



**Model Number**

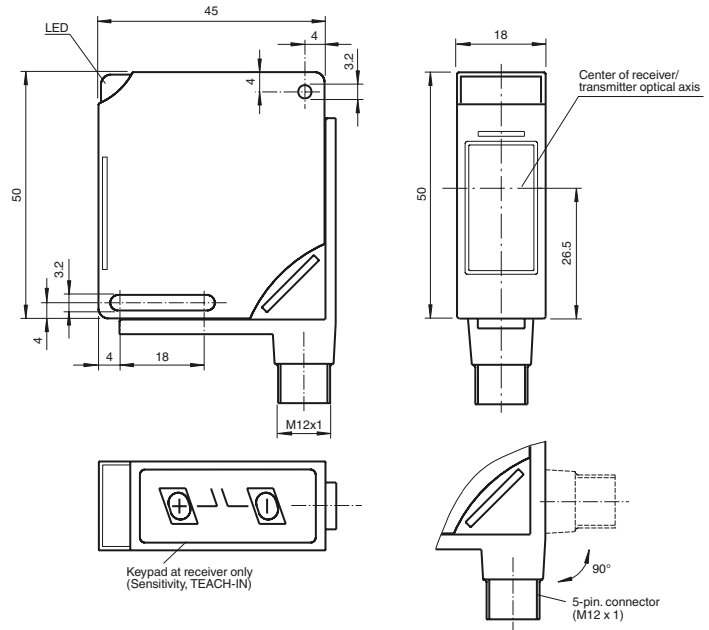
**M11/MV11-E/48/76a/112**

Thru-beam sensor  
with 5-pin M12 connector, 90° adjustable position

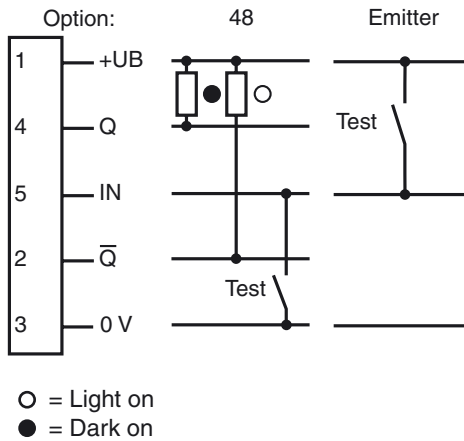
**Features**

- 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
- Metal parts made of high-grade steel
- Multifunction input

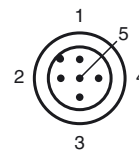
**Dimensions**



**Electrical connection**



**Pinout**



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**Technical data****System components**

Emitter	M11-E/76a/112
Receiver	MV11-E/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)

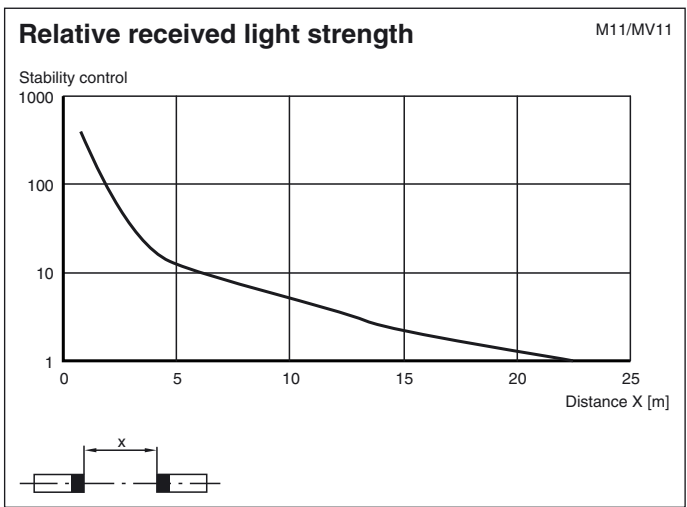
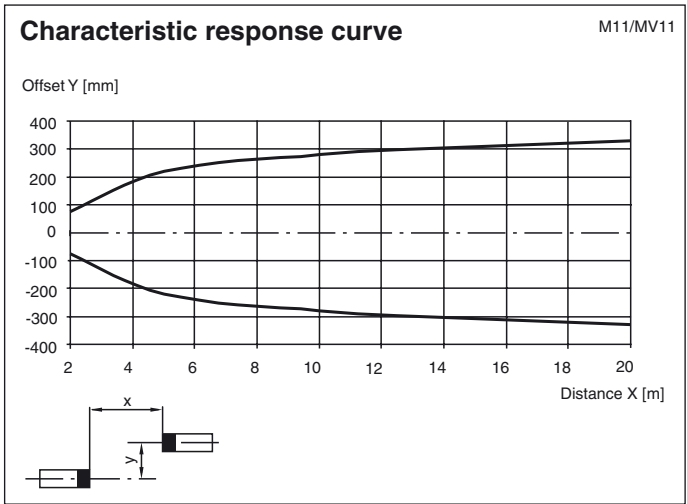
**Compliance with standards and directives**

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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