

15. TROUBLESHOOTING			
Problem	LED Status	Possible Cause	Solution
Door does not open when a person enters the detection area	OFF	Sensor Connector not connected correctly	Tighten or reconnect the connector.
		Incorrect power supply voltage	Apply proper voltage to the sensor. (AC : 12-24V, DC : 12-30V)
		Incorrect sensor wiring	Double check sensor wiring
Door opens and closes for no apparent reason (Ghosting)	Door Opens BLUE or RED or RED FAST FLASH or RED SLOW FLASH Door Closes GREEN	Object moving in the detection area	Remove the moving object from detection area.
		Sensitivity too high for the installation environment	Reduce the sensor sensitivity setting
		Dust, frost or water droplet on the sensor lens	Wipe the sensor lens clean and install a weather cover if necessary
		Detection area overlaps with that of another sensor	Ensure different frequency setting for each sensor, and adjust to overlap the radar area using the angle and volume.
		Detection of falling snow, insects, leaves etc	Turn monitor mode Dip Switch (X) 8 to "snow"
When Door opens or closes, LED ORANGE	OREANGE	Detection row "ROW1" ("ROW2" when "Doorway Learn" is turned ON) is focused too close to the door.	Adjust detection depth for Inner 3 rows away from the door.
Door opens and remains in the open position	RED or RED FAST FLASH or RED SLOW FLASH	Detection area changed, while ∞ infinity presence timer setting is in use	Re-power the sensor or change the presence timer settings to 30 or 60 sec
		Incorrect sensor wiring	Double check sensor wiring
	Reflected signal saturation	Remove highly reflective objects from the detection area, or lower the sensor sensitivity setting	
	BLUE	Moving objects in the radar area	Eliminate moving objects
	GREEN/RED FAST FLASH	Internal sensor error	Replace the sensor
GREEN/RED SLOW FLASH	Reflection of the transmitted infrared signal from the floor is too low	Increase sensor sensitivity or change the "Reflection Diagnostics" Dip Switch (X) 7 from "Normal" to "Low Ref"	
	ORANGE SLOW FLASH	Door Hold (Dip Switch (Y) 6 set to Open)	Turn OFF the "Door Hold" Dip Switch (Y) 6 to Auto

EUD-0004A

EU DECLARATION OF CONFORMITY

Equipment: SSR-3-ER Combined motion and presence detection sensor for the activation and safety of automatic doors including emergency exits.

Manufacturer: HOTRON GROUP Honda Electron Co., Ltd. 1-23-19 Asahimachi, Machida-shi, Tokyo 194-0023, Japan

Compiler of Technical File (EC Community): David Morgan / Hotron Ireland Ltd. / 26 Dublin Street, Carlow, Ireland

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Object of the declaration: Door Sensor

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Directive 2014/53/EU	RE Directive
Directive 2006/42/EC	Machinery Directive
Directive 2011/65/EU (EU/2015/863)	RoHS Directive

Harmonised standards or other technical standards and specifications:

EN 300 440 V2.2.1	Short Range Devices (SRD): Radio equipment to be used in the 1 GHz to 40 GHz frequency range: Harmonised Standard for access to radio spectrum
EN 301 489-1 V2.2.3	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services: Part 1: Common technical requirements:
EN 301 489-3 V2.1.1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services: Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz:
EN 62368-1:2014	Audio/video, information and communication technology equipment Part 1: Safety requirements
EN12978:2003+A1:2009	Industrial, commercial and garage doors and gates - safety devices for power operated doors and gates - Requirements and test methods.
EN16005:2012+AC:2015	Power operated pedestrian doorsets - Safety in use - Requirements and test methods
DIN18650-1:2010	Powered pedestrian doors - Part 1: Product requirements and test methods
EN ISO 13849-1:2015	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)
EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Notified body involved
Notified body: 0044 TÜV NORD CERT GmbH, Division Technology Am TÜV1 Essen 45307 Germany
EC-Type examination certificate No.: 44 205 13738009

Signed for and on behalf of: Honda Electron Co., Ltd. Machida, Tokyo, Japan, August 26, 2022
name: Hitoshi Takagi
function: Director (Quality Assurance)

- < Disclaimer > The manufacturer cannot be held responsible for below.
- Misinterpretation of the installation instructions, miss connection, negligence, sensor modification and inappropriate installation.
 - Damage caused by inappropriate transportation.
 - Accidents or damages caused by fire, pollution, abnormal voltage, earthquake, thunderstorm, wind, floods and other acts of providence.
 - Losses of business profits, business interruptions, business information losses and other financial losses caused by using the sensor or malfunction of the sensor.
 - Amount of compensation beyond selling price in all cases.

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MP-10362-A '22.08

MP-10362-A '22.08



SSR-3-ER

User Manual (Original)

Combined motion and presence detection sensor for the activation and safety of automatic doors including emergency exits.

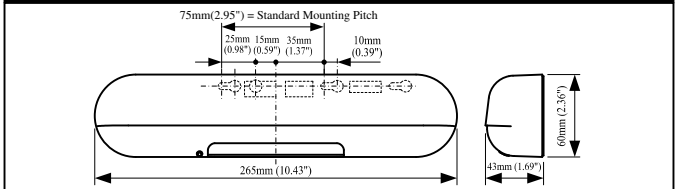


COMPLIED STANDARDS
EN 12978:2003+A1:2009
EN 16005:2012+AC:2015
DIN 18650-1:2010
EN ISO 13849-1:2015
EC type examination
44 205 13738009

WARNING Disregarding this symbol may result in serious injury or death
Special attention is required when this symbol is shown

CAUTION Disregarding this symbol may result in injury or damage to equipment
Setting required to conform with EN16005

2. DIMENSIONS



3. LED INDICATORS

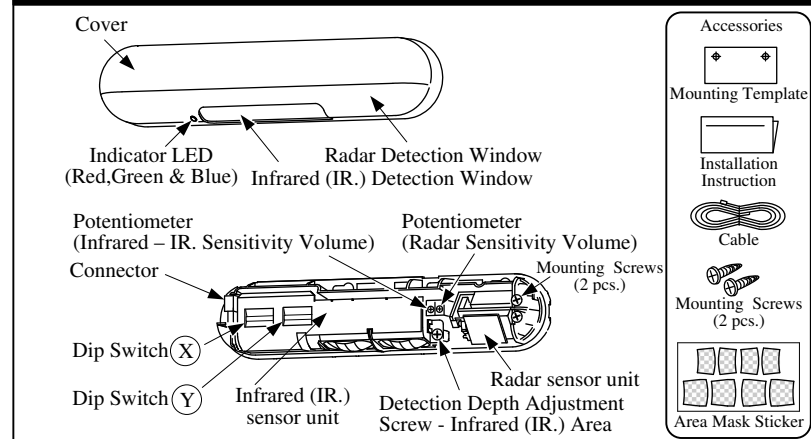
Green	Standby
Flashing Green	Doorway Learning (Y) 7 is "ON"
Flashing Green (once)	When responding to the TEST signal
Blue	RADAR Detecting
Red	ROW 3 Detecting
Slow flashing Red	ROW 2 Detecting
Fast flashing Red	ROW 1 Detecting
Orange	Detection row "ROW1" ("ROW2" when Doorway Learning is turned ON) is detecting door movement
Fast flashing Orange	Indicates a change of Dip Switch Settings
Slow flashing Orange	Door Hold is turned ON (Y) 6 is "ON"
Fast flashing Green/Red	Internal Sensor Error
Slow flashing Green/Red	Reflected infrared signal from the floor is very low

5. TECHNICAL SPECIFICATIONS

Common Specification	
Model Name	SSR-3-ER
Installation Height	3.5[m] (11.5 [ft]) Max EN16005 Conformity = 3.5m
Supply Voltage	AC:12 to 24 [V] DC:12 to 30 [V] ±10% 50/60Hz
Power Consumption	AC12V-2.5 [VA] (Max) AC24V-2.5 [VA] (Max) DC12V-150 [mA] (Max) DC30V-80 [mA] (Max)
INFRARED (Safety Output)	Opto Relay Non Pole Voltage: 48 [VDC] Max. Current : 300 [mA] Max. (Resistance load)
RADAR	Contact output Opto Relay Non Pole Voltage: 48 [VDC] Max. Current : 300 [mA] Max. (Resistance load)
	Pulse output Opto Relay Non Pole Voltage: 48 [VDC] Max. Current : 300 [mA] Max. (Resistance load) Output frequency 100Hz duty 1:1
Activation Output 2	Voltage output Output voltage: Min3.2 [VDC] at 10 [mA] Open circuit voltage: Max 7 [VDC] 6 [mA] Max. at 30 [VDC]
Test Input	6 [mA] Max. at 30 [VDC]
Operating Temperature	-20 to +60 [Deg.C], (-4 to 140 Deg.F)
Operating humidity	Below 80%
IP Rating	IP54
Category	Cat.2/PL.d(IR), Cat.2/PL.d(Radar) according to EN ISO 13849-1:2015
Weight	0.56 [lb.] (0.26 [kg])
Color	BL : Black, S : Silver
Accessories	Cable, Mounting Screw 2pcs., Mounting Template, Installation Instruction, Area Mask Sticker
Specifications - Infrared part of sensor	
Detection Method	Active Infrared Reflective
Output Holding Time	0.5 [seconds] App.
Response Time	0.1 ~ 0.2 [seconds]
Presence ROW1, ROW2	2, 30, 60 [seconds] or ∞
Timer ROW3	2 [seconds]
Specifications - Radar part of sensor	
Detection Method	Doppler method: (moving body detection)
Response Time	24.15 [GHz]
Output Holding Time	1.5 [seconds] App.
Response Time	0.1 ~ 0.2 [seconds]

Notice: Specification may be changed without prior notice.

1. DESCRIPTION



4. MOUNTING PRECAUTIONS

<p>Mounting height of 3.5m (11.5ft) or lower</p>	<p>Mount within 50mm of the bottom of the door engine cover</p>	<p>Ensure there are no moving objects in the detection zone</p>	<p>Ensure no condensation gets onto the sensor.</p>
<p>If the sensor is exposed to excessive rain install with a Hotron weather cover</p>	<p>If possible ensure no accumulation of snow or water on the floor.</p>	<p>Ensure the minimum of reflected sunlight from the floor</p>	<p>Use different frequency settings for sensors in close proximity</p>
<p>To maximize the effectiveness of Doorway Learn, install the SSR-3-ER outside and inside as shown below.</p>		<p>The Radar part of the SSR-3-ER sensor may be negatively influenced by metal close to or in the detection field</p>	

6. MOUNTING & WIRING INFORMATION

WARNING Drilling may cause electric shock. Be careful of hidden wires inside the door engine cover.

- Attach the mounting template so that its bottom edge is flush with the bottom edge of the door engine cover.
- Drill mounting (3.5mm φ) and wiring (10mm φ) holes.
- Remove the sensor cover as illustrated. Lift the sensor from its cover.
- Attach the sensor with the mounting screws provided.

⑤-1 Wiring to a door controller that can test the sensor

Power (Non Pole) AC:12 to 24 [V] ±10% → Red
DC:12 to 30 [V] ±10% → Black
Activation Output 1 → Opto Relay (Non Pole) → White
Safety Output → Opto Relay (Non Pole) → Yellow
Test Input → Test-P → Blue(+)
Test-N → Brown(-)
Activation Output 2 → + → Pink
- → Sky Blue

Note EN16005
Set "Test Input" Dip Switch Setting (Y) 8 to "ON"
Ref section 7, Dip Switch Settings.

⑤-2 Wiring to a door controller that cannot test the sensor

Power (Non Pole) AC:12 to 24 [V] ±10% → Red
DC:12 to 30 [V] ±10% → Black
Activation Output 1 → Opto Relay (Non Pole) → White
Safety Output → Opto Relay (Non Pole) → Green
do not connect → Blue
do not connect → Gray
Activation Output 2 → + → Pink
- → Brown
Sky Blue

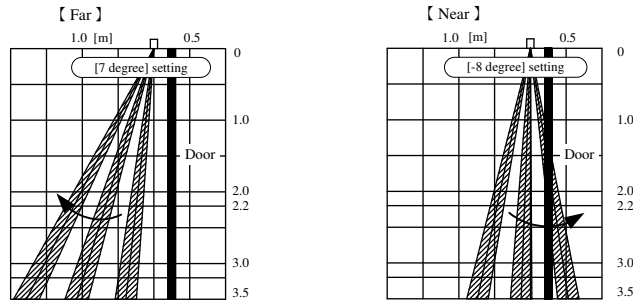
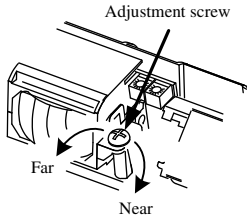
Note
Set "Test Input" Dip Switch Setting (Y) 8 to "OFF"
Ref section 7, Dip Switch Settings.

- House connectors in the space provided.
- Replace Cover.

※ Removing the cover after installation

8. DETECTION AREA WIDTH AND DEPTH ADJUSTMENT

Detection Area Depth Adjustment: IR. (Inner 3 Rows)



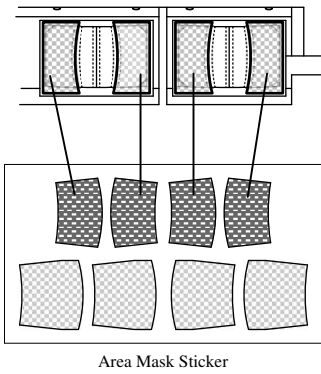
CAUTION The SSR-3-ER sensor complies with EN16005 safety standards on the side of the door that it is installed on only.

EN16005

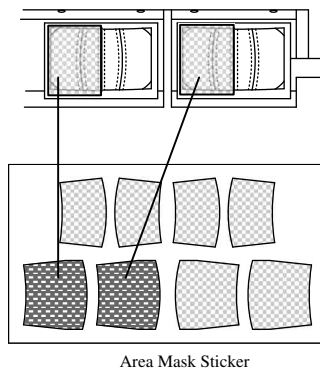
To ensure conformance with EN16005, check that the detection area of row 1 is set directly in front of the moving door using an EN16005 test box, or a Hotron Beam Finder. If "Doorway Learn" is turned ON, verify that row 2 is set directly in front of the moving door in the same way.

Detection Area Width Adjustment: IR. (Inner 3 Rows)

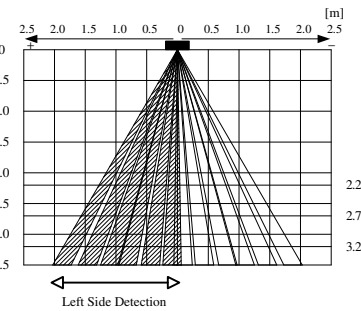
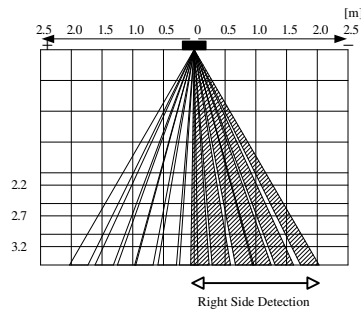
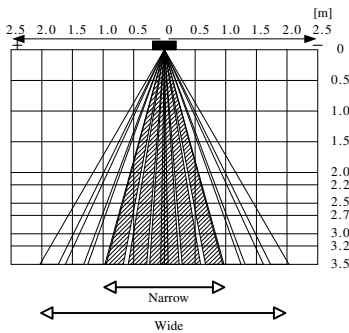
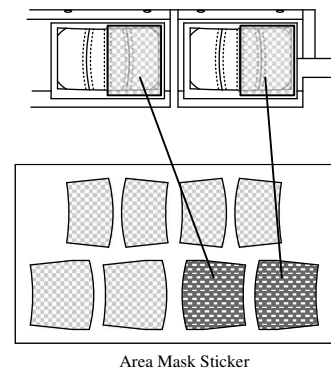
【 Narrow 】



【 Right Side Detection 】

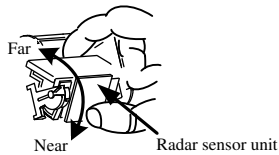


【 Left Side Detection 】

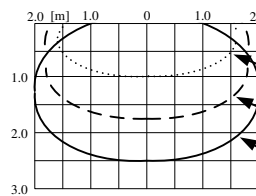


Detection Area Depth Adjustment: RADAR sensor detection area

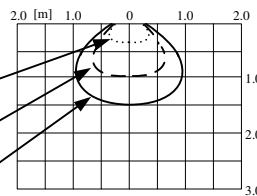
- ※ The detection area varies depending on the approach speed of pedestrians
- ※ Adjustment possible in 3° steps as illustrated



Installation height "2.2m" and Sensitivity set to "High".



Installation height "2.2m" and Sensitivity set to "Low".



CAUTION The above illustrated detection areas represent the actual position of the infrared and radar beams. The actual detection area observed will vary depending on the sensor installation environment, object been detected and sensor settings. Please ensure that the detection area is set to conform to EN16005

9. APPLYING POWER AND THE "DOORWAY LEARN" SETTING

<p>"Doorway Learn" is OFF Ref section 7, Dip Switch Settings.</p>	<p>"Doorway Learn" is ON Ref section 7, Dip Switch Settings.</p>		
<p>Upon power ON, the solid green LED turns on indicating that the sensor is in standby mode and ready to detect.</p>	<p>Upon power ON, the Red flashing LED indicates a door open relay output to begin the Doorway Learn process.</p>	<p>Green LED flashes for 37s as the "Door Learn" process is carried out. Door opens/closes.</p>	<p>Door learn process complete, sensor in standby mode.</p>
<p>Presence Detection: It takes 10s after sensor power up for presence detection to be initiated on all rows of detection. If before 10s has elapsed someone walks into the detection area it will take about 5s after the person leaves the detection zone for presence detection to be functional.</p>	<p> CAUTION</p> <p>Presence Detection: During the "Doorway Learn" process the outer 3 rows of detection on the SSR-3-ER sensor switch from motion detection to presence detection 10s after power ON. The inner "Doorway Learn" row of detection will switch from motion to presence detection after the "Doorway Learn" process is carried out.</p> <p>"Doorway Learn" Failure & Recovery: If a person enters the detection area during the "Doorway Learn" process it may not be successfully completed. In this case the sensor will carry out the Doorway Learn process over three door activations by a person in order to build an accurate image of the door open and door close position.</p> <p> Note When Doorway Learn is turned ON, the sensitivity level of the inner row of detection is only at maximum when the outer rows of detection are activated.</p>		
<p>General Caution:</p> <p>When carrying out the following work, turn the sensor off and on again.</p> <ul style="list-style-type: none"> ※ When the floor condition is changed by placing a mat on the floor etc. ※ When the detection area pattern or sensor sensitivity is adjusted. 			

10. VERIFICATION OF OPERATION

After installation is completed "walk test" the sensor detection area. If the detection area is not as expected adjust the detection area as referred to in section 8.
If the detection area is still not as expected then the sensor sensitivity can be increased by turning the potentiometer clockwise. When the sensor detects even though there is nothing in the detection area the sensor sensitivity can be decreased by turning the potentiometer in the anti-clockwise direction.

If the sensor is false activated by the snow or rain, decrease the IR. Sensitivity.
It should be noted that sensitivity to detecting pedestrians may also be reduced.

CAUTION Adjust the sensitivity to be appropriate to the installation environment.

