



## Retroreflective sensor

### ML17-54/136/143



- 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

Retroreflective sensor with polarization filter



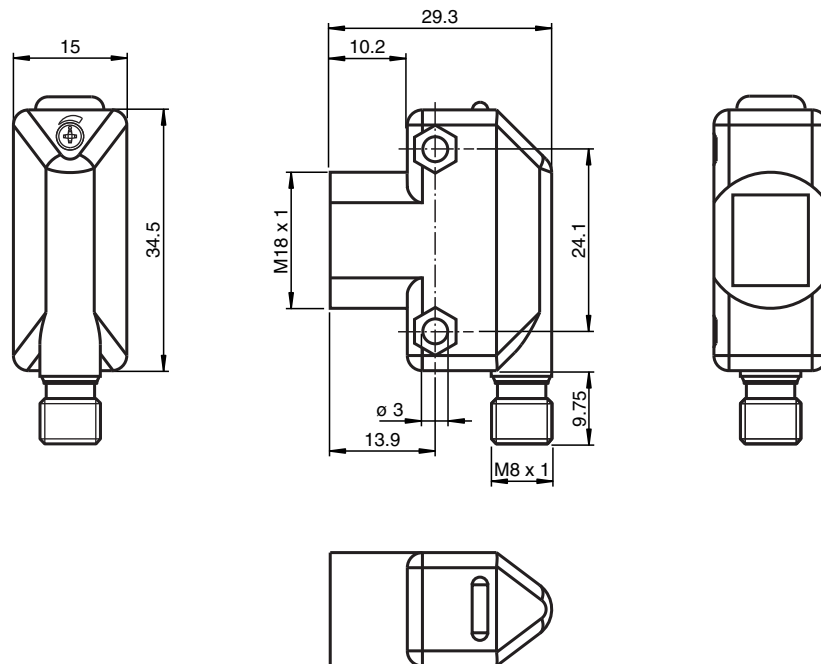
### Function

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.

### Application

- Presence monitoring
- Target sensors
- Congestion monitoring
- Track loading
- Completeness checks

## Dimensions



## 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
Polarization filter	yes
Ambient light limit	≤ 10000 Lux

### Indicators/operating means

Operation indicator	LED green
Function indicator	LED yellow, lights up with receiver lit
Control elements	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	$I_B$	100 mA max per output
Time delay before availability	$t_v$	≤ 200 ms

### Output

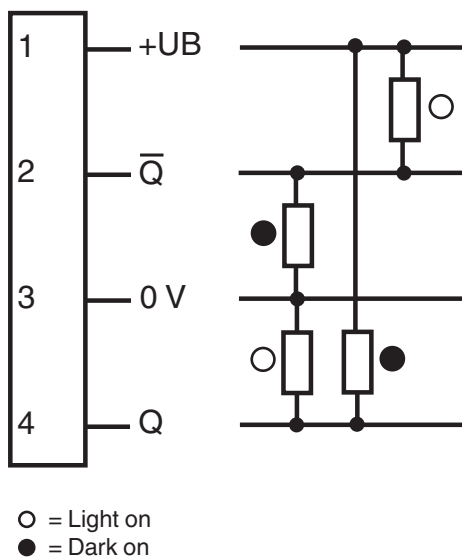
Switching type	light/dark on
Signal output	2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected, overvoltage protected
Switching voltage	max. 30 V DC
Switching current	max. 100 mA

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## Technical Data

Voltage drop	$U_d$	$\leq 2$ V DC
Switching frequency	$f$	500 Hz
Response time		$\leq 1$ ms
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
EAC conformity		TR CU 020/2011
UL approval		cULus
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 55 °C (-4 ... 131 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
<b>Mechanical specifications</b>		
Housing width		15 mm
Housing height		34.5 mm
Degree of protection		IP67
Connection		M8 x 1 connector, 4-pin
<b>Material</b>		
Housing		ABS
Optical face		Acrylic
Mass		approx. 8.5 g

## Connection



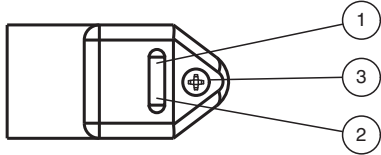
## Connection Assignment



Wire colors in accordance with EN 60947-5-2

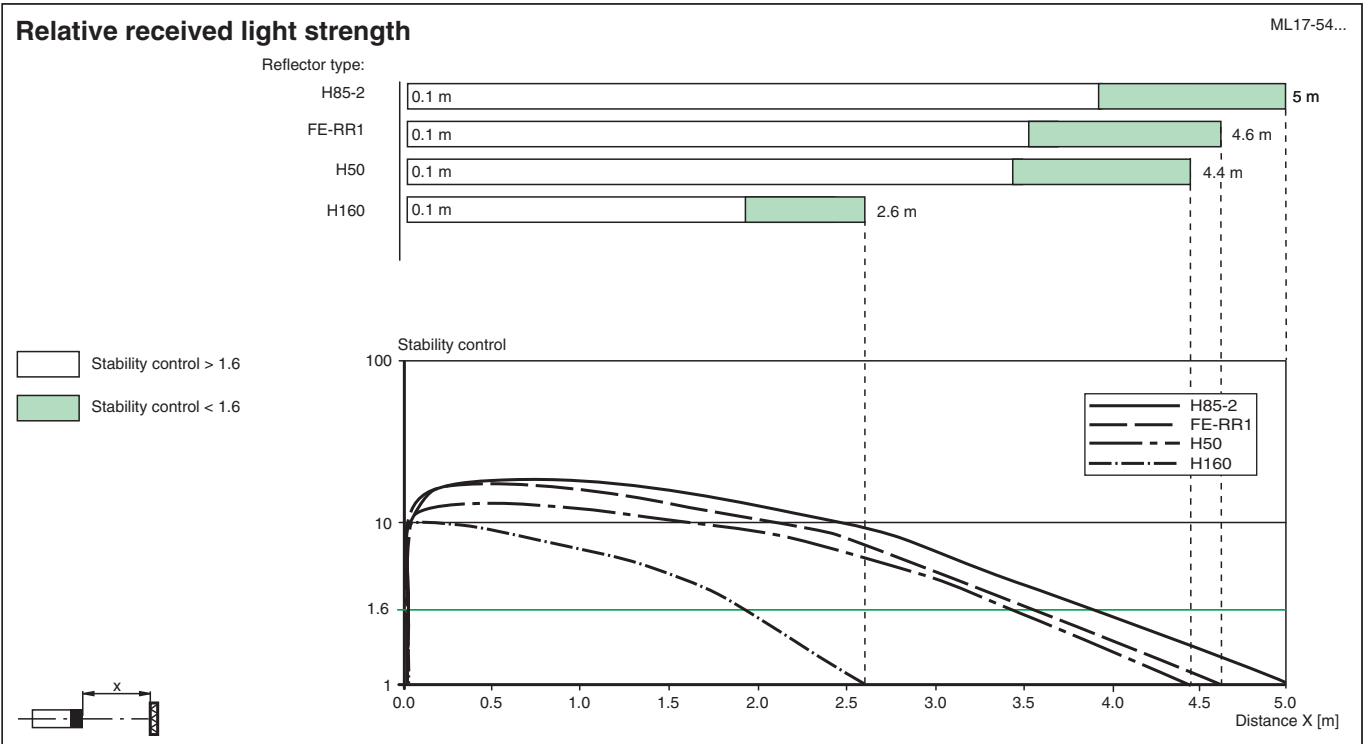
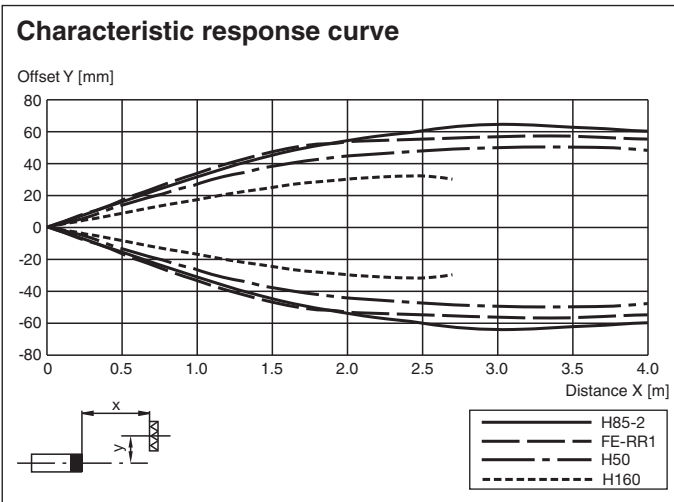
- 1 | BN (brown)
- 2 | WH (white)
- 3 | BU (blue)
- 4 | BK (black)

## Assembly



1	Signal display	yellow
2	Operating display	green
3	Sensitivity adjustment	

## Characteristic Curve







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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

## Application



## Accessories

	<b>OMH-ML17</b>	Mounting bracket
	<b>OMH-ML17-1</b>	Mounting bracket
	<b>V31-WM-2M-PUR</b>	Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable grey
	<b>V31-GM-2M-PUR</b>	Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable grey