

MOTION SENSOR 360 PINHOLE - VOLT FREE

M360-PH-W-VOLF (WHITE) ----- M360-PH-B-VOLF (BLACK)

FARADITE

OVERVIEW



The Faradite Motion Sensor 360 Pinhole - Volt Free is a rear panel mounted, ultra discreet passive infrared motion sensor. It's designed for use with home/building/lighting control systems that have volt free / dry contact inputs.

TECHNICAL DATA

Power supply (consumption)	5V-35V DC 3mA
Solid state relay - max load current	70ma
Max solid state relay - on resistance	16 OHMS
Solid state relay - off-state leakage current	1uA
Default state	Normally open
Ambient temperature	0-50 °C (indoor only)
IP rating	IP20
Range (Note 1)	5M
Max mounting surface depth	5mm
Adhesive tape	3M 5952F VHB
Installation hole	15mm
Push-fit connector	AWG 20- 24 CAT5 / CAT6 / CAT7
Standards	EN 61000-6-1 EN 61000-6-3

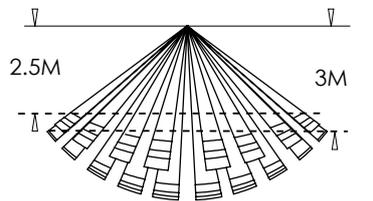
OBSERVATION AREA

The following conditions have to be met to detect motion:

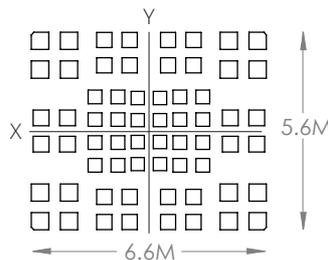
1. Movement speed: 1.0m/s
2. Target concept is a human body (Min object size: ~700×250mm)
3. The temperature difference between the target and the surroundings must be greater than 4 °C.

The sensor can be installed horizontally or vertically.

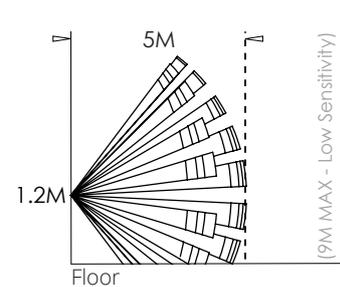
Horizontal Installation



2.5M Ceiling - Floor observation area



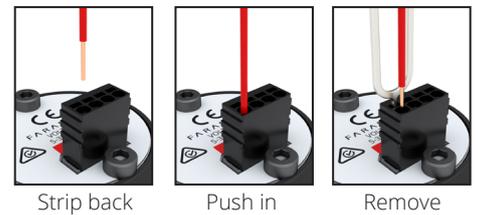
Vertical Installation



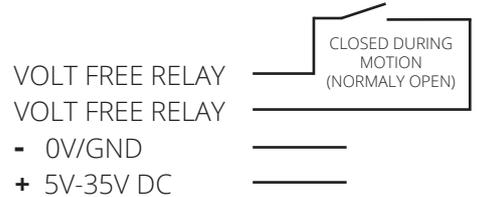
ELECTRICAL CONNECTIONS

It is recommended to use CAT cable to connect the motion sensor to the control system. Stranded cable can be used (20-24 AWG) but please insert the supplied tool to open the spring before inserting the wire.

- 1: Strip the cable back 6mm
- 2: Push into circular hole
- 3: To remove the wire insert the supplied tool or a small screwdriver in the slot behind the wire

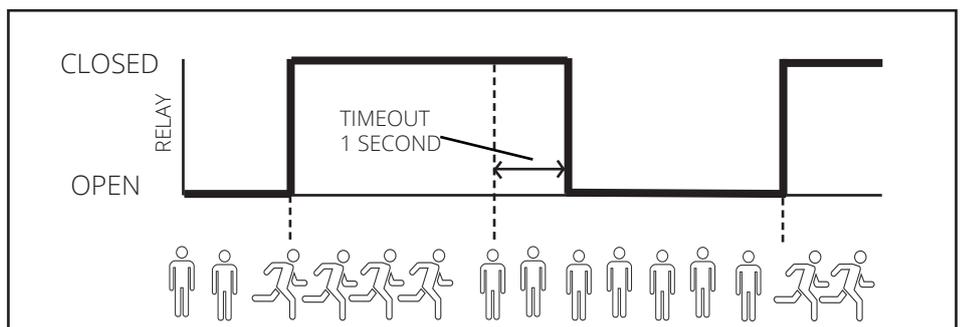


EQUIVALENT CIRCUIT

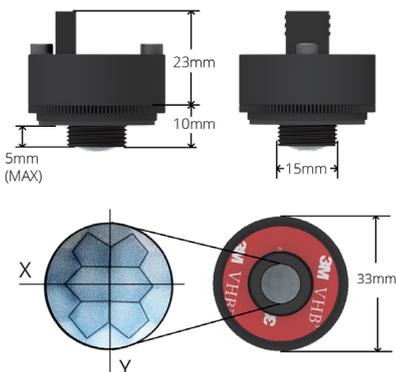


MOTION OUTPUT

NOTE: After applying power, the sensor will calibrate for roughly 8 seconds; during this period no motion will be reported.



Note 1: Please note that the specified range is 5m but under optimal conditions the sensor might detect movement at a much longer range



INSTALLATION



Installation of the Motion Sensor 360 Pinhole - Volt Free (Dry Contact) should be undertaken by a professional. The sensor is installed from the rear of the panel surface.

MOUNTING & SAFETY PRECAUTIONS

1) Do not under any circumstance use these sensors outside the range of their ratings shown in the technical data.

2) Faradite is committed to making products of the highest quality and reliability. Nevertheless, all electrical components are subject to natural deterioration, and the product durability will depend on the operating environment and conditions of use.

3) Please note that the sensor can detect heat sources other than the human body, such as:

- a) Small animals
- b) Direct sun light, incandescent lamps, car headlights (even if the heat source is outside the detection area)
- c) Sudden temperature change inside or around the detection area i.e. hot or cold winds/drafts or vapour from a humidifier can affect the performance of the sensor

4) Please note that the sensor will have difficulty sensing the heat source if it is behind glass, acrylic or similar materials, as these materials may not allow a correct transmission of infrared rays

INSTALLATION GUIDE

1) Set the surface depth by rotating the depth nut (with the 3M adhesive on)



2) Remove the 3M adhesive plastic cover and mount the sensor to the rear of the installation surface. Ensure the sensor is flush to the surface front.



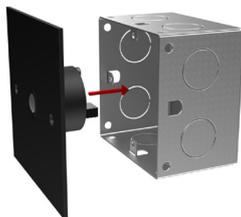
3) Twist the locking nut up against the depth nut to secure the sensor.



4) Terminate the cables into the push fit connector.



5) Mount front plate in location (if applicable)



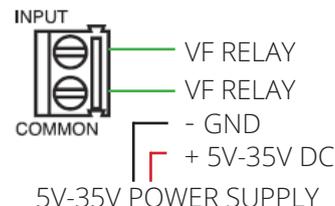
SENSITIVITY ADJUSTMENT

To adjust the sensitivity, remove the two screws and turn over the circuit board. The small potentiometer can be used to adjust the sensitivity.

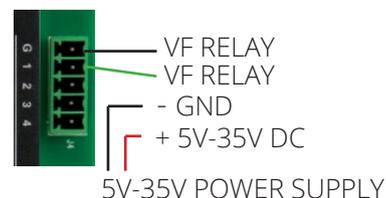


CONNECTION DIAGRAMS FOR VARIOUS SYSTEMS

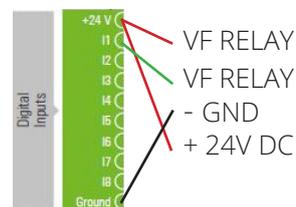
LUTRON



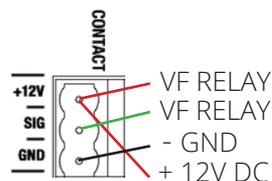
CRESTRON



LOXONE



CONTROL4



Detailed wiring guides for all major control systems can be found at www.faradite.com

THE SENSOR CAN ALSO BE USED WITH MANY OTHER SYSTEMS THAT HAVE A VOLT FREE / DRY CONTACT INTERFACE

Directive 2014/30/EU (Electromagnetic Compatibility (EMC))

Directive 2012/19/EU (WEEE)

Directive 2011/65/EU (RoHS)

Harmonised standards: EN 61000-6-1 Immunity for residential, commercial and light-industrial environments & EN 61000-6-3 Emission standard for residential, commercial and light-industrial environments