

ENFORCER®

Surface-Mount Wave-to-Open Sensor with Manual Override

SD-9773-KNEVQ

Installation Manual



Intertek
5024193
Conforms to
UL Std. 294



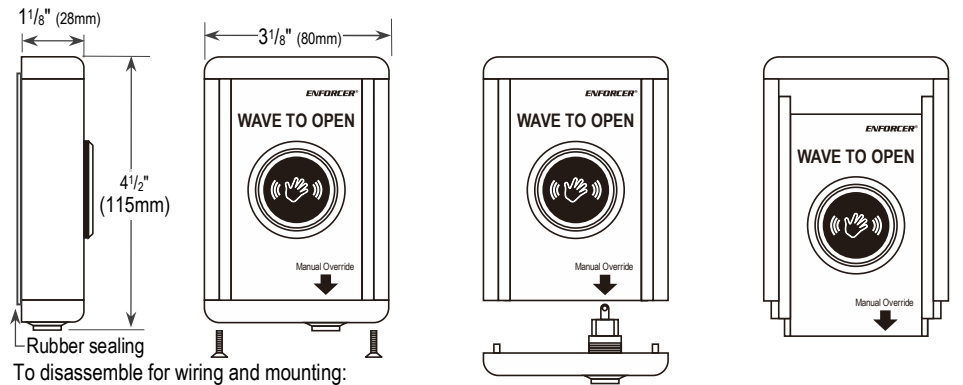
The ENFORCER Surface-Mount Wave-to-Open Sensor with Manual Override Button is a full-featured exit plate which uses IR technology to allow egress from a protected area or activate a device with the simple wave of a hand. Since no touch is required, this sensor is suitable for use in hospitals, clinics, labs, cleanrooms (to reduce the risk of contamination), schools, factories, or offices. A manual override allows for operation if the sensor is disabled.

- Adjustable sensor range up to 6" (15cm)
- 1A relay, adjustable trigger duration 0.5~30 seconds or toggle
- LED illuminated sensor area for easy identification
- Selectable LED colors (turns from red to green or green to red) when sensor is activated
- Aluminum alloy and polypropylene plastic housing
- IP54 Weather-resistant for outdoor use
- Power must be provided by low-voltage power-limited/Class 2 power supply
- Use only low-voltage field wiring and do not exceed 98.5ft (30m)

Parts List

1x Proximity sensor	1x 5-Pin wiring harness	3x Wires for override button
4x Mounting screws	2x Screw plugs	1x Manual

Overview



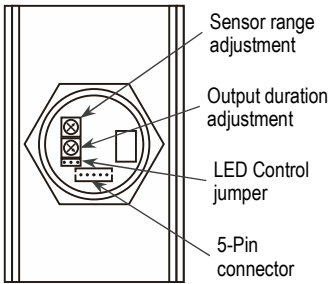
- To disassemble for wiring and mounting:
1. Remove the two screws at the bottom and remove the manual override assembly.
 2. Slide the sensor plate downward along with the plastic rails to remove them from the housing.

Specifications

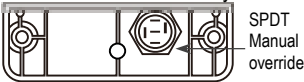
Operating voltage	12-24 VDC
Current drain (max.)	Standby (red) 20mA@12VDC / 26mA@24VDC
	Triggered (green) 26mA@12VDC / 32mA@24VDC
	Standby (green) 16mA@12VDC / 20mA@24VDC
	Triggered (red) 31mA@12VDC / 39mA@24VDC
Relay type	SPDT dry contact, 1A@24VDC
Response time	10ms
LEDs	Standby Red*
	Triggered Green*
Output duration	0.5~30 s, toggle
Destructive attack level	Level I
Line security	Level I
Endurance level	Level IV
Standby power	Level I
Range	1 9/16"~6" (4~15 cm)
IP Rating	IP54†
Housing material	Aluminum alloy / polypropylene plastic
Operating temperature	-4°~131° F (-20°~55° C)
Dimensions	3 1/8" x 4 1/2" x 1 1/8" (80x115x28mm)
Weight	9.5-oz (270g)

*Color function reversible †When properly installed

Sensor Back



Manual override assembly

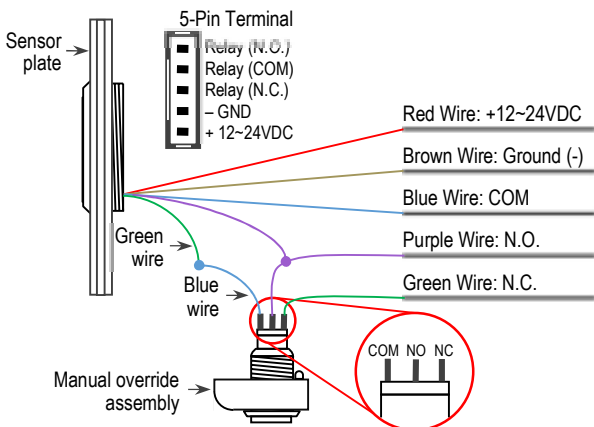
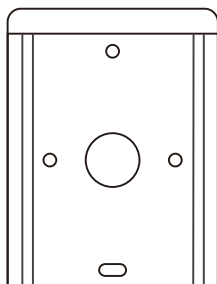


INSTALLATION NOTES:

- This product must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or the Canadian Electrical Code CSA C22.1.
- Due to the nature of IR technology, an IR sensor can be triggered by a direct light source such as sunlight, reflected light from a shiny object, or other direct light. Therefore, in some locations it may be necessary to install a hood or other barrier to shield the sensor from direct light sources

Mounting and Wiring Diagram

Use disassembled enclosure base as a template to mark the locations of the 4 mounting holes and wiring hole for drilling.



Installation

1. Drill holes as shown above and mount the enclosure base. For weatherproof installation, install to a flat surface so the rubber sealing pad has a good seal. Otherwise apply silicone sealant (not included) around the back of the base before installing. Thread the wires through the wiring hole.
2. Connect the wires to the Sensor according to the *Wiring Diagram* above and on pg. 4. Use only low-voltage, power-limited/Class 2 power supply and low-voltage field wiring not to exceed 98.5ft (30m).
3. Slide the sensor plate and plastic mounting rails into the enclosure base and use the two screws to attach the manual override assembly taking care not to crimp the wires (see *Overview*, pg. 2).
4. Tamp the screw plugs into the holes. Remove clear protective film from the sensor before use.

WARNING: Do not connect any device that will exceed 1A@24VDC.

Changing the LED Color

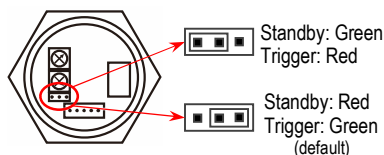
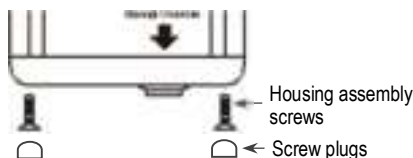


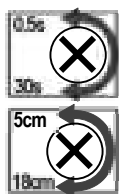
Fig. 1 Screw Plugs



Adjusting the sensor range and trigger duration

1. The sensor range can be adjusted from 1⁹/₁₆"~6" (4~15 cm).
2. Output duration can be adjusted from 0.5~30 seconds or toggle.*

NOTE: Do not force the trimpots. Only minimal force is needed.

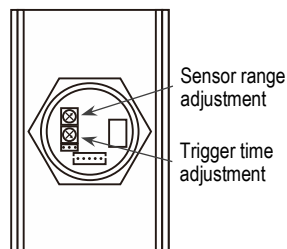


Output duration: 0.5~30 seconds, toggle*
Default: 0.5 seconds

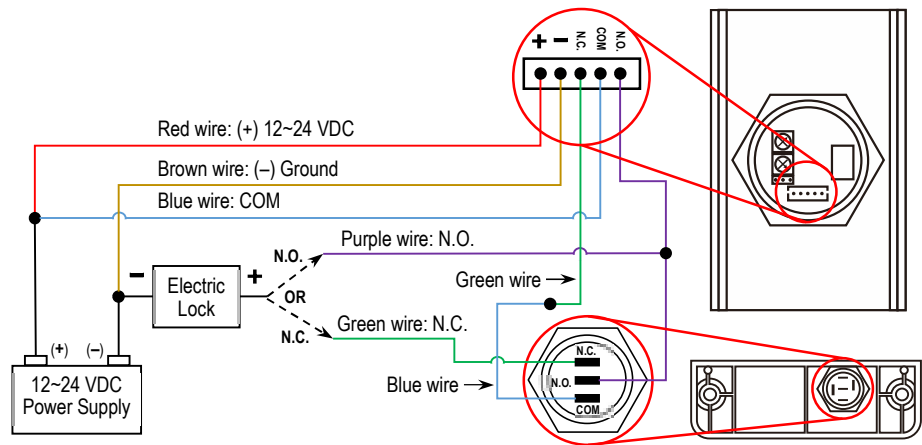
*Toggle: turn clockwise to maximum position

Sensor range: 2"~7" (5~18 cm)
Default: 7" (18cm)

Fig. 2 Sensor Back



Wiring Diagram



Troubleshooting

Sensor triggers unexpectedly	• Ensure that no strong direct or reflected light source is reaching the sensor. • Ensure that sensor is sheltered from direct sunlight.
Sensor remains triggered	• Check that nothing is remaining in range of the sensor including a cone of 60° from the centerline. • Reduce the IR range of the sensor. • Ensure that the sensor's output duration potentiometer is not turned to maximum • Check that the power voltage is within the sensor's specifications.
Sensor will not trigger	• Increase the IR range of the sensor. • Check that the power voltage is within the sensor's specifications.

Care and Cleaning

The sensor requires special care to ensure reliability and a long operating life.

1. Use a soft, clean, preferably microfiber cloth for cleaning. Use the mildest type of cleaner available.
2. When cleaning, spray the cleaning solution onto the cleaning cloth instead of the unit.
3. Be sure to wipe off any excess liquid from the sensor. Wet spots may affect the sensor's performance.

IMPORTANT WARNING: For a weather-resistant installation, ensure that the unit is installed so that the gap between the enclosure base and mounting surface is properly sealed and that the drain bottom drain hole is protected from spray. Incorrect mounting may lead to exposure to rain or moisture inside which could cause a dangerous electric shock, damage the device, and void the warranty. Users and installers are responsible for ensuring that this product is properly installed and sealed.

IMPORTANT: Users and installers of this product are responsible for ensuring that the installation and configuration of this product complies with all national, state, and local laws and codes. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

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