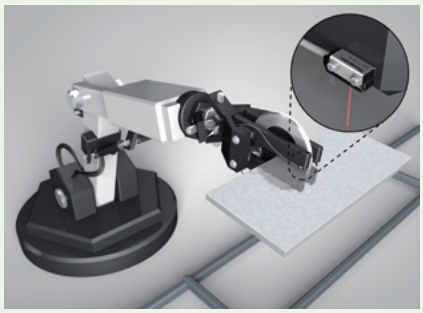
A wide range of applications

Inflection resistant cable type available for all models

Inflection resistant cable type with improved flex resistance is available for all models. Select the model suitable for your specific application. The standard type comes with lead wires with the same diameter as previous models, but the outside diameter of the cable is 2.0 mm 0.079 in and thinner than the cables of the **EX-10** series. This facilitates cable routing.



IP67 protective structure

The sensors features an IP67 protective structure to allow their use in process lines where water is used or splashed.
Rust-resistant stainless steel sensor mounting brackets and screws are available.

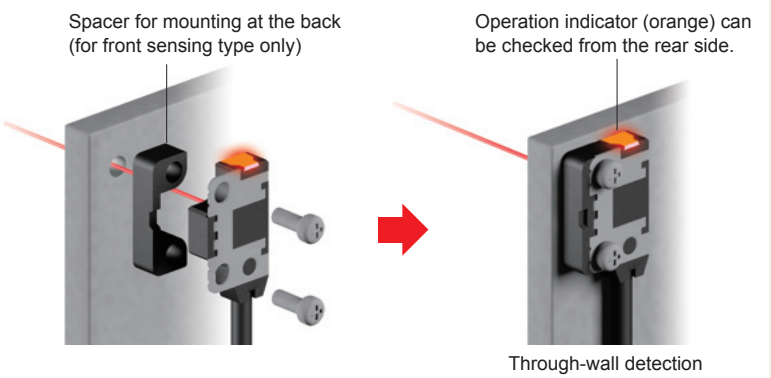
Note: If water splashes on the sensor during sensing operation, it may sense water as an object.

IP67 (IEC)

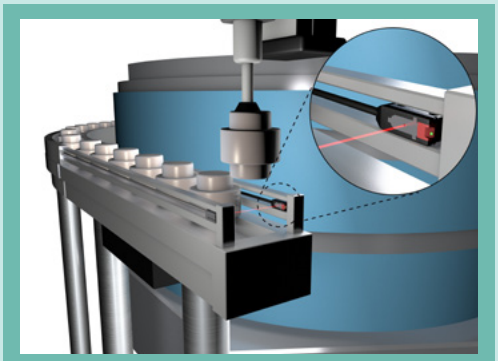
Options

A variety of mounting brackets are available!

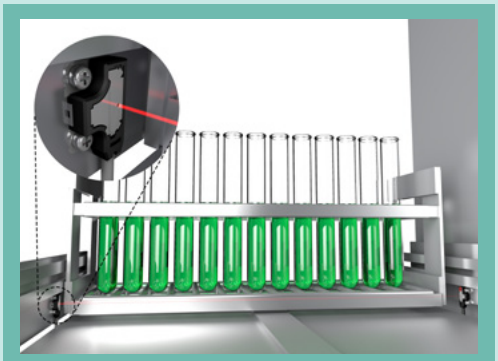
A spacer for mounting at the back (1 type) for through-wall sensing and sensor mounting brackets (3 types) are available to meet a diversity of sensor installation needs.



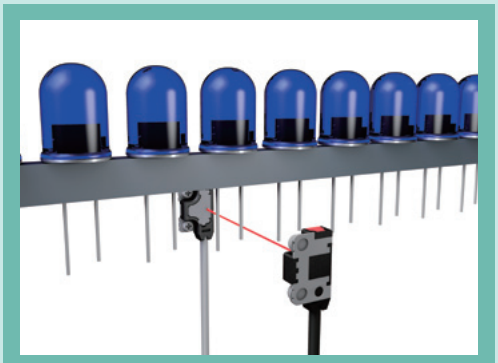
Examples of applications



Detection of parts in parts feeder

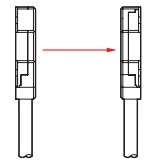
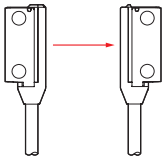


Detection of presence / absence of test tube tray



Detection of LED lead

ORDER GUIDE

Type			Appearance	Sensing range	Model No. (Note)		Output operation
					NPN output	PNP output	
Thru-beam	Front sensing	Inflection resistant cable		50 mm 1.969 in	**EX-Z11FA**	**EX-Z11FA-P**	Light-ON
					EX-Z11FB	**EX-Z11FB-P**	Dark-ON
				200 mm 7.874 in	**EX-Z12FA**	**EX-Z12FA-P**	Light-ON
					EX-Z12FB	**EX-Z12FB-P**	Dark-ON
				500 mm 19.685 in	**EX-Z13FA**	**EX-Z13FA-P**	Light-ON
					EX-Z13FB	**EX-Z13FB-P**	Dark-ON
				50 mm 1.969 in	**EX-Z11FA-R**	**EX-Z11FA-P-R**	Light-ON
					EX-Z11FB-R	**EX-Z11FB-P-R**	Dark-ON
				200 mm 7.874 in	**EX-Z12FA-R**	**EX-Z12FA-P-R**	Light-ON
					EX-Z12FB-R	**EX-Z12FB-P-R**	Dark-ON
				500 mm 19.685 in	**EX-Z13FA-R**	**EX-Z13FA-P-R**	Light-ON
					EX-Z13FB-R	**EX-Z13FB-P-R**	Dark-ON
	Side sensing	Inflection resistant cable		50 mm 1.969 in	**EX-Z11A**	**EX-Z11A-P**	Light-ON
					EX-Z11B	**EX-Z11B-P**	Dark-ON
				200 mm 7.874 in	**EX-Z12A**	**EX-Z12A-P**	Light-ON
					EX-Z12B	**EX-Z12B-P**	Dark-ON
				500 mm 19.685 in	**EX-Z13A**	**EX-Z13A-P**	Light-ON
					EX-Z13B	**EX-Z13B-P**	Dark-ON
				50 mm 1.969 in	**EX-Z11A-R**	**EX-Z11A-P-R**	Light-ON
					EX-Z11B-R	**EX-Z11B-P-R**	Dark-ON
				200 mm 7.874 in	**EX-Z12A-R**	**EX-Z12A-P-R**	Light-ON
					EX-Z12B-R	**EX-Z12B-P-R**	Dark-ON
				500 mm 19.685 in	**EX-Z13A-R**	**EX-Z13A-P-R**	Light-ON
					EX-Z13B-R	**EX-Z13B-P-R**	Dark-ON

Note: Mounting bracket is not supplied with the sensor. Please select from the range of optional sensor mounting brackets (**MS-EXZ-□**).

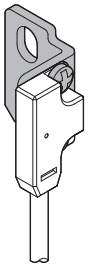
Note: The model No. with "**E**" shown on the label affixed to the thru-beam type sensor is the emitter, "**D**" shown on the label is the receiver.

OPTIONS

Designation	Model No.	Description
Sensor mounting bracket	**MS-EXZ-1**	L-shaped mounting bracket (SUS304) for front sensing and side sensing types (2 sets are required)
	MS-EXZ-2	Mounting bracket (SUS304) for front sensing type (2 sets are required)
	MS-EXZ-3	Mounting bracket (SUS304) for side sensing type (2 sets are required)
Spacer for mounting at the back	**MS-EXZ-4**	Spacer for mounting at the back (polyacetal) for front sensing type

Sensor mounting bracket

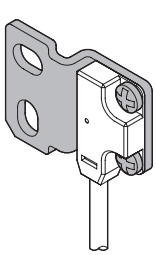
• **MS-EXZ-1**



Material: Stainless steel (SUS304)

Two M2 (length 4 mm 0.157 in) pan head screws and two M2 (length 8 mm 0.315 in) pan head screws are attached.

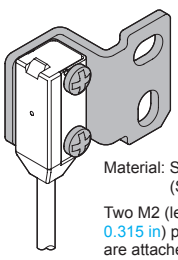
• **MS-EXZ-2**



Material: Stainless steel (SUS304)

Two M2 (length 4 mm 0.157 in) pan head screws are attached.

• **MS-EXZ-3**

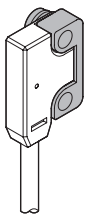


Material: Stainless steel (SUS304)

Two M2 (length 8 mm 0.315 in) pan head screws are attached.

Spacer for mounting at the back

• **MS-EXZ-4**



Material: Polyacetal

M2 (length: 10 mm 0.394 in) screws, nuts, spring washers and flat washers are attached. (20 pieces each)