

2D/3D Profile Sensor

MLWL101 LASER

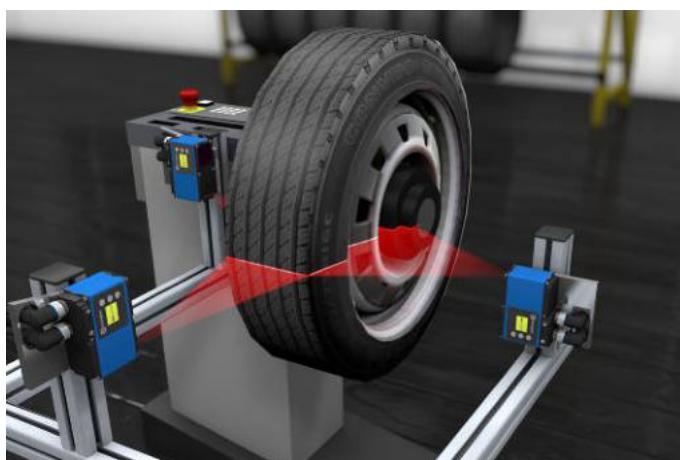
Part Number

weCat3D



- Optimized profile quality thanks to HDR function
- Precise measuring range resolution X (> 2000 measuring points)
- Up to 12 million measuring points per second

2D/3D Profile Sensors project a laser line onto the object to be detected and generate an accurate, linearized height profile with an internal camera which is set up at a triangulation angle. Thanks to its uniform, open interface, the weCat3D series can be incorporated by means of the DLL program library or the GigE Vision standard without an additional control unit. Alternatively, wenglor offers its own software packages for implementing your application.



Technical Data

Optical Data

Working range Z	70...130 mm
Measuring range Z	60 mm
Measuring range X	30...52 mm
Linearity Deviation	15 μ m
Resolution Z	2...4.9 μ m
Resolution X	17...26 μ m
Light Source	Laser (red)
Wavelength	660 nm
Laser Class (EN 60825-1)	1M
Max. Ambient Light	5000 Lux

Electrical Data

Supply Voltage	18...30 V DC
Current Consumption (Ub = 24 V)	300 mA
Measuring Rate	175...6000 /s
Subsampling	350...6000 /s
Temperature Range	0...45 °C
Storage temperature	-20...70 °C
Inputs/Outputs	4
Switching Output Voltage Drop	< 1,5 V
Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Interface	Ethernet TCP/IP
Baud Rate	100/1000 Mbit/s
Protection Class	III
FDA Accession Number	1610573-000

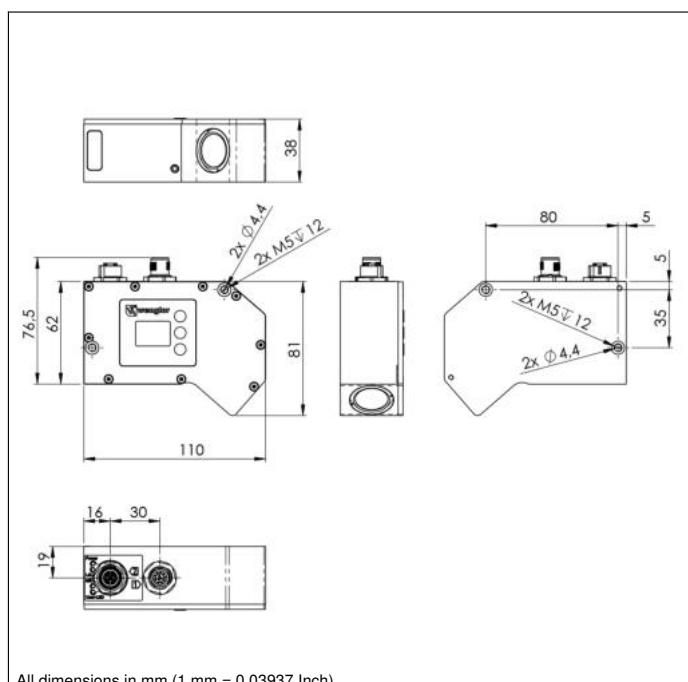
Mechanical Data

Housing Material	Aluminum
Degree of Protection	IP67
Connection	M12 x 1; 12-pin
Type of Connection Ethernet	M12 x 1; 8-pin, X-cod.
Optic Cover	Glass
Weight	480 g
Web server	yes
Configurable as PNP/NPN/Push-Pull	
Switchable to NC/NO	
Connection Diagram No.	1022 1034
Control Panel No.	X2 A22
Suitable Connection Equipment No.	50 87
Suitable Mounting Technology No.	343

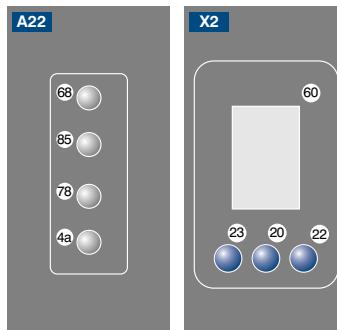
Display brightness may decrease with age. This does not result in any impairment of the sensor function.

Complementary Products

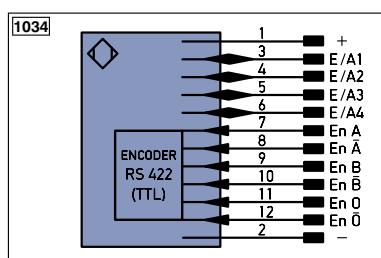
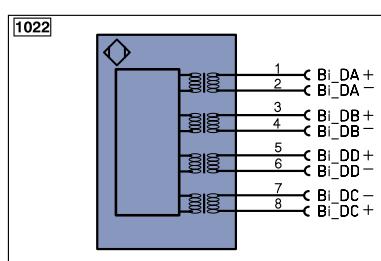
Control Unit
Cooling Unit ZLWK001
Protective Screen Retainer ZLWS001
Software
Switch EHSS001



Ctrl. Panel



20 = Enter Button
 22 = UP Button
 23 = Down Button
 4a = User LED
 60 = Display
 68 = Supply Voltage Indicator
 78 = Module status
 85 = Link/Act LED

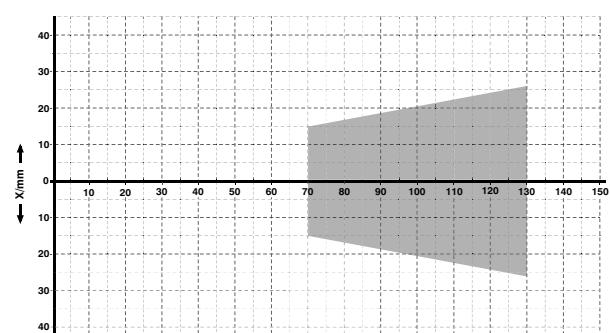


Legend

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ü	Test Input inverted
W	Trigger Input
W-	Ground for the Trigger Input
O	Analog Output
O-	Ground for the Analog Output
BZ	Block Discharge
Awv	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
SY-	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
±	Grounding
SnR	Switching Distance Reduction
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
IO-Link	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSD	Safety Output
Signal	Signal Output
BL-D	Ethernet Gigabit bidirect. data line (A-D)
EN0RS422	Encoder 0-pulse 0-0 (TTL)
	Encoder A/Ā (TTL)
	Encoder B/Ā (TTL)
	Encoder A
	Encoder B
	Digital output MIN
	Digital output MAX
	Digital output OK
	Synchronization In
	Synchronization OUT
	Brightness output
	Maintenance
rsv	reserved
	Wire Colors according to IEC 60757
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow

Measuring field X, Z

MLWL1x1



Z = Working distance

X = Measuring Range

