

 **WARNING****UNINTENDED EQUIPMENT OPERATION**

- Do not use the unit as the only means of control for critical system functions such as motor start/stop or power control.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

 **WARNING****HAZARD OF ELECTRIC SHOCK OR EXPLOSION**

- Do not disassemble or remodel the EZ Illuminated Switch in any way. Doing so may cause an electric shock or fire.
- Do not use the EZ Illuminated Switch in areas where flammable gases are present. Doing so may cause an explosion.
- Do not allow water to enter the connector. Do not touch the connector with wet hands. Doing so may cause an electric shock.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

 **WARNING****UNINTENDED EQUIPMENT OPERATION OR LOSS OF CONTROL**

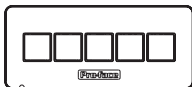
- Do not use the EZ Illuminated Switch at temperatures outside the range specified in this guide.
- Do not use or store the EZ Illuminated Switch at very high temperatures.
- Do not use or store the EZ Illuminated Switch in direct sunlight or excessively dusty or dirty environments.
- Do not use or store the EZ Illuminated Switch in an environment where it may be exposed to chemical vapors or fumes.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Package Contents

The following items are included in the EZ Illuminated Switch package (PFXZCCEUSG1). Before using the unit, please confirm that all items listed here are present.

1



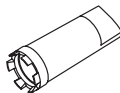
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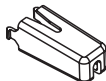
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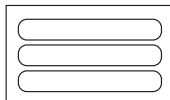
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8



- 1 EZ Illuminated Switch (1)
- 2 Installation Gasket for EZ Illuminated Switch (1) (attached to the unit)
- 3 Installation Nut (1)
- 4 Socket Wrench (1)
- 5 Anti-rotation Tee (1)
- 6 USB cable (Type A/B, 1 m (3.28 ft.)) (1)
- 7 USB clamp type B (1)
- 8 Insert Label for EZ Illuminated Switch (1)
- 9 Installation Guide <this document>

About the Manual

This manual describes wiring and installation procedures. For more detailed information, refer to the manual below.

Manual	Contents
Reference Manual	Using the EZ Illuminated Switch.

You can select the manuals from the GP-Pro EX (Ver3.1 or later) help menu, or download the manuals from the Pro-face Home Page.

URL
http://www.pro-face.com/otasuke/

General Specifications

General Specifications

Connector Type	USB I/F	Type B (socket), USB 2.0 Full Speed
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Electrical Specifications

Power Supply	Rated Input Voltage	5 Vdc (Powered from USB bus)
	Input Voltage Limits	4.75...5.25 Vdc
	Power Consumption ^{*1}	2.0 W or less

*1. If connecting to a display unit that has a USB I/F with an output current of less than 500 mA, be sure to supply power from an external source (such as a self-powered hub) to the EZ Illuminated Switch because the display unit cannot supply enough power.

Environmental Specifications

Physical Environment	Surrounding Air Operating Temperature	0...55 °C (32...131 °F)
	Storage Temperature	-20...60 °C (-4...140 °F)
	Surrounding Air and Storage Humidity	10...90% RH (Non-condensing, wet bulb temperature 39 °C [102.2 °F] or less)
	Dust	0.1 mg/m ³ (10 ⁻⁷ oz/ft ³) or less (non-conductive levels)
	Pollution Degree	For use in Pollution Degree 2 environment
	Corrosive Gasses	Free of corrosive gas
	Operating Altitude	2000 m [6561 ft] or lower
Mechanical Environment	Vibration Resistance	IEC/EN 61131-2 compliant 5...9 Hz Single amplitude 3.5 mm (0.14 in.) 9...150 Hz Fixed acceleration: 9.8 m/s ² X, Y, Z directions for 10 cycles (100 min.)
	Concussion Resistance	IEC/EN 61131-2 compliant (147 m/s ² , X, Y, Z directions for 3 times)
Electrical Environment	Electrical fast transient/burst	IEC61000-4-4 2 kV Power port (Display unit) 1 kV Signal ports
	Electrostatic Discharge Immunity	IEC61000-4-2 6 kV Contact discharge 8 kV Air discharge

External Specifications

External Dimensions	W122 x H54 x D28 mm (W4.80 x H2.13 x D1.10 in.)
Structure *1	IP65 NEMA #250 TYPE 4X/13 (on the front panel when properly installed in an enclosure)
Weight	110 g (0.24 lb) or less

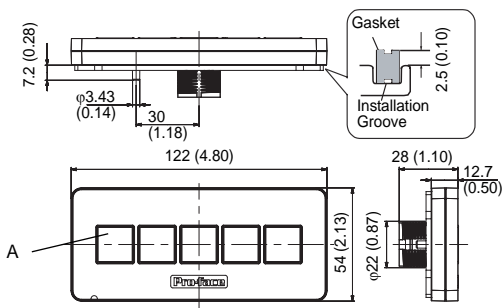
- *1. The front face of the unit, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though the unit's level of resistance is equivalent to these standards, oils that should have no effect on the unit can possibly harm the panel. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to the panel for long periods of time. If the unit's front face protection sheet peels off, these conditions can lead to the ingress of oil into the unit and separate protection measures are suggested. Also, if non-approved oils are present, they may cause deformation or corrosion of the front panel's plastic cover. Therefore, prior to installing the unit, be sure to confirm the type of conditions that will be present in the unit's operating environment. If the installation gasket is used for a long period of time, or if the unit and its gasket are removed from the panel, the original level of protection cannot be kept. To maintain the original protection level, be sure to replace the installation gasket regularly.

Note :

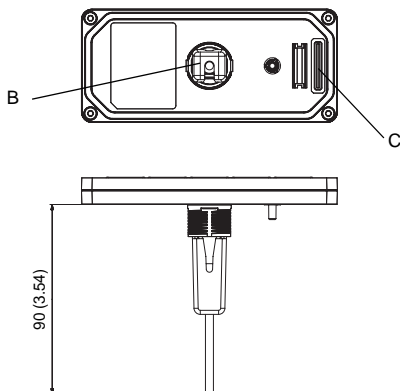
- The upper surface of the gasket should protrude approximately 2.5 mm (0.1 in.) from the groove. Check the gasket is inserted correctly before installing this unit to a panel.
- A gasket with scratches or dirt could have lost much of its water resistance. It is recommended that the gasket should be changed periodically (e.g. once a year, or as soon as scratches or dirt become visible) for water resistance equivalent to IP65.

Dimensions

External Dimensions [mm (in.)]

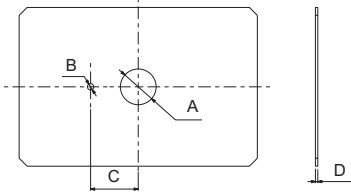
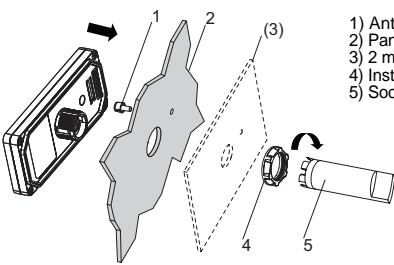


Dimensions with cable [mm (in.)]



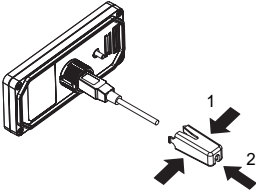
- A. LED lamp / Function Switch (5)
- B. USB (Type B) Interface
- C. Label slit

Installation

Step	Action								
1	<p>Create a panel cut-out and insert the unit into the panel from the front. The following illustration shows the panel cut-out for the unit:</p>  <table border="1" data-bbox="225 567 919 730"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>22.50⁺⁰_{-0.30} mm (0.88⁺⁰_{-0.01} in.)</td> <td>4⁺⁰_{-0.20} mm (0.15⁺⁰_{-0.007} in.)</td> <td>30⁺⁰_{-0.20} mm (1.18⁺⁰_{-0.007} in.)</td> <td>1.5...6 mm (0.06...0.23 in.)</td> </tr> </tbody> </table>	A	B	C	D	22.50 ⁺⁰ _{-0.30} mm (0.88 ⁺⁰ _{-0.01} in.)	4 ⁺⁰ _{-0.20} mm (0.15 ⁺⁰ _{-0.007} in.)	30 ⁺⁰ _{-0.20} mm (1.18 ⁺⁰ _{-0.007} in.)	1.5...6 mm (0.06...0.23 in.)
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2	<p>Insert the unit into the panel hole. Screw in the nut using torque of 1.2...2 N•m (10.62...17.70 lb-in)</p>  <p>1) Anti-rotation Tee 2) Panel 3) 2 mm spacer (Option) 4) Installation Nut 5) Socket Wrench</p> <p>Note :</p> <ul data-bbox="215 1193 919 1361" style="list-style-type: none"> • Install the 2 mm spacer (Option) when the panel thickness is 1 mm (0.04 in.) or more, and less than 1.5 mm (0.06 in.). The spacer is unnecessary if the panel thickness is 1.5 mm (0.06 in.) or more. • Remove the USB cable before removing the unit. • If using an anti-rotation tee, insert it into the unit securely. 								

USB Clamp

Attachment

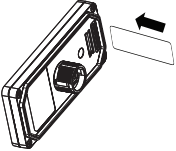
Step	Action
1	Insert the USB cable into the USB (Type B) interface on the unit.
2	Hold the clamp so that the USB cable goes through it. Squeeze the locking tabs on the clamp as you insert into the mounting hole. <div style="text-align: right; margin-top: 10px;"> <p>1) Squeeze the locking tabs on the USB clamp</p> <p>2) Insert into the mounting hole.</p> </div> 

Removal

Step	Action
1	Squeeze the sides of the clamp and pull to remove.

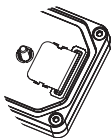
Insert Label

Use the Insert Label to change the labels on the switch.

Step	Action
1	Peel off the protective sticker attached to the label slit.
2	Print a new label onto the Insert Label. Maneuver into the label slit. 

3

Push in the Insert Label completely before hooking the end as shown below.



Note :

- Use an inkjet printer to print the Insert Label.
- If you rub the Insert Label hard, the printing on the Insert Label may be removed.

Options

Options

Product Name	Model No.	Description
2mm Spacer for panel thickness adjustment	PFXZCCAT1	2mm (0.08 in.) spacer to adjust installation panel thickness.

Maintenance Options

Product Name	Model No.	Description
Installation Gasket for EZ Illuminated Switch	PFXZCDWGSG1	Provides dust and moisture resistance when unit is installed into a solid panel (1 piece/set)
Installation Nut	PFXZGMNT1	Nut for installation to a solid panel (10 pcs/set)
Socket Wrench	PFXZGMSW1	Socket Wrench to tighten and loosen the installation nut. (1piece/set)
Accessories Kit for EZ Illuminated Switch	PFXZCCA1	Anti-rotation Tee (5pcs), USB cable clamp to prevent disconnection (USB/B, 1 port, 5pcs), Insert Label for EZ Illuminated Switch (3pcs/sheet)

Relevant Standards

The unit is manufactured in accordance with:

- Standard UL 508 and CSA C22.2 n°142 for Industrial Control Equipment
- Standard ANSI/ISA - 12.12.01 and CSA C22.2 n°213 for Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

Note :

- For use in Pollution Degree 2 environments.
- For use on a flat surface of a Type 1, Type 4X (Indoor Use Only) or Type 13 Enclosure.
- Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or Non-hazardous Locations only.

WARNING

RISK OF EXPLOSION IN HAZARDOUS LOCATIONS

- Do not connect or disconnect USB cable while circuit is live.
- Confirm that the USB cable has been attached with the USB cable clamp before using the USB interface.
- Potential electrostatic charging hazard: wipe the front panel of the terminal with a damp cloth before turning ON.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

RECOMMENDATION FOR RESTRICTED AREAS

- Verify the power, input, and output (I/O) wiring are in accordance with Class I, Division 2 wiring methods.
- Substitution of any component may impair suitability for Class I, Division 2.
- Do not disconnect equipment while the circuit is live or unless the area is known to be free of Ignitable concentrations.
- Securely lock externally connected units and each interface before turning on the power supply.
- Potential electrostatic charging hazard: wipe the front panel of the terminal with a damp cloth before turning ON.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

CAUTION

ENVIRONMENTAL HAZARDS TO THE EQUIPMENT

- Allow the unit to reach the surrounding air temperature, not exceeding the 55°C (131°F), before turning the unit on.
- Do not turn on the unit if condensation has occurred inside the unit. After it is completely dry again, the unit may be turned on.
- Do not expose the unit to direct sunlight.
- Remove any dust from the unit before turning it on.
- Ensure that the USB cable Clamp is not damaged. Replace them, if necessary.

Failure to follow these instructions can result in injury or equipment damage.

The unit is a device for use in factory systems.

When using the unit in a system, the system should comply with the following standards in regards to the installation environment and handling.

- Standard WEEE, Directive 2002/96/EC
- Standard RoHS, Directive 2002/95/EC
- Standard RoHS China, Standard SJ/T 11363-2006

CE Markings

This product conforms to the necessary requirements of the following Directives for applying the CE label:

- 2004/108/EC EMC Directive

This conformity is based on compliance with EN61000-6-4, EN61000-6-2

사용자안내문

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