Background suppression sensor

Model Number

ML7-8-H-140-IR/65a/115b/120

Background suppression sensor with fixed cable and M12 connector, 4-pin

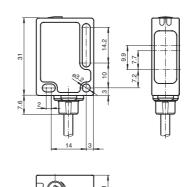
Features

- Miniature design
- Reliable detection of all surfaces, independent of color and structure
- Minimal black-white difference
- Precision background suppression, adjustable
- Clearly visible function indicators
- Short circuit and low voltage indicator
- Certified by ECOLAB

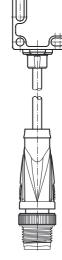
Product information

Small, robust, effective, and reliable - these are the properties of the ML7 sensor series. Due to their small size, number of versions, and two different lens positions, they are particularly suited for installation in tight spaces. The robust design and high quality of Pepperl+Fuchs mean they can also be used under harsh environmental conditions. The efficient technology, switching frequencies up to 1000 Hz, high resistance to ambient light, and 4-in-1 output make the series suitable for non-contact object detection.

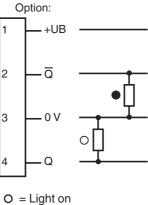




15.5



Electrical connection



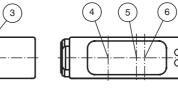
• = Dark on

2

Pinout



Indicators/operating means



1	Operating display	green
2	Signal display	yellow
3	Sensing range adjuster	
4	Emitter	
5	Receiver TW min.	
6	Receiver TW max.	

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

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UL approval

CCC approval

Technical data			Accessories	
General specifications			Montagekit OM	
Detection range		4 140 mm	-	
Detection range min.		4 25 mm	Mounting set consisting of bracket	
Detection range max.		12 140 mm	ML-01 sheet OMH-ML7-03, and fa	
Adjustment range		25 140 mm	ning material Montagekit OMH-ML7-02	
Reference target		standard white, 100 mm x 100 mm		
Light source		IRED	Mounting set cor	
Light type		modulated infrared light	ML-02 sheet OMH-ML7-03, and ning material	
Black/White difference (6 %/90	%)	< 6 %		
Diameter of the light spot		approx. 5 mm at detection range 120 mm	Thing material	
Functional safety related parar	neters		OMH-ML7-01	
MTTF _d		1580 a	Mounting bracke	
Mission Time (T _M)		20 a		
Diagnostic Coverage (DC)		0 %	OMH-ML7-02	
Indicators/operating means			Mounting bracke	
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)	OMH-ML7-03 Fixing plate	
Function indicator		LED yellow: lights when object is detected		
Control elements		Detection range adjuster	Other suitable acc	
Electrical specifications			www.pepperl-fuchs	
Operating voltage	U _B	10 30 V DC , class 2		
Ripple	_	max. 10 %		
No-load supply current	I ₀	< 20 mA		
Output				
Switching type		light/dark on		
Signal output		2 PNP, complementary, short-circuit protected, reverse polarity protected		
Switching voltage		max. 30 V DC		
Switching current		max. 100 mA		
Switching frequency	f	1 kHz		
Response time		500 μs		
Ambient conditions				
Ambient temperature		-20 60 °C (-4 140 °F)		
Storage temperature		-40 75 °C (-40 167 °F)		
Mechanical specifications				
Degree of protection		IP67 / IP69K		
Connection		fixed cable 200 mm with M12 connector, 4-pin		
Material				
Housing		PC (glass-fiber-reinforced Makrolon)		
Optical face		PMMA		
Mass		approx. 10 g		
Compliance with standards an ves	d directi-			
Standard conformity				
Product standard		EN 60947-5-2:2007 IEC 60947-5-2:2007		
Approvals and certificates				
Protection class		II, rated voltage \leq 50 V AC with pollution degree 1-2 according to IEC 60664-1		
			1	

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cULus

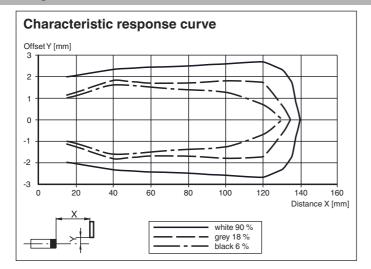
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CCC approval / marking not required for products rated ≤36 V

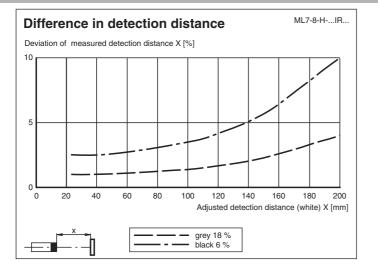
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Curves/Diagrams



Curves/Diagrams





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