

## **GV-PTZ5810-IR AI 5MP H.265 5x Zoom Super Low Lux WDR Pro IR IP Mini PTZ**



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/2.7" progressive scan CMOS sensor
- Min. illumination at 0.003 lux
- Triple streams from H.265, H.264 or MJPEG
- Up to 30 fps at 2880 x 1620
- Motorized varifocal lens for remote focus / zoom adjustments
- 5x optical zoom
- Intelligent IR
- IR distance up to 30 m (100 ft)
- Day and night function (with removable IR-cut filter)
- Wide Dynamic Range Pro (WDR Pro)
- Built-in micro SD card slot (SD / SDHC / SDXC / UHS-I, Class 10) for local storage
- Built-in microphone and speaker
- Two-way audio
- DC 12V, PoE+ (IEEE 802.3at)
- Pan 350°
- Tilt from 0° to 90°
- Pan and tilt speed of up to 60° / sec and 50° / sec
- PTZ movement (Preset, Patrol)
- PTZ patrol by schedule
- Auto focus
- 3D noise reduction
- Motion detection
- Privacy mask
- 12 languages supported
- ONVIF (Profile G, M, S, T) conformant

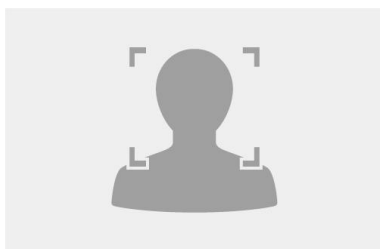
### **Introduction**

GV-PTZ5810-IR is an indoor network PTZ camera that offers 5x optical zoom, capable of showing smooth live view with great details. This camera can simultaneously deliver three video streams in resolutions up to 2880 x 1620 at 30 fps. In low-light environments, night vision is enhanced with its LEDs, which allow up to 30 m (100 ft) effective IR distance. The camera can process scenes with contrasting intensity of lights and produce a clear image using the built-in WDR Pro. GV-PTZ5810-IR supports H.265 video codec to achieve a better compression ratio while maintaining high-quality pictures at reduced network bandwidths.

Wide surveillance coverage is made possible with 350° panning and 0° ~ 90° tilting capacity. PTZ functions such as Preset and Patrol can be programmed and activated by schedule. GV-PTZ5810-IR supports pan / tilt speeds ranging from a patrol of 60° per second and 50° per second to a slow ramble of 0.1° per second with 0.1° pan accuracy.

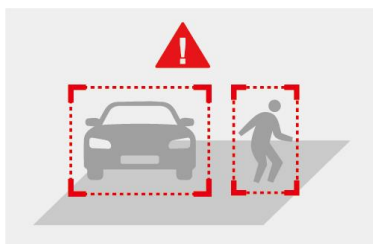
## Deep Learning Function

### Face Detection

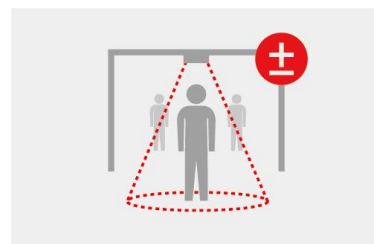


### AI Perimeter Protection

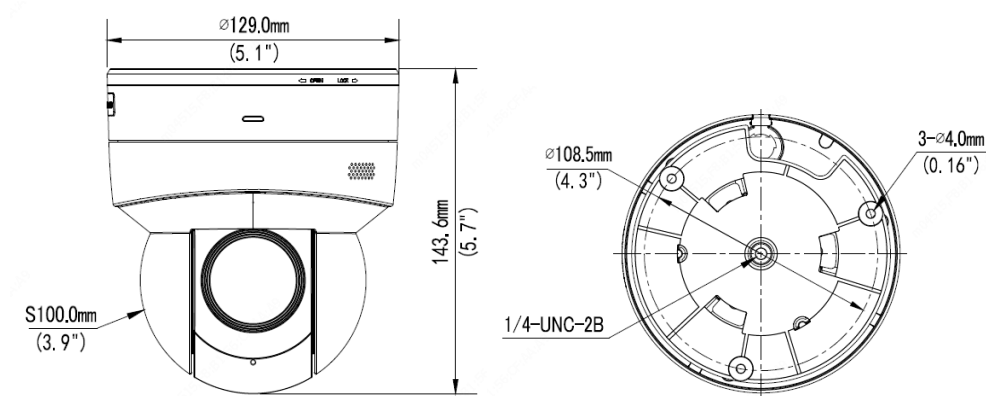
(Intrusion, Crossing Line  
Entering Area, Leaving Area)



### People Flow Counting



## Dimensions



## Specifications

| Camera               |            |                                    |
|----------------------|------------|------------------------------------|
| Image Sensor         |            | 1/2.7" progressive scan CMOS       |
| Optical Zoom         |            | 5x                                 |
| Minimum Illumination | Color      | 0.003 Lux (F1.2, AGC ON)           |
|                      | IR ON      | 0 Lux                              |
| Electronic Shutter   |            | Auto / Manual (1 ~ 1/100000 sec)   |
| White Balance        |            | Auto / Manual                      |
| Iris control         |            | Fixed                              |
| AGC control          |            | Auto / Manual                      |
| S/N Ratio            |            | 56 dB                              |
| WDR                  |            | WDR Pro                            |
| Dynamic Range        |            | Up to 120 dB                       |
| Optical Lens         |            |                                    |
| Megapixel            |            | 5 MP                               |
| Day / Night          |            | Yes (with removable IR-cut filter) |
| Lens Type            |            | Motorized varifocal lens           |
| Focal Length         |            | 2.7 ~ 13.5 mm                      |
| Maximum Aperture     |            | F/1.2                              |
| FOV                  | Horizontal | 30.6° ~ 106.9°                     |
|                      | Vertical   | 56.0°~17.7°                        |
|                      | Diagonal   | 131.5°~39.8°                       |
| Operation            | Focus      | Auto / Manual                      |
|                      | Zoom       | 5x                                 |
|                      | Iris       | Fixed                              |
| IR LED Quantity      |            | 2 IR LEDs                          |
| Max. IR Distance     |            | 30 m (100 ft)                      |

| DORI                    |                                  | Detect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Observe           | Recognize         | Identify         |
|-------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------|
| Lens                    | 2.7 mm                           | 70.9 m (232.5 ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 28.4 m (93.0 ft)  | 14.2 m (46.5 ft)  | 7.1 m (23.3 ft)  |
|                         | 13.5 mm                          | 247.5 m (812.0 ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 99.0 m (324.8 ft) | 49.5 m (162.4 ft) | 24.8 m (81.2 ft) |
| Video                   |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Video Compression       |                                  | H.265, H.264, MJPEG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                   |                  |
| Video Streaming         |                                  | Triple streams from H.265, H.264 or MJPEG                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                   |                  |
| Video Resolution        | Main Stream                      | 2880 x 1620 (Default), 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720, 720 x 576, 640 x 360                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                   |                  |
|                         | Sub Stream                       | 1280 x 720, 720 x 576, 640 x 480, 640 x 360 (Default)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                   |                  |
|                         | Third Stream (Closed by Default) | 720 x 576, 704 x 288, 640 x 360, 352 x 288                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                   |                  |
| Frame Rate              |                                  | 30 fps at 2880 x 1620, 30 fps at 2560 x 1440, 30 fps at 2304 x 1296,30 fps at 1920 x 1080 (60 / 50 Hz)<br>* The frame rate and performance may vary depending on the number of connections and data bitrates (different scenes).                                                                                                                                                                                                                                                                                   |                   |                   |                  |
| Video Analytics         |                                  | Motion Detection, Tampering Alarm, Audio Detection<br>*Tampering alarm and audio detection are only accessible through the camera’s Web interface, which can be used to trigger alerts such as e-mail and FTP                                                                                                                                                                                                                                                                                                      |                   |                   |                  |
| Image Setting           |                                  | Brightness, Saturation, Contrast, Sharpness, Image Orientation (Flip, Mirror, 0°, 180°)                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                   |                  |
| Audio                   |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Audio Compression       |                                  | G.711                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                   |                  |
| Audio Support           |                                  | Two-way Audio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                   |                  |
| Deep Learning Function  |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| AI Analytics            |                                  | <ul style="list-style-type: none"><li>- <u>Perimeter Protection</u> (Human &amp; Vehicle classification): Cross Line, Enter Area, Leave Area, Intrusion</li><li>- <u>Face Detection</u>, <u>People Flow Counting</u>, <u>Crowd Density Monitoring</u></li></ul><br>*All Perimeter Protection rules can be enabled together. However, due to hardware resource limitations, only one AI function can be enabled at a time: Perimeter Protection, Face Detection, People Flow Counting, or Crowd Density Monitoring. |                   |                   |                  |
| Network                 |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Interface               |                                  | 10/100 Ethernet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Protocol                |                                  | 802.1X (including EAP-TLS), ARP, DHCP, DDNS, DNS, DynDNS, FTP, HTTP, HTTPS, ICMP, IGMP, IPv4, NTP, ONVIF (Profile G, M, S, T), PPPoE, QoS, RTCP, RTP, RTSP, SMTP, SNMP, TCP, UDP, UPnP                                                                                                                                                                                                                                                                                                                             |                   |                   |                  |
| Mechanical              |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Connectors              | Power                            | DC 12V, PoE+ (IEEE 802.3at)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                   |                  |
|                         | Ethernet                         | 10/100 Base-TX, RJ-45 connector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
|                         | Audio                            | Two-way Audio (Built-in microphone and speaker)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
|                         | Local Storage                    | microSD card slot (SD / SDHC / SDXC), up to 512 GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                   |                  |
|                         | Digital I/O                      | I/O wires                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                   |                  |
|                         | RS-485                           | RS-485 wires                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                   |                  |
| Operation               |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                   |                  |
| Pan Travel              |                                  | 350°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |                   |                  |
| Tilt Travel             |                                  | 0° ~ 90°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                   |                  |
| Manual Speed            | Pan                              | 0.1° ~ 60°/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                   |                  |
|                         | Tilt                             | 0.1° ~ 50°/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                   |                  |
| Preset Speed            | Pan                              | 60°/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                   |                  |
|                         | Tilt                             | 50°/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                   |                  |
| Presets                 | Max. Number                      | 255                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                   |                  |
| Patrol                  | Max. Number                      | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                   |                  |
|                         | Max. Actions Allowed             | 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                   |                  |
| OSD                     |                                  | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                   |                  |
| Privacy Mask            |                                  | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                   |                  |
| Proportional Pan & Tilt |                                  | Manual (Pan and tilt speed proportional to zoom ratio)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                   |                  |
| Automatic Function      |                                  | Preset, Patrol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                   |                  |
| Mechanical Flip         |                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                   |                  |
| Digital Slow Shutter    |                                  | On / Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                   |                  |

|                                     |             |                                              |
|-------------------------------------|-------------|----------------------------------------------|
| Motion Detection                    |             | On / Off                                     |
| Wide Dynamic Range                  |             | On / Off                                     |
| Day/Night: Mechanical IR Cut Filter |             | On / Off                                     |
| Image Rotation                      |             | Normal, Flip Vertical, Flip Horizontal, 180° |
| 3D Noise Reduction                  |             | 0 ~ 255                                      |
| Alarm                               | Digital I/O | 1 Input, dry contact, NO / NC                |
|                                     |             | 1 Relay Output (AC 125V 0.5A / DC 30V 1A)    |
|                                     | Reaction    | Alarm Output, PTZ to Preset, Trigger Storage |

|                       |                                |
|-----------------------|--------------------------------|
| <b>General</b>        |                                |
| Operating Temperature | -10°C ~ 50°C (14°F ~ 122°F)    |
| Humidity              | 95% (non-condensing)           |
| Dimensions            | Ø129 x 143.6 mm (Ø5.1" x 5.7") |
| Weight                | 0.75 kg (1.65 lb)              |
| Power Source          | DC 12V, PoE+ (IEEE 802.3at)    |
| Power Consumption     | 15W                            |
| Certification         | CE, FCC, RoHS, UL compliant    |

|                         |                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Web Interface</b>    |                                                                                                                         |
| Installation Management | Web-based configuration                                                                                                 |
| Maintenance             | Firmware upgrade through Web Browser or Utility                                                                         |
| Access from Web Browser | Live View, Video Recording, Change Video Quality, Bandwidth Control, Image Snapshot, Text Overlay, Image Masking        |
| Language                | Czech, English, French, German, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Spanish, Traditional Chinese |

|                              |                                                                                                                                                                                                                                                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software Applications</b> |                                                                                                                                                                                                                                                                                    |
| Software Supported           | GV-DVR / NVR (V8.9.1), GV-VMS (V17.4.3 / V18.2.1), GV-Control Center (V3.8.0 / V4.0.1), GV-Edge Recording Manager Windows Version (V2.0.0), GV-Recording Server / Video Gateway (V2.0.1), GV-Redundant / Failover Server (V1.2.0), GV-Mobile Server (V1.5.1), GV-AI Guard (V1.0.0) |
| Smart Device Access          | GV-Eye for iOS and Android                                                                                                                                                                                                                                                         |
| Live Viewing                 | Browser (IE, Edge, Chrome, Firefox), Mobile App                                                                                                                                                                                                                                    |

#### Note:

- It is required to apply patch files to some of the supported software.
- Do not use clothes or any ordinary material to clean the camera cover since they may result in scratches.
- Mind the following when using an inserted memory card for recording:
  - Recorded data on the memory card can be damaged or lost if the data are accessed while the camera is under physical shock, power interruption, memory card detachment or when the memory card reaches the end of its lifespan. No guarantee is provided for such causes.
  - The stored data can be lost if the memory card is not accessed for a long period of time. Back up your data periodically if you seldom access the memory card.
  - Memory cards are expendable and their durability varies according to the conditions of the installed site and how they are used. Back up your data regularly and replace the memory card annually.
  - To avoid power outage, it is highly recommended to apply a battery backup (UPS).
  - For better performance, it is highly recommended that you use a micro SD card of SDHC/SDXC, Class 10.
  - Replace the memory card when its read/write speed is lower than 6 MB/s or when the memory card is frequently undetected by the camera.
- Specifications are subject to change without notice.

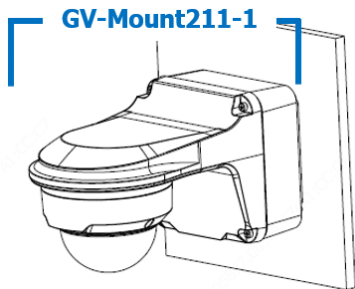
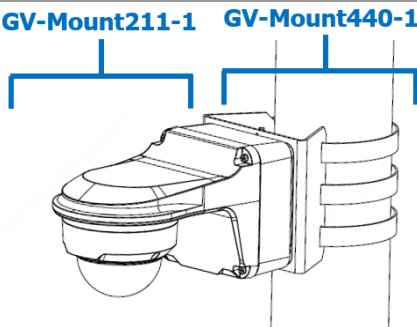
#### Packing List

- GV-PTZ5810-IR Mini PTZ
- Screw Kit
- Drill Template Paster
- Download Guide

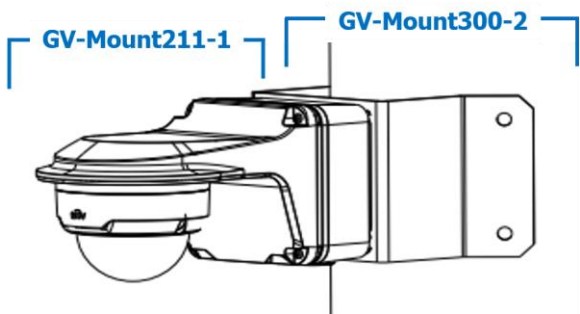
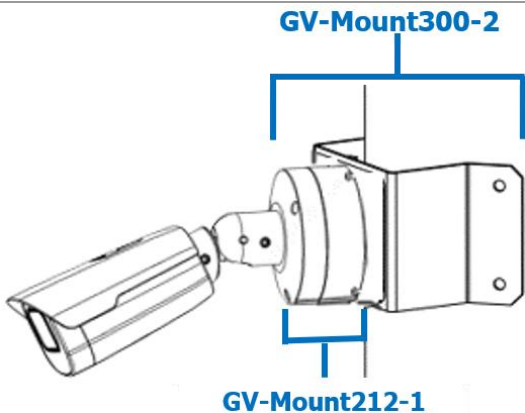
## Accessories

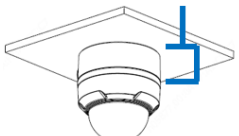
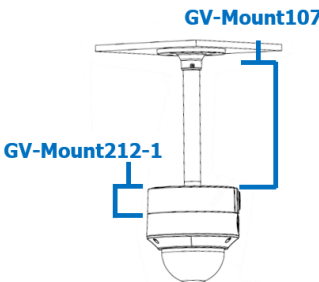
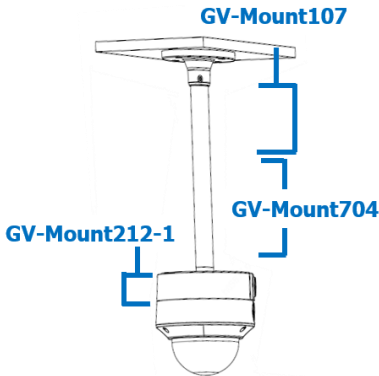
| Model No.                                                                | Name                                                                                                                                                                                 |                                                                                     | Details                                                                                                                                                                     |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GV-Mount107<br>(must be used with<br>GV-Mount212P or<br>GV-Mount212-1)   | Pendant Bracket                                                                                                                                                                      |    | Dimensions: Ø120 x 334 mm (Ø4.72" x 13.15")<br>Weight: 0.74 kg (1.63 lb)                                                                                                    |
| GV-Mount211P                                                             | Wall Mount and<br>Junction Box                                                                                                                                                       |    | Dimensions: Ø233 x 126 x 126 mm (Ø9.2" x 5" x 5")<br>Weight: 1 kg (2.2 lb)                                                                                                  |
| GV-Mount211-1                                                            | Wall Mount and<br>Junction Box                                                                                                                                                       |    | Dimensions: 235 x 126.2 x 128.5 mm (9.3" x 5.0" x 5.1")<br>Weight: 0.84 kg (1.85 lb)                                                                                        |
| GV-Mount212P                                                             | Junction Box                                                                                                                                                                         |    | Dimensions: Ø126 x 36 mm (Ø5.0" x 1.4")<br>Weight: 0.22 kg (0.48 lb)                                                                                                        |
| GV-Mount212-1                                                            | Junction Box                                                                                                                                                                         |    | Dimensions: Ø 126 x 38.5 mm (Ø 5.0" x 1.5")<br>Weight: 0.24 kg (0.53 lb)                                                                                                    |
| GV-Mount300-2                                                            | Convex Corner<br>Mount                                                                                                                                                               |    | Dimensions: 137 x 233 x 160 mm (5.4" x 9.17" x 6.3")<br>Weight: 1.65 kg (3.64 lb)                                                                                           |
| GV-Mount310-2                                                            | Concave Corner<br>Mount                                                                                                                                                              |   | Dimensions: 111.2 x 369.9 x 210 mm (2.6" x 11.4" x 6.6")<br>Weight: 1.65 kg (3.64 lb)                                                                                       |
| GV-Mount420<br>(must be used with<br>GV-Mount211P)                       | Pole Mount<br>Bracket                                                                                                                                                                |  | Dimensions: Ø120 x 120 x 53.4 mm (Ø4.7" x 4.7" x 2.1")<br>Weight: 0.45 kg (0.99 lb)<br>Steel Strap Diameter: Ø67 ~ 127 mm (Ø2.6" ~ 5")                                      |
| GV-Mount440-1<br>(must be used with<br>GV-Mount211P or<br>GV-Mount211-1) | Pole Mount<br>Bracket                                                                                                                                                                |  | Dimensions: 136 x 127 x 63.6 mm (5.4" x 5.0" x 2.5")<br>Weight: 0.34 kg (0.75 lb)<br>Steel Strap Diameter: Ø 67 ~ 127 mm (Ø 2.6" ~ 5")                                      |
| GV-Mount704<br>(must be used with<br>GV-Mount107)                        | Extension Tube                                                                                                                                                                       |  | Dimensions: Ø3.5 x 10 or 20 or 30 or 50 cm (Ø1.38" x 3.9" or 7.9" or 11.8" or x 19.7")<br>Weight: 225 g or 360 g or 500 g or 780 g (0.5 lb or 0.79 lb or 1.1 lb or 1.72 lb) |
| GV-PA301                                                                 | Gigabit PoE<br>Adapter                                                                                                                                                               |  | GV-PA301 is a Gigabit Power over Ethernet (PoE) adapter.                                                                                                                    |
| GV-POE Switch                                                            | GV-POE Switch is designed to provide power along with network connection for IP devices. The GV-POE Switch is available in various models with different numbers and types of ports. |                                                                                     |                                                                                                                                                                             |
| Power Adapter                                                            | Contact our sales representatives for the countries and areas supported.                                                                                                             |                                                                                     |                                                                                                                                                                             |

## Mounting Type

| Wall Mount with Junction Box<br>GV-Mount211-1                                     | Pole Mount<br>GV-Mount211-1 + GV-Mount440-1                                        |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |

| Convex Corner Mount<br>GV-Mount300-2                                              | Concave Corner Mount<br>GV-Mount310-2                                              |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |

| Convex / Concave Corner Mount<br>GV-Mount211P / 211-1 + GV-Mount300-2 / 310-2       | Convex / Concave Corner Mount<br>GV-Mount212P / 212-1 + GV-Mount300-2 / 310-2        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |

| Junction Box Mount<br>GV-Mount212-1                                                 | Pendant Mount<br>GV-Mount212-1 + GV-Mount107                                        | Pendant Mount with Extension Tube<br>GV-Mount212-1 + GV-Mount704 + GV-Mount107        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |