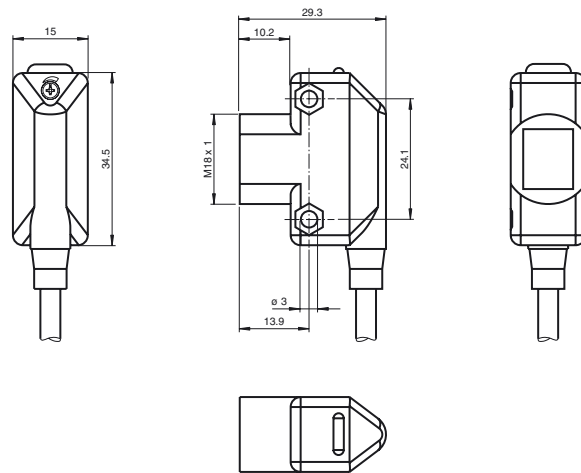## Model Number

ML17-54/115/120
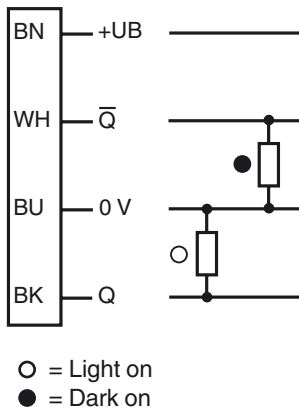
Retroreflective sensor
with 2 m fixed cable

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

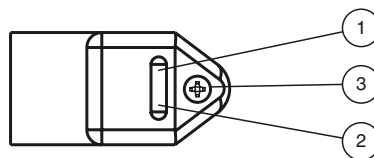• Version with polarized filters detect shiny objects

Dimensions

Electrical connection

○ = Light on
● = Dark on

Indicators/operating means

1	Signal display	yellow
2	Operating display	green
3	Sensitivity adjustment	

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

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1

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		100 mA max per output
Time delay before availability	t_v	≤ 200 ms

Output

Switching type		light/dark on
Signal output		2 PNP, short-circuit protected, reverse polarity protected , open collectors
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

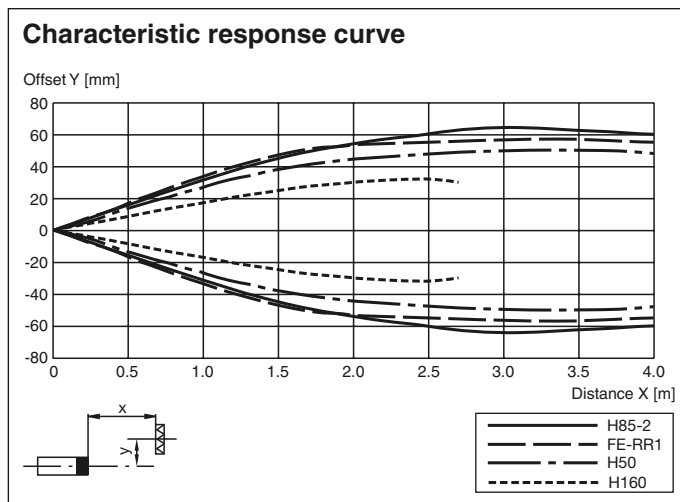|	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)

Mechanical specifications

Degree of protection	IP67
Connection	2 m fixed cable
Material	
Housing	ABS
Optical face	Acrylic
Mass	approx. 40 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	CCC approval / marking not required for products rated ≤36 V

Curves/Diagrams

Characteristic response curve

Offset Y [mm] vs Distance X [m]

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

Relative received light strength

ML17-54...

Reflector type:

Reflector	Range
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

- H85-2
- FE-RR1
- H50
- H160

Distance X [m]
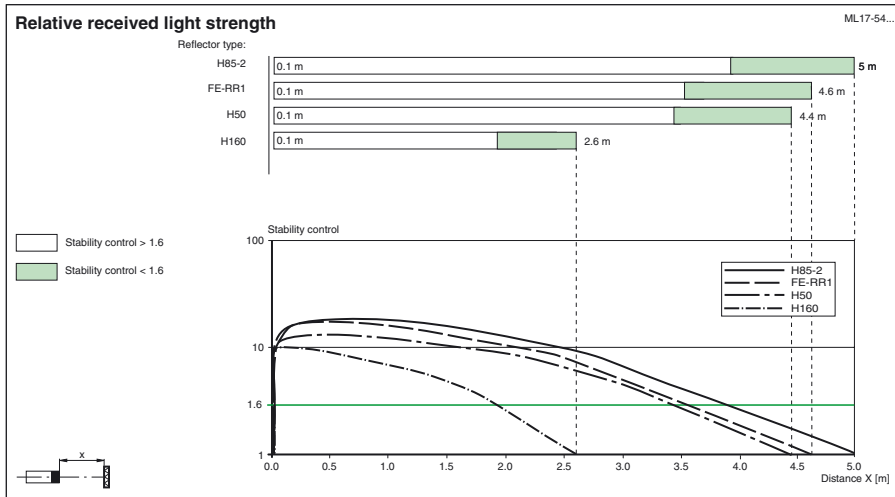
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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