



PHOELECTRIC SENSOR
PXPEESL Series

User's Manual

Thank you for choosing L-com .Please read the manual carefully before using this product.

1. The product should be applied by someone with a certain level of electrical knowledge.
2. Please read and make sure that you understand how to operate the product before using it.
3. Please keep this manual readily accessible for future reference when needed.

SYMBOL

The following symbols are important information in this manual, please be sure to observe the following.

	There is the risk of causing malfunction or fire, please do not exceed the rated voltage when using.
	There is a risk of rupture, do not use AC power.
	Danger of burns at high temperatures. .

SAFETY PRECAUTIONS

For your safety, please comply with the tips listed below:

- Do not use in environments that are flammable or contain explosive or corrosive gases, chemicals, steam or humidity.
- Do not use under water, oil or other liquids.
- Please do not disassemble, repair or rebuild this product.
- Do not use beyond the recommended voltage and current range.
- Please pay attention to the electrical polarity of the power supply when making connections.
- Please connect the load correctly.
- Please avoid short-circuiting the load.
- Please do not operate the product if it is damaged.
- When disposing the product, please treat it as industrial waste.
- Depending on the operating conditions (ambient temperature, supply voltage, others), the temperature of the sensor surface may increase. In operation and cleaning, please note that there is a danger of burns.

NOTICE FOR USE

- Do not use in direct sunlight.
- Do not install in a place that is easily accessible to anyone except the user.
- Do not install in an environment with excessive vibration which may cause direct shock to the product.
- Housing the product's wire and power lines in the same piping may cause disturbance, malfunction or even destruction of the product.
- The extension wire requires a wire with a cross-sectional area of 0.3 mm or more and a length of 100 m or less. In case the Korean S-mark certification model is used as a certification product, please ensure that it is set below 10 m.
- If force is applied to the wire, please refer to the following: below 40N, 0.1N-m torque less, 20N or less and 3 kg below the bending.
- When the power is turned on, the product can be detected within 200 ms. Hence, if the load and product are connected to different power supplies, the product's power must be turned on first.
- When the power is turned off, an output pulse may be generated. Please cut off the power supply of the load or load line to prevent the same.
- Please avoid using thinner, gasoline, acetone, kerosene or other solvents to clean the product.

PACKAGE CONTENTS

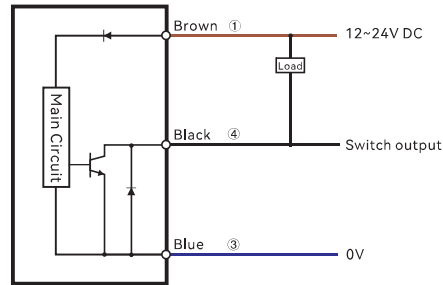
- Sensor 1 piece
- User's manual 1 piece
- Mounting screws 1 Set

SPECIFICATION

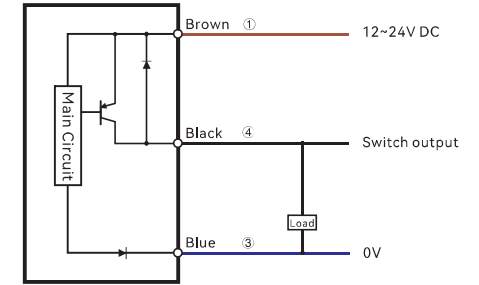
Type	ESL Series
Model No.	PXPEESL-X30NO(PO)
Sensing type	Limited reflection
Sensing distance	5~30mm
Switch type	L.on
Output type	NPN/PNP Open-collector
Response time	≤0.5ms
Operating voltage	12~24V DC±10%
Connection	4 Core Cable(2M)
Protective circuit	Overload protection, reverse polarization protection, short circuit protection
Degree of protection	IP67

CIRCUIT DIAGRAM

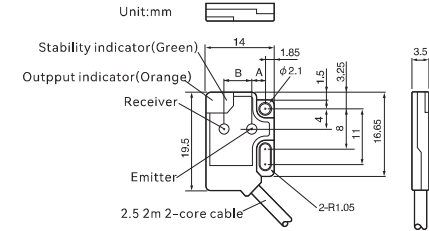
NPN Output



PNP Output



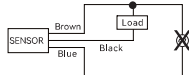
DIMENSION



DISTRIBUTION CONSIDERATIONS

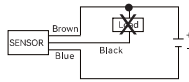
Voltage

Do not exceed the voltage range above the input or DC power input as this may break or burn the AC power supply.



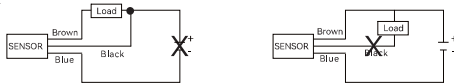
Load short circuit

Please avoid short-circuit as it may break or burn the load. The load short-circuit hold must be used within the rated voltage under the correct polarity of the power supply.



Miswiring

Do not miswire or incorrectly wire the device as it may cause cracking or burning.



No load connection

Please add the load and then wiring to avoid direct load power supply into the internal prime which may lead to breakage or burning.



REGULAR MAINTENANCE CHECK

During regular use, maintenance is necessary. To ensure normal operation of the machine, we suggest periodically checking the following:

- When the object is detected, check whether - the switch is at a distance, any connection is loose, there is tilt correction, or the position has changed.
- Wiring or other connection lines - whether the contact is normal or there is any break.
- Any dust or dirt on the sensor
- Operating temperature and environment – ensure that the surrounding environment is suitable for the sensor.
- Installation site – ensure that there is no difference from the time of installation such as vibration or any electric leakage.

Other:

- When the power is switched on, the sensor needs 100 ms lead time before it achieves stable output. During this time, it is suggested to not operate it.
- Avoid applying force to the exterior (except for shelter).
- Avoid direct contact with organic solvents.
- Ensure that the detection surface is protected from any form of impact as it is fragile.
- Ensure that the device or power supply is not pulled or moved too hard.



PRECAUTIONS

- Make sure that the power is turned off when connecting the device.
- Make sure that the supply voltage changes within the rated range.
- If the power supply is supplied by a commercial switch regulator, make sure that the power supply ground terminal (F.G) is grounded.
- Be sure to ground the device ground terminal (F.G)
- Do not use within 0.5 sec of switching on the power.
- Do not run the line with a high voltage line or a power cord or in a wire tube, which may cause malfunction due to induction.
- Protect the device from dust and humidity.
- Avoid exposure or direct contact with water, oil, grease or organic solvents such as thinner.

WARRANTY

Warranty period

- The product warranty period is one year, from the date of delivery of the product to the date of purchase.

Warranty range

1. L-com will repair the product free of cost if there is a malfunction caused by L-com Company within the above-mentioned warranty period. But the following will not be covered by the warranty:
 - Damage caused due to failure in following operating instructions or user manual specifically, when the L-com company has fulfilled the technical requirements in the given environment.
 - Malfunction that occurs due to purchaser's equipment or software rather than product defects.
 - Malfunction caused by modifications or repairs by non-L-com company personnel. (Please ensure that correct repair or replacement of wearing parts is done in accordance with the operating instructions or provided user manual to avoid malfunction.)
 - Malfunction or inefficiency of the product after delivery caused due to unpredictable changes in science and technology.
 - Damage or malfunction caused by fire, earthquake, floods and/or other natural disasters or abnormal voltage and other external factors.
2. The warranty is limited to the conditions specified in Article (1), and L-com Company shall not be liable for any indirect loss (damage to equipment, loss of opportunity, loss of profits, etc.) or other loss caused by its equipment.