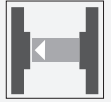


# Thru-beam sensor (pair)

## OBE15M-18GM40A-SE2-V1



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

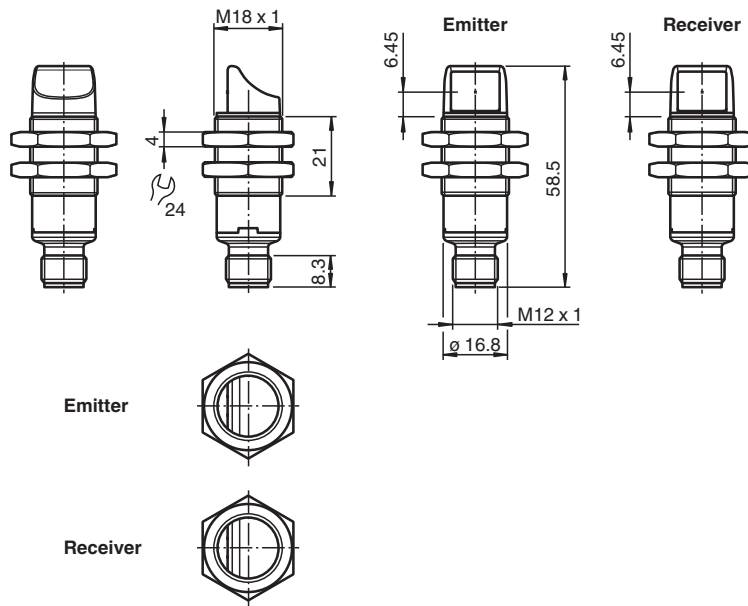
Thru-beam sensor (pair)



### 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-18GM40A-S-V1
Receiver	OBE15M-18GM40A-E2-V1

#### General specifications

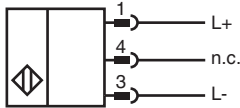
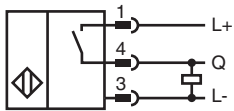
Effective detection range	0 ... 15 m
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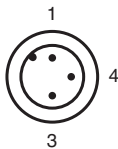
## Technical Data

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>		838 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
<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		Q - Pin4: PNP normally open / dark-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
<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		3-pin, M12 x 1 connector
Material		
Housing		brass, nickel-plated
Optical face		PMMA
Connector		plastic
Mass		approx. 16 g per device

### Connection



### Connection Assignment

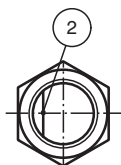
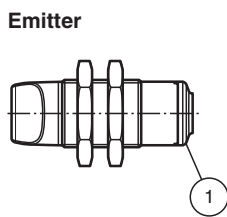


Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

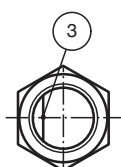
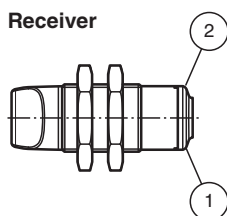
### Indication

#### Emitter



1	Operating display	green
2	Emitter	

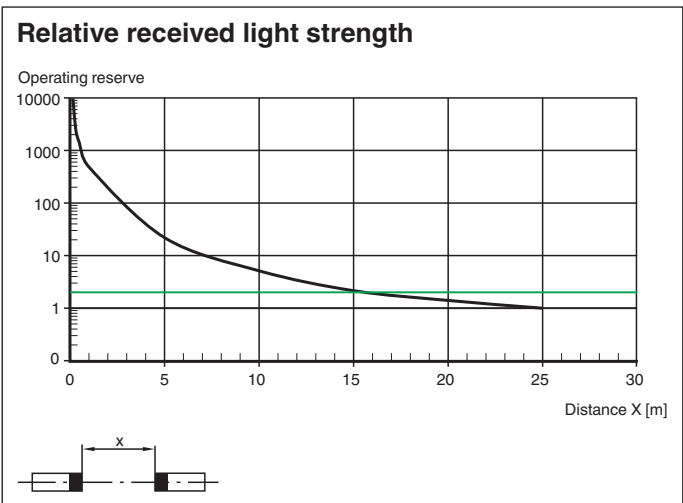
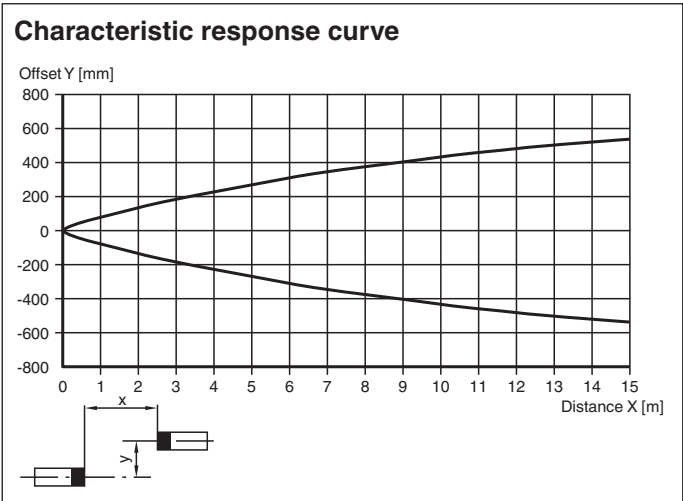
#### Receiver



1	Operating display	green
2	Signal display	yellow
3	Receiver	

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**Characteristic Curve**



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