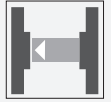


# Thru-beam sensor (pair)

## OBE15M-18GM60A-SE4-V1



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

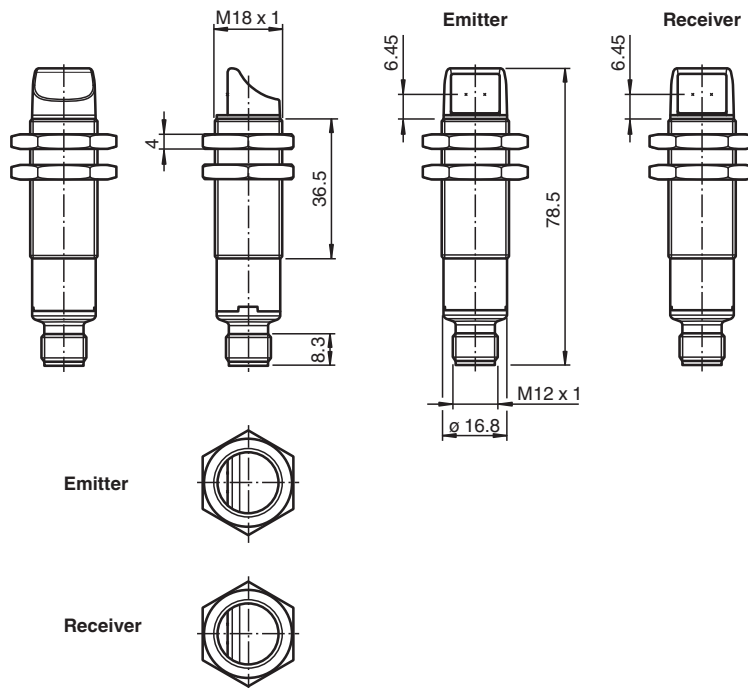
### Thru-beam sensor (pair)



### 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	OBE15M-18GM60A-S-V1
Receiver	OBE15M-18GM60A-E4-V1

#### General specifications

Effective detection range	0 ... 15 m
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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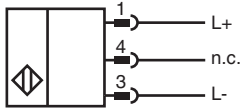
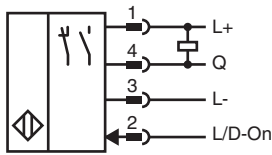
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**pf** PEPPERL+FUCHS

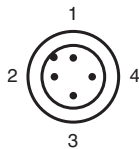
## Technical Data

Threshold detection range	21 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	lateral	
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 - light path clear Permanently off - object detected 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: NPN output / dark-on L/D-On - Pin2: Low-active input	
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 <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	
<b>Material</b>		
Housing	brass, nickel-plated	
Optical face	PMMA	
Connector	Plastic	
Mass	approx. 24 g per device	

## Connection



## Connection

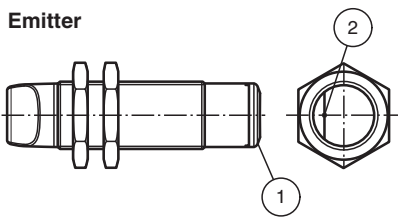


Wire colors in accordance with EN 60947-5-2

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

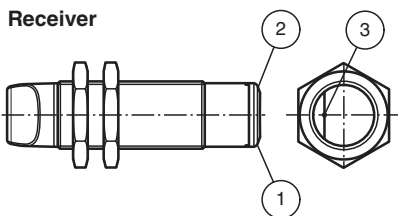
## Indication

### Emitter



1	Operating display	green
2	Emitter	

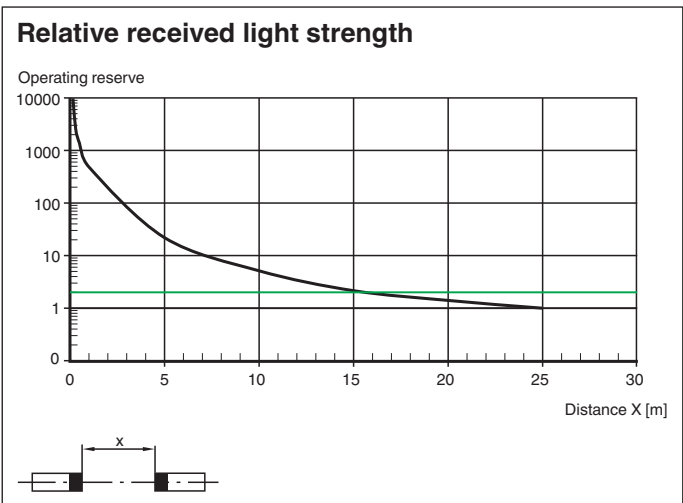
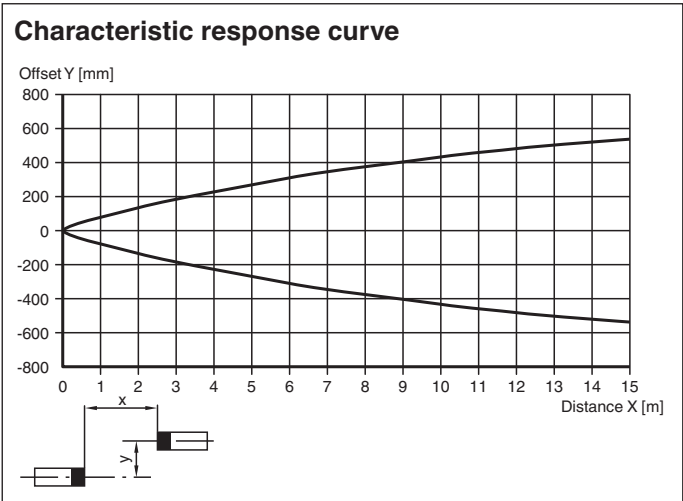
### Receiver



1	Operating display	green
2	Signal display	yellow
3	Receiver	

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**Characteristic Curve**



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