

Datasheet

Photoelectric proximity sensor

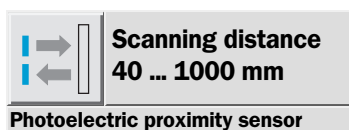
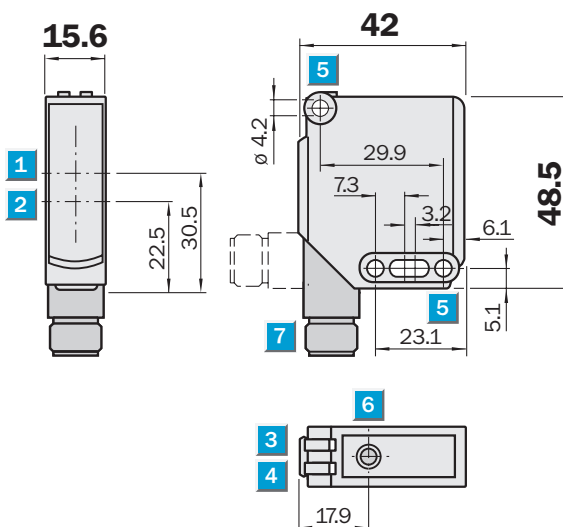
7295139

7295135

7295141

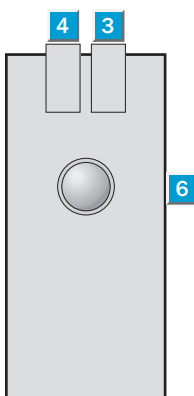
7295148

Dimensional drawing



- Sensitivity adjustable via Teach-in, single button
- Sturdy plastic housing
- Dovetail mounting
- M12 plug rotatable or cable

Adjustments possible



- 1 Optical axis sender
- 2 Optical axis receiver
- 3 LED indicator, green; power on
- 4 LED indicator, yellow; status of received light beam
- 5 Mounting hole $\varnothing$ 4.2 mm
- 6 Sensitivity setting teach-in; single teach button
- 7 Connection, cable or plug M12



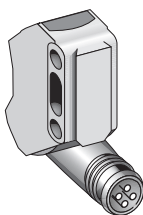
Connection types

WTE11-2N2432F38

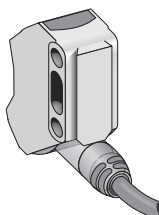
WTE11-2P2432F38

WTE11-2N1132F38

WTE11-2P1132F38



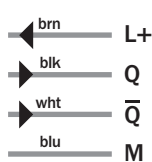
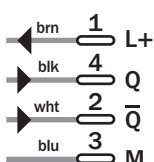
M12, 4-pin



4 x 0.25 mm²

CE  **ECOLAB**

UL Class2



WTE11-2		N1132 F38	N2432 F38	P1132 F38	P2432 F38						
Scanning distance max. typ.	40 ... 1.000 mm ¹⁾										
Operating distance	40 ... 600 mm ¹⁾										
Adjustment of operating distance	Teach-in; single teach button										
Light source, light type	LED, red light, 633 nm ²⁾										
Light spot diameter	Ø 90 mm at 600 mm distance										
Supply voltage V_S	10 ... 30 V DC ³⁾										
Residual ripple	≤ 5 V _{pp} ⁴⁾										
Current consumption	≤ 40 mA ⁵⁾										
	≤ 30 mA ⁵⁾										
Switching outputs	NPN antivalent										
	PNP antivalent										
Signal voltage PNP HIGH / LOW	> V _S - 2.5 V / approx. 0 V										
Signal voltage NPN HIGH / LOW	Approx. V _S / < 2.5 V										
Output current I _a max	100 mA										
Response time	≤ 2.5 ms ⁶⁾										
Switching frequency	200 Hz ⁷⁾										
Connection type	Cable, PVC, 2 m ⁸⁾										
	Connector, M12, 4-pin										
VDE protection class	IP ⁹⁾										
Circuit protection	V _S connections reverse-polarity protected/ Outputs short-circuit protected/ Interference suppression										
Enclosure rating	IP 66, IP 67										
Ambient temperature operation	-30 °C ... +60 °C										
Ambient temperature storage	-40 °C ... +75 °C										
Weight	Approx. 200 g										
	Approx. 120 g										
Housing material	ABS, PMMA										

¹⁾ Object with 90 % remission (based on standard white to DIN 5033)
²⁾ Average service life 100,000 h at T_A = +25 °C

³⁾ Limit values, operation in short-circuit protected network max. 8 A
⁴⁾ May not exceed or fall short of V_S tolerances

⁵⁾ Without load
⁶⁾ Signal transit time with resistive load
⁷⁾ With light/dark ratio 1:1
⁸⁾ Do not bend below 0 °C

⁹⁾ Reference voltage 50 V DC

Teach-in-function

- **Programming via Teach-in button.**
- **Simple programming:**
Position object in the beam and push the button:
finished:
LED confirms the Teach-in procedure.
- **Teach-in value can be stored.**
- **Two operating modes:**
Default setting: short Teach-in time (< 8 s);

for standard applications;
 approx. double reserve via switching threshold;
 LED lights continuously.
Precise setting: long Teach-in time (> 8 s);
 for precise applications;
 small switching hysteresis;
 LED blinks.

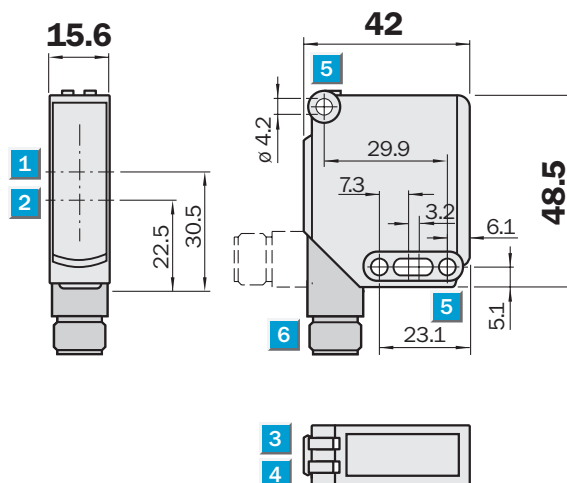
Order informationen

Type	Order no.
WTE11-2N1132F38	7295139
WTE11-2N2432F38	7295135
WTE11-2P1132F38	7295141
WTE11-2P2432F38	7295148

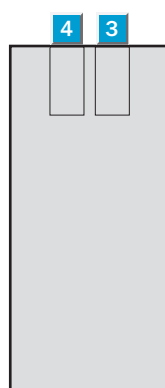
	Scanning range
	0.15 ... 7 m
Photoelectric reflex sensor	

- Sturdy plastic housing
- Dovetail mounting
- M12 plug rotatable or cable
- PinPoint Technology
- Reflector P250 included

Dimensional drawing



Adjustments possible

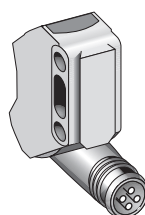


- 1 Optical axis sender
- 2 Optical axis receiver
- 3 LED indicator, green; power on
- 4 LED indicator, yellow; status of received light beam
- 5 Mounting hole $\varnothing$ 4.2 mm
- 6 Connection, cable or plug M12

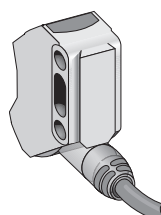


Connection types

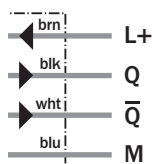
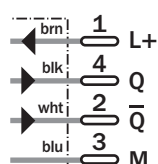
WL11-2N2430F38	WL11-2N1130F38
WL11-2P2430F38	WL11-2P1130F38



M12, 4-pin



4 x 0.25 mm²



WL11-2		N1130 F38	N2430 F38	P1130 F38	P2430 F38						
Scanning range max. typ.	0.15 ... 7 m										
Scanning range, recommended	0.15 ... 5 m										
Relating to	Reflector P250										
Light source, light type	LED, red light, 640 nm ¹⁾										
Light spot diameter	Approx. 50 mm at 3 m distance										
Angle of dispersion	Approx. 2.2°										
Polarisation filter	✓										
Supply voltage V _S	10 ... 30 V DC ²⁾										
Residual ripple	≤ 5 V _{pp} ³⁾										
Current consumption	≤ 40 mA ⁴⁾										
	≤ 30 mA ⁴⁾										
Switching outputs	NPN antivalent										
	PNP antivalent										
Signal voltage PNP HIGH / LOW	> V _S - 2.5 V / approx. 0 V										
Signal voltage NPN HIGH / LOW	Approx. V _S / < 2.5 V										
Output current I _a max	100 mA										
Response time	2.5 ms ⁵⁾										
Switching frequency	200 Hz ⁶⁾										
Connection type	Cable, PVC, 2 m ⁷⁾										
	Connector, M12, 4-pin										
VDE protection class	□ ⁸⁾										
Circuit protection	V _S connections reverse-polarity protected/ Outputs short-circuit protected/ Interference suppression										
Enclosure rating	IP 66, IP 67, IP 69K										
Ambient temperature operation	-30 °C ... +60 °C										
Ambient temperature storage	-40 °C ... +75 °C										
Weight	Approx. 200 g										
	Approx. 120 g										
Housing material	ABS, PMMA										

¹⁾ Average service life 100,000 h at
T_A = +25 °C

²⁾ Limit values, operation in short-circuit
protected network max. 8 A

³⁾ May not exceed or fall short of V_S
tolerances

⁴⁾ Without load

⁵⁾ Signal transit time with resistive load

⁶⁾ With light/dark ratio 1:1

⁷⁾ Do not bend below 0 °C

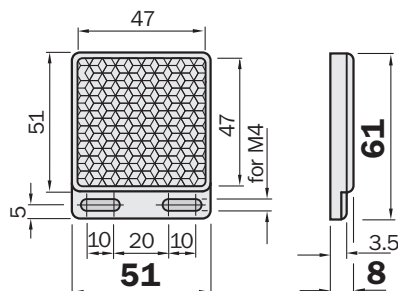
⁸⁾ Reference voltage 50 V DC

Included reflector:

Reflector 47 x 47 mm²

Type

P250



Order informationen

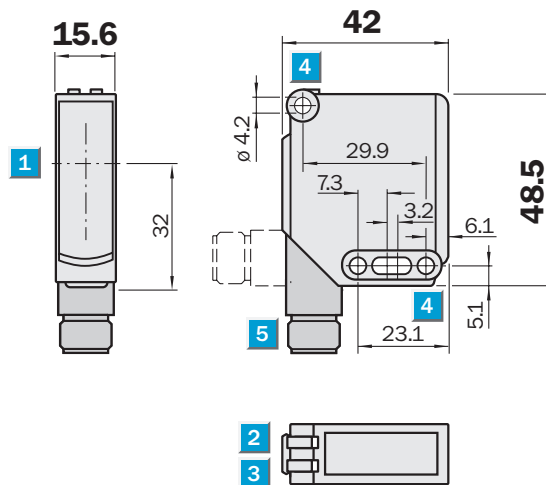
Type	Order no.
WL11-2N1130F38	7295154
WL11-2N2430F38	7295145
WL11-2P1130F38	7295151
WL11-2P2430F38	7295157

 **Scanning range**
0 ... 20 m

Through-beam photoelectric sensor

- Sturdy plastic housing
- Dovetail mounting
- M12 plug rotatable or cable

Dimensional drawing



Adjustments possible



- 1 Center of optical axis
- 2 LED indicator, green; power on
- 3 LED indicator, yellow; status of received light beam
- 4 Mounting hole $\varnothing$ 4.2 mm
- 5 Connection, cable or plug M12



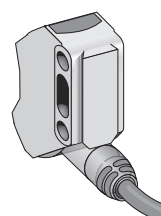
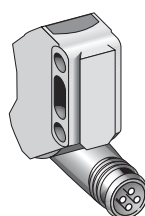
Connection types

WSE11-2N2430F38
WSE11-2P2430F38

WSE11-2N1130F38
WSE11-2P1130F38

  **ECOLAB®**

 Class2



M12, 4-pin
Sender

Receiver

brn 1 L+
blu 3 M
blk 4 TE
wht 2 NC

brn 1 L+
blk 4 Q
wht 2 Q̄
blu 3 M

4 x 0.25 mm²
Sender

Receiver

brn L+
blu M
blk i TE
wht NC

brn L+
blk Q
wht Q̄
blu M

WSE11-2		N1130 F38	N2430 F38	P1130 F38	P2430 F38						
Scanning range max. typ.	0 ... 20 m										
Scanning range, recommended	0 ... 15 m										
Light source, light type	LED, red light, 633 nm ¹⁾										
Light spot diameter	Ø 220 mm at 15 m distance										
Angle of dispersion	Approx. 1.5°										
Supply voltage V_S	10 ... 30 V DC ²⁾										
Residual ripple	≤ 5 V _{pp} ³⁾										
Current consumption	WS ≤ 25 mA ⁴⁾										
	WE ≤ 20 mA ⁴⁾										
Switching outputs	NPN antivalent										
	PNP antivalent										
Signal voltage PNP HIGH / LOW	> V _S - 2.5 V / approx. 0 V										
Signal voltage NPN HIGH / LOW	Approx. V _S / < 2.5 V										
Output current I _a max	100 mA										
Response time	2.5 ms ⁵⁾										
Switching frequency	200 Hz ⁶⁾										
Test input sender off	TE to 0 V										
Connection type	Cable, PVC, 2 m ⁷⁾										
	Connector, M12, 4-pin										
VDE protection class	□ ⁸⁾										
Circuit protection	V _S connections reverse-polarity protected/ Outputs short-circuit protected/ Interference suppression										
Enclosure rating	IP 66, IP 67, IP 69K										
Ambient temperature operation	-30 °C ... +60 °C										
Ambient temperature storage	-40 °C ... +75 °C										
Weight	Approx. 200 g										
	Approx. 120 g										
Housing material	ABS, PMMA										

¹⁾ Average service life 100,000 h at
T_A = +25 °C

²⁾ Limit values, operation in short-circuit

³⁾ protected network max. 8 A
May not exceed or fall short of V_S
tolerances

⁴⁾ Without load

⁵⁾ Signal transit time with resistive load

⁶⁾ With light/dark ratio 1:1

⁷⁾ Do not bend below 0 °C

⁸⁾ Reference voltage 50 V DC

Order informationen	
Type	Order no.
WSE11-2N1130F38	7295163
WSE11-2N2430F38	7295160
WSE11-2P1130F38	7295176
WSE11-2P2430F38	7295167

Photoelectric reflex switch, WL11, red light - UC

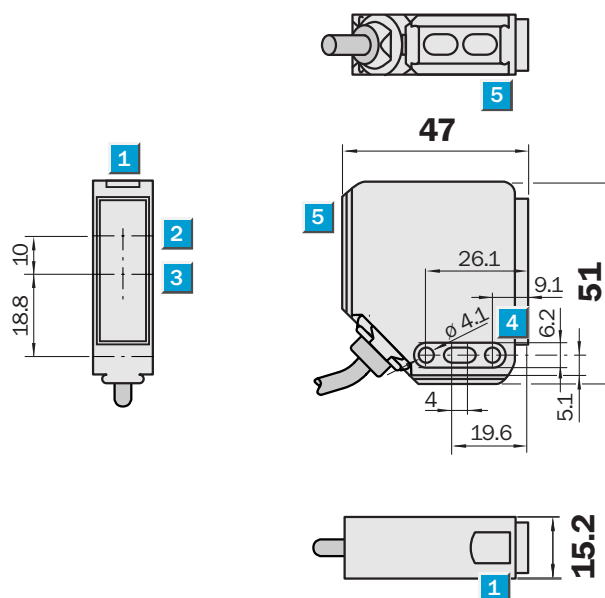
ENGLISH

Scanning range
0.1 ... 7 m

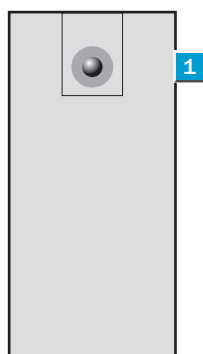
Photoelectric reflex switch

- Red light
- Polarisation filter
allowing detection of objects
with reflective surfaces
- CE-emitted interference
EN 61000-6-3 ("Residential and
Industrial Areas")
- ECOLAB material resistance tests
- Reflector P250 included

Dimensional drawing



Adjustments possible



- 1 LED signal strength indicator
- 2 Middle of optic axis, sender
- 3 Middle of optic axis, receiver
- 4 Mounting holes $\varnothing$ 4.1 mm
- 5 Dovetail

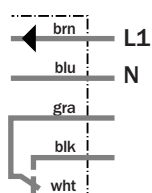


Connection type

WL11-R130F38



5 x 0.25 mm²



Technical specifications		WL11-	R130 F38											
Scanning range typ. max.	0.1 ... 7 m													
Scanning range, recommended	0.1 ... 5 m													
Relating to	Reflector P250													
Light source, light type	LED, Red light ¹⁾													
Light spot diameter	Approx. 80 mm at 3 m distance													
Angle of dispersion	2 °													
Polarisation filter	✓													
Supply voltage V _s	24 ... 240 V DC / 24 ... 240 V AC ²⁾													
Switching outputs	Relay 1 x c/o, electrically isolated													
Max. switching voltage	AC 250 V AC / 120 V DC													
Switching current max.	3 A/250 V AC; 3A/30 V DC ³⁾													
Max. switching power	750 VA AC / 30 V DC													
Response time	≤ 25 ms ⁴⁾													
Switching frequency	20 Hz ⁵⁾													
Connection type	Cable, 2 m ⁶⁾													
VDE protection class	□ ⁷⁾													
Circuit protection	V _s connections reverse-polarity protected / Interference suppression													
Enclosure rating	IP 65													
Ambient temperature operation	-25 °C ... +55 °C													
Ambient temperature storage	-40 °C ... +70 °C													
Weight	Approx. 200 g													
Housing material	ABS, PMMA													

¹⁾ Average service life 100,000 h at T_a = +25 °C

²⁾ Tolerance: +10 %, -20 %

³⁾ Usage category to EN 60947-1,

AC-15, DC-13

⁴⁾ Signal transit time with resistive load

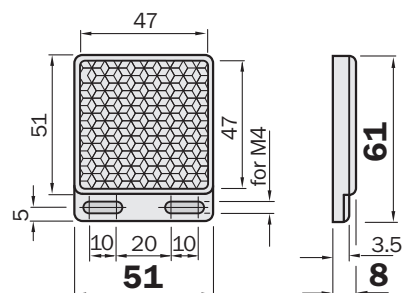
⁵⁾ with light/dark ratio 1:1

⁶⁾ do not bend below 0 °C

⁷⁾ Reference voltage 50 V DC

Included reflector:

Reflector 47 x 47 mm ²	
Type	
P250	



Order information	
Type	Order No.
WL11-R130F38	7295179