



Model Number

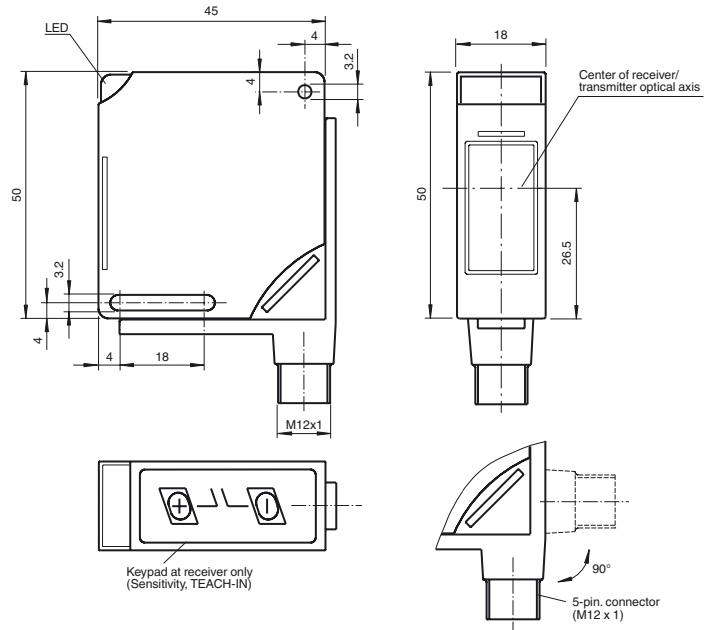
M11/MV11/48/76a/112

Thru-beam sensor
with 5-pin, M12 x 1 connector

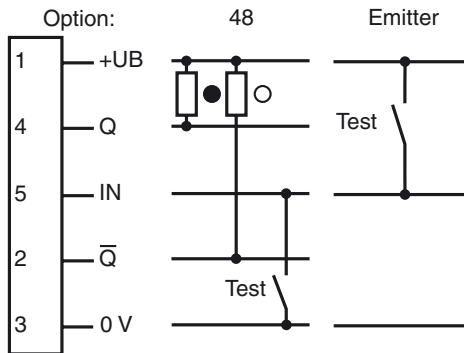
Features

- Visible red light
- Automatic adjustment of sensitivity per TEACH-IN
- Detection of partially transparent objects
- Parameterization via optical communication link (e.g. optional time increments)
- Protection degree IP68
- All materials approved for food industry applications
- Multifunction input

Dimensions

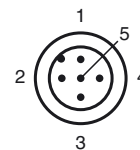


Electrical connection



○ = Light on
● = Dark on

Pinout



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Technical data**System components**

Emitter	M11/76a/112
Receiver	MV11/48/112

General specifications

Effective detection range	0 ... 15 m
Adjustment range	2 ... 15 m
Light source	LED , 660 nm
Light type	modulated visible red light
Diameter of the light spot	500 mm at a distance of 15 m
Ambient light limit	≤ 10000 Lux sun light ≤ 7500 Lux halogen light

Indicators/operating means

Operating display	LED green
Function display	TEACH-IN: LED green flashing switching state: LED yellow pre-fault indicator: LED red flashing (only receiver)
Controls	membrane keys for setting sensitivity and Teach-In

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I_0	≤ 25 mA (device)
Time delay before availability	t_v	≤ 400 ms

Input

Test input	inactive: ≤ 3 V or unwired; active: ≥ 7 V (emitter)
Control input	inactive: ≥ 7 V or unwired; active: ≤ 3 V (receiver)

Output

Output of the pre-fault indication	NPN, dynamic/static configurable	
Switching type	light/dark on, programmable	
Signal output	2 switch outputs NPN, programmable as - NO/NC (complementary) - NO and pre-fault indication - NC and pre-fault indication	
Switching voltage	max. 30 V DC	
Switching current	max. 200 mA	
Voltage drop	U_d	≤ 2.5 V
Switching frequency	f	≤ 1000 Hz
Response time		≤ 0.6 ms
Timer function	programmable	

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

Mechanical specifications

Protection degree	IP68
Connection	5-pin M12 x 1 connector, 90° adjustable
Material	
Housing	PBT
Optical face	PMMA
Mass	60 g (device)

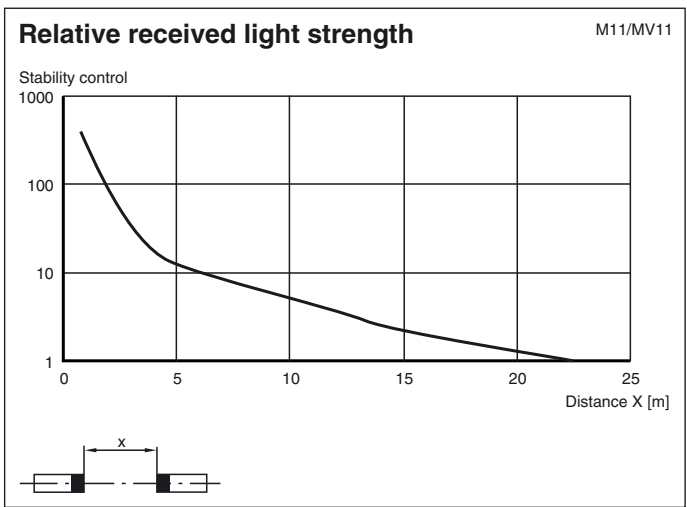
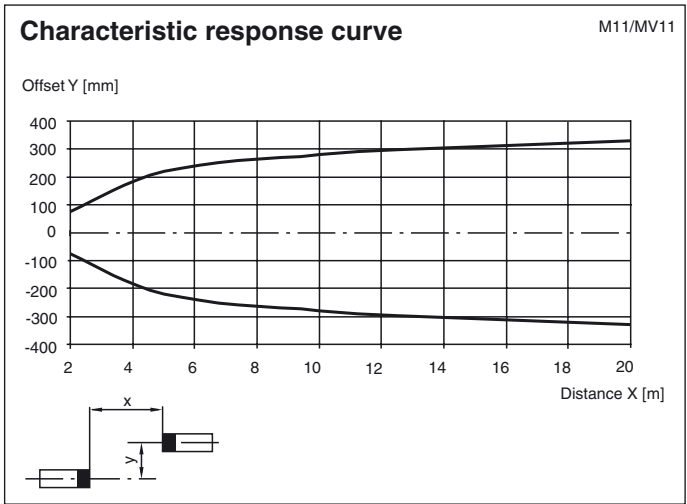
Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2:2007

Approvals and certificates

CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
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Curves/Diagrams



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