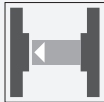




Thru-beam sensor

OBE2000-R3-SE1-Y302635



- 45° cable outlet for maximum mounting freedom under extremely tight space constraints
- Extremely large detection range in Long Range Mode

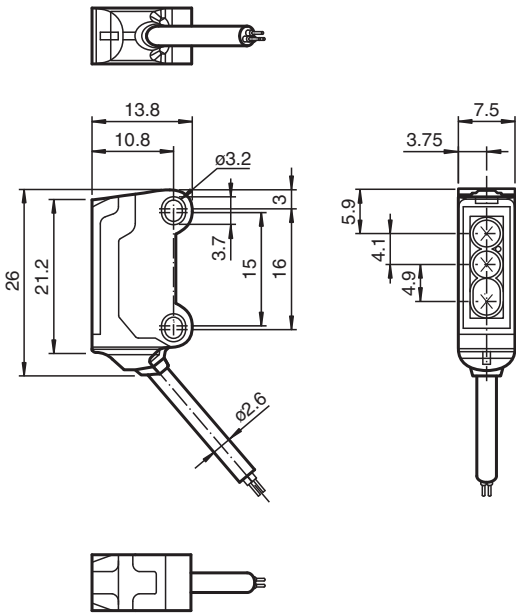
Thru-beam sensor (pair)



Function

The nano sensor has been developed for a broad range of applications. It offers excellent durability and is exceptionally easy to install. The housing is compact and, with its 45° cable outlet, can be installed in the smallest spaces. New functional principles and functionality open up a range of new options.

Dimensions



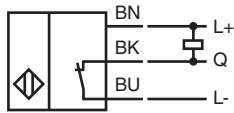
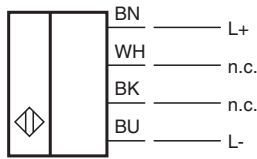
Technical Data

System components	
Emitter	OBE2000-R3-Y302637
Receiver	OBE2000-R3-E1-Y302636
General specifications	
Effective detection range	0 ... 2 m
Threshold detection range	2.5 m
Light source	LED
Light type	modulated visible red light , 630 nm
Angle deviation	approx. 2 °

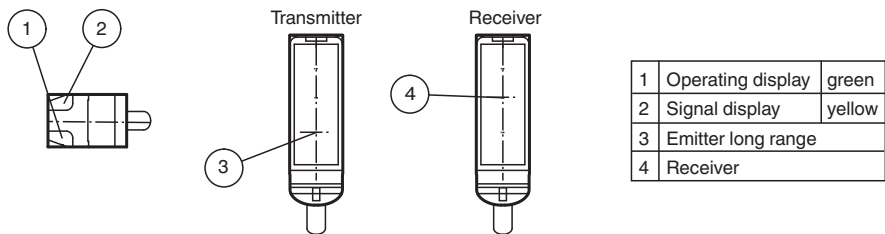
Technical Data

Diameter of the light spot		approx. 150 mm at a distance of 2000 mm
Opening angle		approx. 2 °
Optical face		frontal
Ambient light limit		EN 60947-5-2 : 30000 Lux
Functional safety related parameters		
MTTF _d		806 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green, statically lit Power on , short-circuit : LED green flashing (approx. 4 Hz)
Function indicator		Receiver: LED yellow, lights up when light beam is free, flashes when falling short of the operating reserve ; OFF when light beam is interrupted
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC , class 2
No-load supply current	I ₀	Emitter: ≤ 11 mA Receiver: ≤ 8 mA
Output		
Switching type		NC contact
Signal output		1 NPN output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		max. 30 V DC
Switching current		max. 50 mA , resistive load
Voltage drop	U _d	≤ 1.5 V DC
Switching frequency	f	approx. 100 Hz
Response time		5 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
UL approval		cULus Recognized, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 60 °C (-13 ... 140 °F)
Storage temperature		-30 ... 70 °C (-22 ... 158 °F)
Mechanical specifications		
Housing width		7.5 mm
Housing height		26 mm
Housing depth		13.8 mm
Degree of protection		IP67
Connection		2 m fixed cable
Material		
Housing		PC/ABS and TPU
Optical face		Polycarbonate
Cable		PUR
Mass		approx. 20 g per sensor
Cable length		2 m

Connection

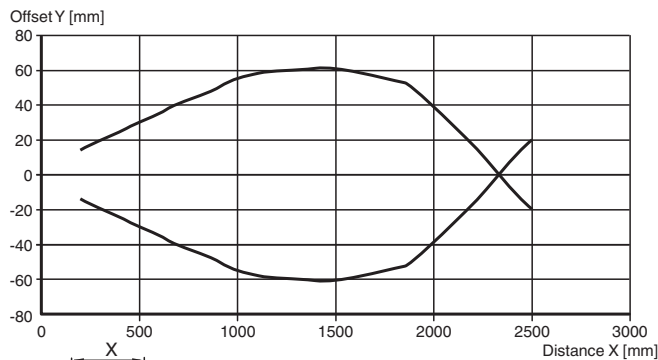


Assembly



Characteristic Curve

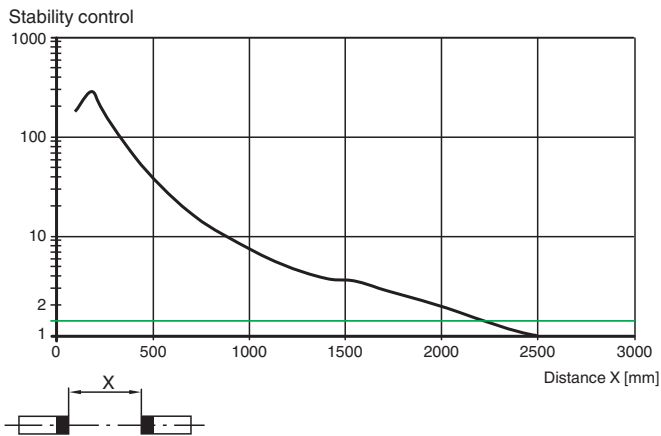
Characteristic response curve Long Range Modus



Release date: 2023-04-05 Date of issue: 2023-04-05 Filename: 302635_eng.pdf

Characteristic Curve

Relative received light strength Long Range Modus



Light spot diameter Long Range Modus

