



**Model Number**

**ML4.1-54-F/82b/95/110**

Retro-reflective sensor with polarisation filter  
with M8, 4-pin metal connector

**Features**

- Miniature design
- Small light beam diameter for detection of small parts
- Visible red light
- Powerful push-pull output
- Coaxial optical system - no unusable area
- Glare protected with polarisation filter
- Not sensitive to ambient light, even with switched energy saving lamps

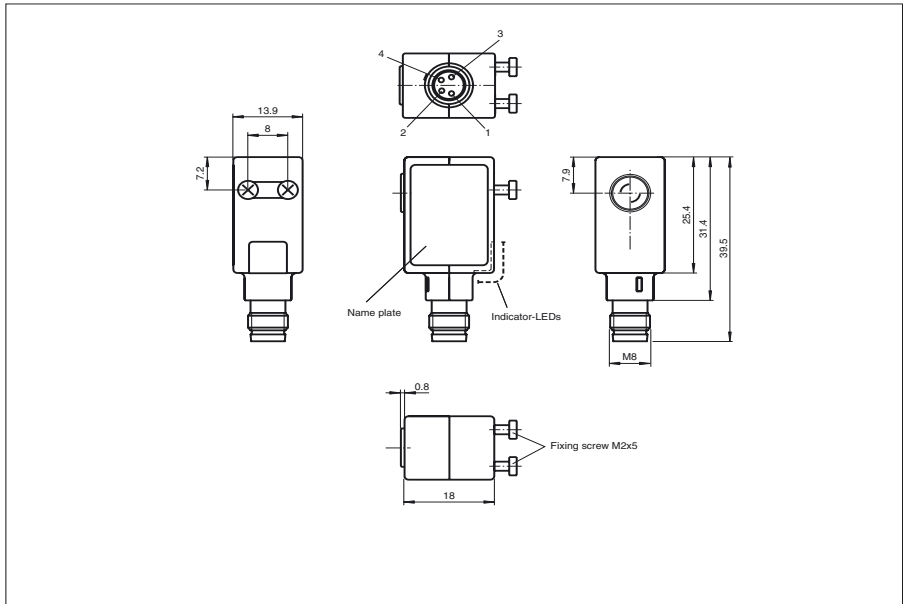
**Accessories**

- OMH-ML6**  
Mounting aid
- OMH-ML6-U**  
Mounting aid
- OMH-ML6-Z**  
Mounting aid

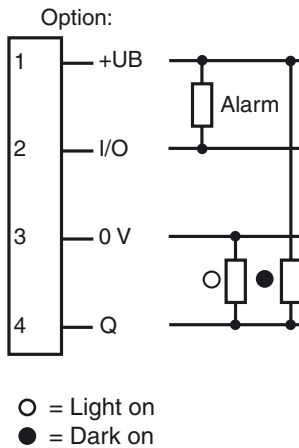
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Additional accessories can be found in the Internet.

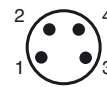
**Dimensions**



**Electrical connection**



**Pinning according**



**Technical data****General specifications**

Effective detection range	0 ... 400 mm
Reflector distance	0 ... 400 mm
Threshold detection range	1000 mm (with H60 reflector)
Light source	LED
Approvals	CE, cULus
Light type	red, modulated light
Diameter of the light spot	20 mm
Angle of divergence	approx. 3 °
Ambient light limit	40000 Lux

**Indicators/operating means**

Operating display	LED, green
Function display	LED yellow, lights up when light beam is free, flashes when falling short of the stability control

**Electrical specifications**

Operating voltage	10 ... 30 V DC
Ripple	10 %
No-load supply current	$I_0$ 25 mA

**Output**

Output of the pre-fault indication	1 npn, inactive when falling short of the stability control
Switching type	dark ON
Signal output	Push-pull output, short-circuit proof, protected against reverse polarity
Switching voltage	max. 30 V DC
Switching current	max. 200 mA
Switching frequency	f 500 Hz
Response time	1 ms

**Standard conformity**

Standards	EN 60947-5-2
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**Ambient conditions**

Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Storage temperature	-20 ... 75 °C (253 ... 348 K)

**Mechanical specifications**

Protection degree	IP65
Connection	M8 connector, 4-pin
Material	
Housing	ABS GV5
Optical face	glass
Mass	15 g

**Curves / Diagrams**