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Model Number

ML6-8-H-120-IR/59/65a/115/136

Background suppression sensor with 2 m fixed cable

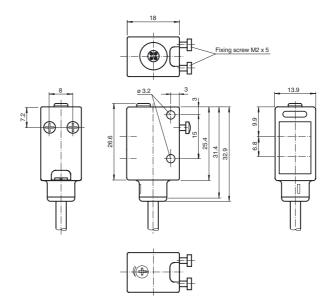
Features

- Precise background suppression
- Adjustable background suppression
- Small, sharp light spot
- Very small black-white difference
- Highly visible LEDs for Power-On, switching status, short-circuit, and undervoltage
- Metal-reinforced fastening holes
- Push-pull output

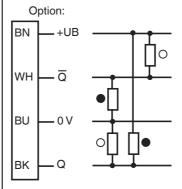
Product information

The ML6 series is characterized by a robust, powerful and standard design in a miniature housing. The housing offers IP67/IP69K degree of protection, a food-grade lens, highly visible LEDs and robust all-metal bushings for mounting. Adjustable and tamper-proof sensors with a double push-pull output are available. The sensors have a high ambient light limit. Reflections from the background are suppressed. The unusually small, sharp light spot and the quick response time offer maximum switching precision on object edges. Clearly visible red light sources facilitates alignment. A high-performance fixed focus background suppressor is a useful feature. The sensors are suitable for precise object detection and open up a wide range of application fields.

Dimensions

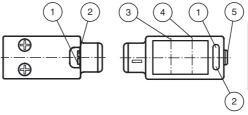


Electrical connection



- O = Light on
- = Dark on

Indicators/operating means



1	operating display	green		
2	indication of the switching state yellow			
3	receiver axis			
4	emitter axis			
5	detection range adjuster			

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Technical data				
General specifications				
Detection range		15 120 mm		
Detection range min.		10 30 mm		
Detection range max.		18 120 mm		
Adjustment range		30 120 mm		
Reference target		standard white, 100 mm x 100 mm		
Light source		IRED		
Light type		modulated infrared light , 880 nm		
Black/White difference (6 %/90 %)		< 10 %		
Diameter of the light spot		approx. 5 mm at detection range 120 mm		
Ambient light limit				
Continuous light		40000 Lux		
Modulated light		5000 Lux		
Functional safety related param	eters			
MTTF _d		1940 a		
Mission Time (T _M)		20 a		
Diagnostic Coverage (DC)		0 %		
Indicators/operating means				
Operation indicator		LED green, statically lit Power on , Undervoltage indicator: Green LED, pulsing (approx. 0.8 Hz) , short-circuit : LED green flashing (approx. 4 Hz)		
Function indicator		LED yellow: lights when object is detected		
Control elements		Detection range adjuster		
Electrical specifications				
Operating voltage	U_{B}	10 30 V DC , class 2		
Ripple	-6	max. 10 %		
No-load supply current	I ₀	< 25 mA		
Output	-0			
Switching type		light/dark on, programmable		
Signal output		2 push-pull (4 in 1) outputs, complementary, short-circuit proof, reverse polarity protected		
Switching voltage		max. 30 V DC		
Switching current		max. 100 mA		
Voltage drop	Ud	≤ 2.5 V DC		
Switching frequency	f	1000 Hz		
Response time		500 μs		
Ambient conditions				
Ambient temperature		-20 60 °C (-4 140 °F)		
Storage temperature		-40 75 °C (-40 167 °F)		
Mechanical specifications		10 70 0 (10 107 1)		
· · · · · · · · · · · · · · · · · · ·		IP67 / IP69K		
Degree of protection		2 m fixed cable		
Connection		2 m lixed cable		
Material		ADO		
Housing		ABS		
Optical face		PMMA		
Cable		PUR		
Mass		approx. 50 g		
Compliance with standards and ves	l directi	-		
Standard conformity				
Product standard		EN 60947-5-2:2007 IEC 60947-5-2:2007		
Shock and impact resistance		IEC / EN 60068. half-sine, 40 g in each X, Y and Z directions		
Vibration resistance		IEC / EN 60068-2-6. Sinus. 10 -150 Hz, 5 g in each X, Y and Z directions		
Approvals and certificates				
		cULus Listed		
UL approval		COLUS LISIEU		

Accessories

OMH-4.1

Mounting Clamp

OMH-ML6

Mounting bracket

OMH-ML6-U

Mounting bracket

OMH-ML6-Z

Mounting bracket

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

CCC approval

CCC approval / marking not required for products rated ≤36 V

Curves/Diagrams

