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Model Number

ML7-6/59/102/115/126b

Retroreflective sensor with 2 m fixed cable

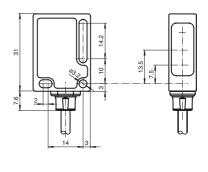
Features

- Reliable sensor for standard applications
- Miniature design with versatile mounting options
- Automatic adjustment of sensitivity via TEACH-IN
- Resistant against noise: reliable operation under all conditions
- Certified by ECOLAB

Product information

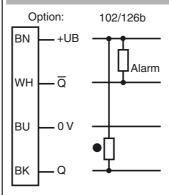
Small, robust, effective, and reliable - these are the properties of the ML7 sensor series. Due to their small size, number of versions, and two different lens positions, they are particularly suited for installation in tight spaces. The robust design and high quality of Pepperl+Fuchs mean they can also be used under harsh environmental conditions. The efficient technology, switching frequencies up to 1000 Hz, high resistance to ambient light, and 4-in-1 output make the series suitable for non-contact object detection.

Dimensions



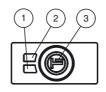


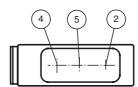
Electrical connection



- O = Light on
- = Dark on

Indicators/operating means





1	Operating display	green
2	Signal display	yellow
3	TEACH-IN button	
4	Emitter	
5	Receiver	



Technical data General specifications Effective detection range 0 ... 3 m 0.02 ... 3 m Reflector distance Threshold detection range 3.5 m H85-2 reflector Reference target Light source LFD Light type modulated visible red light Diameter of the light spot approx. 180 mm at a distance of 3.5 m Angle of divergence approx. 3 Ambient light limit 40000 Lux Functional safety related parameters 1530 a MTTF_d Mission Time (T_M) 0 % Diagnostic Coverage (DC) Indicators/operating means Operating display LED green, flashes in case of short-circuit LED yellow, lights up when light beam is free, flashes when fal-Function display ling short of the stability control Controls TEACH-IN key **Electrical specifications** 10 ... 30 V DC , class 2 Operating voltage Ripple max. 10 % No-load supply current < 20 mA Output Pre-fault indication output 1 NPN, inactive after failure to achieve the stability control minimum for approx. 5 s Immediately inactive if 4 beam interruptions occur within the flashing period. Switching type dark on 1 NPN output, short-circuit protected, reverse polarity protected, Signal output open collector Switching voltage max. 30 V DC Switching current max. 100 mA Voltage drop ≤ 1.5 V DC U_d Switching frequency 1000 Hz 0.5 ms Response time **Ambient conditions** -20 ... 60 °C (-4 ... 140 °F) Ambient temperature -40 ... 75 °C (-40 ... 167 °F) Storage temperature **Mechanical specifications** Protection degree IP67 / IP69K Connection 2 m fixed cable Material Housing PC (glass-fiber-reinforced Makrolon) Optical face **PMMA** approx. 50 g Compliance with standards and directi-Standard conformity Product standard EN 60947-5-2:2007 IEC 60947-5-2:2007 Standards EN 50178, UL 508 Approvals and certificates II, rated voltage \leq 250 V AC with pollution degree 1-2 accor-Protection class ding to IEC 60664-1 UL approval CCC approval CCC approval / marking not required for products rated ≤36 V

Accessories

Montagekit OMH-ML7-01

Mounting set consisting of bracket OMH-ML-01 sheet OMH-ML7-03, and fastening material

Montagekit OMH-ML7-02

Mounting set consisting of bracket OMH-ML-02 sheet OMH-ML7-03, and fastening material

OMH-ML7-01

Mounting bracket

OMH-ML7-02

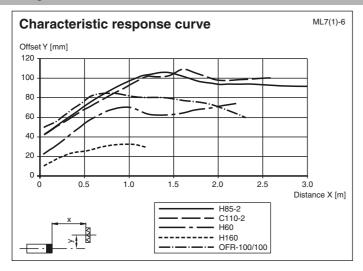
Mounting bracket

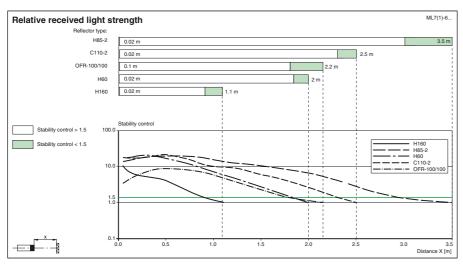
OMH-ML7-03

Fixing plate

Suitable reflectors and cable sockets can be found in the Internet

Curves/Diagrams





Teach-In

Connect the sensor to operating voltage, the LED green lights up constantly. The sensor operates at max. sensitivity (delivery status) or with the last teached values.

Mount suitable reflector opposite light beam switch.

- Adjust the unit to the reflector.
- Press the Teach-In button as an acknowledgement the green LED will quickly turn off one time.
- Press the Teach-In button until both LEDs green and yellow are blinking in parallel (2Hz). Release the Teach-In button now.
- While the green and yellow LEDs are blinking alternating (2 Hz) the unit is in the internal set up procedure.
- Teach-In successful: Both LEDs green and yellow are on. The unit is ready to use and in switching mode now.
- Teach-In not successful: Both LEDs are flashing alternating (4 Hz) for approx. 5 seconds. Afterwards the sensor returns to max. sensitivity setting. Please retry the Teach-In procedure beginning by step 1.