

# 3D Sensor

## MLBS102

Part Number



- **10 Gbit/s interface for high speed data transfer**
- **5 MP resolution**
- **Large measuring volumes (up to 1300 × 1000 × 800 mm)**
- **Short recording times of up to 0.35 s**

ShapeDrive MLBS 3D Sensors are ideally suited for applications with large measuring volumes. The six models in this series are available in two performance classes with camera resolutions of 5 and 12 megapixels. Thanks to the rugged IP67 housing, all ShapeDrive sensors are ideally suited for use in industrial environments. With its 10 Gigabit Ethernet interface and three measuring ranges in each performance class, ShapeDrive is also distinguished by great diversity and high speed.



### Technical Data

#### Optical Data

Working range Z	1550...2050 mm
Measuring range Z	500 mm
Measuring range X	750 mm
Measuring range Y	560 mm
Resolution Z	50 $\mu$ m
Resolution X/Y	406 $\mu$ m
Camera Resolution	2448 × 2048 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 (Ub = 24 V)	5 A
Recording duration	0,35...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

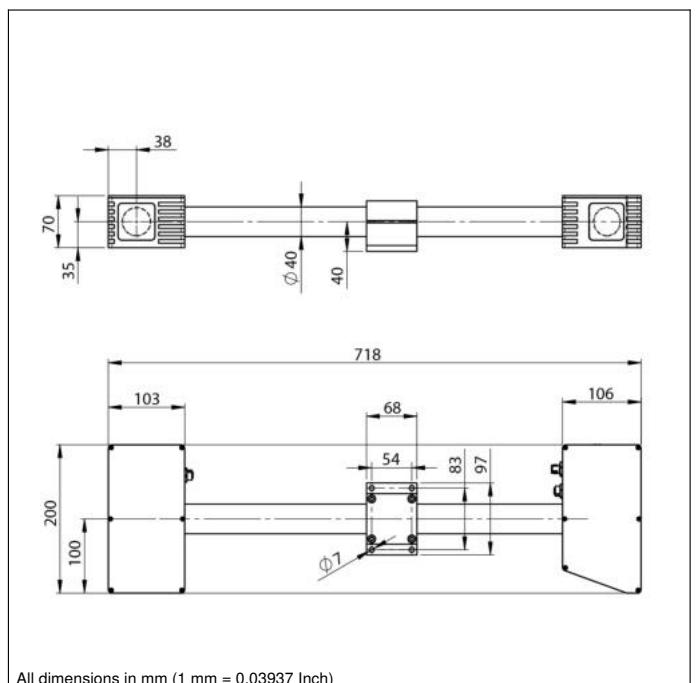
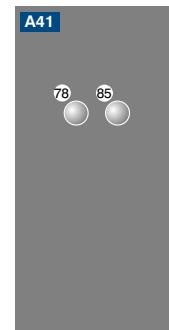
#### Mechanical Data

Housing Material	Aluminium; Plastic
Degree of Protection	IP67
Connection	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1; 8-pin, X-cod.
Optic Cover	Plastic
Weight	4500 g
Web server	yes
Connection Diagram No.	238   1022
Control Panel No.	A41
Suitable Connection Equipment No.	50   87

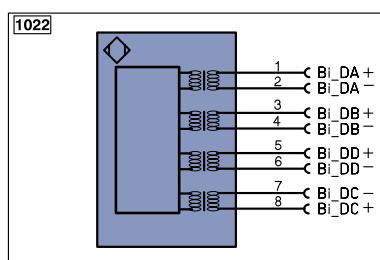
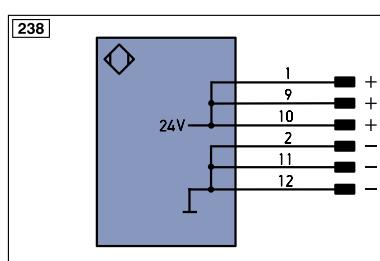
### Complementary Products

Cooling Unit ZLBK001

Cooling Unit ZLBK002


**Ctrl. Panel**


78 = Module status  
85 = Link/Act LED


**Legend**

	Supply Voltage +	PT	Platinum measuring resistor
	Supply Voltage 0 V	nc	not connected
	Supply Voltage (AC Voltage)	U	Test Input
	Switching Output (NO)	Ü	Test Input inverted
	Contamination/Error Output (NO)	W	Trigger Input
	Contamination/Error Output (NC)	W-	Ground for the Trigger Input
	Input (analog or digital)	O	Analog Output
	Teach Input	O-	Ground for the Analog Output
	Time Delay (activation)	BZ	Block Discharge
	Shielding	Awv	Valve Output
	Interface Receive Path	SY	Synchronization
	Interface Send Path	SY-	Ground for the Synchronization
	Ready	E+	Receiver-Line
	Ground	E-	Emitter-Line
	Clock	±	Grounding
	Output/Input programmable	SnR	Switching Distance Reduction
	IO-Link	Rx+/-	Ethernet Receive Path
	Power over Ethernet	Tx+/-	Ethernet Send Path
	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
	Safety Output	La	Emitted Light disengageable
	Signal Output	Mag	Magnet activation
	Ethernet Gigabit bidirec. data line (A-D)	RES	Input confirmation
	Encoder 0-pulse 0-0 (TTL)	EDM	Contactor Monitoring

EN05422	Encoder A/Ā (TTL)
EN05422	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
OLT	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 Volume**
