

# 2D/3D Profile Sensor

## MLSL226

Part Number

weCat3D



- Compact, lightweight design – even suitable for robot applications
- Precise measuring range resolution X (> 1200 measuring points)
- Up to 3.6 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           | 300...1500 mm |
| Measuring range Z         | 1200 mm       |
| Measuring range X         | 250...1350 mm |
| Linearity Deviation       | 600 µm        |
| Resolution Z              | 60...990 µm   |
| Resolution X              | 270...1170 µm |
| Light Source              | Laser (red)   |
| Wavelength                | 660 nm        |
| Service Life (T = +25 °C) | 20000 h       |
| Laser Class (EN 60825-1)  | 2             |

#### Environmental conditions

|                                            |                                |
|--------------------------------------------|--------------------------------|
| Ambient temperature                        | 0...45 °C                      |
| Storage temperature                        | -20...70 °C                    |
| Max. Ambient Light                         | 5000 Lux                       |
| EMC                                        | DIN EN 61000-6-2;<br>61000-6-4 |
| Shock resistance per DIN IEC 68-2-27       | 30 g / 11 ms                   |
| Vibration resistance per DIN IEC 60068-2-6 | 6 g (10...55 Hz)               |
| Atmospheric humidity                       | 5...95%, non-condensing        |

#### Electrical Data

|                                             |                 |
|---------------------------------------------|-----------------|
| Supply Voltage                              | 18...30 V DC    |
| Current Consumption (U <sub>b</sub> = 24 V) | 300 mA          |
| Measuring Rate                              | 200...4000 /s   |
| Subsampling                                 | 800...4000 /s   |
| 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                        | 1710959-000     |

#### Mechanical Data

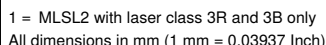
|                             |                         |
|-----------------------------|-------------------------|
| Housing Material            | Aluminum, powder-coated |
| Housing Material            | Plastic, ABS            |
| Degree of Protection        | IP67                    |
| UL Enclosure Type           | 1                       |
| Connection                  | M12 × 1; 12-pin         |
| Type of Connection Ethernet | M12 × 1; 8-pin, X-cod.  |
| Optic Cover                 | Plastic, PMMA           |
| Web server                  | yes                     |

#### Push-Pull

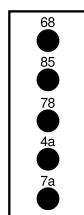
|                                   |      |      |
|-----------------------------------|------|------|
| Connection Diagram No.            | 1022 | 1034 |
| Control Panel No.                 | X2   | A26  |
| Suitable Connection Equipment No. | 50   | 87   |
| Suitable Mounting Technology No.  | 343  |      |

### Complementary Products

|                                    |
|------------------------------------|
| Connection cables                  |
| Control Unit                       |
| Cooling Unit ZLSK001               |
| EHSS001 Switch                     |
| Machine Vision Controller MVC      |
| Protective Screen Retainer ZLSS002 |
| Software                           |



## A26



20 = Enter key

22 = Up key

23 = Down key

4a = User LED

60 = display

68 = supply voltage indicator

78 = Module status

7a = Laser (MLSL2 with laser class 3R and 3B only)

85 = Link/Act LED



Legend

 $Z = \text{Working distance}$ 

X = Measuring Range

