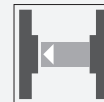




Thru-beam sensor (pair)

OBE10M-18GM60-SE5-V1-IR-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)



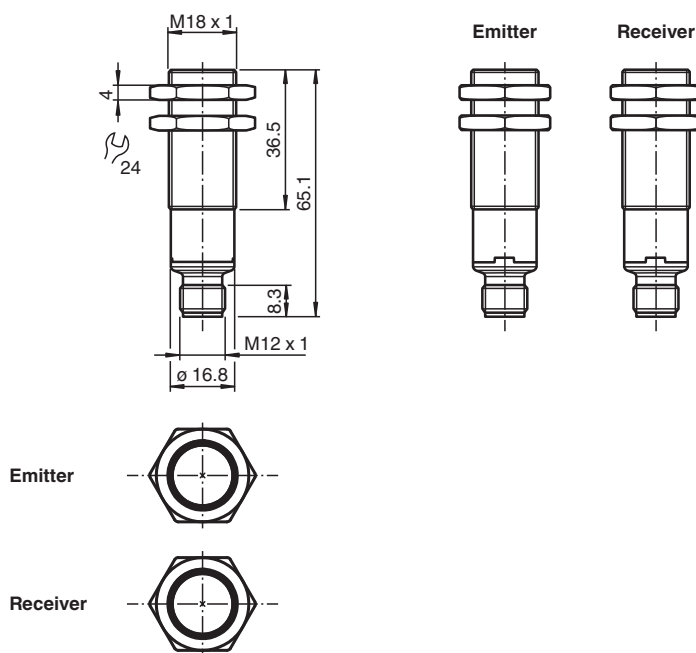
Function

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-IR-1C
Receiver	OBE10M-18GM60-E5-V1-IR-1C

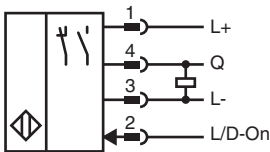
General specifications

Effective detection range	0 ... 10 m
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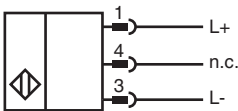
Technical Data

Threshold detection range	17 m
Light source	IREd
Light type	Infrared LED
Diameter of the light spot	approx. 55 mm at 1 m
Angle of divergence	approx. 1.6 °
Optical face	frontal
Ambient light limit	EN 60947-5-2 10000 Lux
Functional safety related parameters	
MTTF _d	564 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	Receiver: yellow LED permanently lit - output active permanently off - output inactive flashing (4 Hz) - insufficient operating reserve
Control elements	light/dark on electrically switchable
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	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 _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	4-pin, M12 x 1 connector
Material	
Housing	brass, nickel-plated
Optical face	PMMA
Connector	Plastic
Mass	approx. 23 g per device

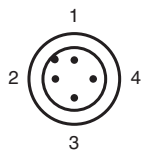
Connection



Connection



Connection Assignment

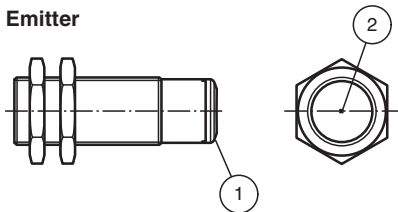


Wire colors in accordance with EN 60947-5-2

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

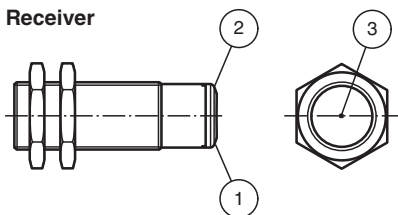
Indication

Emitter



1	Operating display	green
2	Emitter	

Receiver

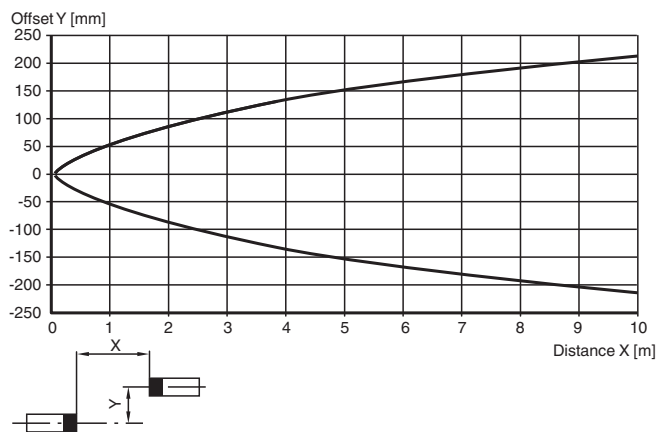


1	Operating display	green
2	Signal display	yellow
3	Receiver	

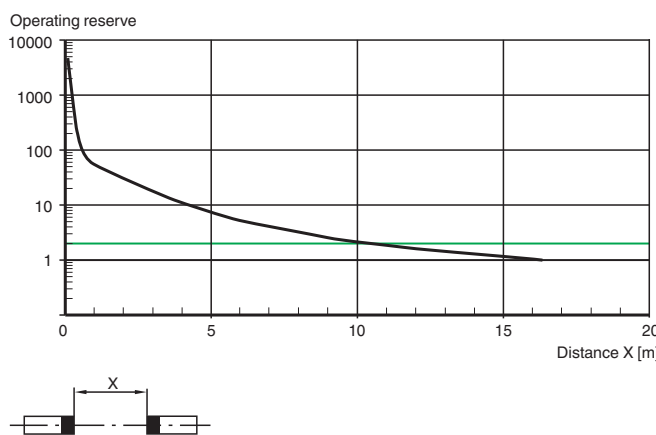
Release date: 2021-12-16 Date of issue: 2021-12-16 Filename: 70134682_eng.pdf

Characteristic Curve

Characteristic response curve



Relative received light strength



Accessories

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

Release date: 2021-12-16 Date of issue: 2021-12-16 Filename: 70134682_eng.pdf