

WISeNET

DON'T MISS  
A THING

WISeNET P series



hanwha-security.eu

Hanwha  
Techwin

## Exceptional image quality of 4K Ultra HD

The Wisenet P series provides an enhanced surveillance system by producing outstanding 4K picture clarity so you can observe the finest of details.

### Premium IR cameras with essential features:

- Max. 12MP resolution
- H.265, H.264, MJPEG codec
- Max. 20fps@12M, Max. 30fps under 8M (H.265 / H.264)
- Wisestream II support
- Digital Auto Tracking
- True WDR(120dB)
- Hallway view (Rotate 90°/270°)
- Defog, Motion detection, Defocus detection, Tampering



### Improve bandwidth by up to 99% using Wisestream II

Using Wisestream II, Hanwha Techwin's original video compression technology, the Wisenet P series reduces data by up to 99% compared to current H.264 technology, when combined with H.265 compression. System costs are also greatly reduced without comprising image quality.

**Low movement**

Wisestream II OFF : 7160kbps  
Wisestream II ON : 74kbps

**Medium movement**

High Compression      Low Compression

Wisestream II OFF : 7260kbps  
Wisestream II ON : 1817kbps

100Mbps

↓

**Up to 99%**

1Mbps

H.264 only      H.265+Wisestream II

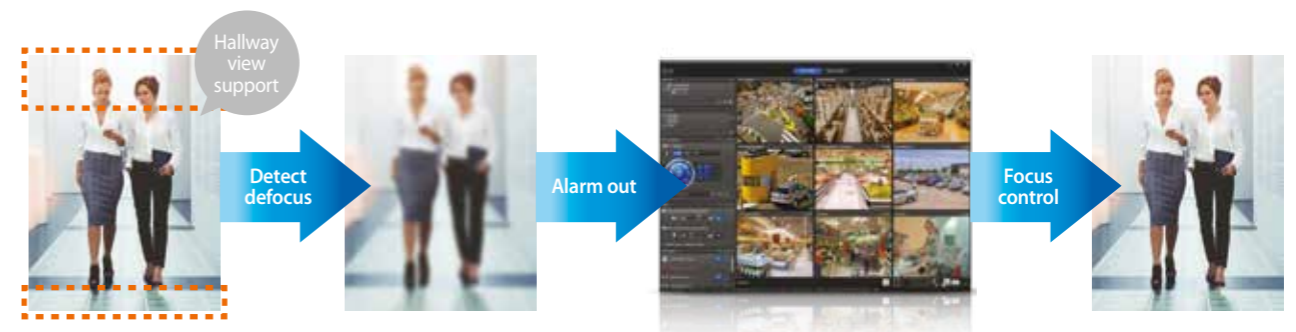
## Digital Auto Tracking

During quieter times, especially at night time, digital auto tracking can be used to detect moving objects, including people. Digital auto tracking is ideal for tracking movement in low traffic areas, such as parks or squares at night.



## Defocus Detection & Hallway View

The Wisenet P series supports Defocus Detection, which helps to identify when an image is out of focus and significantly improves efficiency. The user can also adjust the optimal focus remotely via the network, reducing the installation/optimisation time of the camera.



## True WDR (120dB) & P-Iris

The true WDR function built into the Wisenet P series provides enhanced picture quality, by reducing motion blur and processing clearer images.

P-Iris optimises the iris function when multiple lighting conditions exist in a single scene, which results in images with better contrast, clarity, resolution and depth of field. This optimisation of the resolution at both the centre and corner of the image, as well as the depth of field and shutter speed, provide increased image sharpness especially effective in megapixel cameras.



## 4K Premium Fisheye camera

### Variable display modes

The fisheye cameras in the Wisenet P series offer more than six display modes including single fisheye, single panorama, double panorama, 1 panorama + 2 PTZ, 1 fisheye + 3 PTZ and quad view mode.



Single Panorama



Double Panorama

Panorama + 2PTZ

Fisheye



Quad view

Fisheye + 3PTZ

Fisheye + 8PTZ

### 360°/180° panoramic view without blind spots

Equipped with a fisheye lens for 180° panoramic view or 360° surround view without blind spots, the camera is able to provide coverage of wide, open areas, such as retail stores, shopping malls, offices, train stations and more.



Fisheye

Single Panorama

## 4K Premium Fisheye camera

### Onboard dewarping streaming

The new fisheye cameras support three dewarping modes including single panorama, double panorama, quad view.



Single Panorama

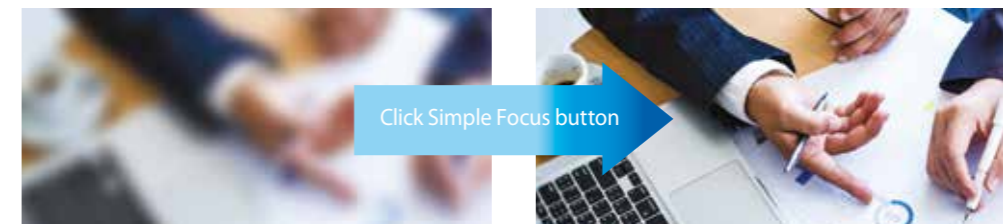


Double Panorama

Quad view

### Easy to install with Simple Focus feature

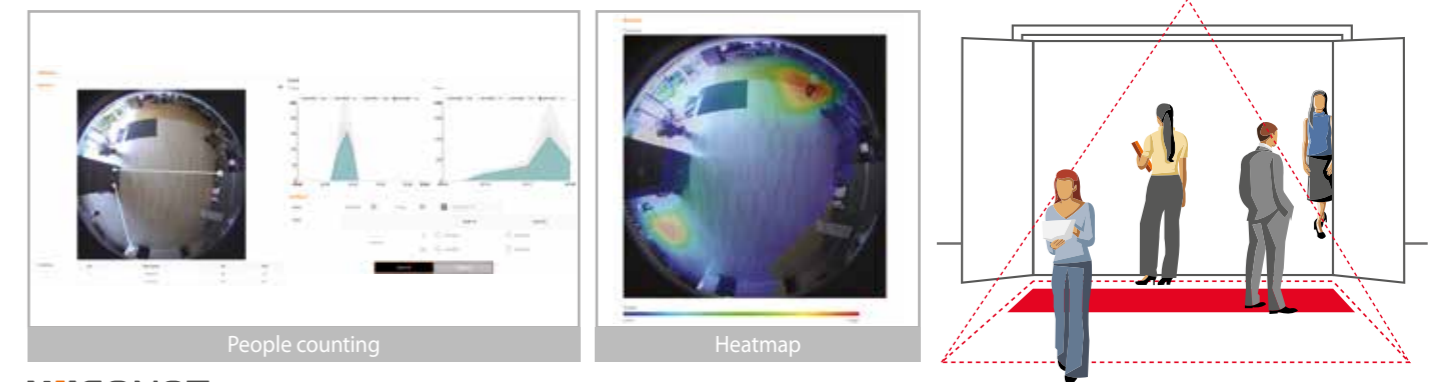
The Simple Focus feature is able to auto-focus with the touch of a button during the installation process.



Click Simple Focus button

### People Counting and Heat Mapping

Premium fisheye cameras have a business intelligence function that offers retailers the opportunity to measure store efficiency. People Counting and Heat Mapping Applications display hotspots within a store, which allow marketing personnel to identify the busiest times of the day, helping them manage customer flow and understand buying patterns.



People counting

Heatmap

## 4K Premium Fisheye camera

### Durable in any extreme environmental conditions with Built-in MIC

PNF-9010RV and PNR-9010RVM are designed to function even in the most extreme environmental condition. With the Built-in MIC, it can fully operate in a temperature range between -40° and 55°, as well as in wet or very humid conditions.



### Handover to PTZ

Wisenet PTZ hand-over feature allows a PTZ camera\* to receive an alarm(motion detection) from a fisheye camera on the same IP video surveillance system. Once the notification is received, the PTZ camera will zoom into the assigned camera pre-set location. This feature improves the efficiency of the surveillance system by decreasing the reliance on the system operator on tracking events, and by increasing the likelihood that critical events in a surveillance area will be captured and recorded.



## Premium Multi-directional cameras

### Monitor wide areas with one camera

Wisenet P series multi-sensor cameras are equipped with multiple sensors, which means they can successfully monitor wide areas with a single camera.

- Multi-sensor cameras can simultaneously cover a full 360° area without any blind spots. When combined with a built-in PTZ camera (PNM-9320VQP), detailed images can be obtained through the use of an effective zoom function.
- Panoramic cameras can provide a wide, panoramic view of any area by stitching together and merging images from multiple onboard sensors.

By installing Wisenet multi-sensor cameras, the cost of system installation and maintenance is significantly reduced.

### Multi-directional Cameras



**PNM-7000VD**  
4MP (2M x 2ea)  
with selectable lens



**PNM-9000VQ**  
Max. 20MP (5M/2M x 4ea)  
with selectable lens

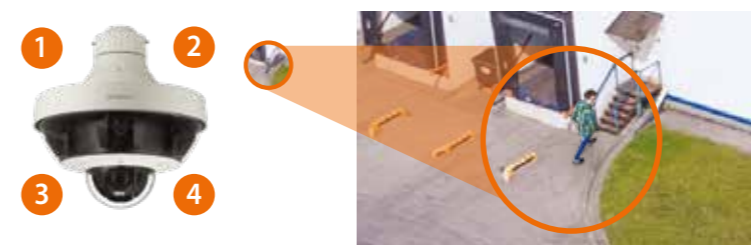


**PNM-9080VQ**  
8MP (2M x 4ea)



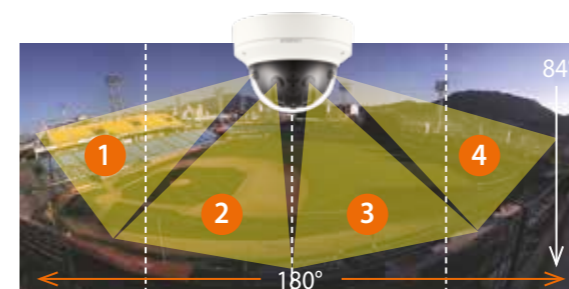
**PNM-9081VQ**  
20MP (5M x 4ea)

### Multi-directional Camera with PTZ



**PNM-9320VQP**  
Max. 22MP  
(2M 32x PTZ + 5M/2M x 4ea)  
with selectable lens

### Panoramic Cameras



**PNM-9020V**  
7.3MP (2M x 4ea)



*Coming soon*  
**PNM-9030V**  
20MP (5M x 4ea)

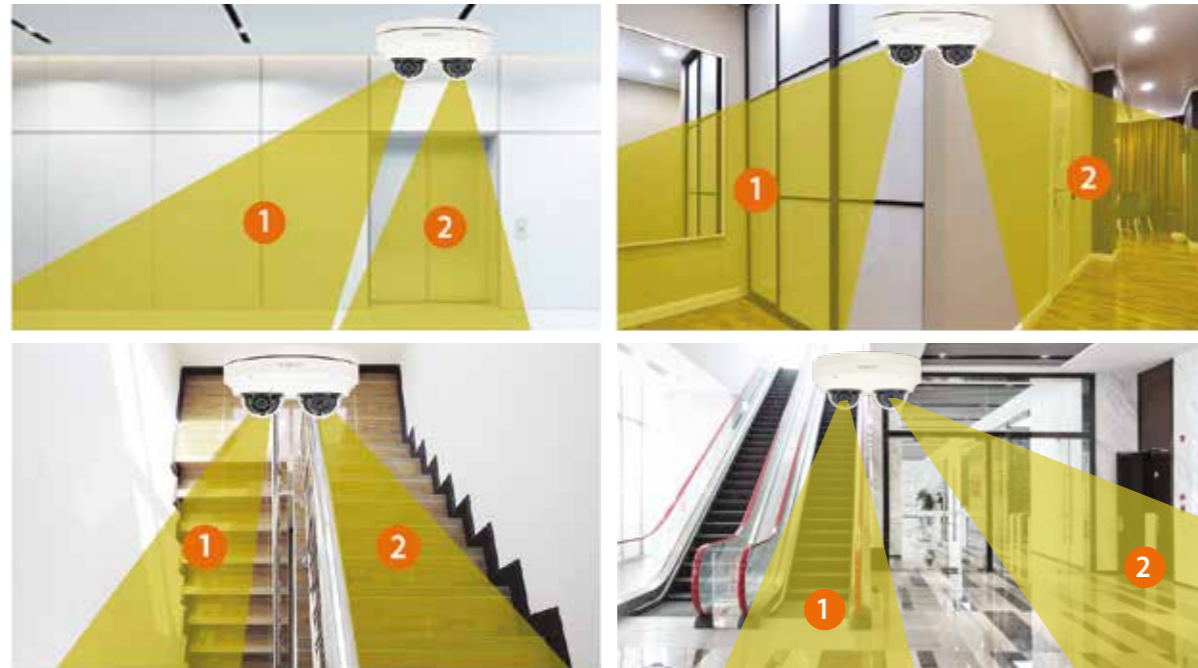
### Multiple view modes

Choose from a variety of viewing options to suit your needs by using the broad line-up of Wisenet multi-sensor cameras.

## Full HD Multi-directional Camera

- PNM-7000VD 4MP (2M x 2ea) with dual lens

The PNM-7000VD is able to simultaneously monitor two areas through multiple angles by installing two camera lenses in one camera, which removes the needs for multiple cameras and reduces TCO (Total Cost of Ownership).



### Full HD compatible fixed lens

Depending on the desired direction and viewing angle, you can select 2M 2.4, 2.8, 3.6 and 6mm lenses. The full HD video feature enables clear and sharp monitoring. By installing two 2.4mm lenses, it's possible to achieve a 270 degree viewing angle, making it ideal for monitoring large open spaces, such as parks, parking lots and shopping malls.



### Four cameras in one

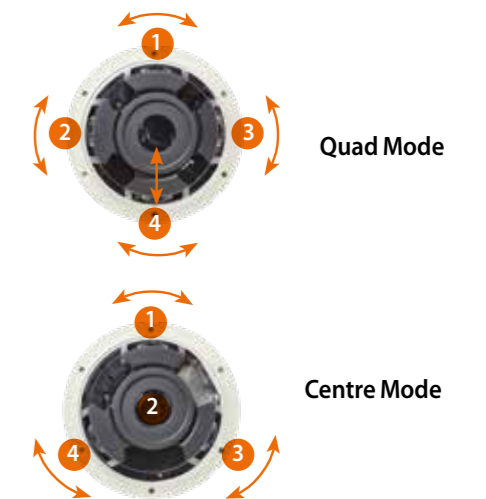
- PNM-9081VQ 20MP (5M x 4ea)
- PNM-9080VQ 8MP (2M x 4ea)
- PNM-9000VQ Max. 20MP (5M/2M x 4ea) with dual lens

Multi-directional cameras have four sensors in one camera. The four sensors in the multi-directional camera can move independently of one another, enabling users to monitor a complete 360° view simultaneously without any blind spots.

### Flexible set-up

In addition, one of the sensors can easily be removed and attached in the centre of the camera, allowing for flexible set-up.

These cameras have a separate set-up mode for each sensor. Each sensor can be set up for OSD control, privacy masking and MD control, as well as profile setting per codec as required.



### Natural and clearer image

Conventional fisheye cameras can occasionally suffer from low quality or distortion at the edge of the image. However, the multi-directional camera with 4 sensors does not distort the image, delivering a natural, clearer image all round.

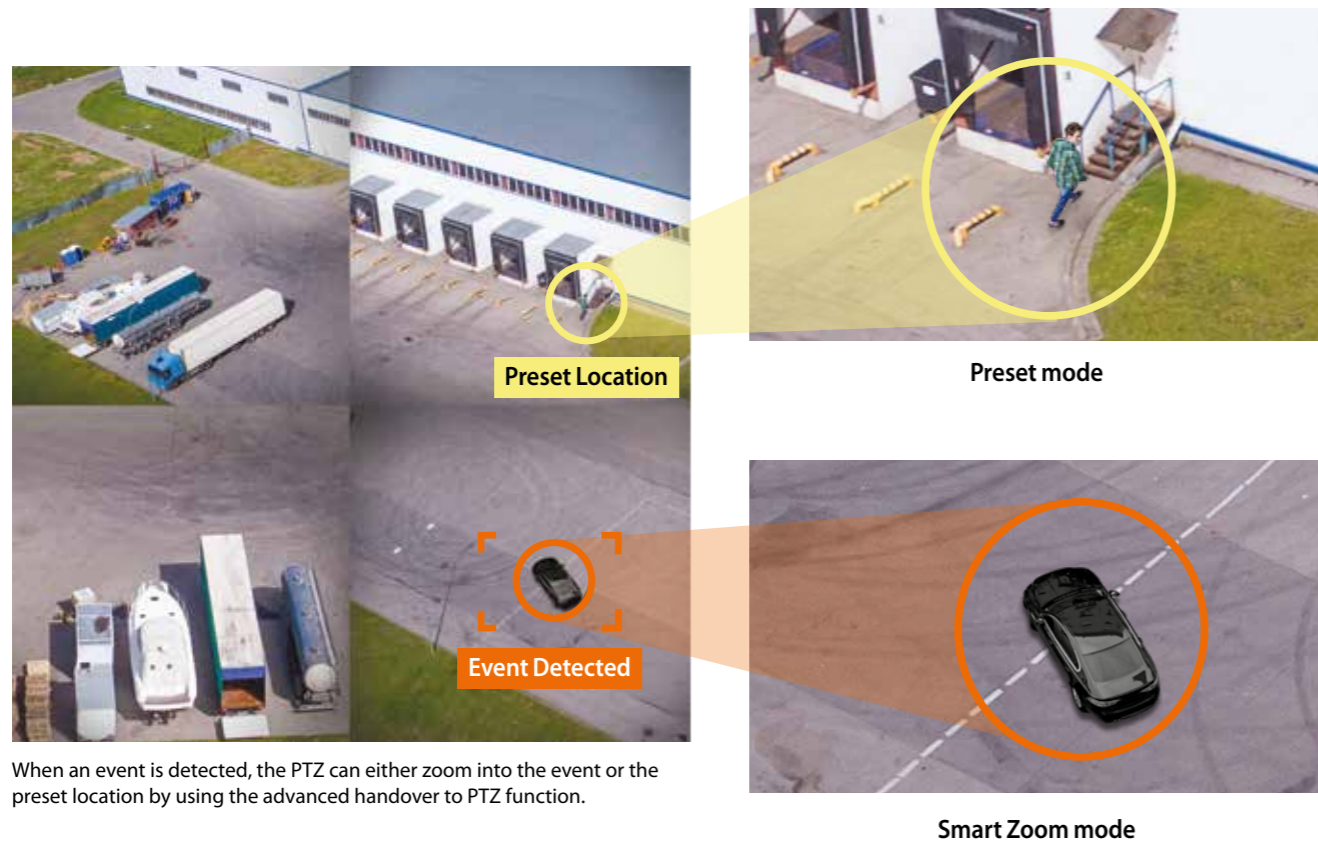


## Multi-directional Camera with PTZ

- PNM-9320VQP Max. 22MP (2M 32x PTZ + 5M/2M x 4ea) with selectable lens

PNM-9320VQP is a 5CH camera that combines a four sensor multi-directional camera and 2MP 32x PTZ camera. The multi-directional camera can monitor a 360° wide area while the PTZ camera can zoom into the desired area for closer inspection.

PNM-9320VQP has a built-in 100/1000 SFP slot in its installation base which sends high resolution images to remote locations through a network without the risk of data damage.



When an event is detected, the PTZ can either zoom into the event or the preset location by using the advanced handover to PTZ function.

### Advanced handover to PTZ

The PNM-9320VQP showcases the best of the 2M 32x PTZ camera through an advanced handover function consisting of the preset mode and smart zoom mode. When the multi-directional camera detects an event, it automatically links to the PTZ camera which carries out the zoom-in and track functions.

When using the preset mode, the PTZ camera zooms in to the pre-set position, while the smart zoom mode automatically zooms into the area where an event is detected.

## Panoramic Cameras

- PNM-9020V 7.3MP (2M x 4ea)
- PNM-9030V 20MP (5M x 4ea)

The panoramic cameras deliver a super wide angle high resolution image within a single camera. They create one seamless image by merging the four images from each sensor.



### Single Panorama image (PNM-9020V)

PNM-9020V is a single channel camera that provides a 7.3MP panoramic image with 180° horizontal and 84° vertical field of view. The camera delivers a single high resolution panoramic view by stitching four images together.



### Single Panorama + Original + Crop images (PNM-9030V)

PNM-9030V can simultaneously stream a total of 7CH at 20 fps : a single panoramic 15MP image merged from the four original images, four of the original 5MP images from each sensor, and two of the 2MP crop images.



**Selectable and changeable multiple lenses** (PNM-7000VD/9000VQ/9320VQP only)

Choose a wide variety of lenses from 2MP 2.4~12.0mm to 5M 7.0mm for each sensor in PNM-7000VD / 9000VQ / 9320VQP. Due to the wide variety of lenses available, users can create the most optimal field of view for their desired monitoring areas.



※ The applicable lens differs for each camera.

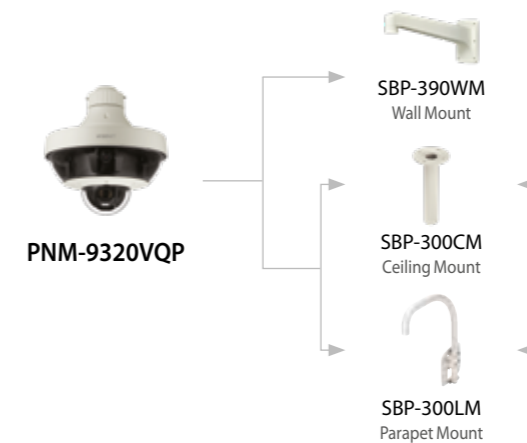
**Optimised design for indoor and outdoor environments**

Wisenet P series panoramic and multi-directional cameras are suitable for monitoring any location or environment. They are ideal for applications such as warehouses, shopping mall entrances, station concourses and airports supporting IP66, IK10.



- Warehouse
- City Surveillance
- Parking lot
- Square
- Crossroads
- Mall entrance
- Airport
- Stadium
- Distribution centre
- Train station

**Accessory configuration**



## PNO-9080R

4K Network IR Bullet Camera



### Key Features

- Max. 12megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memoty slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- Wisestream II support, Digital auto tracking
- IP66, IK10, Bi-directional audio support

## PND-9080R

4K Network IR Dome Camera



### Key Features

- Max. 12megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memoty slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- Wisestream II support, Digital auto tracking
- IK08, Bi-directional audio support

## PNV-9080R

4K Vandal-Resistant Network IR Dome Camera



### Key Features

- Max. 12megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memoty slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- Wisestream II support, Digital auto tracking
- IP66, IP67, IK10, Bi-directional audio support

## PNP-9200RH

4K 20x Network IR PTZ Dome Camera



### Key Features

- Max. 8megapixel (3840 x 2160) resolution
- Real 4K 20x IR corrected optical zoom, 16x digital zoom
- Max. Prest 400°/sec (Pan), 300°/sec (Tilt)
- H.265, H.264, MJPEG, Wisestream II support
- Max.30fps@4K (H.265, H.264)
- Max. IR viewable length : 200m
- Day & Night (ICR), WDR (120dB)
- Auto tracking, Intelligent video analytics
- SD/SDHC/SDXC memoty slot (Max. 128GB)
- IP66, IK10, Bi-directional audio support

## PNF-9010R/RV/RVM

4K Fisheye Camera



### Key Features

- Max.12megapixel (4000 x 3000) resolution
- H.265, H.264, MJPEG codec
- Variable view mode (Fishyeye, Single panorama, Double panorama, Quad view etc)
- On board dewarping, Digital PTZ (16x) / Bi-directional audio
- True WDR (120dB), Wisestream II
- People counting, Heatmap, Defocus detection
- M12 connector (PNF-9010RVM)
- IK10, IP66 (PNF-9010RV/9010RVM) micro SD/SDHC/SDXC (Max. 128GB), PoE

## PNM-9020V

7.3Megapixel Multi-sensor 180° Panoramic Camera



### Key Features

- Max. 7.3M (4096 x 1800) resolution
- Built-in 3.6mm fixed lens
- H.265/H.264 : Max. 30fps at all resolutions  
MJPEG : Max. 15fps at all resolutions
- H.265, H.264, MJPEG codec supported, Multiple streaming
- Motion detection, Hand over to PTZ, Tampering, Defocus detection, Digital auto tracking, Heatmap
- SD/SDHC/SDXC (128GB) memory slot, PoE+ / 12V DC
- Wisestream II supported, IP66, IK10





**PNM-9080VQ**  
8Megapixel Multi-directional 360° Camera



- Key Features**
- 4ea x 1920x1080 resolution (Max. 8MP)
  - 4ea x 2.8 ~ 12mm (4.3x) motorized varifocal lens
  - 4ea x Max. 60fps@2M (H.265, H.264)
  - Digital Image Stabilization with Built-in Gyro Sensor
  - H.265, H.264, MJPEG Codec Supported
  - Day & Night (ICR), WDR (150dB)
  - Motion detection, Tampering, Advanced Video Analytics
  - SD / SDHC / SDXC Memory slot, Wisestream II Support

**PNM-9081VQ**  
20Megapixel Multi-directional 360° Camera



- Key Features**
- 4ea x 2560 x 1920 resolution (Max. 20MP)
  - 4ea x 3.6 ~ 9.4mm (2.6x) motorized varifocal lens
  - 4ea x Max. 30fps@5M (H.265, H.264)
  - Digital Image Stabilization with Built-in Gyro Sensor
  - H.265, H.264, MJPEG Codec Supported
  - Day & Night (ICR), WDR (120dB)
  - Motion detection, Tampering, Advanced Video Analytics
  - SD / SDHC / SDXC Memory slot, Wisestream II Support



- Key Features**
- 2ea x 1920 x 1080 resolution
  - Max. 60fps@2M (H.265 / H.264)
  - H.265, H.264, MJPEG codec supported
  - Day & Night, WDR (150dB)
  - Loitering, Directional detection, Fog detection, Motion detection, Tampering
  - SD/SDHC/SDXC memory 2 slots (each camera), WiseStreamII Support

**SLA-2M2400D/2800D/3600D/6000D**  
2MP Optional Lenses for PNM-7000VD



- Key Features**
- 0.055Lux@F2.0 (Color, B/W)
  - WDR (150dB)
  - 2.4mm fixed lens (SLA-2M2400D)
  - 2.8mm fixed lens (SLA-2M2800D)
  - 3.6mm fixed lens (SLA-2M3600D)
  - 6.0mm fixed lens (SLA-2M7000D)

**PNM-9000VQ**  
8M to 20M H.265 Multi-directional Camera



- Key Features**
- Exchangeable 4ea x 2MP / 5MP lens modules 8MP to 20MP resolution depend on the combination of lens modules
  - Max. 60fps@2M, Max. 30fps@5M (H.265 / H.264)
  - WDR 150dB with 2MP lens module, 120dB with 5MP lens module
  - 2.4mm, 2.8mm, 3.6mm, 6mm fixed lens (2MP module)
  - 3.7mm, 4.6mm, 7mm fixed lens (5MP module)
  - H.265, H.264, MJPEG codec, Multi streaming support
  - Video analytics, WiseStream II
  - IP66, IK10, SD / SDHC / SDXC memory 4 slots

## SLA-2M2400Q/2800Q/ 3600Q/6000Q

## SLA-5M3700Q/4600Q/ 7000Q

Exchangeable 2MP / 5MP lenses for PNM-9000VQ



SLA-2M2400Q   SLA-2M2800Q   SLA-2M3600Q   SLA-2M6000Q   SLA-5M3700Q/  
SLA-5M4600Q/  
SLA-5M7000Q

### Key Features

- 0.055Lux@F2.0 Color, B/W (2MP lenses)
- 0.16Lux@F1.6 Color, B/W (5MP lenses)
- Selectable lens options :
  - 2.4 / 2.8 / 3.6 / 6.0mm fixed lens (2MP)
  - 3.7 / 4.6 / 7.0mm fixed lens (5MP)

## PNM-9320VQP

10MP to 22MP Multi-directional + PTZ Network Camera



### Key Features

#### Multi-directional camera

- Exchangeable 4ea x 2MP / 5MP lens modules 10MP to 22MP resolution depend on the combination of lens modules
- WDR 150dB with 2MP lens module, 120dB with 5MP lens module
- 2.4mm, 2.8mm, 3.6mm, 6mm, 12mm fixed lens (2M module)
- 3.7mm, 4.6mm, 7mm fixed lens (5M module)

#### PTZ camera

- Max. 2MP (1920 x 1080) resolution
- 4.44~142.6mm (Optical 32x) lens
- WDR 150dB, Day & Night (ICR)

## SLA-2M2400P/2800P/ 3600P/6000P/1200P

## SLA-5M3700P/4600P/ 7000P

Exchangeable 2MP / 5MP lenses for PNM-9320VQP



### Key Features

- 0.055Lux@F2.0 Color, B/W (2MP lenses)
- 0.16Lux@F1.6 Color, B/W (5MP lenses)
- Selectable lens options:
  - 2.4 / 2.8 / 3.6 / 6.0 / 12.0mm fixed lens (2MP)
  - 3.7 / 4.6 / 7.0mm fixed lens (5MP)

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