# Burglar Alarm System integration with Digital I/O

Phylink camera integrates a Task Management system for alarm and recording. The alarm can be triggered by the motion detection or digital input terminal. The camera can send alarm email with screenshot , or record to FTP server, SD card/NAS drive while the digital input terminal is triggered.

The Bullet Pro outdoor camera and PLC-128/129 covert IP camera have additional connectors to help with integration of the cameras into a complete burglar alarm system.
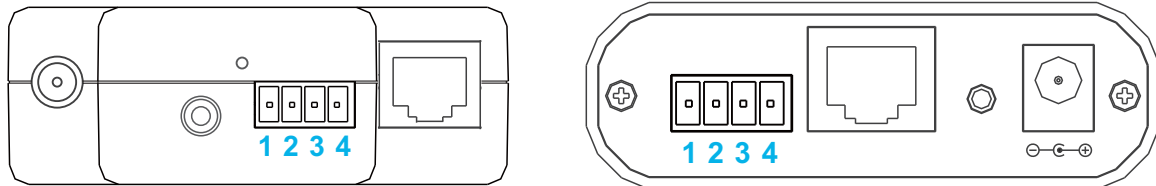
IMPORTANT!

Typically this type of wiring is carried out by a professional security system installer. If you are not familiar with the terminology used here, please do not attempt to connect anything to this terminal block. Damage caused by improper wiring is not covered by warranty.

The Digital I/O Terminals are used to connect external wired alarm devices like PIR sensor, gas detector, siren and etc.
The Bullet Pro Camera have one Digital Input terminal and one Digital Output terminal for external sensor and alarm devices. The terminal definitions are described below.

| Pin NO.	Name	Specification
1	**POWER**	12VDC ± 5%, max. 0.5A (For external device)
2	**DO**	Digital output , Max. 40VDC, max. 400mA
3	**DI**	Digital input, OPEN/Short-to-GND
4	**GND**	Ground

POWER

This terminal can provide DC power to a wired alarm devices. The max power for external device is 12VDC, 0.5A . This is an optional, you can power the alarm device with it's own power supply.

DO

With a maximum load of 400mA and a maximum voltage of 40V DC, this terminal has an open collector NPN darlington transistor with the emitter connected to the **GND** terminal.
When the camera senses motion, and if the Digital output is set to "Enable" in the camera's "Digital I/O Setup" menu, it activates the **Digital output** to trigger a burglar system.
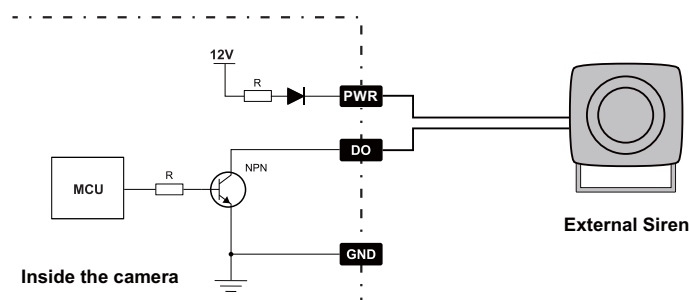
By going to Setting > Task > Digital I/O Setup menu, you can make the relevant settings as the picture below.
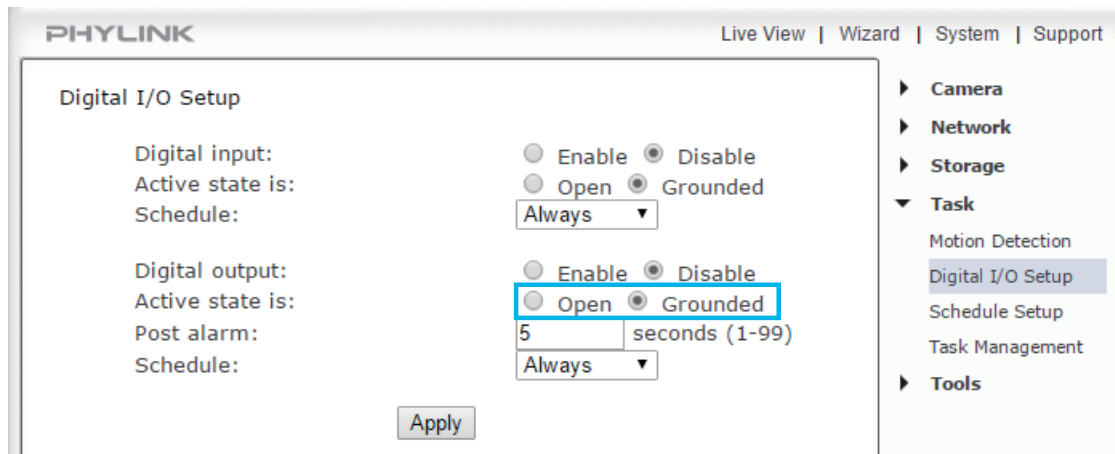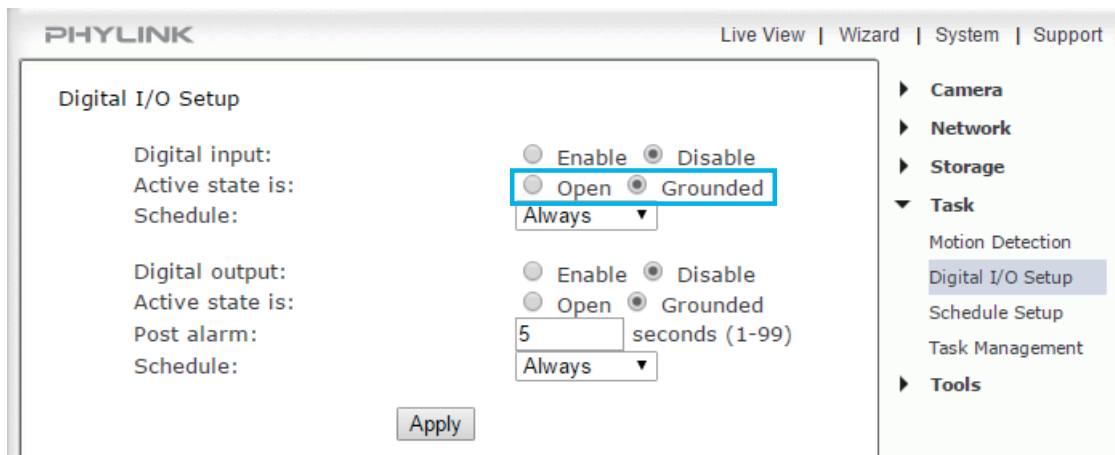

The **Grounded** option means that the **DO** terminal short to **GND** terminal inside the camera.
The **Open** option means that the **DO** terminal is floating inside the camera.

DI

This terminal is used to connect the relay output of wired alarm device like PIR sensor, Gas Detector, Infra-red pool alarm and etc.

If the Digital input is set to "Enable" in the "Digital I/O Setup" menu, a contact closure from **DI** to **GND** (pins 3 and 4) would trigger an alarm condition in the camera as if the camera's own motion detection had triggered. This means that emails or FTP/HTTP uploads can be triggered or recording to Micro SD card can be initiated. By going to Setting > Task > Digital I/O Setup menu, you can make the relevant settings as the picture below.


The **Grounded** option means that the camera will trigger alarm when the **DI** terminal is shorted to GND.
In this case, the **DI** terminal should be connected to **N.O** (Normal Open) terminal on the sensor device.
The **Open** option means that camera will trigger alarm when the **DI** terminal is floating from GND.
In this case, the **DI** terminal should be connected to **N.C** (Normal Close) terminal on the sensor device.

GND

This terminal is used to connect to the "**COM/NC**" or "**N.C /N.O**" terminal on wired alarm device.

Example for Connecting a PIR Motion Detector

This example shows how to wire a PIR Detector to the I/O Terminal Block. Connecting of POWER terminal is optional, you can power the alarm device with it's own power supply.
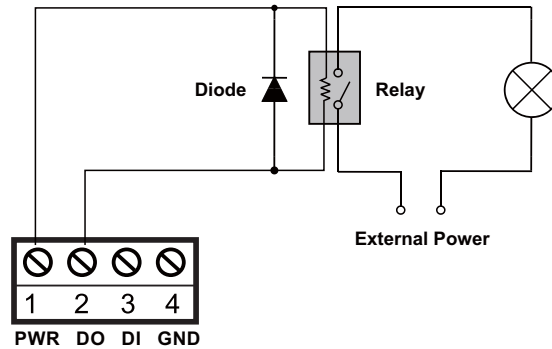

PIR Motion Detector
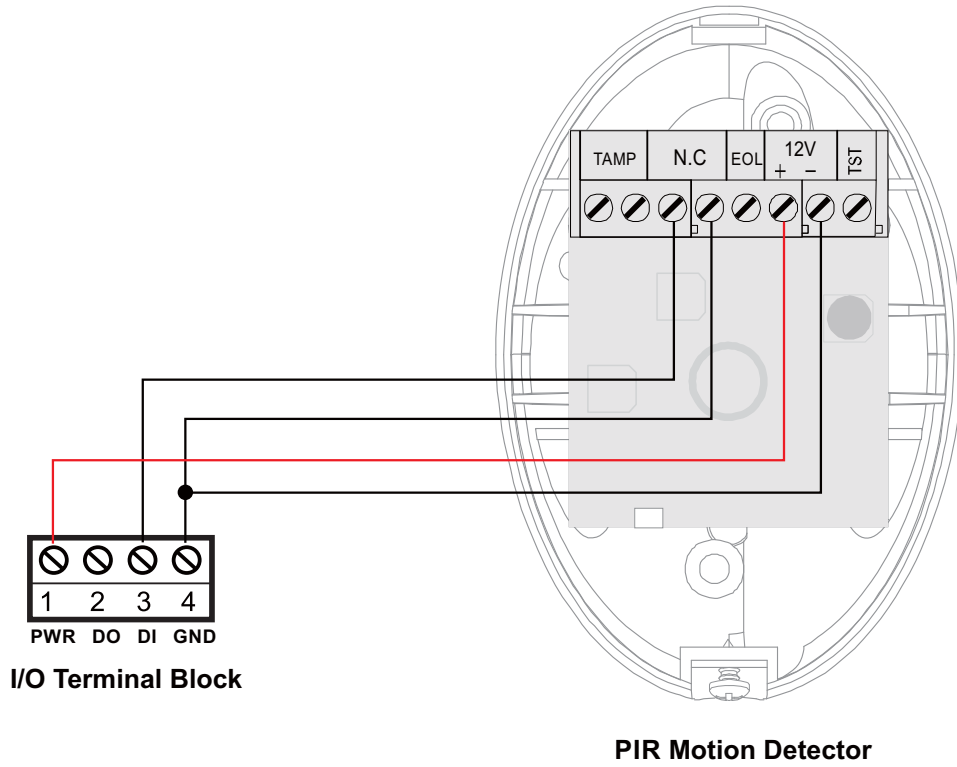
I/O Terminal Block

Example for Connecting an External Siren

This example shows how to wire a siren to the I/O Terminal Block.

External Siren
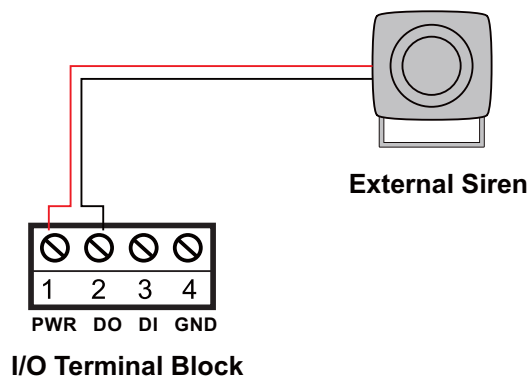
I/O Terminal Block

Example for Connecting a Device with Relay

This example shows how to wire a device to I/O Terminal Block with a relay.

I/O Terminal Block

If used with an external relay a reverse polarity diode must be connected in parallel with the relay coil to protect against voltage transients. You would need to select a relay that uses less than 0.4A at 12V, and the relay and the diode would be connected from **POWER** to **DO** (pins 1and 2).

Find additional support and information

For more information or support, visit http://www.phylink.com or contact support@phylink.com

Scan QR Code to get support