

3D Sensor

MLAS105

Part Number

ShapeDrive

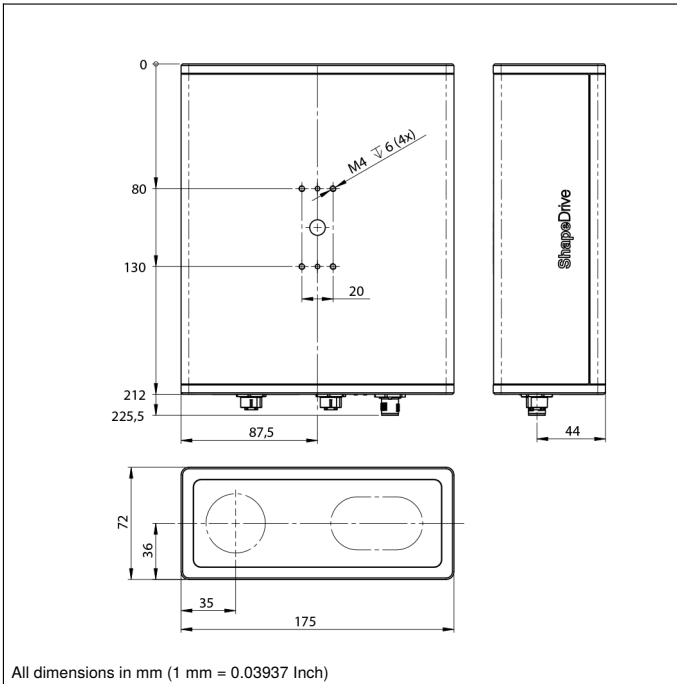


- 10 Gbit/s interface for high speed data transfer
- 5 MP resolution
- Short recording times of up to 0.35 s

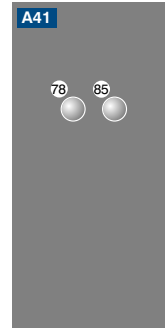
ShapeDrive MLAS 3D Sensors are distinguished by high precision for minimal measuring volumes. The ten models in this series are available in two performance classes with camera resolutions of 5 and 12 megapixels. All ShapeDrive sensors are ideally suited for use in industrial environments thanks to the rugged IP65 housing. With its 10 Gigabit Ethernet interface and five measuring ranges in each performance class, ShapeDrive is also distinguished by great diversity and high speed.

Technical Data

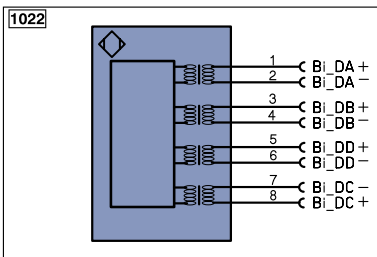
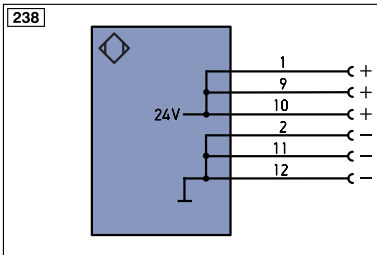
Optical Data	
Working range Z	420...720 mm
Measuring range Z	300 mm
Measuring range X	360 mm
Measuring range Y	300 mm
Resolution Z	20 μ m
Resolution X/Y	228 μ m
Camera Resolution	2448 x 2048 Pixel
Light Source	LED (blue)
Wavelength	460 nm
Service Life (T = +25 °C)	20000 h
Risk Group (EN 62471)	2
Max. Ambient Light	5000 Lux
Electrical Data	
Supply Voltage	18...30 V DC
Max. Current Consumption (U _b = 24 V)	3,5 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	IP65
Connection	M12 x 1; 12-pin
Type of Connection Ethernet	M12 x 1; 8-pin, X-cod.
Optic Cover	Plastic
Weight	2500 g
Web server	yes
Connection Diagram No.	238 1022
Control Panel No.	A41
Suitable Connection Equipment No.	50 87
Suitable Mounting Technology No.	343



Ctrl. Panel



78 = Module status
85 = Link/Act LED



Legend

+ Supply Voltage +	nc not connected	EN_AES42Z Encoder A/Ā (TTL)
- Supply Voltage 0 V	U Test Input	EN_BES42Z Encoder B/B̄ (TTL)
~ Supply Voltage (AC Voltage)	Ū Test Input inverted	EN_A Encoder A
A Switching Output (NO)	W Trigger Input	EN_B Encoder B
Ā Switching Output (NC)	W- Ground for the Trigger Input	AMIN Digital output MIN
V Contamination/Error Output (NO)	O Analog Output	AMAX Digital output MAX
V̄ Contamination/Error Output (NC)	O- Ground for the Analog Output	AOk Digital output OK
E Input (analog or digital)	BZ Block Discharge	SY_{in} Synchronization In
T Teach Input	AWV Valve Output	SY_{OUT} Synchronization OUT
Z Time Delay (activation)	a Valve Control Output +	OLt Brightness output
S Shielding	b Valve Control Output 0 V	M Maintenance reserved
RxD Interface Receive Path	SY Synchronization	rsv reserved
TxD Interface Send Path	SY- Ground for the Synchronization	Wire Colors according to IEC 60757
RDY Ready	E+ Receiver-Line	BK Black
GND Ground	S+ Emitter-Line	BN Brown
CL Clock	± Grounding	RD Red
E/A Output/Input programmable	S_nR 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
EN0_{ES42Z} Encoder 0-pulse 0-0̄ (TTL)	EDM Contactor Monitoring	PK Pink
		GNYE Green/Yellow

Measuring Volume

