Model Number

ML17-54/115b/136

Retroreflective sensor

with fixed cable and M12 connector, 4-pin

Features

- Compact series in universal housing for standard applications
- Miniature design
- Front mounting with M18-threads or side mounting holes
- 360° high visibility LEDs
- Time-saving mounting with quick clamp system
- Version with polarized filters detect shiny objects
- 4-in-1 output (push-pull)

Product information

The ML17 sensor family offers diverse connection and installation options, which means that it can adapt to the most varied automation tasks. In addition to the usual fitting method using M4 screws, these sensors can also be installed by means of M18 threaded insert. All devices are equipped with a green Power On display and a yellow function display. These displays are arranged in such a way that they are clearly visible from different directions.

Dimensions
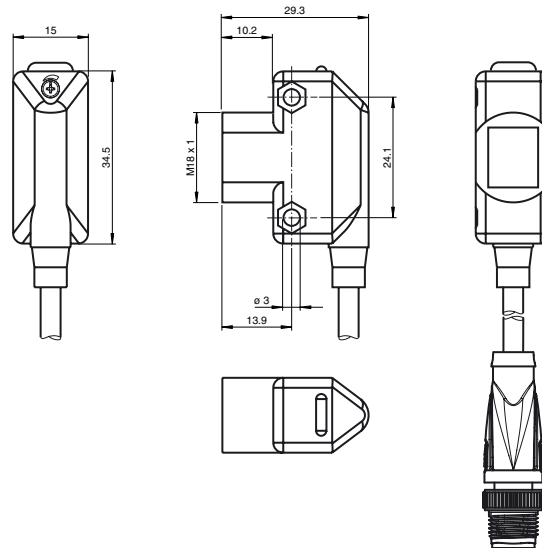
Electrical connection

○	= Light on
●	= Dark on
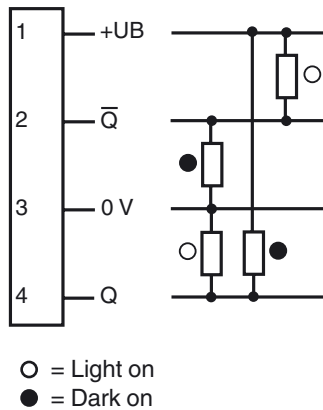
Pinout
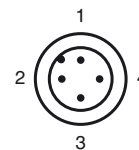
Indicators/operating means
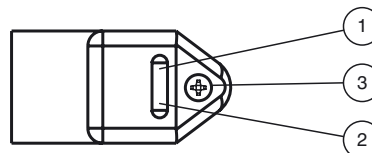
1	Signal display	yellow
2	Operating display	green
3	Sensitivity adjustment	

Subject to modifications without notice

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Technical data

General specifications

Effective detection range	0 ... 3.5 m
Reflector distance	50 ... 3500 mm
Threshold detection range	5 m
Reference target	FE-RR1 reflector
Light source	LED
Light type	modulated visible red light , 626 nm
Ambient light limit	≤ 10000 Lux

Indicators/operating means

Operating display	LED green
Function display	LED yellow, lights up with receiver lit
Controls	sensitivity adjustment

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I_0	< 25 mA
Operating current		100 mA max per output
Time delay before availability	t_v	≤ 200 ms

Output

Switching type		light/dark on
Signal output		2 push-pull (4 in 1)outputs, short-circuit protected, reverse polarity protected, overvoltage protected
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U_d	≤ 2 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms

Ambient conditions

|	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)

Mechanical specifications

Protection degree	IP67
Connection	150 mm PVC cable with 4-pin, M12 connector
Material	
Housing	ABS
Optical face	Acrylic
Mass	approx. 23 g

Compliance with standards and directives

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

Approvals and certificates

UL approval	cULus
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
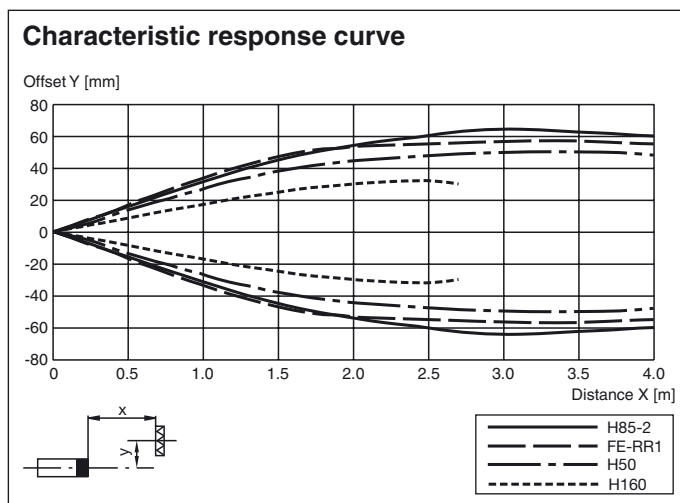
Accessories

OMH-ML17-EZ
Mounting bracket

OMH-ML17
Mounting bracket

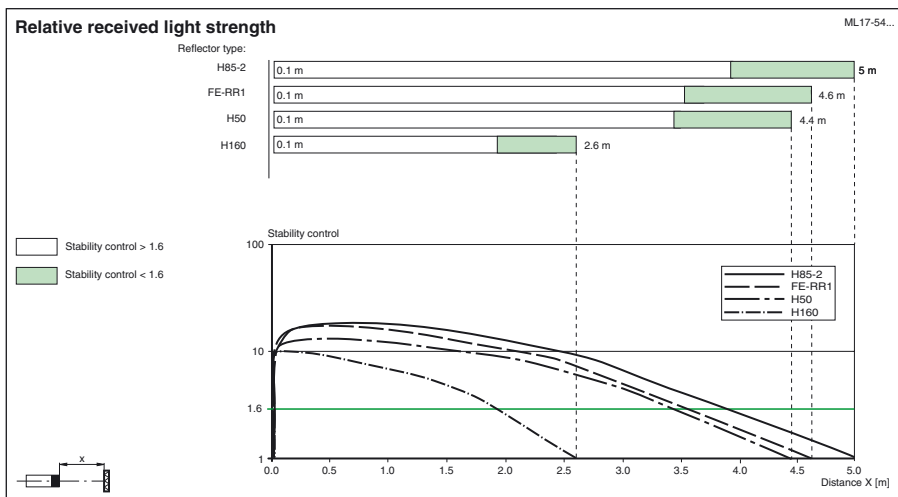**OMH-ML17-1**
Mounting bracket

V1-G-2M-PUR
Cable socket, M12, 4-pin, PUR cable

V1-W-2M-PUR
Cable socket, M12, 4-pin, PUR cable

Other suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams

Characteristic response curve

Offset Y [mm]

———	H85-2
— — —	FE-RR1
—·—·—	H50
- - - - -	H160

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Relative received light strength

ML17-54...

Reflector type:

H85-2	0.1 m ████ **5 m**
FE-RR1	0.1 m ███ 4.6 m
H50	0.1 m ███ 4.4 m
H160	0.1 m ██ 2.6 m

☐ Stability control > 1.6

▨ Stability control < 1.6

Stability control

Legend:
- H85-2
- FE-RR1
- H50
- H160

Distance X [m]

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