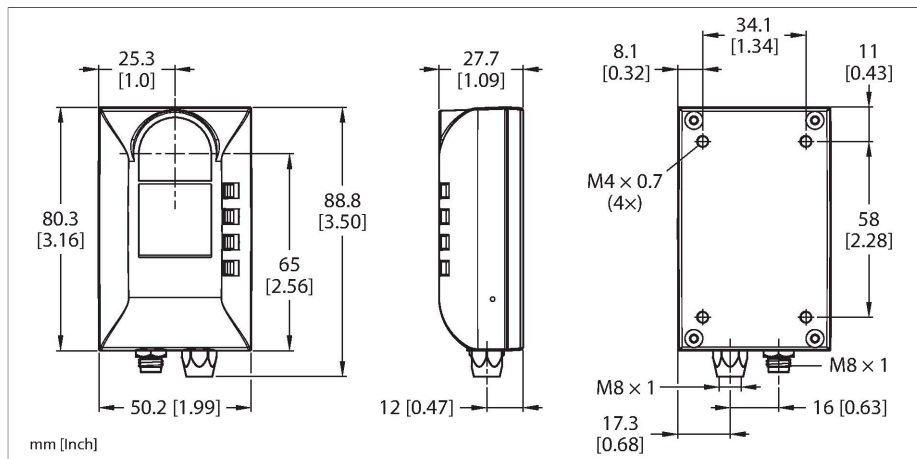


ZMX-3DE2500HF-Q7

Photoelectric Sensor – 3D — Time of Flight

With Switching Outputs



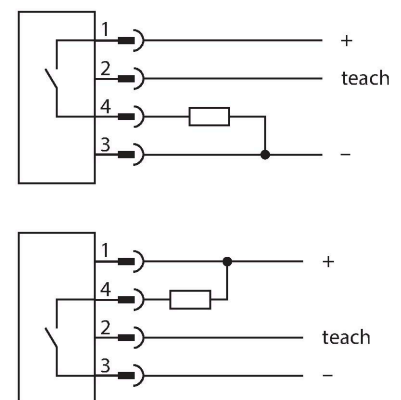
Technical data

Type	ZMX-3DE2500HF-Q7
ID	3813105
Optical data	
Function	3D — ToF
Operating mode	Time-of-Flight
Light type	IR
Wavelength	850 nm
Range	200...2500 mm
Electrical data	
Operating voltage	12...30 VDC
DC rated operational current	≤ 200 mA
Reverse polarity protection	yes
Output function	NO/NC, PNP/NPN Frequency
Output 2	Switching output
Readiness delay	≤ 10000 ms
Response time typical	< 150 ms
Mechanical data	
Design	Rectangular, ZMX
Dimensions	27.7 x 50.2 x 80.3 mm
Housing material	Metal/plastic, AL PC
Lens	acrylic
Electrical connection	Connector, M12 x 1
Number of cores	4
Ambient temperature	-10...+40 °C
Storage temperature	-30...+65 °C

Features

- Aluminum housing
- IP65
- Connection: 1 x M8 male connector, 4-pin; 1 x M8 female connector, 4-pin
- Field of view: 60 x 45° (3104 x 2374 mm at max. range)
- Resolution: 272 x 208 pixels
- Operating voltage: 12...30 VDC
- Output 1: PNP/NPN switching output, Pulse Pro, switchable
- Output 2: PNP/NPN switching output, Pulse Pro, switchable
- Ethernet interface (M8 x 1 female connector, 4-pin)
- Supports Modbus TCP and EtherNet/IP

Wiring diagram



Functional principle

The 3D runtime sensor of the ZMX product series can measure and monitor objects within a three-dimensional range. It provides a stand-alone solution for filling applications and

Technical data

Protection class	IP65
Special features	Filling level detection
Switching state	LED, Yellow
Display	None
Tests/approvals	
Vibration resistance	MIL-STD-202G, Method 201A (10 to 55 Hz, 1.52 mm peak-to-peak amplitude, for 2 hours along the x-, y- and z-axes), sensor operating
Shock test	MIL-STD-202G, Method 213B Condition I (100 G 6 × along the x-, y- and z-axes, 18 shocks in total), sensor operating
Approvals	CE, UKCA

can measure both peak height and average filling levels. The ZMX product series has a wide field of view of 60° × 45° with a range of 200 to 2500 mm. The sensor can detect objects of any size, shape or orientation, making it an ideal tool for automated industrial applications where materials, products or packages accumulate within a defined area. The aluminum housing ensures the necessary robustness for an industrial environment. The measured data can be read out via the Ethernet interface or limit levels can be defined — the switching outputs are set when the limit levels are reached. The outputs can be switched to frequency or pulse width (Pulse Pro) if required, for example to directly control an LED light.