

2D/3D Profile Sensor

MLWL132 LASER

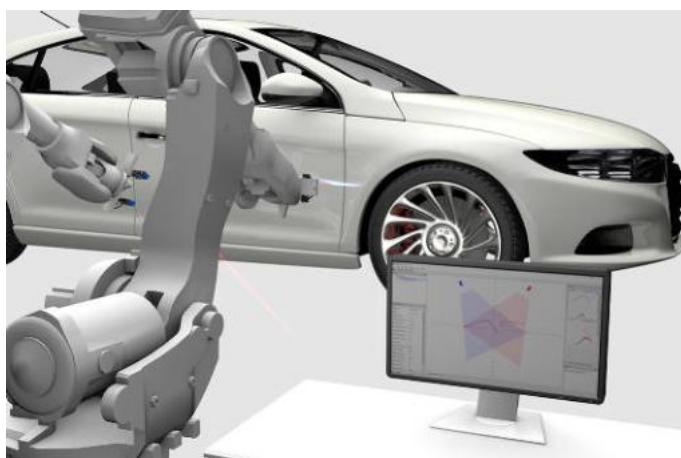
Part Number

weCat3D



- Blue light for applications on metal, organic or semi-transparent materials
- 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	83...213 mm
Measuring range Z	130 mm
Measuring range X	50...110 mm
Linearity Deviation	32,5 μ m
Resolution Z	3,2...14 μ m
Resolution X	26...55 μ m
Light Source	Laser (blue)
Wavelength	405 nm
Laser Class (EN 60825-1)	2M
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	1710273-000

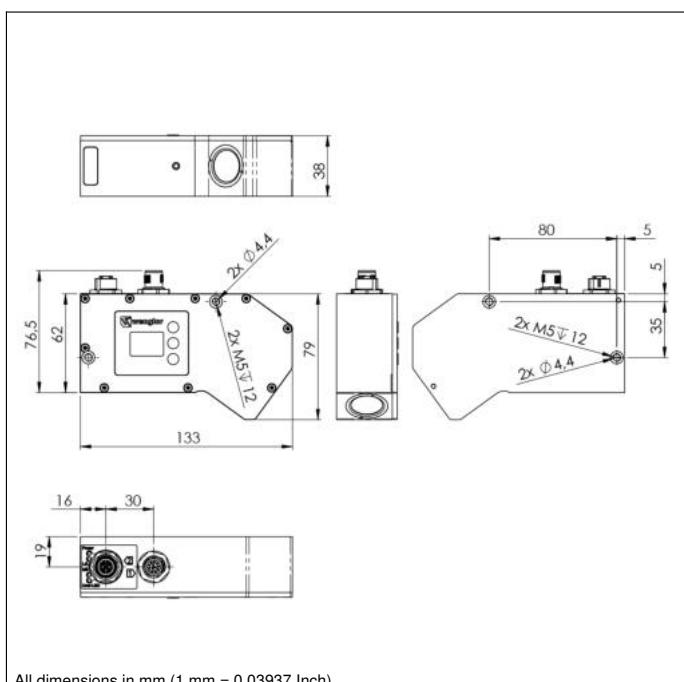
Mechanical Data

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	570 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

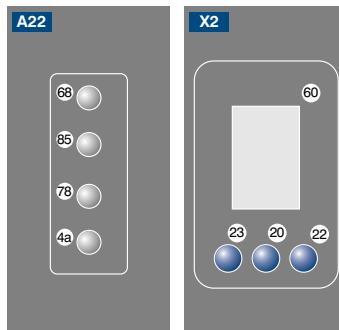
Display brightness may decrease with age. This does not result in any impairment of the sensor function.

Complementary Products

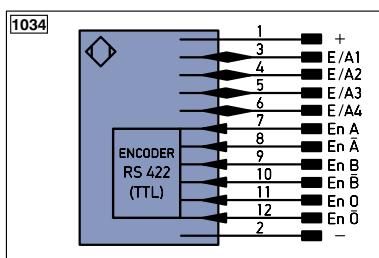
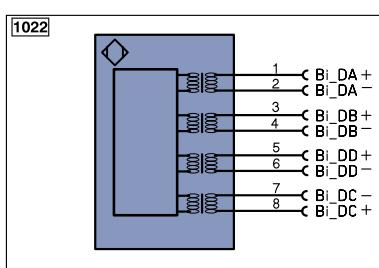
Control Unit
Cooling Unit ZLWK002
Protective Screen Retainer ZLWS002
Software
Switch EHSS001



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
Rx+/-	Ethernet Receive Path
Tx+/-	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring

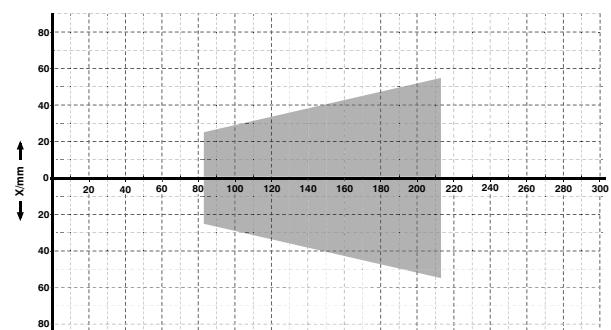
EN_{RS422} Encoder A/Ā (TTL)
 EN_{BRS422} Encoder B/Ā (TTL)
 ENA Encoder A
 ENB Encoder B
 AMIN Digital output MIN
 AMAX Digital output MAX
 AOK Digital output OK
 SY IN Synchronization IN
 SY OUT Synchronization OUT
 OL Brightness output
 M Maintenance
 rsv reserved

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

MLWL1x2



Z = Working distance

X = Measuring Range

