

Diffuse mode sensor

OBD370-18GM60-E2-15M-1C-Y

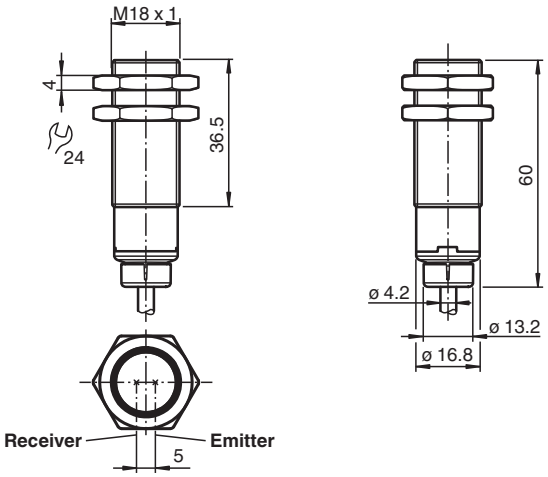


- Strong metallic housing in cylindrical shape M18 x 1
- Not sensitive to ambient light
- Degree of protection IP67
- High operating distance

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

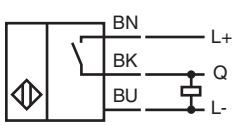
General specifications		
Detection range		0 ... 370 mm
Reference target		standard white 200 mm X 200 mm
Light source		LED
Light type		modulated visible red light
Diameter of the light spot		approx. 20 mm at 370 mm
Opening angle		approx. 2.6 °
Optical face		frontal
Ambient light limit		EN 60947-5-2 20000 Lux
Hysteresis	H	< 15 %
Functional safety related parameters		
$MTTF_d$		854 a

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Technical Data

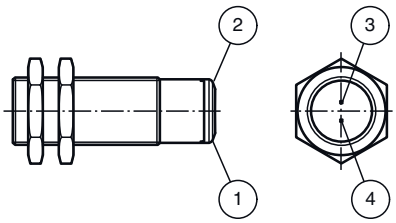
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: on - power on flashing (4 Hz) - short circuit
Function indicator		LED yellow: permanently lit - output active permanently off - output inactive
Electrical specifications		
Operating voltage	U_B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I_0	< 25 mA
Protection class		III
Output		
Switching type		PNP normally open / light on
Signal output		1 PNP 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	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms
Timer function		
Off-delay		5 s
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		15 m fixed cable
Material		
Housing		brass, nickel-plated
Optical face		PMMA
Cable		PUR
Mass		approx. 380 g
Dimensions		
Length		60 mm
Diameter		18 mm
Thread size		M18

Connection Assignment



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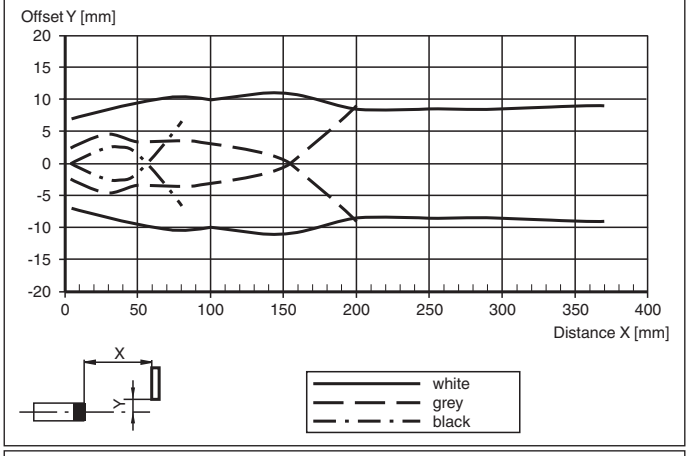
Indication



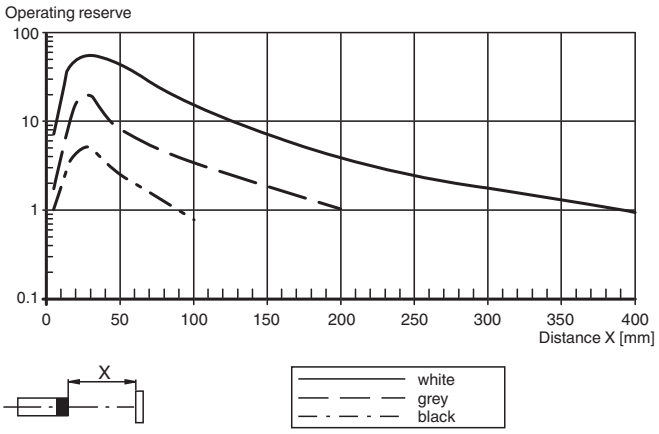
1	Operating display	green
2	Signal display	yellow
3	Emitter	
4	Receiver	

Characteristic Curve

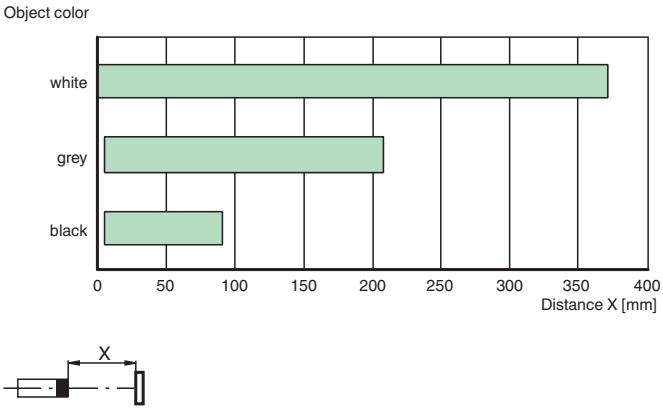
Characteristic response curve



Relative received light strength



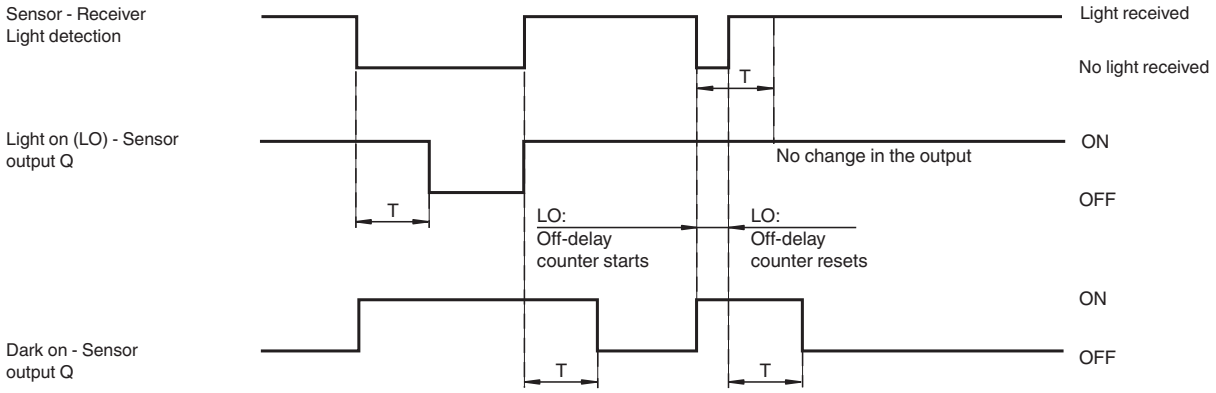
Detection ranges



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Characteristic Curve

Timer Functions



T = 5 s

During OFF delay, signal evaluation is active.

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