

3D Sensor

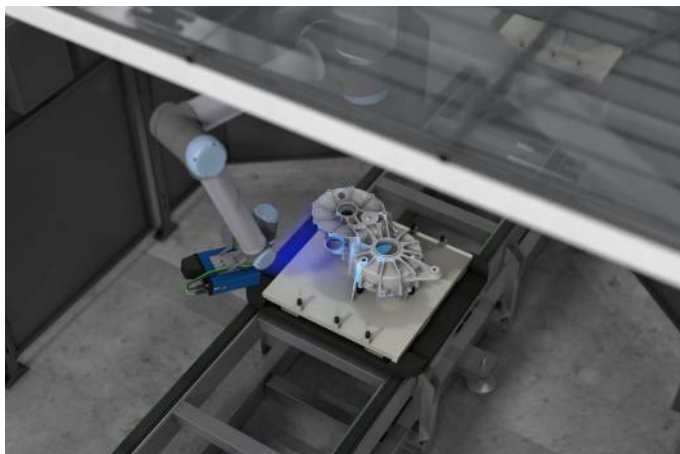
MLAS113

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

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.

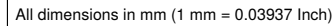


Technical Data

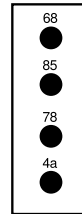
Optical Data	
Working range Z	220...320 mm
Measuring range Z	100 mm
Measuring range X	120 mm
Measuring range Y	90 mm
Resolution Z	10 µm
Resolution X/Y	65 µm
Camera Resolution	2448 × 2048 Pixel
Light Source	LED (blue)
Wavelength	457 nm
Service Life (T = +25 °C)	20000 h
Risk Group (EN 62471)	2
Environmental conditions	
Ambient temperature	0...35 °C
Storage temperature	-5...70 °C
Max. Ambient Light	20000 Lux
Electrical Data	
Supply Voltage	18...30 V DC
Max. Current Consumption (Ub = 24 V)	3,5 A
Recording duration	0,28 s
Inputs/Outputs	4
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Interface	Ethernet TCP/IP
Baud Rate	1000/10000 Mbit/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	< 2000 g
Web server	yes
Connection Diagram No.	251 1022
Control Panel No.	A22
Suitable Connection Equipment No.	50 87
Suitable Mounting Technology No.	343

Complementary Products

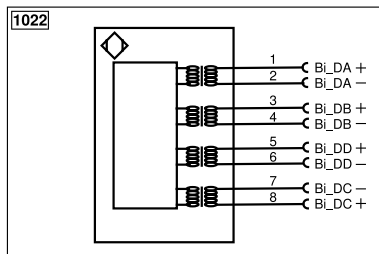
Mounting system
ZNNC002 Adapter




A22



4a = User LED



Legend					
+	Supply Voltage +	nc	Not connected	EN _{BRG422}	Encoder B/B̄ (TTL)
-	Supply Voltage 0 V	U	Test Input	EN _A	Encoder A
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted	EN _B	Encoder B
A	Switching Output (NO)	W	Trigger Input	AM _{IN}	Digital output MIN
Ä	Switching Output (NC)	W-	Ground for the Trigger Input	AM _{AX}	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
Ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	AM _v	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization		
RDY	Ready	E+	Receiver-Line	BK	Black
GND	Ground	S+	Emitter-Line	BN	Brown
CL	Clock	±	Grounding	RD	Red
E/A	Output/Input programmable	SnR	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	La	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
EN ₀ RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contact or Monitoring	PK	Pink
PT	Platinum measuring resistor	EN _{ARs422}	Encoder A/Ä (TTL)	GN _{YE}	Green/Yellow