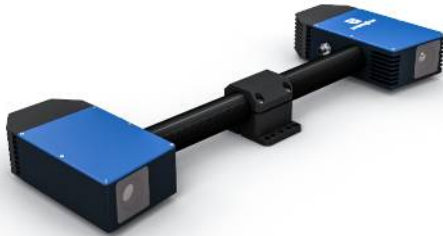


# 3D Sensor

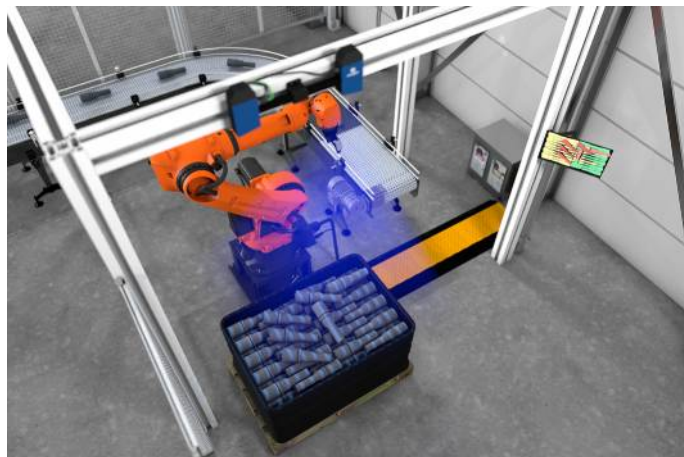
## MLBS115

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	1750...2750 mm
Measuring range Z	1000 mm
Measuring range X	1300 mm
Measuring range Y	1000 mm
Resolution Z	61...151 $\mu\text{m}$
Resolution X/Y	605...950 $\mu\text{m}$
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

#### Electrical Data

Supply Voltage	18...30 V DC
Max. Current Consumption (U <sub>b</sub> = 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
Transmission speed	1...10 Gbit/s
Protection Class	III

#### Mechanical Data

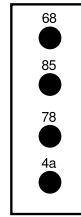
Housing Material	Aluminium; Plastic
Degree of Protection	IP67
Type of Connection Power	M12 × 1; 5-pin
Type of connection digital I/O ports	M12 × 1; 12-pin
Type of Connection Ethernet	M12 × 1; 8-pin, X-cod.
Optic Cover	Plastic
Weight	3595 g

#### Safety-relevant Data

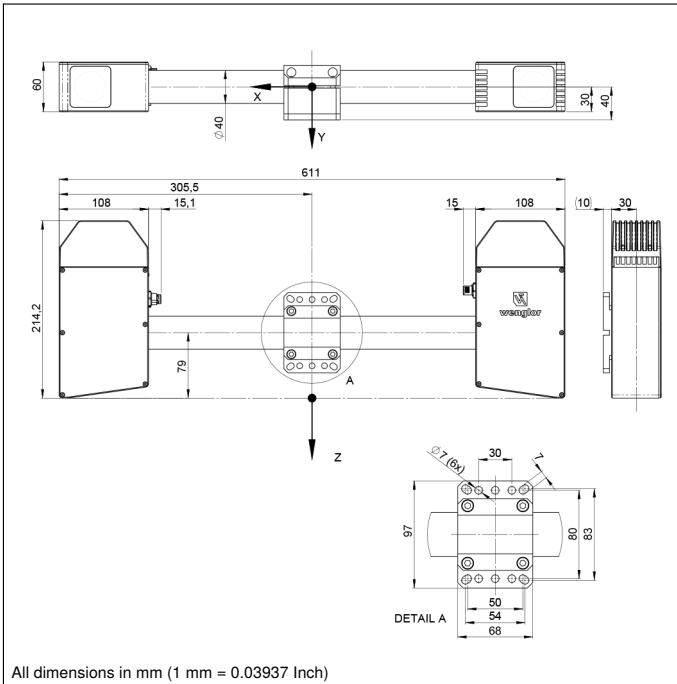
MTTFd (EN ISO 13849-1)	71,35 a
Web server	yes

Connection Diagram No.	<a href="#">250</a> <a href="#">251</a> <a href="#">1022</a>
Control Panel No.	<a href="#">A22</a>

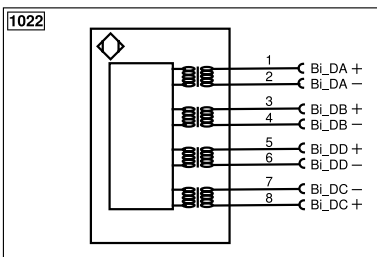
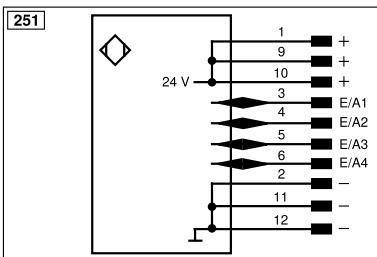
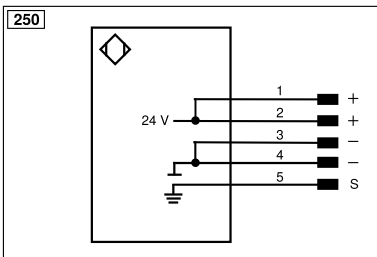
## Ctrl. Panel

**A22**


4a = User LED  
 68 = supply voltage indicator  
 78 = Module status  
 85 = Link/Act LED



All dimensions in mm (1 mm = 0.03937 Inch)



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
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
V̄	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	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 0/0 (TTL)	EDM	Contacting Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ā (TTL)
			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

