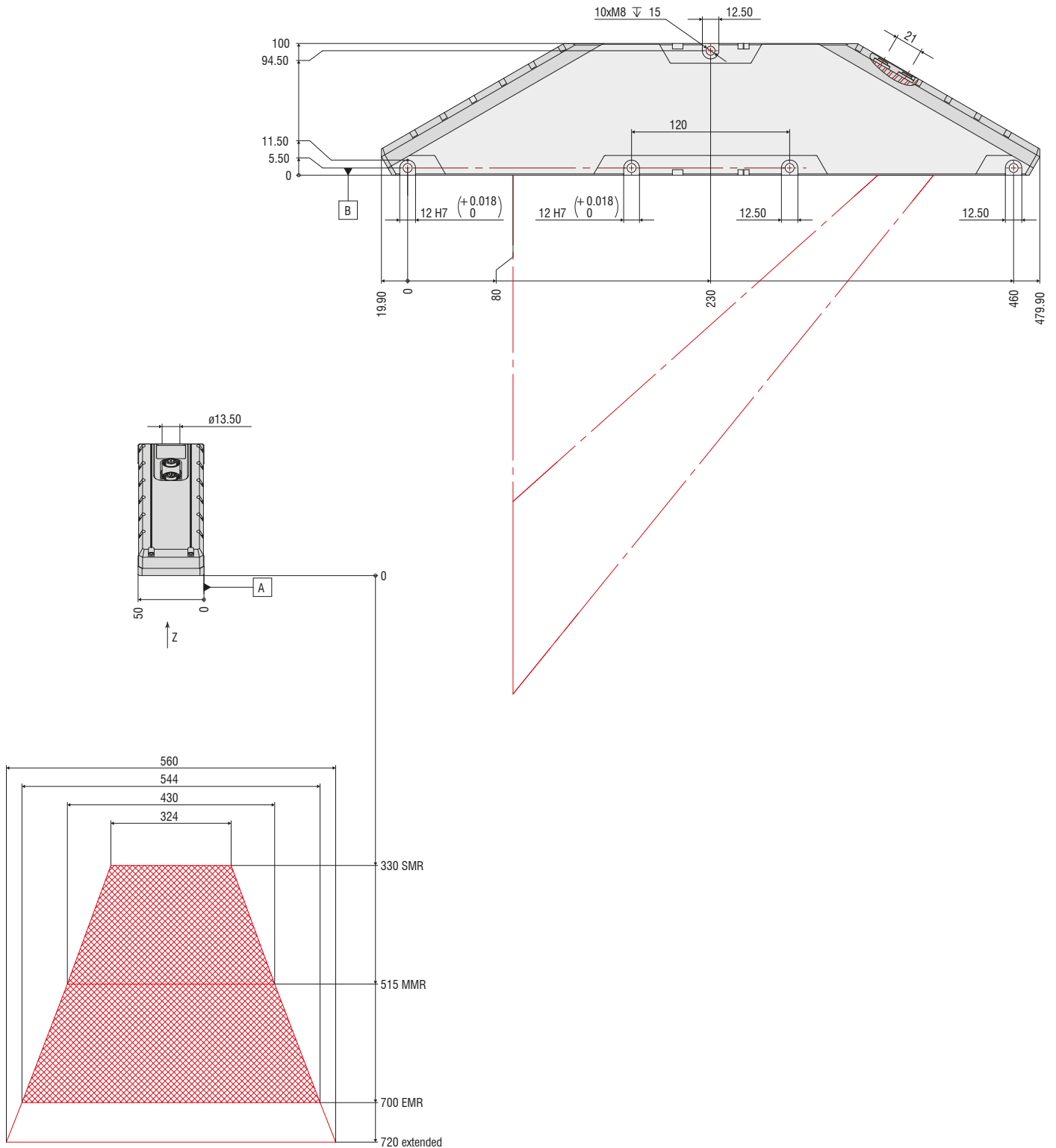
⁵⁾ Only with 2D/3D Gateway

Dimensions and measuring ranges

scanCONTROL 30xx

LLT30x2-430 / LLT30x0-430

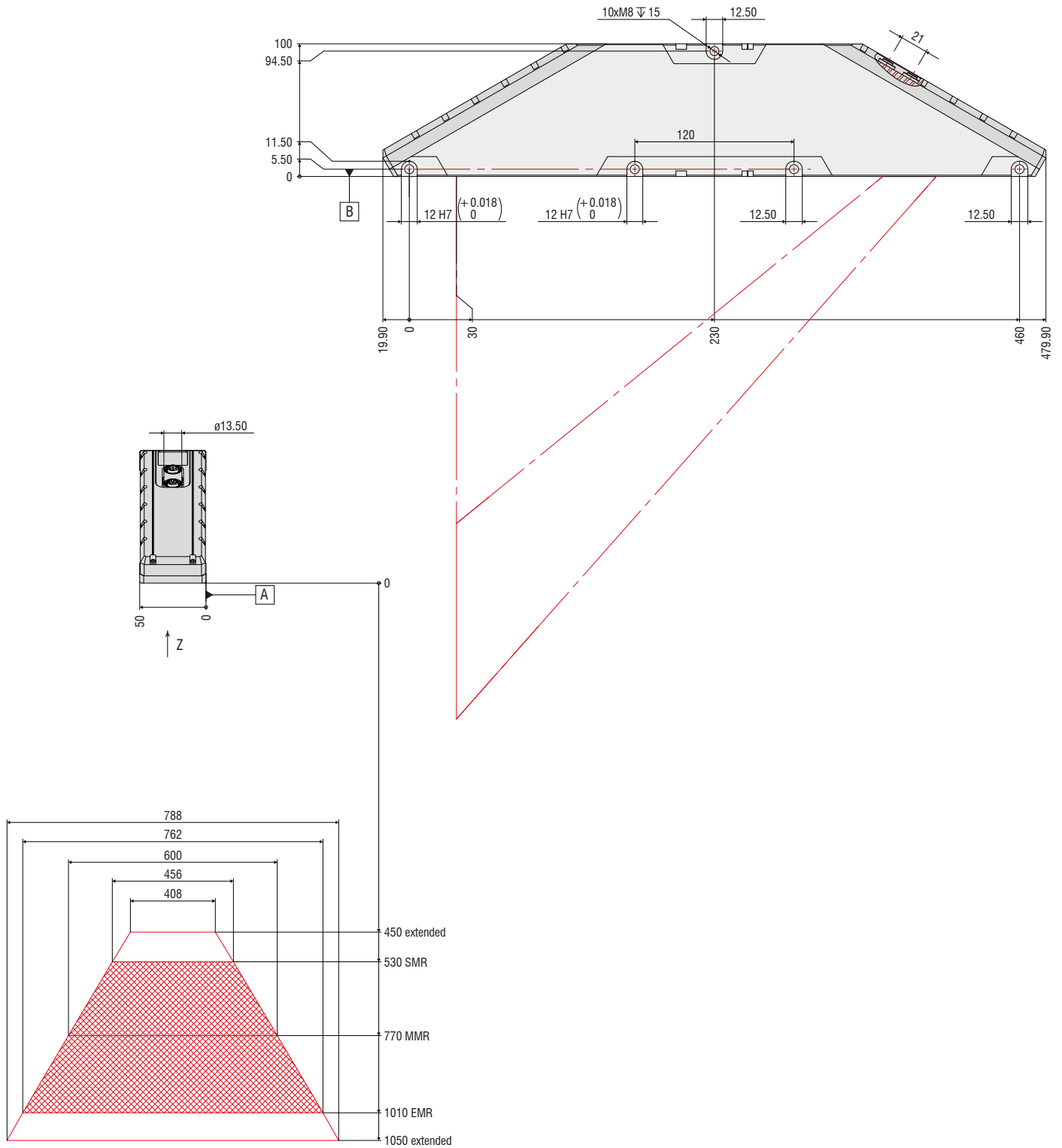
Red Laser



(dimensions in mm, not to scale)

LLT30x2-600 / LLT30x0-600

Red Laser



(dimensions in mm, not to scale)

Sensors and Systems from Micro-Epsilon



Sensors and systems for displacement, position and dimension



Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for quality assurance



Optical micrometers, fiber optics, measuring and test amplifiers



Color recognition sensors, LED Analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection

