

# O6 WetLine miniature high-performance photoelectric sensors



## Powerful and robust sensors for the food industry

- Stainless steel housing with protection rating IP 68 / IP 69K
- Easy adjustment via potentiometer
- Diffuse reflection sensors with reliable background suppression
- Object colour has no influence on the range
- Also available as through-beam or retro-reflective system

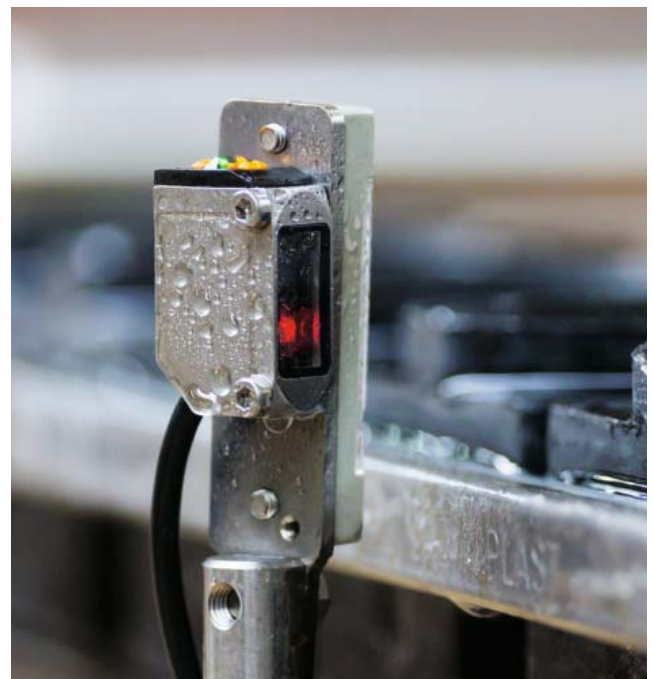


### Best optical performance

The diffuse reflection sensors distinguish themselves by reliable background suppression, even in case of highly reflective backgrounds. The sensing range is independent of the characteristics and colour of the object to be detected. A special feature is the automatic sensitivity compensation that guarantees reliable operation even in steam, smoke or highly reflective environments.

### Ideal for food applications

The potentiometers are provided with a double seal and are, like the front pane, embedded flush to allow residue-free cleaning. The transparent black housing cover ensures that, even in bright lighting conditions, the LEDs are highly visible. The coated front pane is made of resistant, shatterproof plastic.

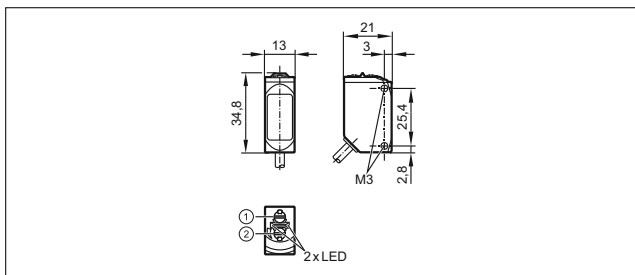


Range [mm]	Light spot diameter [mm]	Connection	Current consumption [mA]	Order no.	Order no.
<b>Diffuse reflection sensor with background suppression · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
2...200	8*	PVC cable, 2 m	22	O6H304	O6H300
2...200	8*	M12 connector with 0.3 m PVC cable	22	O6H305	O6H301
<b>Diffuse reflection sensor · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
5...500	15*	PVC cable, 2 m	16	O6T304	O6T300
5...500	15*	M12 connector with 0.3 m PVC cable	16	O6T305	O6T301
<b>Retro-reflective sensor with polarisation filter · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
50...5000	150**	PVC cable, 2 m	12	O6P304	O6P300
50...5000	150**	M12 connector with 0.3 m PVC cable	12	O6P305	O6P301
<b>Through-beam sensor transmitter · 2-wire DC</b>					
0...10000	300*	PVC cable, 2 m	11	O6S300	
0...10000	300*	M12 connector with 0.3 m PVC cable	11	O6S301	
<b>Through-beam sensor receiver · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
0...10000	–	PVC cable, 2 m	7	O6E304	O6E300
0...10000	–	M12 connector with 0.3 m PVC cable	7	O6E305	O6E301

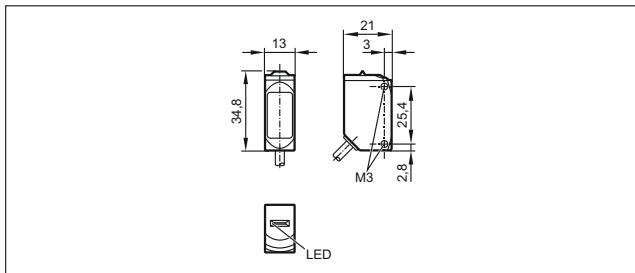
\* at maximum range

\*\* referred to prismatic reflector Ø 80 mm

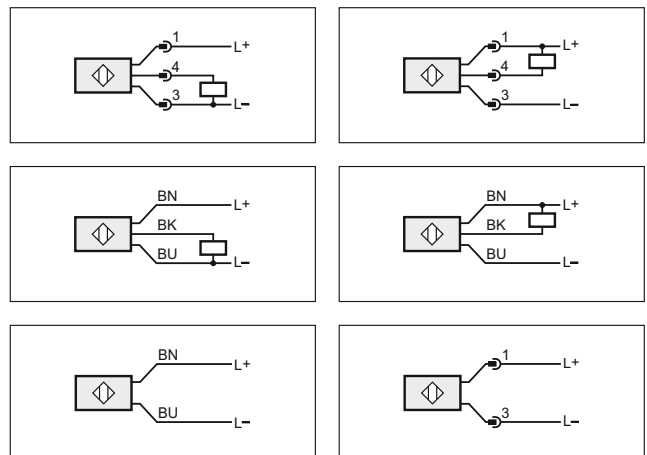
### Dimensions



- 1) Switch output function
- 2) Potentiometer sensitivity



### Wiring diagram

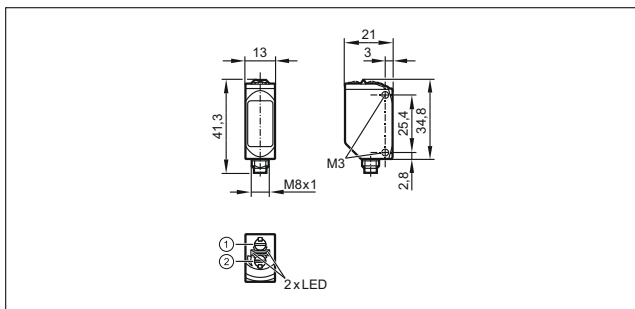


Range [mm]	Light spot diameter [mm]	Connection	Current consumption [mA]	Order no.	Order no.
<b>Diffuse reflection sensor with background suppression · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
2...200	8*	M8 connector, 3-pole	22	O6H306	O6H302
2...200	8*	M8 connector, 4-pole	22	O6H307	O6H303
<b>Diffuse reflection sensor · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
5...500	15*	M8 connector, 3-pole	16	O6T306	O6T302
5...500	15*	M8 connector, 4-pole	16	O6T307	O6T303
<b>Retro-reflective sensor with polarisation filter · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
50...5000	150**	M8 connector, 3-pole	12	O6P306	O6P302
50...5000	150**	M8 connector, 4-pole	12	O6P307	O6P303
<b>Through-beam sensor transmitter · 2-wire DC</b>					
0...10000	300*	M8 connector, 3-pole	11	O6S302	
0...10000	300*	M8 connector, 4-pole	11	O6S303	
<b>Through-beam sensor receiver · 3-wire DC</b>				<b>NPN</b>	<b>PNP</b>
0...10000	–	M8 connector, 3-pole	7	O6E306	O6E302
0...10000	–	M8 connector, 4-pole	7	O6E307	O6E303

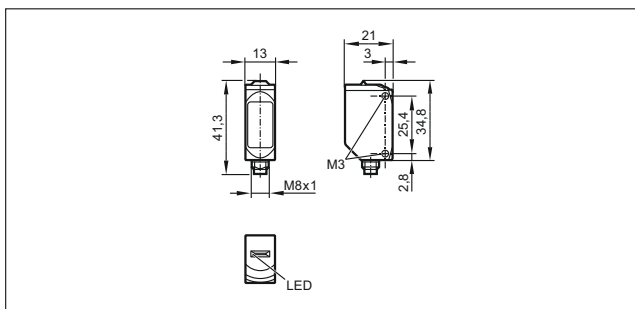
\* at maximum range

\*\* referred to prismatic reflector Ø 80 mm

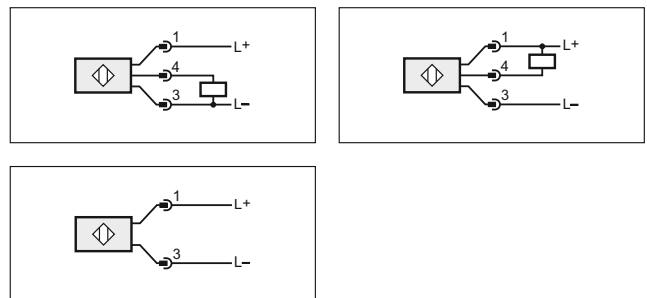
## Dimensions



- 1) Switch output function
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## Wiring diagram




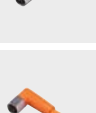






### Accessories

Type	Description	Order no.
<b>Mounting accessories</b>		
	Mounting set for clamp mounting, stainless steel	<b>E21272</b>
	Bracket for free-standing mounting, stainless steel	<b>E21271</b>
	Protective bracket, stainless steel	<b>E21273</b>
	Mounting rod, 120 mm, Ø 10 mm, M8 thread, stainless steel	<b>E21081</b>
	Angle bracket for reflector E21269, stainless steel	<b>E20724</b>
	Mounting set for reflector E21270, clamp mounting, stainless steel	<b>E20935</b>
<b>Prismatic reflectors for the food industry (up to 140 °C)</b>		
	18 x 18 mm, Solidchem plastic	<b>E21267</b>
	56 x 38 mm, Solidchem plastic	<b>E21268</b>
	48 x 48 mm, Solidchem plastic	<b>E21269</b>
	96 x 96 mm, Solidchem plastic	<b>E21270</b>
<b>Power supplies</b>		
	Plastic housing, 24 V DC, 2.5 A	<b>DN1031</b>
	Metal housing, 24 V DC, 3.3 A	<b>DN4011</b>

### Common technical data

Type of light	red light 633 nm	
Operating voltage	[V DC]	10...30
Protection rating, class	IP 65, IP 67, IP 68, IP 69K, III	
Switching frequency	[Hz]	1000
Switching status indication	LED	yellow
Operation	LED	green
Light-on / dark-on mode	adjustable	
Current rating	[mA]	100
Voltage drop	[V]	< 2.5
Short-circuit protection, pulsed	•	
Reverse polarity protection / overload protection	• / •	
Ambient temperature	[°C]	-25...80
Materials	housing	high-grade stainless steel (1.4404 / 316L)
	lens	PPSU PMMA

### Connection technology

Type	Description	Order no.
	Socket, M8, 2 m orange, PVC cable	<b>EVT122</b>
	Socket, M8, 5 m orange, PVC cable	<b>EVT123</b>
	Socket, M8, 2 m orange, PVC cable	<b>EVT126</b>
	Socket, M8, 5 m orange, PVC cable	<b>EVT127</b>
	Socket, M8, 2 m orange, PVC cable, LED	<b>EVT130</b>
	Socket, M8, 5 m orange, PVC cable, LED	<b>EVT131</b>
	Socket, M12, 4-pole, 5 m orange, PVC cable	<b>EVT001</b>
	Socket, M12, 4-pole, 2 m orange, PVC cable	<b>EVT064</b>