

Retroreflective sensor with polarization filter



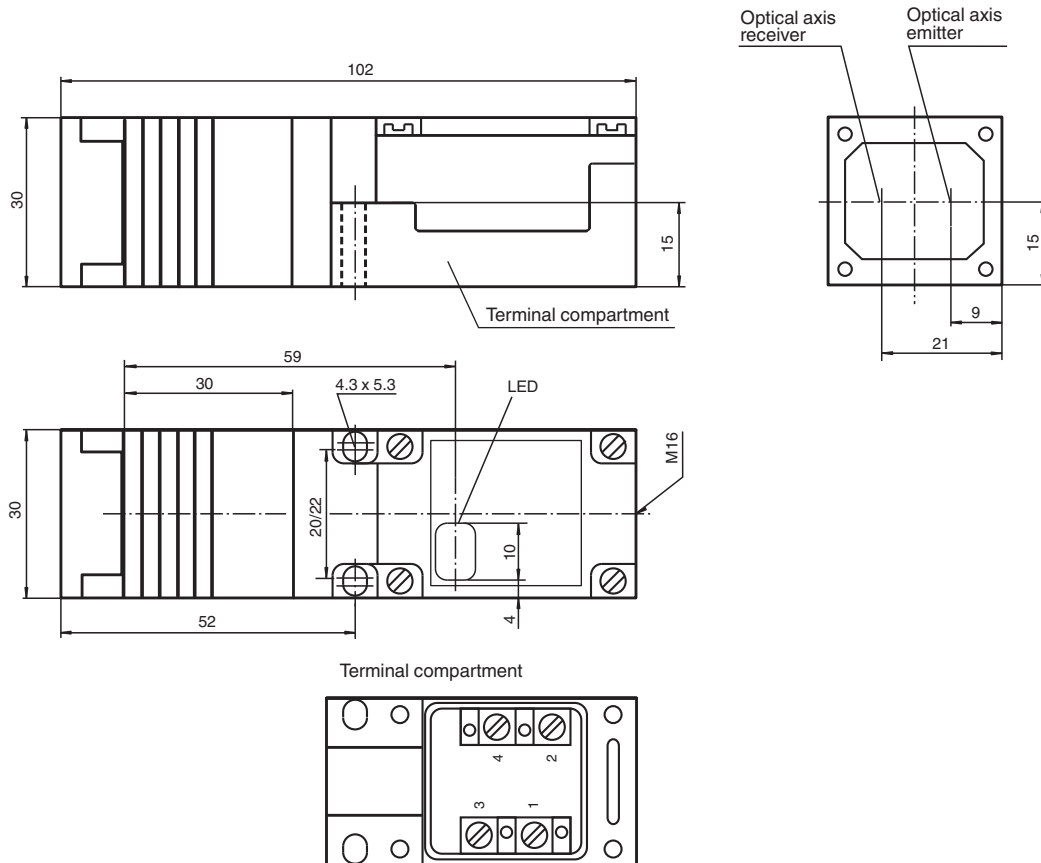
OJ3000-M1K-E23

- Light-on/dark-on parameterisable
- Visible red light
- Glare protected with polarization filter
- Stability alarm indicator and output (dynamic and static)
- Protected against mutual interference (no cross-talk)
- Removable terminal compartment
- Adjustable sensor head

Retroreflective sensor with polarization filter



Dimensions



Technical Data

General specifications

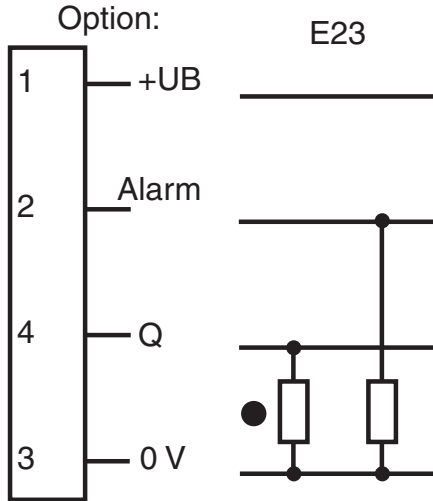
Effective detection range	0 ... 3000 mm
Reflector distance	200 ... 3000 mm
Threshold detection range	6 m

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Technical Data

Reference target		reflector C110-2
Light source		LED
Light type		modulated visible red light
Polarization filter		yes
Ambient light limit		10000 Lux
Indicators/operating means		
Operation indicator		LED green
Function indicator		LED yellow: switching state LED red: stability control (flashing)
Control elements		programming switch: bright/dark changeover switch selection of the operating frequency selection of the switching frequency pulse extension stability control dynamic/static
Electrical specifications		
Operating voltage	U_B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I_0	≤ 35 mA
Output		
Stability alarm output		1 PNP, active when falling short of the stability control
Switching type		light/dark on switchable
Signal output		1 PNP output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		max. 30 V DC
Switching current		≤ 200 mA
Voltage drop	U_d	≤ 2.5 V
Switching frequency	f	≤ 1.5 kHz / 200 Hz switchable
Response time		2.5 ms by 200 kHz , 0.3 ms at 1.5 kHz
Timer function		pulse extension 20 ms, switchable
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated ≤36 V
Approvals		CE
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Mechanical specifications		
Housing width		30 mm
Housing height		30 mm
Housing depth		102 mm
Degree of protection		IP67
Connection		M16&bspterminal compartment, core cross section ≤ 2.5 mm ²
Material		
Housing		PBT
Optical face		Scratch resistant mineral glass lens
Mass		100 g

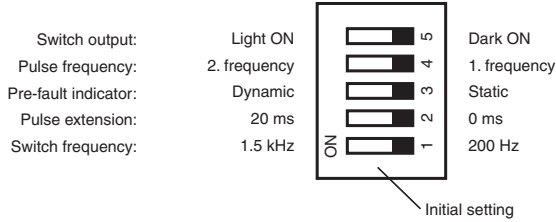
Connection Assignment



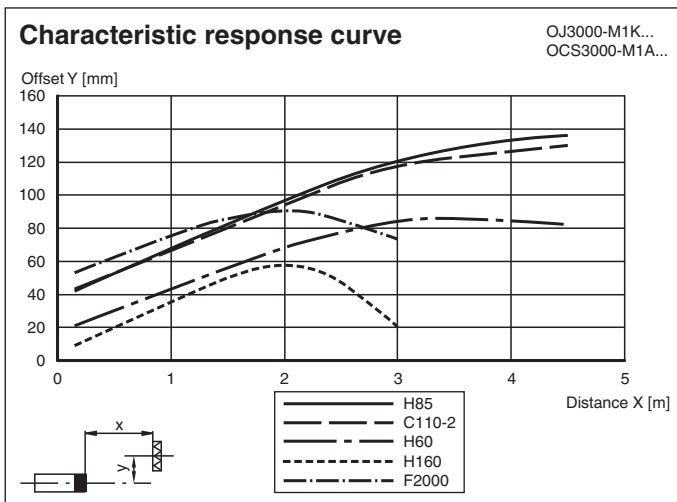
○ = Light on
● = Dark on

Configuration

Selector switches in terminal compartment

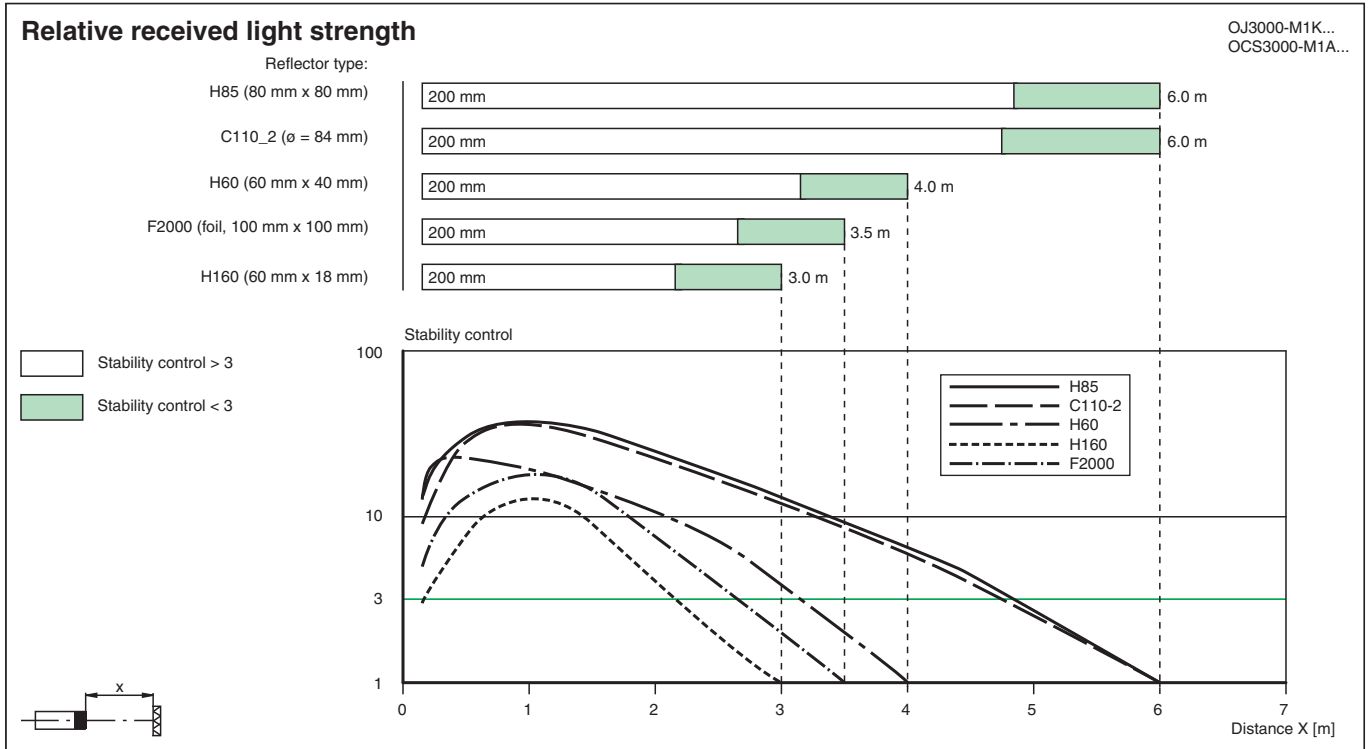


Characteristic Curve

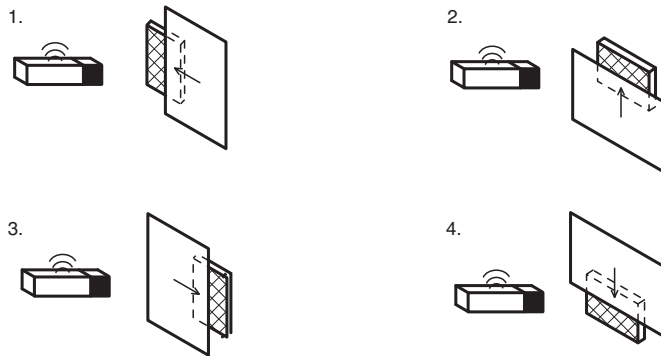


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Characteristic Curve



Mounting



The reflector is being covered little by little by an object (e. g. piece of paper) until the sensor responds. An optimum sensor adjustment is provided if the engagement factor is the same from all directions when the sensor responds.

Safety Information

Safety Instructions:

- Read the operating instructions before commissioning.
- Installation, connection and adjustments should only be undertaken by qualified personnel.
- No safety component according to Machinery Directive 2006/42/EC, may not be used for personal protection or EMERGENCY STOP function.

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