

## Thru-beam sensor (pair)

### OBE10M-18GM60-SE5-V1-1C



- Strong metallic housing in cylindrical shape M18 x 1
- Not sensitive to ambient light
- Degree of protection IP67
- Very high detection range

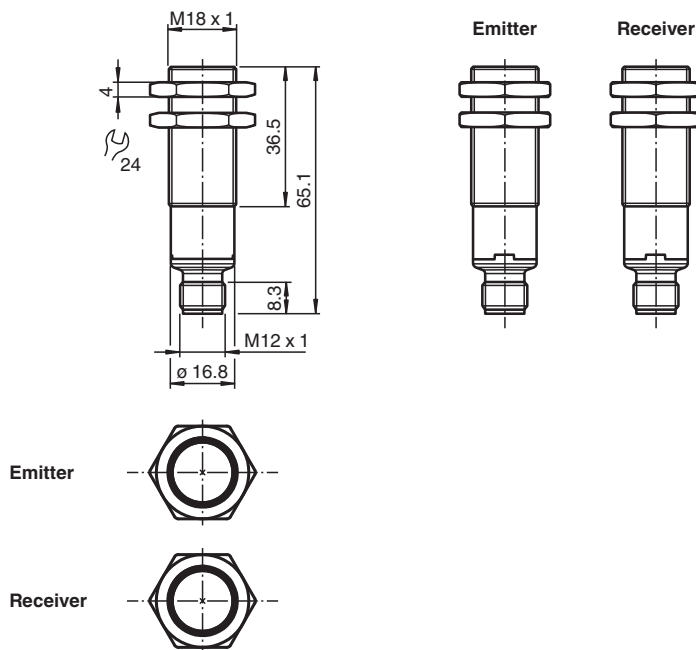
## Thru-beam sensor (pair)



## 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

### System components

Emitter	OBE10M-18GM60-S-V1-1C
Receiver	OBE10M-18GM60-E5-V1-1C

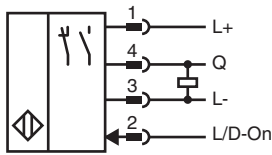
### General specifications

Effective detection range	0 ... 10 m
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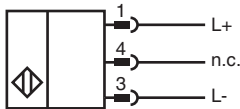
## Technical Data

Threshold detection range	17 m	
Light source	LED	
Light type	modulated visible red light	
Diameter of the light spot	approx. 110 mm at 1 m	
Angle of divergence	approx. 2.9 °	
Optical face	frontal	
Ambient light limit	EN 60947-5-2 10000 Lux	
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>	564 a	
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	Receiver: yellow LED permanently lit - output active permanently off - output inactive flashing (4 Hz) - insufficient operating reserve	
Control elements	light/dark on electrically switchable	
<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	The switching type of the sensor is adjustable. The default setting is: Q - Pin4: PNP output / light-on L/D-On - Pin2: Low-active input	
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>	≤ 2 V DC
Switching frequency	f	500 Hz
Response time	≤ 1 ms	
<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	4-pin, M12 x 1 connector	
Material		
Housing	brass, nickel-plated	
Optical face	PMMA	
Connector	Plastic	
Mass	approx. 23 g per device	

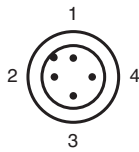
### Connection



### Connection



### Connection Assignment

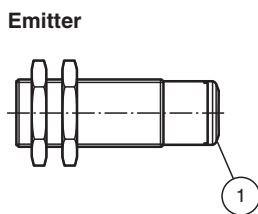


Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

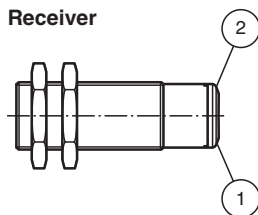
### Indication

#### Emitter



1	Operating display	green
2	Emitter	

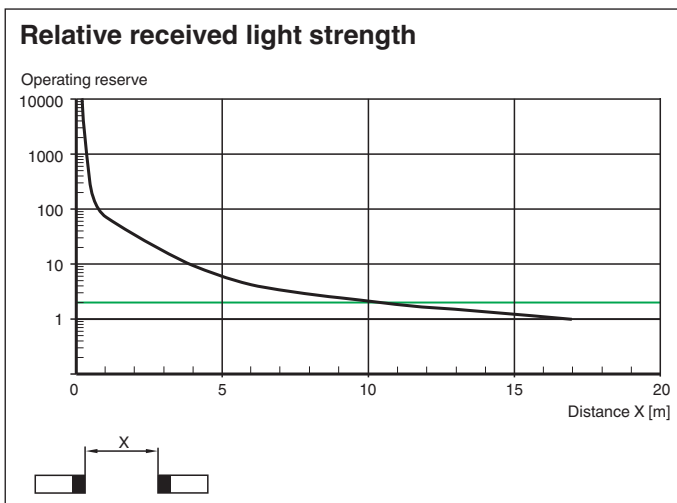
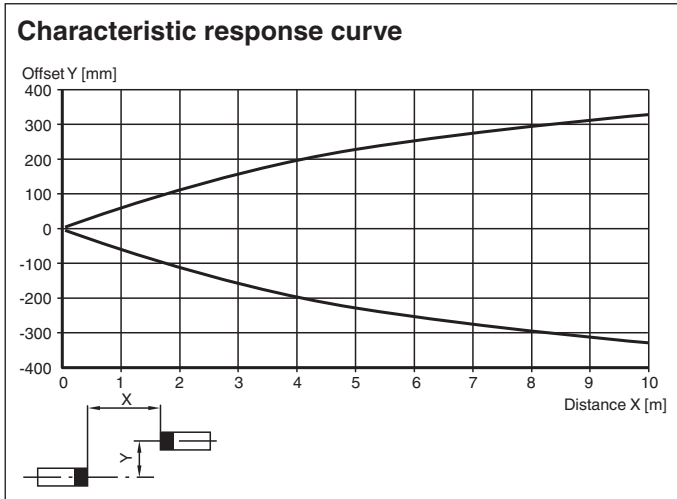
#### Receiver







1	Operating display	green
2	Signal display	yellow
3	Receiver	

Release date: 2021-12-16 Date of issue: 2021-12-16 Filename: 70134683\_eng.pdf

## Characteristic Curve



## Accessories

	<b>BF 18</b>	Mounting flange, 18 mm
	<b>CPZ18B03</b>	Mounting Bracket with swivel nut
	<b>BF 18-F</b>	Plastic mounting adapter, 18 mm
	<b>BF 5-30</b>	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm