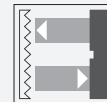




Retroreflective sensor OBR5000-18GK40A-A2-V1



- Short design in M18 plastic housing
- Not sensitive to ambient light
- Degree of protection IP67
- Very high detection range

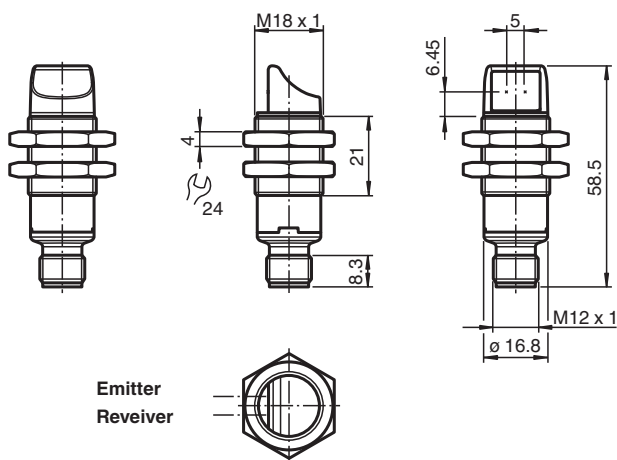
Retroreflective sensor



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

Effective detection range	0 ... 5 m
Reflector distance	0 ... 5 m
Threshold detection range	7 m
Reference target	reflector C110-2
Light source	LED
Light type	modulated visible red light
Polarization filter	yes
Diameter of the light spot	approx. 270 mm at 5 m
Opening angle	approx. 2.6 °
Optical face	lateral
Ambient light limit	EN 60947-5-2 40000 Lux

Technical Data

Functional safety related parameters

MTTF _d	1334 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	Yellow LED: Permanently lit - light path clear Permanently off - object detected Flashing (4 Hz) - insufficient operating reserve

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	Q - Pin4: PNP normally open / dark-on /Q - Pin2: PNP normally closed / light-on	
Signal output		2 PNP outputs, complementary, 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	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms

Conformity

Product standard	EN 60947-5-2
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Approvals and certificates

UL approval	E87056 , cULus Listed , class 2 power supply , type rating 1
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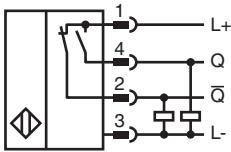
Ambient conditions

Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

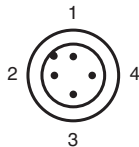
Mechanical specifications

Degree of protection	IP67
Connection	4-pin, M12 x 1 connector
Material	
Housing	PC (Polycarbonate)
Optical face	PMMA
Connector	Plastic
Mass	approx. 9 g
Dimensions	
Length	58.5 mm
Diameter	18 mm
Thread size	M18

Connection Assignment



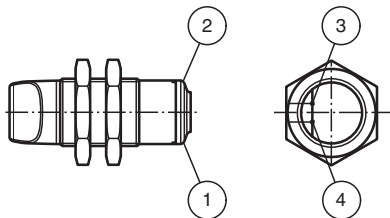
Connection Assignment



Wire colors in accordance with EN 60947-5-2

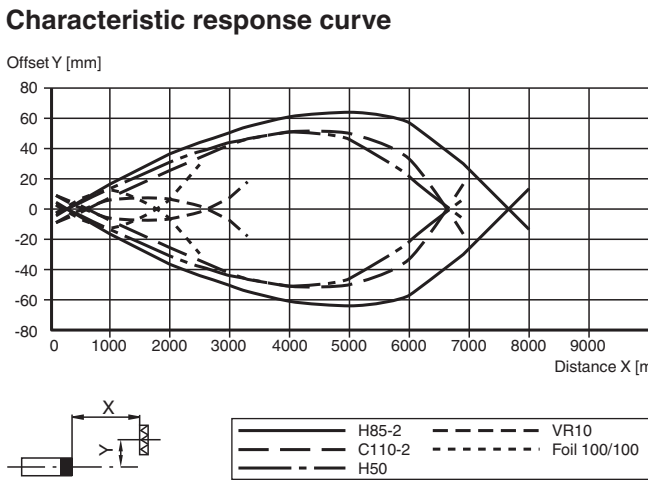
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Indication



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

Characteristic Curve



Release date: 2026-03-11 Date of issue: 2026-03-11 Filename: 70113328-100175_eng.pdf

Characteristic Curve

