

# Diffuse mode sensor

## ML300-8-600-RT/25/103/115



- Miniature design
- Easy to use
- Visible red light
- 45° cable connector

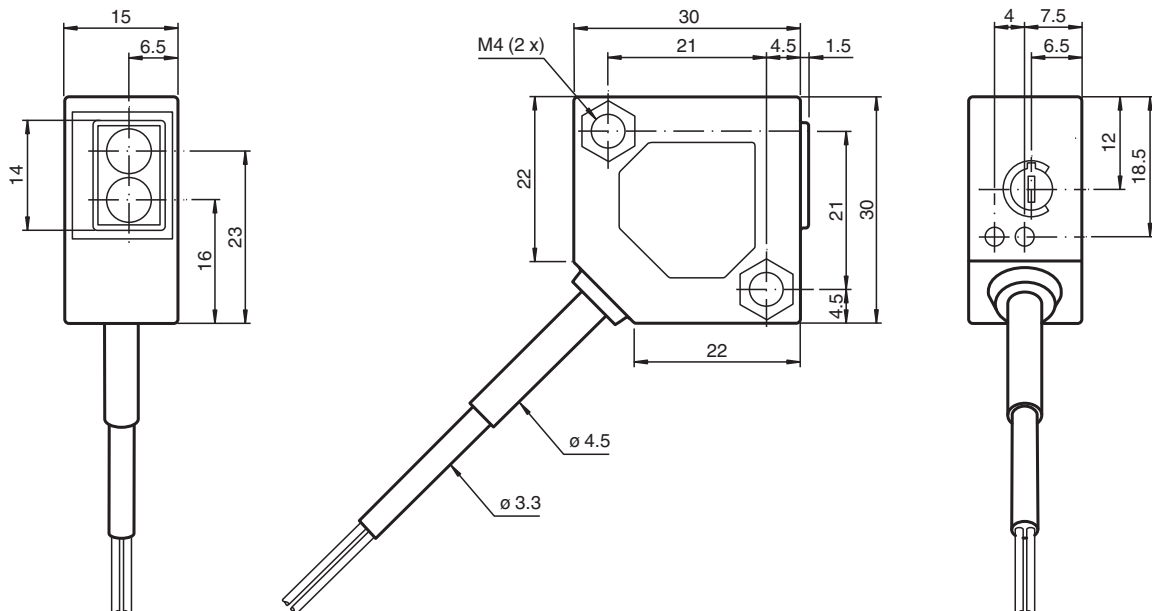
Diffuse mode sensor, miniature design, 600 mm adjustable detection range, red light, light on, PNP output, fixed cable



### Function

The ML300 series has a robust miniature housing and all the standard functional principles. Of particular note are the sensors with analog output, which return a value proportional to the distance. The 45° plug/cable connection ensures flexible mounting. An LED indicates a weak signal, e.g. due to dirt.

### Dimensions



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

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## Technical Data

General specifications		
Detection range		0 ... 600 mm , adjustable
Adjustment range		150 ... 600 mm
Reference target		standard white 200 mm x 200 mm
Light source		LED
Light type		modulated visible red light , 660 nm
Diameter of the light spot		approx. 130 mm at a distance of 600 mm
Opening angle		approx. 13 °
Ambient light limit		
Continuous light		10000 Lux
Modulated light		5000 Lux
Indicators/operating means		
Function indicator		LED yellow: lights up when output is active LED green: Sufficient stability control
Control elements		Sensing range adjuster
Electrical specifications		
Operating voltage	$U_B$	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	$I_0$	max. 35 mA
Output		
Switching type		light-on
Signal output		1 PNP output, short-circuit protected, reverse polarity protected, open collector
Switching voltage		max. 30 V DC
Switching current		max. 0.1 A
Voltage drop	$U_d$	$\leq 2$ V DC
Switching frequency	$f$	1000 Hz
Response time		0.5 ms
Conformity		
Product standard		EN 60947-5-2
Compliance with standards and directives		
Standard conformity		
Shock and impact resistance		EN 60947-5-7 30 g, 11 ms, all axes
Vibration resistance		EN 60947-5-7, 10-55 Hz/1.5 mm amplitude, all axes
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
Ambient conditions		
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
Mechanical specifications		
Housing width		30 mm
Housing height		30 mm
Housing depth		15 mm
Degree of protection		IP65
Connection		2 m fixed cable
Material		
Housing		ABS
Optical face		plastic
Cable		PVC
Mass		75 g

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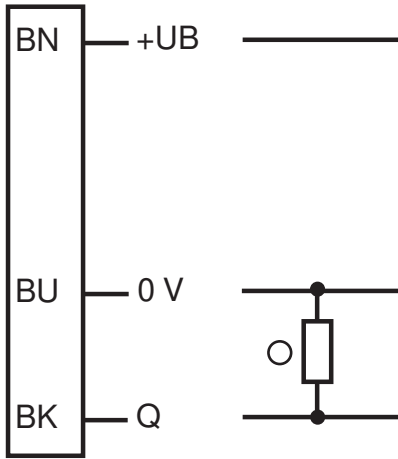
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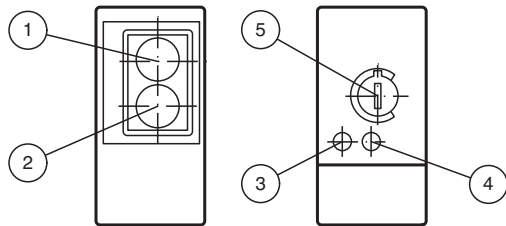
**Connection Assignment**

Option: 103



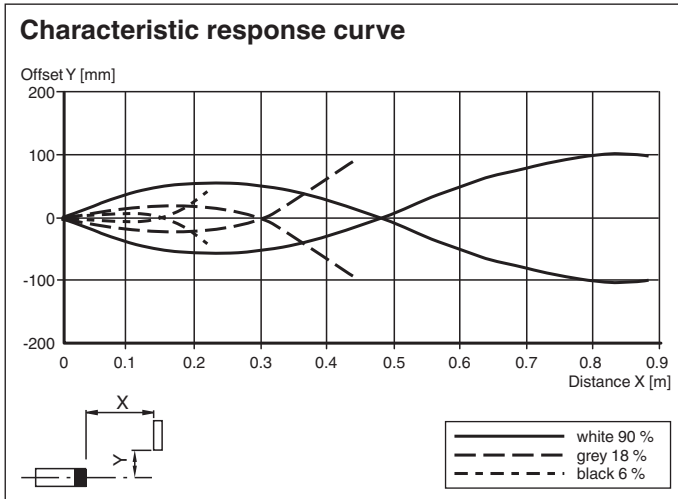
○ = Light on  
● = Dark on

**Assembly**



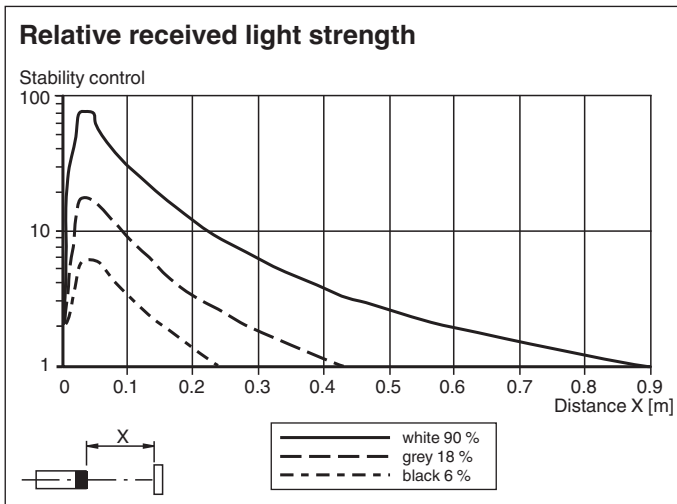
1	Receiver	
2	Emitter	
3	Switching state	yellow
4	Stability control	green
5	Sensing range adjuster	

**Characteristic Curve**



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## Characteristic Curve



## Accessories

	<b>OMH-ML300-01</b>	Bracket for mounting ML300 series sensors
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