

# Diffuse mode sensor

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



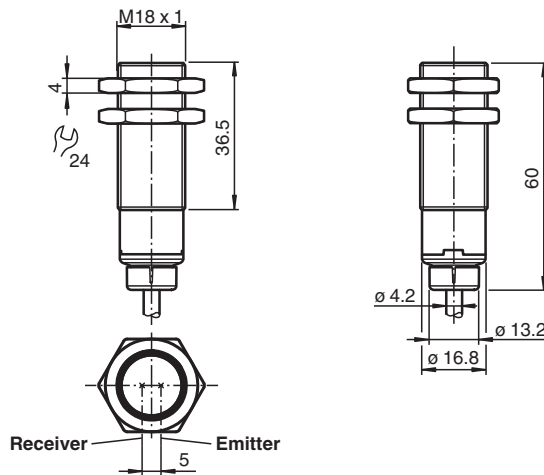
- Strong metallic housing in cylindrical shape M18 x 1
- Not sensitive to ambient light
- Degree of protection IP67
- High operating distance



### 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

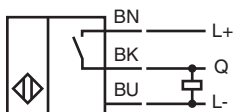
MTTF <sub>d</sub>	854 a
-------------------	-------

Release date: 2024-07-17 Date of issue: 2024-07-17 Filename: 70113328-100157\_eng.pdf

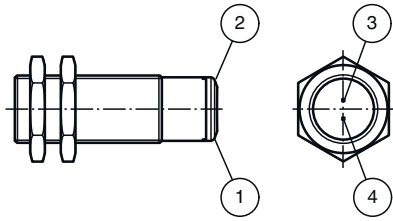
## Technical Data

Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Operation indicator		LED green: on - power on flashing (4 Hz) - short circuit
Function indicator		LED yellow: permanently lit - output active permanently off - output inactive
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I <sub>0</sub>	< 25 mA
Protection class		III
<b>Output</b>		
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 <sub>d</sub>	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms
Timer function		
Off-delay		5 s
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
UL approval		E87056 , cULus Listed , class 2 power supply , type rating 1
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 60 °C (-40 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
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

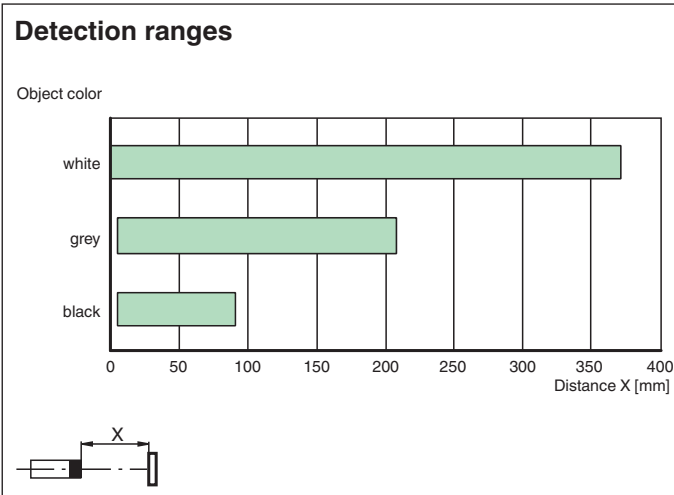
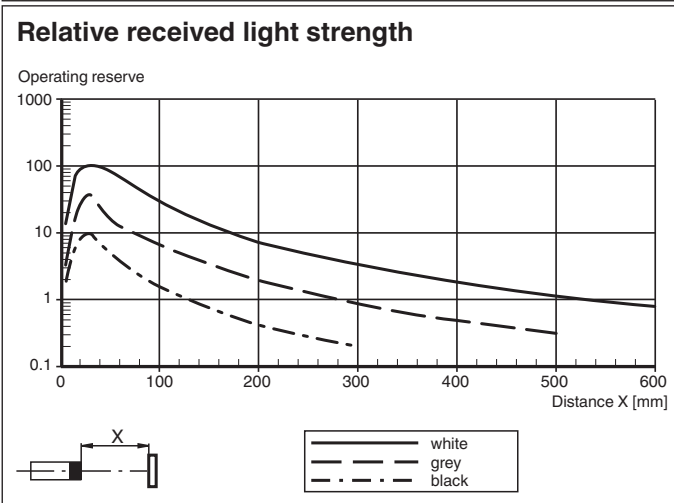
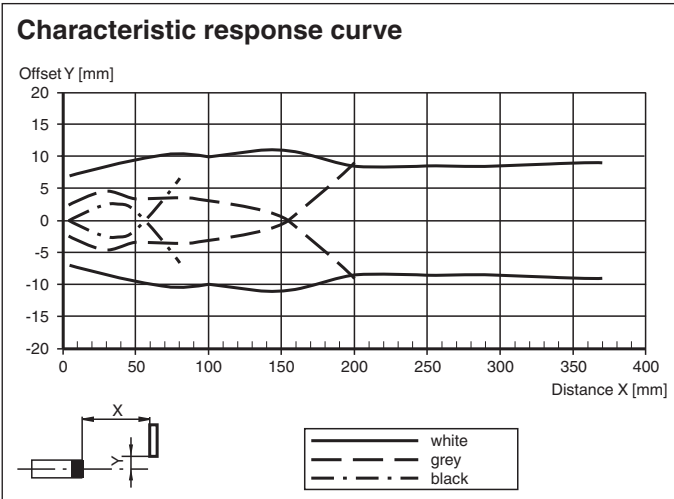


**Indication**



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

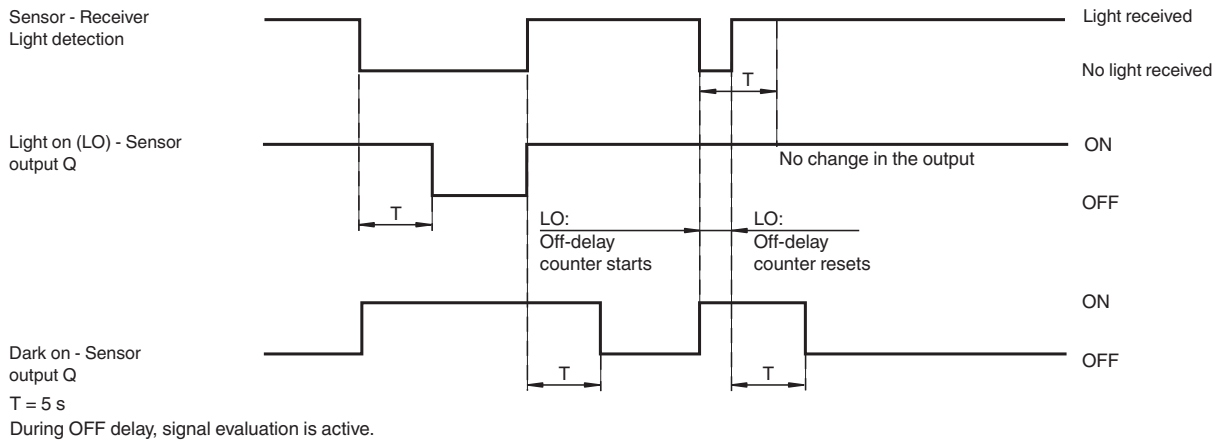
**Characteristic Curve**



Release date: 2024-07-17 Date of issue: 2024-07-17 Filename: 70113328-100157\_eng.pdf

**Characteristic Curve**

**Timer Functions**



Release date: 2024-07-17 Date of issue: 2024-07-17 Filename: 70113328-100157\_eng.pdf