

3D Sensor

MLAS203

Part Number

ShapeDrive



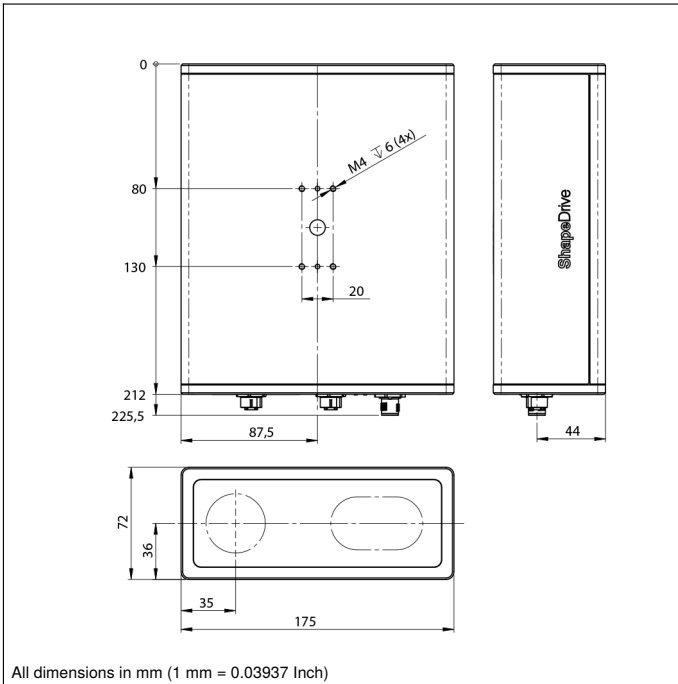
- 10 Gbit/s interface for high speed data transfer
- 12 MP resolution
- Short recording times of up to 0.44 s

ShapeDrive MLAS 3D Sensors are distinguished by high precision for minimal measuring volumes. The ten models in this series are available in two performance classes with camera resolutions of 5 and 12 megapixels. All ShapeDrive sensors are ideally suited for use in industrial environments thanks to the rugged IP65 housing. With its 10 Gigabit Ethernet interface and five measuring ranges in each performance class, ShapeDrive is also distinguished by great diversity and high speed.

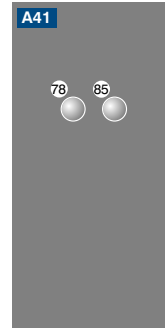
Technical Data

| Optical Data | |
|--|------------------------|
| Working range Z | 220...320 mm |
| Measuring range Z | 100 mm |
| Measuring range X | 120 mm |
| Measuring range Y | 80 mm |
| Resolution Z | 9 μ m |
| Resolution X/Y | 33 μ m |
| Camera Resolution | 4096 x 3000 Pixel |
| Light Source | LED (blue) |
| Wavelength | 460 nm |
| Service Life (T = +25 °C) | 20000 h |
| Risk Group (EN 62471) | 2 |
| Max. Ambient Light | 5000 Lux |
| Electrical Data | |
| Supply Voltage | 18...30 V DC |
| Max. Current Consumption (U _b = 24 V) | 3,5 A |
| Recording duration | 0,44...2,15 s |
| Temperature Range | 0...35 °C |
| Storage temperature | -5...70 °C |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Interface | Ethernet TCP/IP |
| Baud Rate | 100 Mbit/s |
| Baud Rate (10 GbE) | 10 Gbit/s |
| Protection Class | III |
| Mechanical Data | |
| Housing Material | Aluminium; Plastic |
| Degree of Protection | IP65 |
| Connection | M12 x 1; 12-pin |
| Type of Connection Ethernet | M12 x 1; 8-pin, X-cod. |
| Optic Cover | Plastic |
| Weight | 2500 g |
| Web server | yes |
| Connection Diagram No. | 238 1022 |
| Control Panel No. | A41 |
| Suitable Connection Equipment No. | 50 87 |
| Suitable Mounting Technology No. | 343 |

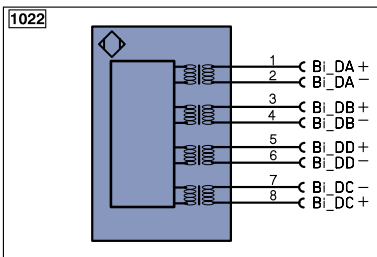
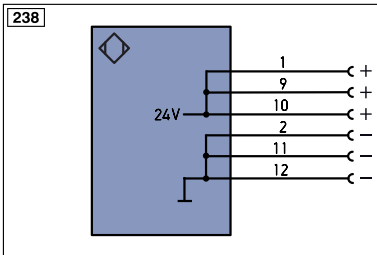




Ctrl. Panel



78 = Module status
85 = Link/Act LED



Legend

| | | |
|--|--|---|
| + Supply Voltage + | nc not connected | EN_AES42Z Encoder A/Ā (TTL) |
| - Supply Voltage 0 V | U Test Input | EN_BES42Z Encoder B/B̄ (TTL) |
| ~ Supply Voltage (AC Voltage) | Ū Test Input inverted | EN_A Encoder A |
| A Switching Output (NO) | W Trigger Input | EN_B Encoder B |
| Ā Switching Output (NC) | W- Ground for the Trigger Input | A_{MIN} Digital output MIN |
| V Contamination/Error Output (NO) | O Analog Output | A_{MAX} Digital output MAX |
| V̄ Contamination/Error Output (NC) | O- Ground for the Analog Output | A_{OK} Digital output OK |
| E Input (analog or digital) | BZ Block Discharge | SY_{In} Synchronization In |
| T Teach Input | AW_V Valve Output | SY_{OUT} Synchronization OUT |
| Z Time Delay (activation) | a Valve Control Output + | OL_T Brightness output |
| S Shielding | b Valve Control Output 0 V | M Maintenance reserved |
| RxD Interface Receive Path | SY Synchronization | rsv reserved |
| TxD Interface Send Path | SY- Ground for the Synchronization | Wire Colors according to IEC 60757 |
| RDY Ready | E+ Receiver-Line | BK Black |
| GND Ground | S+ Emitter-Line | BN Brown |
| CL Clock | ± Grounding | RD Red |
| E/A Output/Input programmable | S_nR Switching Distance Reduction | OG Orange |
| IO-Link | Rx+/- Ethernet Receive Path | YE Yellow |
| PoE Power over Ethernet | Tx+/- Ethernet Send Path | GN Green |
| IN Safety Input | Bus Interfaces-Bus A(+)/B(-) | BU Blue |
| OSSD Safety Output | L_a Emitted Light disengageable | VT Violet |
| Signal Signal Output | Mag Magnet activation | GY Grey |
| Bi_{-D}+/- Ethernet Gigabit bidirect. data line (A-D) | RES Input confirmation | WH White |
| EN₀ES42Z Encoder 0-pulse 0-0̄ (TTL) | EDM Contactor Monitoring | PK Pink |
| | | GN_{YE} Green/Yellow |

Measuring Volume

