MLBS103

Part Number

ShapeDrive

- **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 0.188 s**

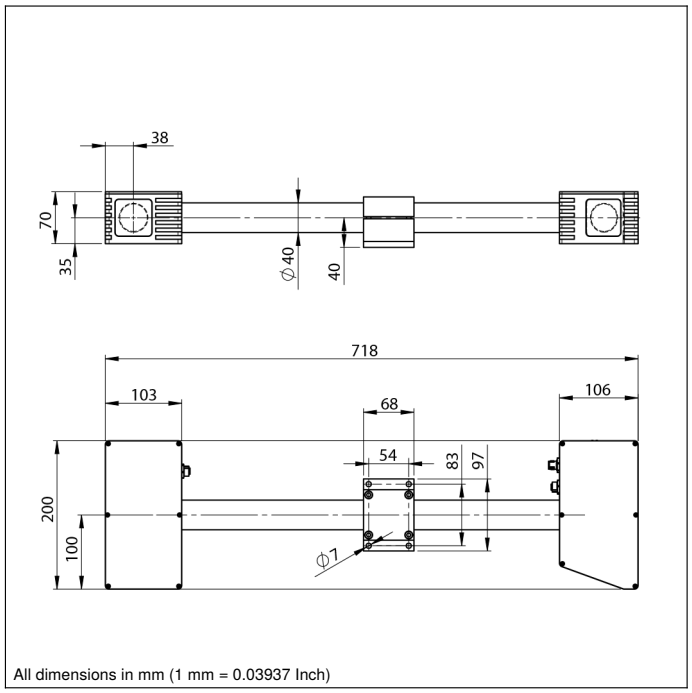
ShapeDrive MLBS 3D Sensors are ideally suited for applications with large measuring volumes. The six models in this series are available in two performance classes with camera resolutions of 5 and 12 megapixels. Thanks to the rugged IP67 housing, all ShapeDrive sensors are ideally suited for use in industrial 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	1500...2300 mm
Measuring range Z	800 mm
Measuring range X	1300 mm
Measuring range Y	1000 mm
Resolution Z	80 µm
Resolution X/Y	531 µm
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	0,188...0,61 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

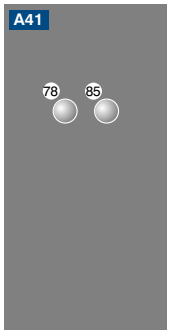
Complementary Products

Cooling Unit ZLBK001

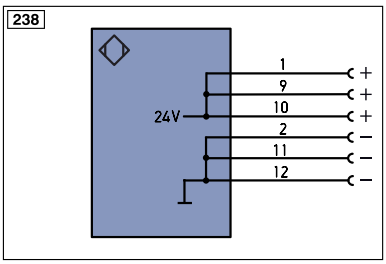


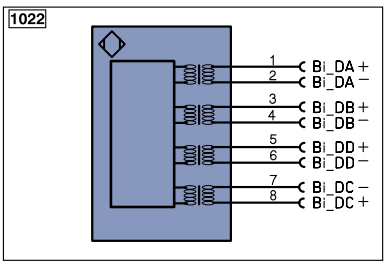
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



78 = Module status
85 = Link/Act LED





Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN RS422	Encoder 0-pulse 0-0̄ (TTL)
PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
O	Analog Output
O–	Ground for the Analog Output
BZ	Block Discharge
AMV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	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 RS422	Encoder B/B̄ (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 DIN IEC 757

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