

Diffuse mode sensor

OBD200-18GM60-E0-5M-IR-1C-Y156



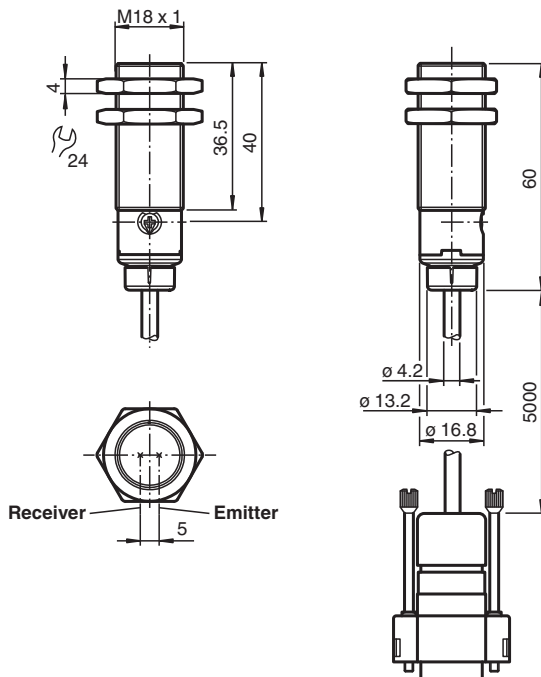
- Strong metallic housing in cylindrical shape M18 x 1
- Operating distance adjustable
- Not sensitive to ambient light
- Degree of protection IP67
- High operating distance



Function

The optical sensors of this series have an M18 threaded housing that is optionally available in plastic or metal. The sensors are robust and versatile. Focusing on the essential requirements simplifies selection and commissioning, saving time and costs.

Dimensions



Technical Data

General specifications

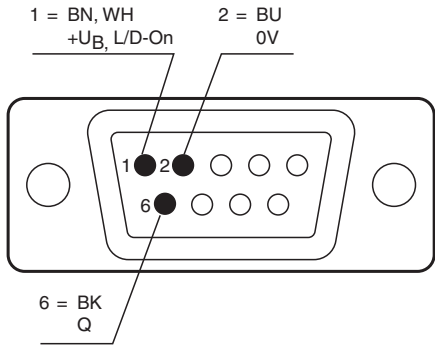
Detection range	0 ... 200 mm
Detection range min.	0 ... 30 mm
Detection range max.	0 ... 200 mm
Adjustment range	30 ... 200 mm

Release date: 2024-07-12 Date of issue: 2024-07-12 Filename: 70113328-100156_eng.pdf

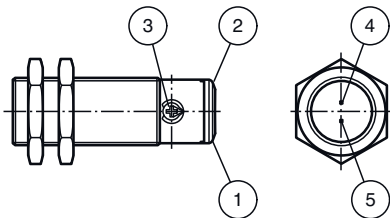
Technical Data

Reference target		standard white 200 mm X 200 mm
Light source		IRE D
Light type		infrared
Diameter of the light spot		approx. 22 mm at 200 mm
Opening angle		approx. 2.6 °
Optical face		frontal
Ambient light limit		EN 60947-5-2 10000 Lux
Hysteresis	H	< 15 %
Functional safety related parameters		
MTTF _d		854 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: on - power on flashing (4 Hz) - short circuit
Function indicator		LED yellow: permanently lit - output active permanently off - output inactive
Control elements		sensitivity adjustment
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I ₀	< 25 mA
Protection class		III
Output		
Switching type		NPN normally open / light on
Signal output		1 NPN output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		max. 30 V DC
Switching current		max. 100 mA , resistive load
Voltage drop	U _d	≤ 2 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
UL approval		E87056 , cULus Listed , class 2 power supply , type rating 1
Ambient conditions		
Ambient temperature		-40 ... 60 °C (-40 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP67
Connection		5 m fixed cable with 9-pin Sub-D connector
Material		
Housing		brass, nickel-plated
Optical face		PMMA
Cable		PVC
Mass		approx. 150 g
Dimensions		
Length		60 mm
Diameter		18 mm
Thread size		M18

Connection Assignment

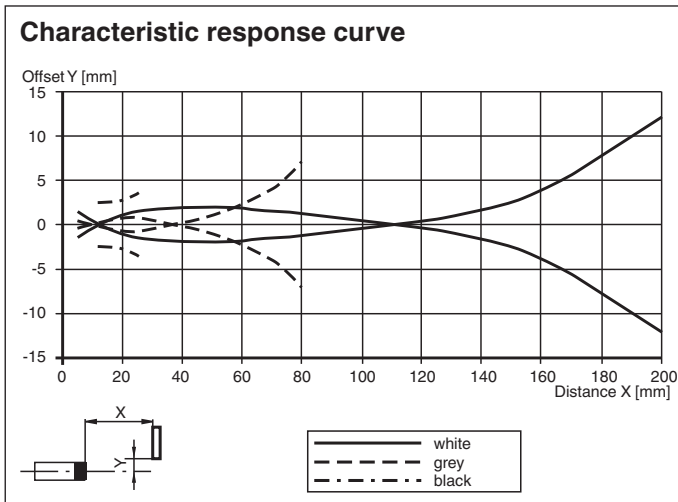


Indication



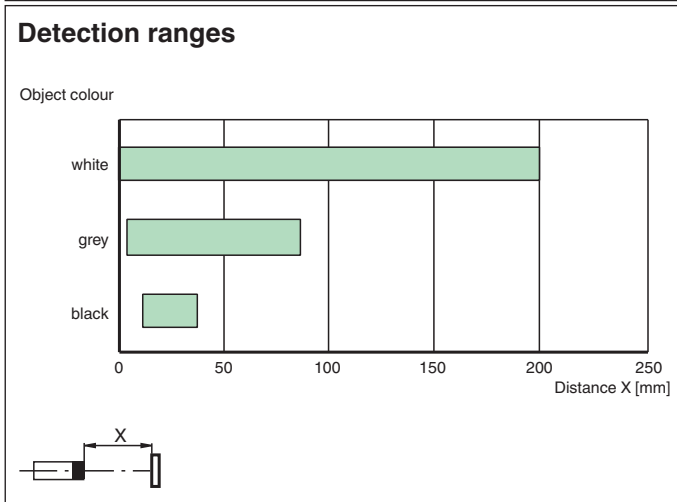
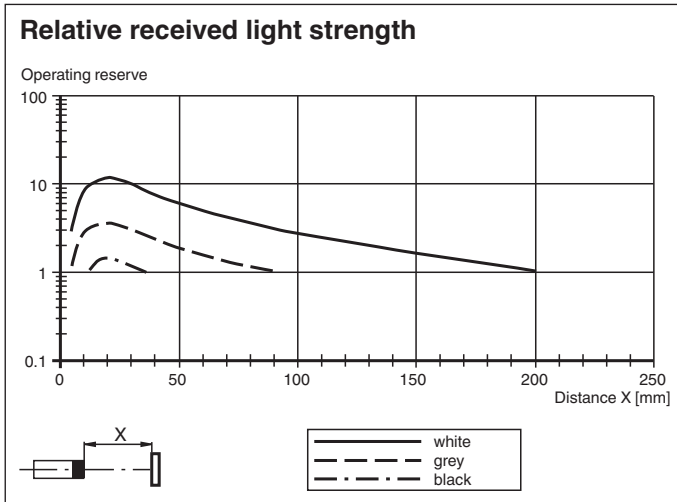
1	Operating display	green
2	Signal display	yellow
3	Sensitivity adjustment	
4	Emitter	
5	Receiver	

Characteristic Curve



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