



Photo switches transmit a beam which is reflected back from a detected object (*diffused*) or from a reflector (*retro-reflective*) or can be used with a separate transmitter and receiver (*through-beam*) typically used for longer distance sensing.

type	supply voltage	diffused	retro-reflective	polarised retro	through-beam	max. sensing distance (mm)	PNP	NPN	light-on	dark-on	connector
------	----------------	----------	------------------	-----------------	--------------	----------------------------	-----	-----	----------	---------	-----------

EX-Z series - World's smallest sensor 12 - 24 VDC IP67 (EN60529)

Ultra-minute photoelectric sensor (amplifier built-in)

- Output: PNP/NPN open-collector transistor max. 20mA
- LED indication: Orange (*operation*) / green (*stability*)

Through beam (*supplied as a set with transmitter and receiver*)

- Detects objects breaking the beam between the transmitter and the receiver

Front sensing 14 x 8 x 3 mm

EX-Z11FA-P	12 - 24 VDC				•	50	•		•		cable
EX-Z11FB-P	12 - 24 VDC				•	50	•			•	cable
EX-Z12FA-P	12 - 24 VDC				•	200	•		•		cable
EX-Z12FB-P	12 - 24 VDC				•	200	•			•	cable
EX-Z13FA-P	12 - 24 VDC				•	500	•		•		cable
EX-Z13FB-P	12 - 24 VDC				•	500	•			•	cable

Side sensing 15.5 x 5.5 x 6.5 mm

EX-Z11A-P	12 - 24 VDC				•	50	•		•		cable
EX-Z11B-P	12 - 24 VDC				•	50	•			•	cable
EX-Z12A-P	12 - 24 VDC				•	200	•		•		cable
EX-Z12B-P	12 - 24 VDC				•	200	•		•	•	cable
EX-Z13A-P	12 - 24 VDC				•	500	•		•		cable
EX-Z13B-P	12 - 24 VDC				•	500	•			•	cable

Accessories for above EX-Z sensors

MS-EXZ-1 L-shaped mounting bracket for front and side sensing EX-Z

EX-20 series - Miniature sensor 12 - 24 VDC IP67 (EN60529)

- Output: PNP open-collector transistor max. 50mA
- LED indication: Orange (*operation*) / green (*stability*)

Diffuse reflective Proximity type detection (*no transmitter or reflector required*)

- Photo switch transmits a beam which is reflected back from a detected object

Side sensing 25 x 12.3 x 8.2 mm

EX-22A-PN*	12 - 24 VDC	•				5...160	•		•		cable
EX-22B-PN*	12 - 24 VDC	•				5...160	•			•	cable

Retro-reflective (*supplied with RF200 reflector*)

- Photo switch transmits a beam which is reflected back by a reflector

EX-29A-PN*	12 - 24 VDC		•			30...200	•		•		cable
EX-29B-PN*	12 - 24 VDC		•			30...200	•			•	cable

Through beam (*supplied as a set with transmitter and receiver*) 22 x 10.5 x 8.2 mm

- Detects objects breaking the beam between the transmitter and the receiver

EX-23-PN*	12 - 24 VDC				•	2 met	•		•	•	cable
-----------	-------------	--	--	--	---	-------	---	--	---	---	-------

Accessories for above photo switches

MSEX202 metallic right angled sensor mounting bracket 20 series

EX-30 series - Threaded miniature "sensor in a screw" IP67 (EN60529)

- Alternative to fibre sensors
- Output: PNP open-collector transistor max. 50mA
- LED indication: Orange (*operation*) / green (*stability*)
- Dimensions: 15.6 x 14 x 18 mm (*mounting: diffused M6, through-beam M4*)

Diffuse reflective Proximity type detection (no transmitter or reflector) M6 mounting

- Photo switch transmits a beam which is reflected back from a detected object

EX-32A-PN*	12 - 24 VDC	•				50	•		•		cable
EX-32B-PN*	12 - 24 VDC	•				50	•			•	cable

Through beam (*supplied as a set with transmitter and receiver*) M4 mounting

- Detects objects breaking the beam between the transmitter and the receiver

EX-33-PN*	12 - 24 VDC				•	800	•		•	•	cable
-----------	-------------	--	--	--	---	-----	---	--	---	---	-------

* With sensitivity adjustment **NPN** available on request (remove "-P" from the part number)