



# Background suppression sensor

## RL29-8-H-1200-RT/59/73c/136

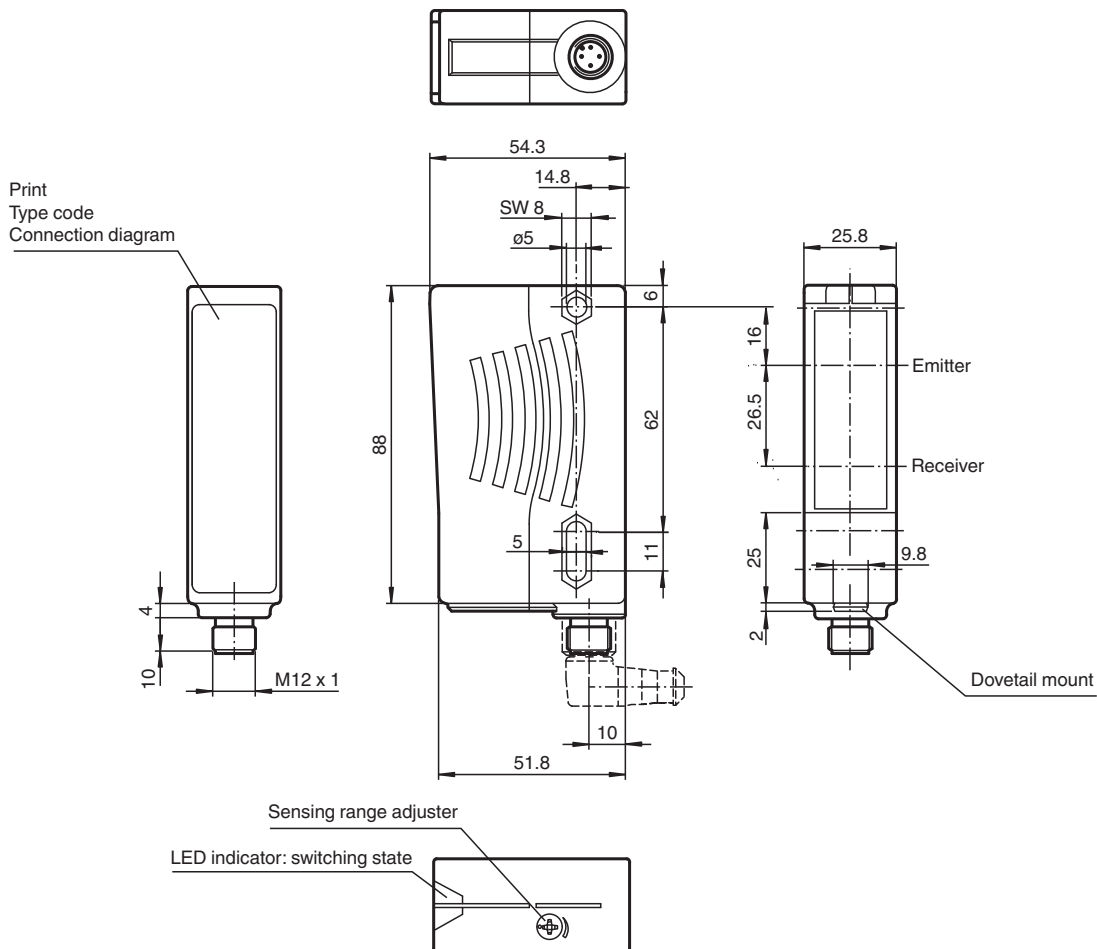


- Highly visible LED
- Good alignability due to red transmission LED
- Minimal black-white difference
- Powerful push-pull output
- Optimal price/power ratio
- Protection class II

Background suppression sensor



### Dimensions



### Technical Data

#### General specifications

Detection range	30 ... 1200 mm , adjustable
Detection range min.	20 ... 200 mm

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

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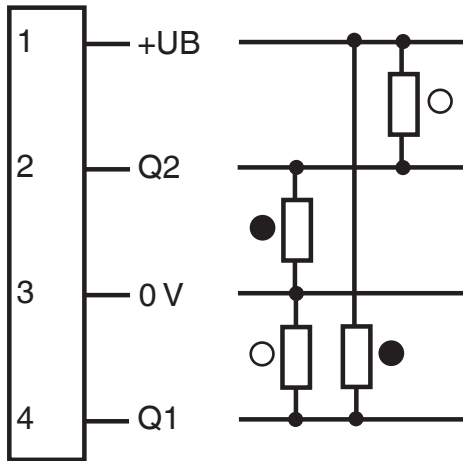
**PF** PEPPERL+FUCHS

## Technical Data

Detection range max.		30 ... 1200 mm
Background suppression		max. + 10 % of the upper limit of the detection range
Light source		LED 660 nm
Light type		modulated visible red light
Black-white difference (6 %/90 %)		< 35 % at 1200 mm sensor range
Diameter of the light spot		approx. 25 mm at a distance of 1200 mm
Opening angle		Emitter: 1.2 ° , Receiver: 2 °
Ambient light limit		50000 Lux
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		720 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Function indicator		LED yellow: switching state
Control elements		Sensing range adjuster
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	10 ... 30 V DC , class 2
Ripple		10 %
No-load supply current	I <sub>0</sub>	≤ 40 mA
<b>Output</b>		
Switching type		dark-on
Signal output		2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Switching frequency	f	125 Hz
Response time		4 ms
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
EAC conformity		TR CU 020/2011
Protection class		II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval		E87056 , cULus Listed , class 2 power supply , type rating 1
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 60 °C (-13 ... 140 °F)
Storage temperature		-40 ... 75 °C (-40 ... 167 °F)
<b>Mechanical specifications</b>		
Housing width		25.8 mm
Housing height		88 mm
Housing depth		54.3 mm
Degree of protection		IP65
Connection		Plastic connector M12 x 1, 4-pin
Material		
Housing		Plastic ABS
Optical face		plastic
Mass		70 g

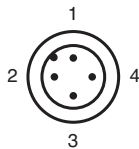
**Connection Assignment**

Option:



○ = Light on  
 ● = Dark on

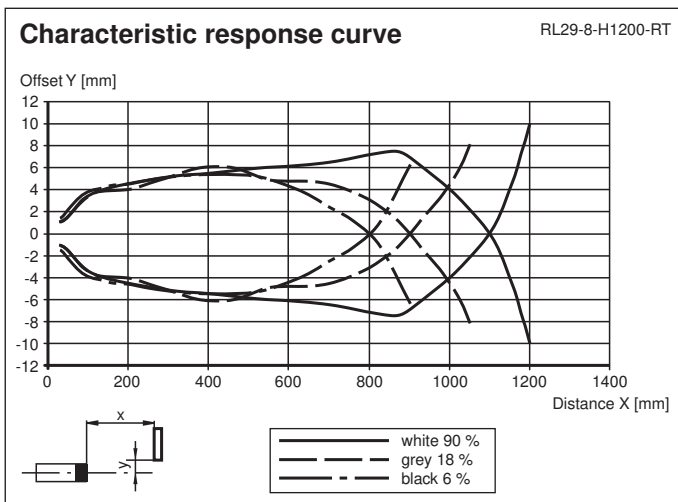
**Connection Assignment**



Wire colors in accordance with EN 60947-5-2

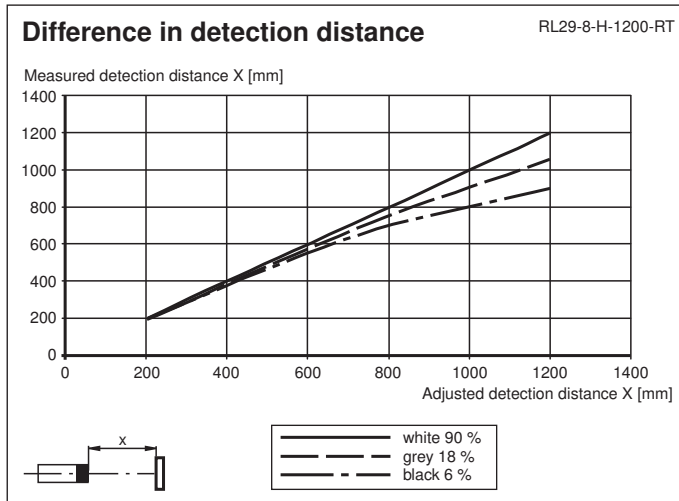
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

**Characteristic Curve**










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## Accessories

	<b>OMH-05</b>	Mounting aid for round steel $\varnothing$ 12 mm or sheet 1.5 mm ... 3 mm
	<b>OMH-21</b>	Mounting bracket: mounting aid for sensors in the RL* series
	<b>OMH-22</b>	Mounting aid for RL* series
	<b>OMH-RLK29-HW</b>	Mounting bracket for rear wall mounting
	<b>OMH-RL28-C</b>	Weld slag cover model
	<b>V1-G-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
	<b>V1-W-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey