Never miss a thing

WISENET P series

Premium Multi-sensor cameras

Hanwha-Security.com

WISENET P series

Cover wide areas with one camera

Wisenet P series multi-sensor cameras are equipped with multiple sensors, which means that it can effectively monitor wide areas with just one camera.

· Multi-directional cameras can simultaneously monitor multiple directions without any blind spots. When it is combined with a PTZ camera, it provides a detailed view of the desired image through its effective zoom-in function.
· Panoramic cameras provide a wide panoramic view within a single camera by merging 4 images from each sensors.

By installing Wisenet multi-sensor cameras, the cost of system installation and maintenance is reduced while successfully monitoring wide areas.

Multi-directional Camera

PNM-9084QZ
8MP (2MP x 4ea)

PNM-9084RQZ/ 9085RQZ
9084RQZ : 8MP (2MP x 4ea)
9085RQZ : 20MP (5MP x 4ea)

PNM-7000VD/ 9000VD
4MP (2MP x 2ea)/
10MP (5MP x 2ea)
with selectable lens

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

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

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

Multi-directional Camera with PTZ

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

### Panoramic Camera

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

PNM-9030V
20MP (5MP x 4ea)

02

Remote motorized PTRZ control for easy installation

The PNM-9084QZ has become more compact and lighter to make installation a lot easier even on a ladder.
Both PNM-9084RQZ and PNM-9085RQZ support remote PTRZ (Pan, tilt, rotate and zoom) setup,
saving installers time and effort of making adjustments on a ladder to change the setting.

PTRZ (Pan, Tilt, Rotate and Zoom)
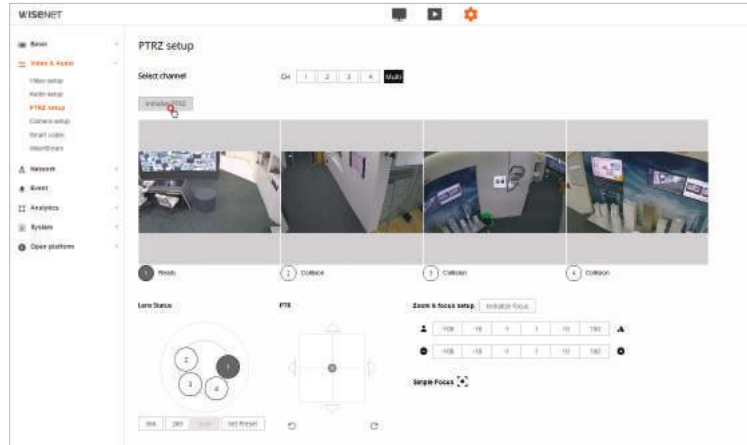
PTRZ set up on Wisenet webviewer

Built-in IR sensor for monitoring in low light environment

The PNM-9084RQZ/9085RQZ has built-in IR sensors to each of the four lenses.
Each lens and its IR sensors move together when users control the lenses, producing clear images up to
30 meters even in low-light environments

built-in IR sensor


Actual footage of PNM-9085RQZ

Multiple view modes

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

2CH Multi-directional Camera

· PNM-7000VD 4MP (2MP x 2ea) with selectable lens
· PNM-9000VD 10MP (5MP x 2ea) with selectable lens

2CH multi-directional cameras are able to simultaneously monitor two areas through multiple angles by installing two camera lenses in one surveillance camera, which removes the needs for multiple corners and reduces TCO (Total Cost of Ownership).

PNM-9000VD　　　**PNM-7000VD**

2CH Multi-directional Camera
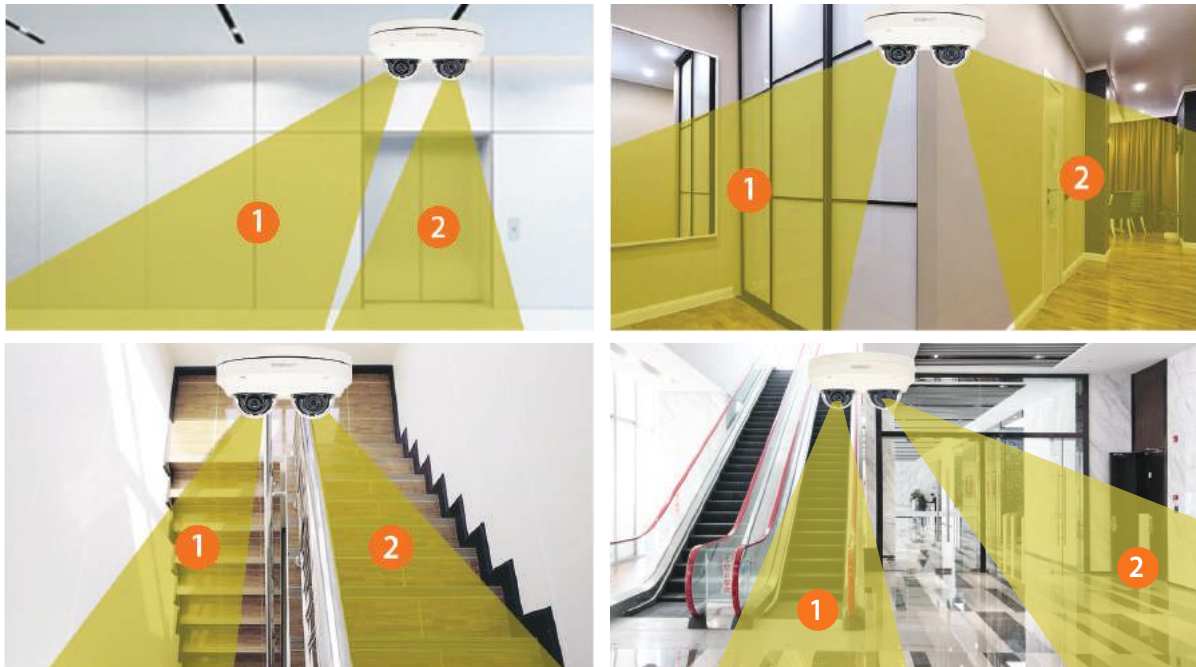
Exchangeable dual lens

According to the desired direction and viewing angle, you are able to select 2MP 2.4mm/2.8mm/3.6mm/6.0mm lenses for PNM-7000VD and 5MP 3.7mm/4.6mm/7.0mm lenses for PNM-9000VD. The camera's video feature enables clear and sharp monitoring, making it perfect for surveillance of large spaces such as parks, parking lots and shopping malls.

SLA-2M2400D 2.4mm Fixed lens　　　SLA-2M3600D 3.6mm Fixed lens　　　SLA-2M6000D 6.0mm Fixed lens

**PNM-7000VD with selectable lenses**

4CH Multi-directional Camera

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

Multi-directional cameras have four sensors in one camera.
The four sensors in the multi-directional camera move
independently on top of the tracks enabling users to monitor
a complete 360˚ view simultaneously without any blind spots.
In addition, one of the sensors can easily be removed and attached
in the center of the camera, allowing for flexible set-up.

PNM-9081VQ

PNM-9080VQ

4CH Multi-
directional Camera

PNM-9000VQ

Quad Mode

Center Mode
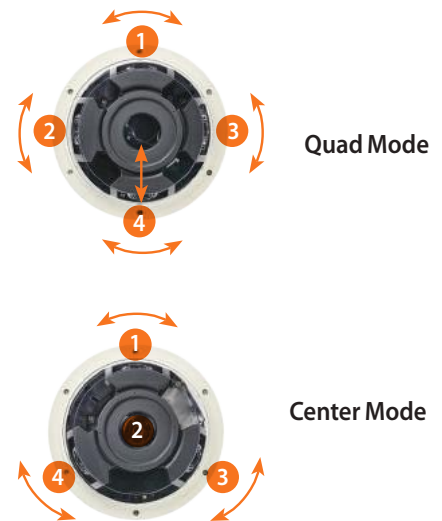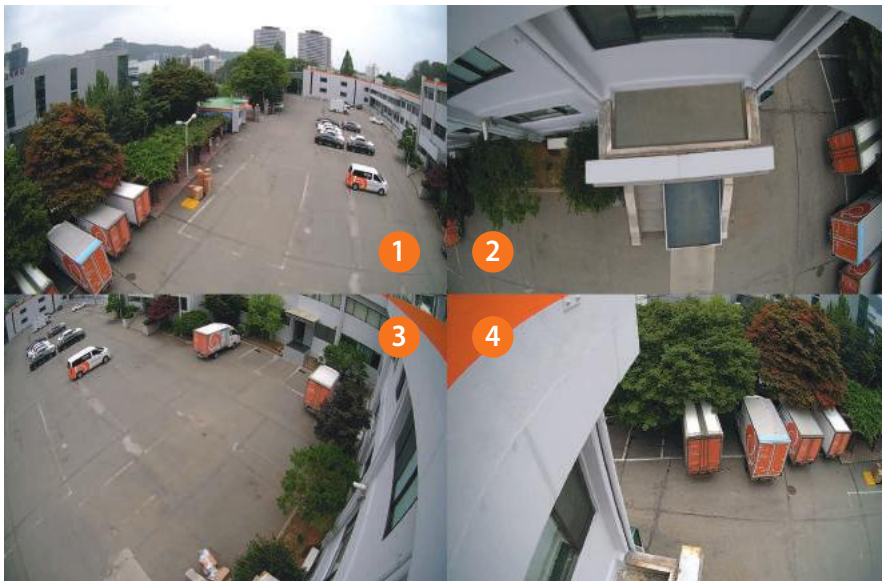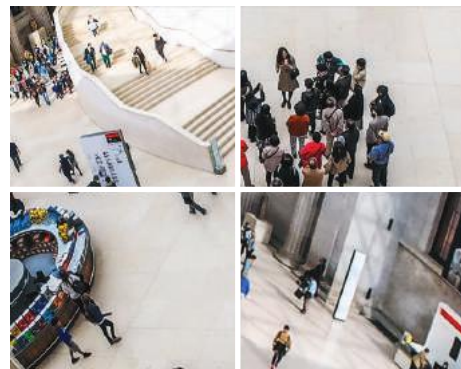
Natural and clearer image

When using a fisheye camera, it brings low image quality and image distortion at each edge of the image. However, the
Multidirectional camera with 4 sensors brings almost non image distortion and shows clearer image at each edge of the image.
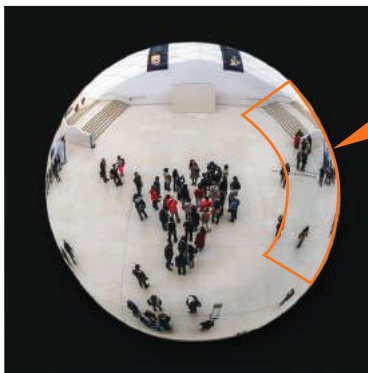
Low image quality and image
distortion at the edges.

Fisheye Camera

Clearer image and
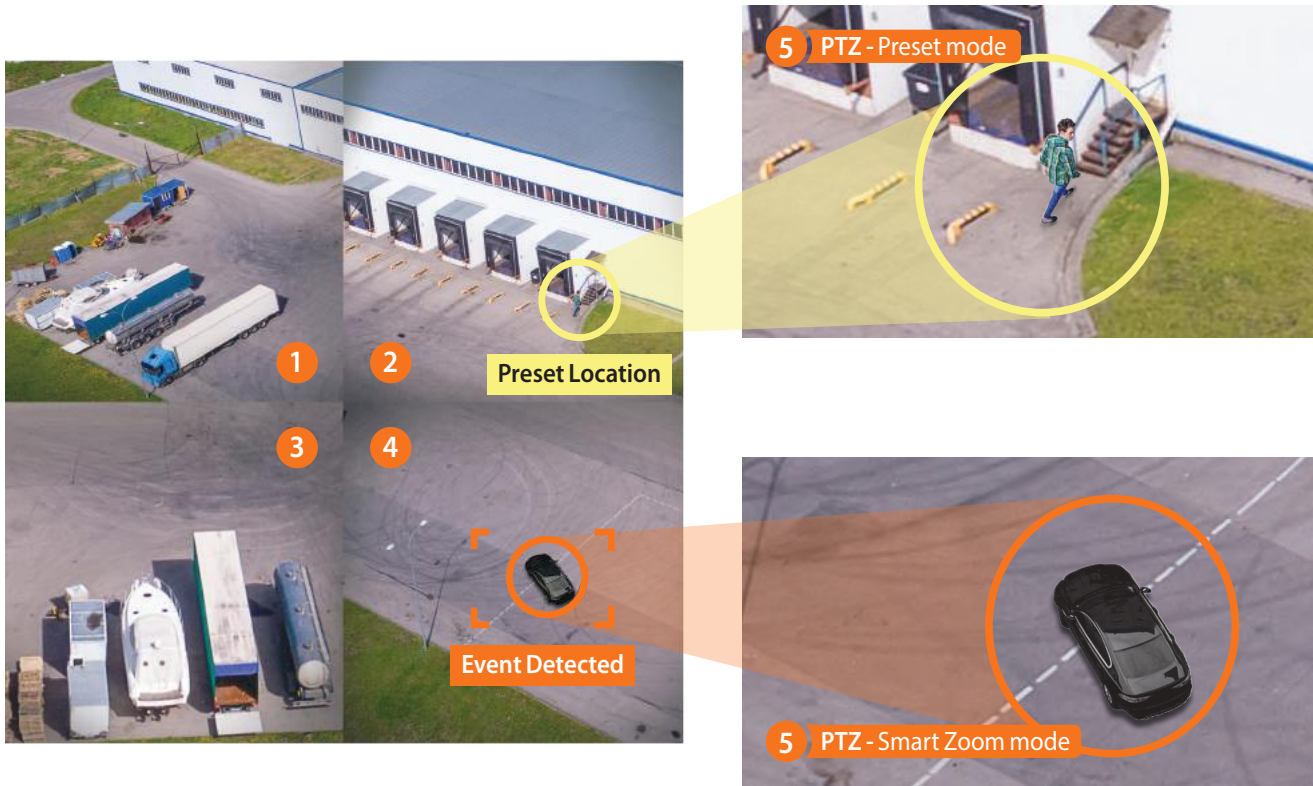almost non distortion
at the edges.

Multi-directional Camera

Multi-directional Camera with PTZ

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

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

PNM-9320VQP has a built-in 100/1000 SFP slots in its installation base which sends high resolution images to distanced locations through a network without any data damage.

Installation Base with built-in 100/1000 SFP slot

4CH Multi-directional Camera

2MP 32x PTZ Camera

PNM-9320VQP

5 PTZ - Preset mode

1 **2** Preset Location

3 **4**

Event Detected

5 PTZ - Smart Zoom mode

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

PNM-9320VQP showcases the best of 2MP 32x PTZ camera through an advanced handover function composed of preset mode and smart zoom mode. When the multi-directional camera detects an event, it automatically links to PTZ camera which carries out zoom-in and track functions.
When using preset mode, PTZ camera zooms in to the position that the users preset, while smart zoom mode automatically zooms into the area where event is detected. Create your own monitoring scenario that fit your needs by using the two modes of advanced handover to PTZ function.

Panoramic Camera

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

Panoramic cameras provide a wide panoramic view within a single camera instead of installing 4 cameras. It offers a seamless single image by merging 4 images from each sensors.

20MP
Panoramic Camera

7.3MP
Panoramic Camera

PNM-9030V

PNM-9020V

Single Panorama image (PNM-9020V)

PNM-9020V is a single channel camera that provides 7.3MP of panoramic image with 180° horizontal and 84° vertical field of view. The camera provides a single piece of high resolution panoramic view by stitching 4 images to monitor a wide range of area.

84°

180°

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

PNM-9030V can simultaneously stream a total of 7CH : a single panoramic 20MP image merged from the 4 original images, 4 of the original 5MP images from each sensor, and 2 of the 2MP crop images.

52°

220°

180° and 220° view mode for Panorama images (PNM-9030V)

The panoramic image of PNM-9030V support both 180 ° and 220 ° view modes.

· The 180 ° mode provides 180° horizontal and 70° vertical field of view, which maximizes the effectiveness with its vast vertical viewing angle.

· The 220 ° mode provides 220° horizontal and 52° vertical field of view, which can help users to monitor areas that need wider viewing angle such as corners of the building.
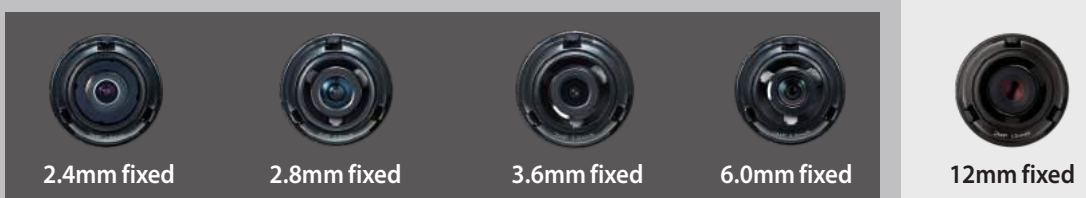

180 °

220 °

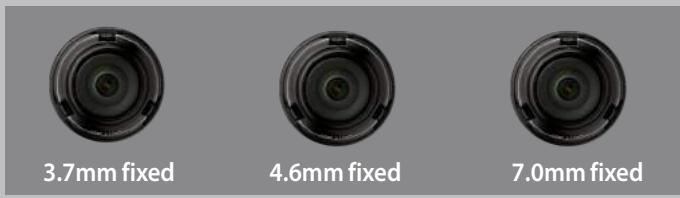# Selectable and changeable multiple lens (PNM-7000VD/9000VD/9000VQ/9320VQP)

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

| PNM-7000VD | PNM-9000VD | PNM-9000VQ | PNM-9320VQP |

1/2.8"
2MP Lens

| 2.4mm fixed | 2.8mm fixed | 3.6mm fixed | 6.0mm fixed | 12mm fixed |

1/1.8"
5MP Lens

| 3.7mm fixed | 4.6mm fixed | 7.0mm fixed |

※The applicable lens differs for each camera.

Optimized for indoor and outdoor environments

Wisenet P series panoramic and multi-directional cameras are suitable to monitor even the smallest details in a wide area. They are ideal for applications such as warehouse, shopping mall entrances, train stations, parking lots, and more supporting IP66, IK10.
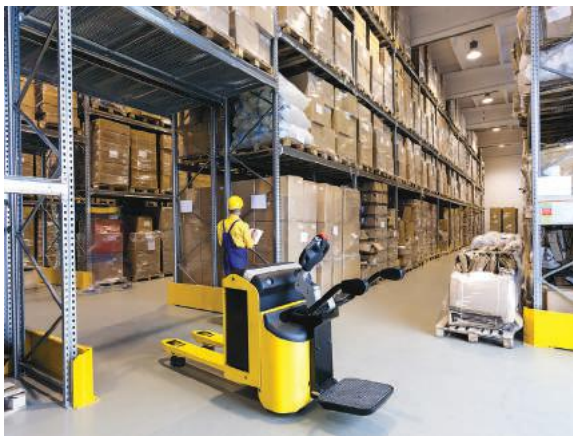
- Warehouse   · City Surveillence   · Parking lot   · Square   · Crossroads
- Mall entrance   · Airport   · Stadium   · Distribution center   · Train station

Improve bandwidth by up to 99% using WiseStream Ⅱ

When Hanwha Techwin's original video compression technology WiseStream Ⅱ is combined with H.265 compression, the bitrate data is reduced by up to 99% compared to current H.264 technology. The costs of configuring and maintaining the system are also greatly reduced, while still maintaining the same pixels and high quality.


Low movemnet

WiseStream Ⅱ OFF : 7160kbps
WiseStream Ⅱ ON : 74kbps

Medium movement

Low Compression

High Compression

WiseStream Ⅱ OFF : 7260kbps
WiseStream Ⅱ ON : 1817kbps

True WDR performance

Even with backlight, Wisenet's cutting-edge WDR technology addresses a limitation found in conventional WDR cameras while producing clear and vivid images. WDR improves the accuracy of an image by resolving the difference in brightness.

Conventional

WDR
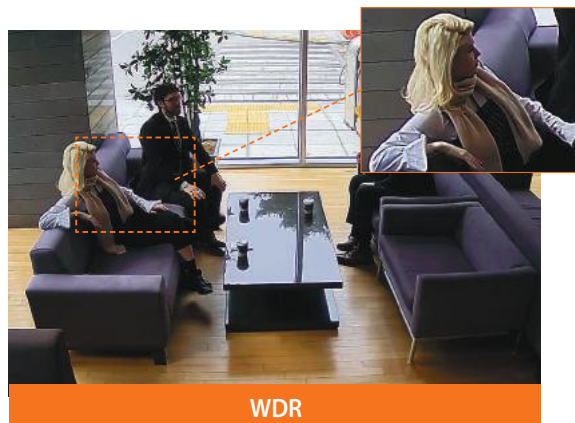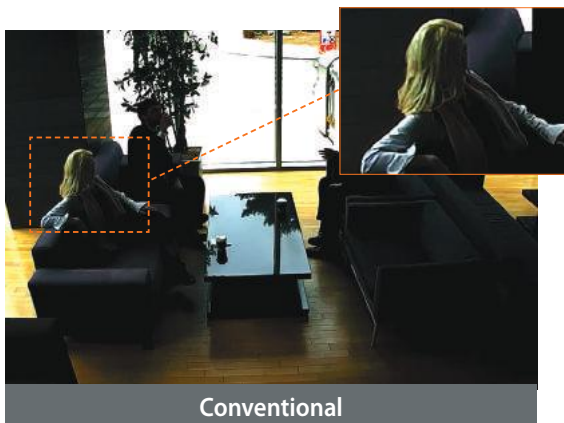
Hallway view for monitoring vertical shaped areas

In a vertical shaped environment, such as corridors, hallways, tunnels, or aisles, traditional horizontal shaped videos focus on unnecessary edges of the area causing bandwidth and storage waste. The Hallway view, 3 : 4 and 9 : 16 aspect ratio image is created : a vertically oriented video that maximizes image quality in narrow locations.

Conventional	Hallway View
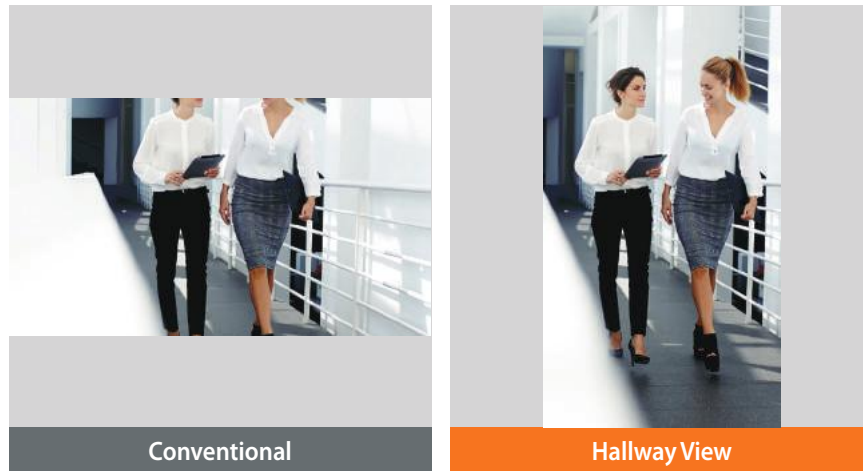
A comprehensive range of intelligent video/ audio analytics

Wisenet P series multi-sensor cameras support a variety of exclusive video and audio analytics, providing enhanced monitoring solutions and market intelligence.

Tampering	Loitering	Directional detection	Fog & Dust detection	Virtual line
Appear Disappear	Enter / Exit	Face detection	Motion detection	Audio detection
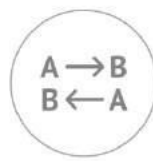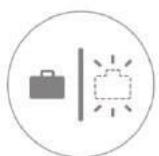
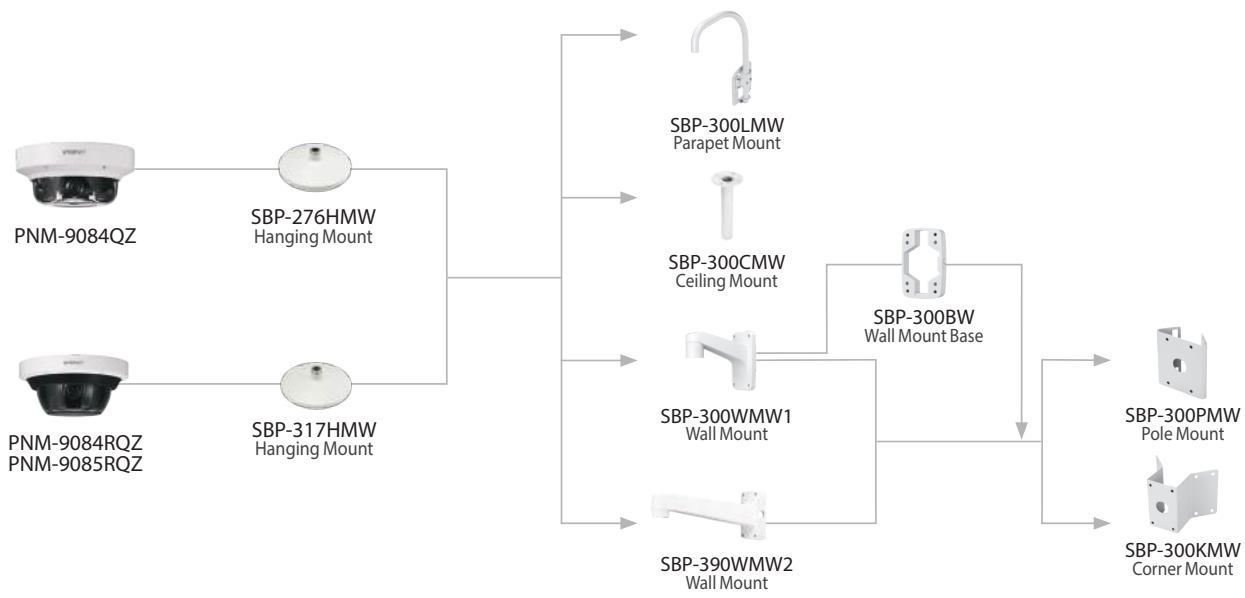※ Supported analytics may vary depending on the product.

Accessory configuration

Ivory

PNM-9020V

PNM-7000VD

PNM-9000VQ PNM-9030V

PNM-9320VQP

SBP-201HM
Hanging Mount

SBP-300HM6
Hanging Mount

SBP-276HM
Hanging Mount

SBP-300WM1
Wall Mount

SBP-300WM
Wall Mount (Swan-neck)

SBP-300LM
Parapet Mount

SBP-300CM
Ceiling Mount

SBP-390WM2
Wall Mount

SBP-300NB
Installation Box

SBP-300B
Wall Mount Base

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

White

PNM-9000VD

SBP-201HMW
Hanging Mount

SBP-300LMW
Parapet Mount

SBP-300CMW
Ceiling Mount

SBP-300WMW1
Wall Mount

SBP-300NBW
Installation Box

SBP-300BW
Wall Mount Base

SBP-300PMW
Pole Mount

SBP-300KMW
Corner Mount

Accessory configuration

PNM-9081VQ/9080VQ

Indoor
SBP-317HM
Hanging Mount

Outdoor
SBP-329HM
Hanging Mount

SBP-390WM2
Wall Mount

SBP-300WM
Wall Mount (Swan-neck)

SBP-300LM
Parapet Mount

SBP-300CM
Ceiling Mount

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

SBP-300NB
Installation Box

SBP-300B
Wall Mount Base

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

PNM-9084QZ

SBP-276HMW
Hanging Mount

PNM-9084RQZ
PNM-9085RQZ

SBP-317HMW
Hanging Mount

SBP-300LMW
Parapet Mount

SBP-300CMW
Ceiling Mount

SBP-300WMW1
Wall Mount

SBP-390WMW2
Wall Mount

SBP-300BW
Wall Mount Base

SBP-300PMW
Pole Mount

SBP-300KMW
Corner Mount

Product Comparison

	PNM-9084QZ 8MP Multi-directional Camera	**PNM-9084RQZ** 8MP IR PTRZ Multi-directional Camera	**PNM-9085RQZ** 20MP IR PTRZ Multi-directional Camera
Imaging Device	1/2.8" 2MP x 4CH	1/2.8" 2MP x 4CH	1/1.8" 5MP x 4CH
Min. Illumination	Color : 0.08lux(F2.2) BW : 0.008lux(F2.2)	Color : 0.05lux(F1.6) BW : 0Lux(IR LED on)	Color : 0.11lux(F1.6) BW : 0Lux(IR LED on)
Video Output	-	-	-
Focal Length	3 ~ 6mm (2x) motorized varifocal	3.2~10mm(3.1x) motorized varifocal	4.13~9.4mm(2.3x) motorized varifocal
Angular Field of View	H : 107˚ (Wide) ~ 56.3˚ (Tele) / V : 57˚ (Wide) ~ 31.5˚ (Tele) / D : 126˚ (Wide) ~ 64.3˚ (Tele)	H : 109.0°(Wide)~33.2°(Tele) / V : 57.4°(Wide)~18.7°(Tele) / D : 132.0°(Wide)~38.0°(Tele)	H : 87.58°(Wide)~37.34°(Tele) / V : 64.58°(Wide)~28.04°(Tele) / D : 112.46°(Wide)~46.85°(Tele)
Pan / Tilt / Rotate	0° ~ 360˚ / 0° ~ 90° / 0° ~ 90˚	0~360˚ / 30~80˚ / 0~90˚	0~360˚ / 35~80˚ / 0~90˚
IR Viewable Length	-	30m(98.42ft)	30m(98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support
Analytics	Intelligent analytics Audio detection	Intelligent analytics Audio detection	Intelligent analytics Audio detection
Business Intelligence	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F) * Start up above -35℃ (-31°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	HPoE : Max 33W typical 20W	Max : 42W Typical : 28W	Max : 45W Typical : 32W
Dimensions (WxHxD) / Weight	Ø251 x 116.5mm (Ø9.88" x 4.59") 3Kg (6.6 lb)	Ø315x145.9mm (12.4" x 5.74") 5.2kg(11.46lb)	Ø315 x 145.9mm (12.4" x 5.74")
Additional Features	Motorized PTRZ, Hallway view, Defog	Motorized PTRZ	Motorized PTRZ

Product Comparison

	PNM-7000VD 4MP Multi-directional Camera	SLA-2M6000D 2MP lens for PNM-7000VD	SLA-2M3600D 2MP lens for PNM-7000VD	SLA-2M2800D 2MP lens for PNM-7000VD	SLA-2M2400D 2MP lens for PNM-7000VD
Imaging Device	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS 1.0 Vp-p	-	-	-	-
Focal Length	-	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	-	H : 50.4˚ / V : 28.8˚ / D : 58.1˚	H : 94.8˚ / V : 49.3˚ / D : 114.3˚	H : 107.4˚ / V : 62.2˚ / D : 122.0˚	H : 135.4˚ / V : 71.2˚ / D : 161.6˚
Pan / Tilt / Rotate	-	±176° / 0˚ ~ 65˚ / ±90˚	±176° / 0˚ ~ 54˚ / ±90˚	±176° / 0˚ ~ 50˚ / ±90˚	±176° / 0˚ ~ 30˚ / ±90˚
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-
Analytics	Intelligent analytics	-	-	-	-
Business Intelligence	-	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio I/O	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps	-	-	-	-
WiseStream	WiseStream II	-	-	-	-
Streaming	Up to 10 Profiles	-	-	-	-
Edge Storage	SD/SDHC/SDXC	-	-	-	-
Application Programming Interface	ONVIF Profile S, SUNAPI	-	-	-	-
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-	-	-	-
Certification	IP66, IK10	-	-	-	-
Power Consumption	PoE : 12.95W	-	-	-	-
Dimensions (WxHxD) / Weight	Ø161.0 x 73.0mm (Ø6.34" x 2.87") 840g (1.85 lb)	Ø35.5 x 27.9mm (Ø1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (Ø1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (Ø1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (Ø1.4" x 1.1") 27g (0.06 lb)
Additional Features	Exchangeable 2ea x 2MP lens modules, Hallway view, Defog	-	-	-	-

	PNM-9000VD 10MP Multi-directional Camera	SLA-5M7000D 5MP lens for PNM-9000VD	SLA-5M4600D 5MP lens for PNM-9000VD	SLA-5M3700D 5MP lens for PNM-9000VD
Imaging Device	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS
Min. Illumination	-	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	-	H : 50.7˚ / V : 37.8˚ / D : 63.8˚	H : 77.9˚ / V : 57.9˚ / D : 98.7˚	H : 97.5˚ / V : 71.9˚ / D : 126.2˚
Pan / Tilt / Rotate	-	±90˚ / 36˚ ~ 73˚ / ±180˚	±90˚ / 36˚ ~ 73˚ / ±180˚	±90˚ / 36˚ ~ 73˚ / ±180˚
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Intelligent analytics	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S/G, SUNAPI, Wisenet open platform	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	PoE : 12.95W	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1250g (2.76 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	Exchangeable 2ea x 5MP lens modules, Hallway view, Defog	-	-	-

	PNM-9000VQ Max. 20MP Multi-directional Camera	SLA-5M7000Q 5MP lens for PNM-9000VQ	SLA-5M4600Q 5MP lens for PNM-9000VQ	SLA-5M3700Q 5MP lens for PNM-9000VQ
Imaging Device	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS
Min. Illumination	-	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	-	H : 50.7˚ / V : 37.8˚ / D : 63.8˚	H : 77.9˚ / V : 57.9˚ / D : 98.7˚	H : 97.5˚ / V : 71.9˚ / D : 126.2˚
Pan / Tilt / Rotate	-	±90˚ / 40˚ ~ 89˚ / ±180˚	±90˚ / 50˚ ~ 80˚ / ±180˚	±90˚ / 59˚ ~ 66˚ / ±180˚
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB (2MP), 120dB (5MP)	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Intelligent analytics	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S, SUNAPI	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	PoE+ : 25.5W	-	-	-
Dimensions (WxHxD) / Weight	Ø253 x 130mm (Ø9.96" x 5.12") 3.0 kg (6.7 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-

	SLA-2M6000Q 2MP lens for PNM-9000VQ	SLA-2M3600Q 2MP lens for PNM-9000VQ	SLA-2M2800Q 2MP lens for PNM-9000VQ	SLA-2M2400Q 2MP lens for PNM-9000VQ
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	-	-	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	H : 50.4˚ / V : 28.8˚ / D : 58.1˚	H : 94.8˚ / V : 49.3˚ / D : 114.3˚	H : 107.4˚ / V : 62.2˚ / D : 122.0˚	H : 135.4˚ / V : 71.2˚ / D : 161.6˚
Pan / Tilt / Rotate	±90° / 30˚ ~ 89˚ / ±180˚	±90° / 37˚ ~ 89˚ / ±180˚	±90° / 40˚ ~ 89˚ / ±180˚	±90° / 62˚ / ±180˚
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	-	-	-	-
Analytics	-	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	-	-	-	-
Resolution / Max. Frame Rate	-	-	-	-
WiseStream	-	-	-	-
Streaming	-	-	-	-
Edge Storage	-	-	-	-
Application Programming Interface	-	-	-	-
Operating Temperature	-	-	-	-
Certification	-	-	-	-
Power Consumption	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)
Additional Features	-	-	-	-

	PNM-9320VQP	SLA-5M7000P	SLA-5M4600P	SLA-5M3700P	SLA-2M6000P
	20MP Multi-directional + 2MP 32x PTZ	5MP lens for PNM-9320VQP	5MP lens for PNM-9320VQP	5MP lens for PNM-9320VQP	2MP lens for PNM-9320VQP
Imaging Device	1/2.8" 2.4MP CMOS (PTZ)	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Color : 0.05Lux (F1.6) BW : 0.005Lux (F1.6) (PTZ)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS 1.0 Vp-p (Multi)	-	-	-	-
Focal Length	4.44 ~ 142.6mm (Optical 32x) F1.6 (Wide) / F4.4 (Tele) (PTZ)	7.0mm fixed	4.6mm fixed	3.7mm fixed	6.0mm fixed
Angular Field of View	H : 61.8°(Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele) (PTZ)	H : 50.7˚ / V : 37.8˚ / D : 63.8˚	H : 77.9˚ / V : 57.9˚ / D : 98.7˚	H : 97.5˚ / V : 71.9˚ / D : 126.2˚	H : 50.4˚ / V : 28.8˚ / D : 58.1˚
Pan / Tilt / Rotate	360° Endless / 190° (-5° ~ 185°) (PTZ)	±90° / +12˚ ~ +93˚ / ±180˚	±90° / +21˚~ +85˚ / ±180˚	±90° / +36˚ ~ +73˚ / ±180˚	±90° / +10˚ ~ +95˚ / ±180˚
IR Viewable Length	-	-	-	-	-
Day & Night	Electrical (Multi), ICR (PTZ)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB (2MP), 120dB (5MP)	120dB	120dB	120dB	150dB
Digital Noise Reduction	SSNRV	-	-	-	-
Digital Image Stabilization	Support (Built-in Gyro sensor - PTZ)	-	-	-	-
Analytics	Intelligent analytics * Defocus detection (Multi)	-	-	-	-
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 2	-	-	-	-
Audio I/O	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	-	-	-	-
WiseStream	WiseStream II	-	-	-	-
Streaming	Up to 10 Profiles	-	-	-	-
Edge Storage	SD/SDHC/SDXC	-	-	-	-
Application Programming Interface	ONVIF Profile S, SUNAPI	-	-	-	-
Operating Temperature	-35℃ ~ +55℃ (-31°F ~ +131°F)	-	-	-	-
Certification	IP66, IK10	-	-	-	-
Power Consumption	HPoE : Max 65W	-	-	-	-
Dimensions (WxHxD) / Weight	Ø367.8 x 381.5mm (Ø144.49" x 15.02") 7.05kg (16.1 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-	-

	SLA-2M3600P 2MP lens for PNM-9320VQP	SLA-2M2800P 2MP lens for PNM-9320VQP	SLA-2M2400P 2MP lens for PNM-9320VQP	SLA-2M1200P 2MP lens for PNM-9320VQP
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	-	-	-	-
Focal Length	3.6mm fixed	2.8mm fixed	2.4mm fixed	12mm fixed
Angular Field of View	H : 94.8˚ / V : 49.3˚ / D : 114.3˚	H : 107.4˚ / V : 62.2˚ / D : 122.0˚	H : 135.4˚ / V : 71.2˚ / D : 161.6˚	H : 26.3˚ / V : 14.9˚ / D : 30.0˚
Pan / Tilt / Rotate	±90° / +22˚ ~ +84˚ / ±180˚	±90° / +26˚ ~ +80˚ / ±180˚	±90° / +52˚ ~ +56˚ / ±180˚	±90° / +10˚ ~ +97˚ / ±180˚
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	-	-	-	-
Analytics	-	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	-	-	-	-
Resolution / Max. Frame Rate	-	-	-	-
WiseStream	-	-	-	-
Streaming	-	-	-	-
Edge Storage	-	-	-	-
Application Programming Interface	-	-	-	-
Operating Temperature	-	-	-	-
Certification	-	-	-	-
Power Consumption	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)
Additional Features	-	-	-	-

	PNM-9030V 15MP 180°/220° Panoramic Camera	PNM-9020V 7.3MP 180° Panoramic Camera	PNM-9081VQ 20MP Multi-directional Camera	PNM-9080VQ 8MP Multi-directional Camera
Imaging Device	1/2.8" 5MP x 4CH	7.3MP (2MP x 4CH)	1/1.8" 6MP x 4CH	1/2.8" 2.38MP x 4CH
Min. Illumination	Color : 0.15Lux (F2.0) B/W : 0.01Lux (F2.0)	Color : 0.3Lux (F2.0) B/W : 0.03Lux (F2.0)	Color : 0.007Lux (F1.2) B/W : 0.007Lux (F1.2)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)
Video Output	Micro USB Type B	-	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	4mm fixed	3.6mm fixed	3 ~ 6mm (2x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	[180° mode] H : 180° / V : 70° [220° mode] H : 220° / V : 52°	[Total 4sensor] H : 180° / V : 84°	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 60° / -	0° ~ 355° / 0° ~ 60° / -	[Quad mode] ±30° / 10° ~ 41° / ±90°, [Center mode] ±60° / 10° ~ 41°, 10° ~ 90°(CH2/Center) / ±90°	[Quad mode] ±30° / 10° ~ 41° / ±90°, [Center mode] ±60° / 10° ~ 41°, 10° ~ 90°(CH2/Center) / ±90°
IR Viewable Length	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	-	120dB	150dB
Digital Noise Reduction	SSNR III	SSNR III	SSNRV	SSNRV
Digital Image Stabilization	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection	Intelligent analytics	Intelligent analytics
Business Intelligence	Heatmap	Heatmap	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Line in / Line out	Line in / Line out	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	15.5MP / 30fps	7.3MP / 30fps	5MP / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream	WiseStream II	WiseStream II
Streaming	Up to 5 or 3 profiles for each CH	Up to 10 profiles	Up to 40 profiles	Up to 40 profiles
Edge Storage	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI, Wisenet Open Platform	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -30°C (-22°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE+ : Max 25.5W 12VDC : Max 21.0W	PoE+ : Max 25.5W - Heater on 12VDC : Max 21.0W - Heater on	HPoE : Max 33.6W 12VDC : Max 28.8W	PoE+ : Max 25.5W 12VDC : Max 21.6W
Dimensions (WxHxD) / Weight	Ø253 x H165mm (Ø9.96" x 6.5") 3.2Kg (7.1lb)	Ø199.0 x 143.5mm (Ø7.83" x 5.65") 2.03Kg (4.5 lb)	Ø314 x 152mm (Ø12.36" x 5.98") 4.89kg (10.78 lb)	Ø314 x 152mm (Ø12.36" x 5.98") 4.83kg (10.65 lb)
Additional Features	Defog	Defog	Hallway view, Defog	Hallway view, Defog

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