

3D Sensor

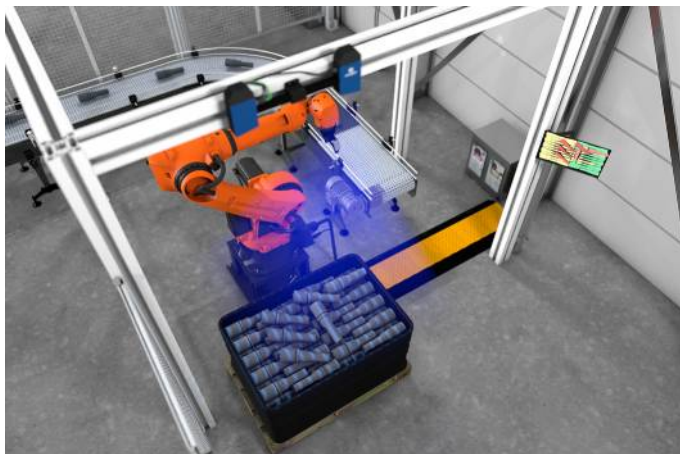
MLBS111

Part Number



- 5 MP resolution
- Easy integration via SDK or GigE Vision
- High point cloud quality with up to four 3D point clouds per second
- Integrated 3D point cloud calculation

The three variants of the ShapeDrive MLBS series are optimally designed for crates and pallets with their symmetrical design and large measuring volumes. The robust design makes the MLBS sensors suitable for use in industrial environments. With its fast Ethernet interface and three measuring ranges, ShapeDrive G4 is distinguished by great diversity and high speed.



Technical Data

Optical Data

Working range Z	1050...1450 mm
Measuring range Z	400 mm
Measuring range X	500 mm
Measuring range Y	380 mm
Resolution Z	25...48 µm
Resolution X/Y	226...312 µm
Camera Resolution	5 MP
Light Source	LED (blue)
Wavelength	457 nm
Service Life (T = +25 °C)	20000 h
Risk Group (EN 62471)	2

Environmental conditions

Ambient temperature	0...40 °C
Storage temperature	-5...70 °C
Max. Ambient Light	5000 Lux
EMC	DIN EN 61000-6-2; 61000-6-4
Atmospheric humidity	5...95%, non-condensing

Electrical Data

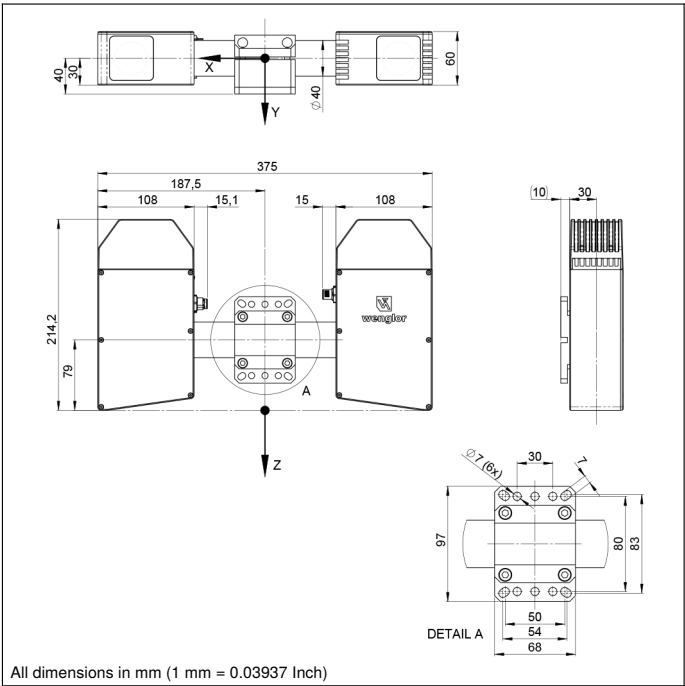
Supply Voltage	18...30 V DC
Max. Current Consumption (Ub = 24 V)	3,5 A
Acquisition time	0,22...0,5 s
Inputs/Outputs	4
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Interface	Ethernet TCP/IP
Protection Class	III

Mechanical Data

Housing Material	Aluminum, anodised
Housing Material	Plastic, ABS
Degree of Protection	IP67
Type of Connection Power	M12 × 1; 5-pin
Type of connection digital I/O ports	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1; 8-pin, X-cod.
Optic Cover	Plastic, PMMA

Safety-relevant Data

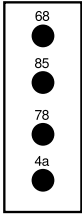
MTTFd (EN ISO 13849-1)	71,35 a
Web server	yes
Connection Diagram No.	250 251 1022
Control Panel No.	A22



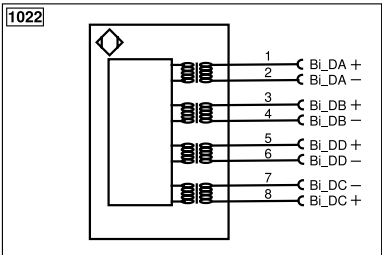
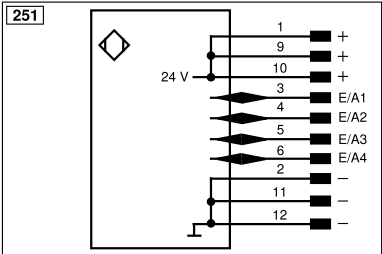
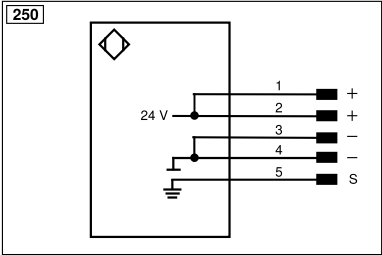
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

A22



4a = User LED
68 = Power LED
78 = Module status
85 = Link/Act LED



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ä	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Ÿ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	±	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link		Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
Bi_DA+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/Ü (TTL)	EDM	Contact Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ä (TTL)
		ENBrs422	Encoder B/B (TTL)
		ENA	Encoder A
		ENb	Encoder B
		AMIN	Digital output MIN
		AMAX	Digital output MAX
		ACK	Digital output OK
		SY In	Synchronization In
		SY OUT	Synchronization OUT
		OLT	Brightness output
		M	Maintenance
		rsv	Reserved
		Wire Colors according to DIN 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

