Remote Camera System – Specifications & Dimensions

AW-UE70W/K   AW-UN70W/K

General

General	
Power Requirements	DC 12 V (Supplied AC adaptor) DC 42 V to 57 V (PoE+ power supply)
Current consumption	1.3 A (Supplied AC adaptor) 0.5 A (PoE+ power supply)
Ambient Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage Temperature	–20 °C to 50 °C (–4 °F to 122 °F)
Allowable Humidity Ranges	20 % to 90 % (no condensation)
Mass	Approx. 1.5 kg (3.30 lb)
Dimensions (W x H x D)	160 mm x 186 mm x 179 mm (6-5/16 inches x 7-41/128 inches x 7-3/64 inches) [excluding protrusions, direct ceiling mount bracket]
Finish	[AW-UE70W/AW-UN70W] Pearl white [AW-UE70K/AW-UN70K] Metallic black
Controller Supported*1	AW-RP50, AW-RP120G, AK-HRP200G

Camera Unit

Camera Unit		
Imaging Sensors		1/2.3-type MOS
Lens		Optical 20x zoom, F1.8 to F3.6 [f=4.08 mm (5/32 inches) to 81.6 mm (3-7/32 inches); 35 mm (1-3/8 inches)equivalent: 29.5 mm (1-5/32 inches) to 612.0 mm (24-3/32 inches)]
Focus		Switching between auto and manual
Focus distance		Entire zooming range:1.5 m (4.92 ft) Wide end: 10 cm (0.33 ft)
Color separation optical system		On-chip color filter system
Minimum Illumination	59.94 Hz	0.7 lx (50 IRE, F1.8, 48 dB,1/60 without accumulation) 0.35 lx (50 IRE, F1.8, 48 dB,1/30 with accumulation [Frame Mix 6 dB])
	50 Hz	0.7 lx (50 IRE, F1.8, 48 dB,1/50 without accumulation) 0.35 lx (50 IRE, F1.8, 48 dB,1/25 with accumulation [Frame Mix 6 dB])
Horizontal Resolution		4K : 1300 TV lines Typ (Center area) HD : 1000 TV lines Typ (Center area)
Gain Selection*2		Auto, 0 dB to 48 dB (3 dB step)
Frame Mix*3		Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB
ND filter		Auto*4, Through, 1/4, 1/16, 1/64
Electronic Shutter Speed	During Full Auto	1/60 to 1/2000 (Auto Slow Shutter: Off)[59.94 Hz] 1/30 to 1/2000 (Auto Slow Shutter: On)[59.94 Hz] 1/50 to 1/2000 (Auto Slow Shutter: Off)[50 Hz] 1/25 to 1/2000 (Auto Slow Shutter: On)[50 Hz]
	During Auto	1/60 to 1/2000 [59.94 Hz] 1/50 to 1/2000 [50 Hz]
	During Manual	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [59.94 Hz] 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [50 Hz]
Synchro Scan	59.94 Hz	59.94 Hz to 660.09 Hz (255 step)
	50 Hz	50.00 Hz to 570.12 Hz (255 step)
Gamma		Off, Normal (Low, Mid, High), Cinema
White Balance		ATW, AWB A, AWB B, ATW, 3200K,5600K, VAR (2400K to 9900K)
Chroma Amount Variability		±3 step
Scene File		Full Auto, Manual1, Manual2, Manual3

Synchronization System

Synchronization System	
Synchronization System	Internal synchronization/External synchronization (BBS, Tri-level sync)

Image Stabilization

Image Stabilization	
Image Stabilization	Optical (FHD, 4K)/4-axis hybrid image stabilizer (FHD) for stable

Input

Input	
Power	DC 12 V IN, PoE+ (IEEE802.3at standard)
MIC/LINE Input	Stereo mini-jack (ø3.5 mm) Input impedance: Approx. 2 kΩ (unbalanced) [Mic input] •Supported microphones: Stereo mic (plug-in power, on/off switching via menu) •Supplied voltage: 2.5 V ± 0.5 V •Mic input level: –60 dBV ± 3 dBV (0 dB=1 V/Pa,1 kHz) [Line input] •Input level: -10 dBV ± 3 dBV
G/L IN	BBS (Black Burst Sync) signal and tri-level sync supported (BNC x 1)

Output

Output		
Video Output	HDMI	HDMI connector • HDCP is not supported. • VIERA Link is not supported.
	3G/HD-SDI OUT	Compliant with the SMPTE424/SMPTE292M standards/75 Ω (BNC x 1)

Input/Output

Input/Output		
Input/Output Connnector	LAN	LAN connector for IP control (RJ-45) Equipped with straight/crossover cable auto detection function
	RS-232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)
	RS-422	CONTROL IN RS422A (RJ-45)
	USB	Mini-B port
	SD Card	microSD card slot

USB connection * This may vary depending on the operating environment.

USB connection	
Video output	USB Video Class Ver1.0
Video compression format	Motion JPEG
Resolution	3840 x 2160, 1920 x 1080, 1280 x 720, 640 x 360
Frame rate	max 30 fps (59.94 Hz) max 25 fps (50 Hz)
Audio output	USB Audio Class Ver1.0
Audio compression format	Linear PCM, 48 kHz, 16-bit, 2 channels
Transfer modes(JPEG)	3840 x 2160 59.94 Hz: 5fps, 50 Hz: 5fps 1920 x 1080/1280 x 720/640 x 360 59.94 Hz: 30fps/15fps/5fps, 50 Hz: 25fps/12.5fps/5fps
Supported models	Devices standardly equipped with a USB 2.0 compatible port

Pan–tilt Head Unit

Pan–tilt Head Unit	
Installation Method	Stand-alone (Desktop) or suspended (Hanging)*5
Pan/tilt Operation Speed	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s
Panning Range	±175°
Tilting Range*5	–30° to 90°*6
Quietness	During preset: NC40 or less During manual: NC35 or less

Camera/pan–tilt head control

Camera/pan–tilt head control	
IP connecting cable	• When connecting through a PoE+ hub: LAN cable*7 (category 5e or above), max. 100 m (328 ft) • When a PoE+ hub is not used: LAN cable*7 (category 5 or above) max.100 m (328 ft)
AW protocol connecting cable	LAN cable*7 (category 5 or above,straight cable), max. 1000 m (3280 ft)
Standard protocol connecting cable	Mini DIN 8-pin cable, male

SD card recording

SD card recording		
SD card recording		MPEG-4 AVC file standard compliant (.MP4)
Video compression format		MPEG-4 AVC/H.264 High Profile
Audio compression format		AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)
Recording format /Bit rate	59.94 Hz	3840 x 2160/29.97p (Up to 72 Mbps), 1920 x 1080/59.94p (Up to 28 Mbps), 1920 x 1080/29.97p (Average 15 Mbps/ Average 10 Mbps/Average 6 Mbps), 1280 x 720/59.94p (Average 15 Mbps), 1280 x 720/29.97p (Average 8 Mbps/ Average 4 Mbps/Average 2 Mbps/Average 1 Mbps)
	50 Hz	3840 x 2160/25p(Up to 72 Mbps), 1920 x 1080/50p(Up to 28 Mbps), 1920 x 1080/25p(Average 15 Mbps/ Average 10 Mbps/Average 6 Mbps), 1280 x 720/50p(Average 15 Mbps), 1280 x 720/25p(Average 8 Mbps/ Average 4 Mbps/Average 2 Mbps/Average 1 Mbps)

Network

Network		
Transfer modes	JPEG	1920 x 1080, 1280 x 720, 640 x 360, 320 x 180, 59.94 Hz (30fps/15fps/5fps)*8, 50 Hz (25fps/12.5fps/5fps)*8
	H.264	3840 x 2160, 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180, 59.94 Hz (60fps*9/30fps/15fps/5fps)*8, 50 Hz (50fps*9/25fps/12.5fps/5fps)*8

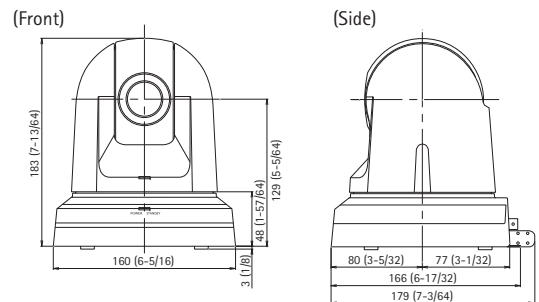| Supported protocol	IPv4	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
	IPv6	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS,NTP, ICMPv6(MLD), RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
i-OS, Android support		JPEG image display

Standard Accessories

Mount bracket for installation surface (Hanging*10 / Desktop): 1, Drop-prevention wire (already attached to the unit): 1, Bracket mounting screws (bind-head) M4 x 10 mm: 4, Main unit mounting screw (with flat washer, spring washer) M3 x 6 mm: 1, Power cable (1.5 m [4.92 ft]): 1, AC adaptor: 1, CD-ROM: 1

* 1: It may be necessary to upgrade the version of the controller so that the controller will support the unit. * 2: During Auto, 6 dB to 48 dB (6 dB step) are available for AGC Max Gain setting. * 3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting. * 4: "Auto" is available when "Scene" setting is "Full Auto". * 5: To ensure safety, the unit must be secured using the mount bracket supplied. * 6: Depending on the pan or tilt position, the camera may be reflected in the image. * 7: Use of an STP (shielded twisted pair) cable is recommended. *8: The frame rate may be lower than the setting depending on the operating conditions. * 9: When the image resolution is "3840x2160", "640x360" or"320x180", 60fps or 50fps cannot be selected for the frame rate. *10: To ensure more safety, AW-UE70W/K can be secured by using the direct ceiling mount bracket (WV-Q105A).
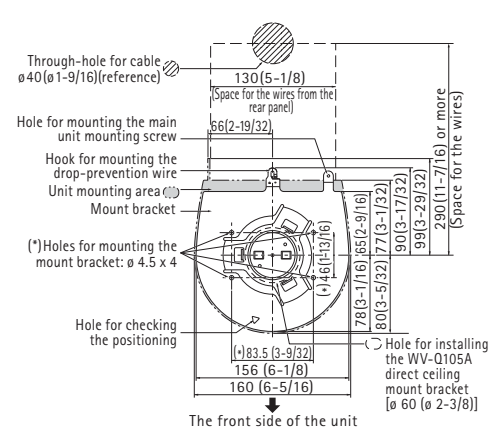
Dimensions

Unit: mm(inches)

(Front)   (Side)
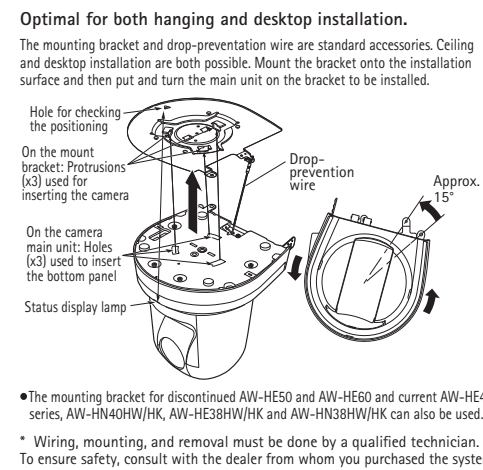

183 (7-13/64)   129 (5-5/64)   48 (1-57/64)   3 (1/8)   160 (6-5/16)   80 (3-5/32)   77 (3-1/32)   166 (6-17/32)   179 (7-3/64)

Rear View

Bottom View

Unit: mm(inches)

Through-hole for cable ø40(ø1-9/16)(reference)

Hole for mounting the main unit mounting screw

Hook for mounting the drop-prevention wire

Unit mounting area

Mount bracket

(*)Holes for mounting the mount bracket: ø 4.5 x 4

Hole for checking the positioning

130(5-1/8)
(Space for the wires from the rear panel)

66(2-19/32)

290(11-7/16) or more (Space for the wires)

99(3-29/32)
90(3-17/32)
77(3-1/32)
65(2-9/16)
46(1-13/16)
78(3-1/16)
80(3-5/32)

(*)83.5 (3-9/32)
156 (6-1/8)
160 (6-5/16)

Hole for installing the WV-Q105A direct ceiling mount bracket [ø 60 (ø 2-3/8)]

The front side of the unit

Ceiling Installation View

Optimal for both hanging and desktop installation.

The mounting bracket and drop-preventation wire are standard accessories. Ceiling and desktop installation are both possible. Mount the bracket onto the installation surface and then put and turn the main unit on the bracket to be installed.

Hole for checking the positioning

On the mount bracket: Protrusions (x3) used for inserting the camera

On the camera main unit: Holes (x3) used to insert the bottom panel

Status display lamp

Drop-prevention wire

Approx. 15°

●The mounting bracket for discontinued AW-HE50 and AW-HE60 and current AW-HE40 series, AW-HN40HW/HK, AW-HE38HW/HK and AW-HN38HW/HK can also be used.

* Wiring, mounting, and removal must be done by a qualified technician. To ensure safety, consult with the dealer from whom you purchased the system.

Remote Camera System – Specifications & Dimensions

AW-HE130W/K   AW-HN130W/K

General

General	
Power Requirements	DC 12 V (AC adaptor supplied) DC 42 - 57 V (PoE+ power supply) 1.8 A (AC adaptor supplied) 0.6 A (PoE+ power supply)
Ambient Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Allowable Humidity Ranges	20 % to 90 % (no condensation)
Storage Temperature	−20 °C to 50 °C (−4 °F to 122 °F)
Mass	Approx. 3.1 kg (6.83 lb) [Including mount bracket]
Dimensions (W x H x D)	180 mm x 228 mm x 234 mm (7-3/32 inches x 9 inches x 9-3/16 inches) (excluding protrusions, cable cover, direct ceiling mount bracket)
Finish	[AW-HE130WP/AW-HE130WE/AW-HN130W] Pearl white [AW-HE130KP/AW-HE130KE/AW-HN130K] Metallic black
Controller Supported*1	AW-RP120G, AW-RP50, AK-HRP200G

Camera Unit

Camera Unit		
Imaging Sensors		1/2.86-type Full-HD 3MOS
Lens		Optical 20 zoom, F1.6 to F3.4 (f=4.5 mm to 90 mm; 35 mm equivalent: 32.13 mm to 642.5 mm)
Focus		Switching between auto and manual
Focus Distance		Entire zooming range: 800 mm (2.62 ft) Wide end: 400 mm (1.31 ft)
Color Separation Optical System		3MOS
Minimum Illumination		2 lx (50 IRE, F1.6, 36 dB)
Horizontal Resolution		1000 TV lines Typ (Center area)
Gain Selection		Auto, 0 dB to 36 dB
Frame Mix*2		0 dB, 6 dB, 12 dB, 18 dB, 24 dB
Electronic Shutter Speed	59.94p/ 59.94i	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	29.97p	1/30, 1/60, 1/120, 1/250, 1/500,1/1000, 1/2000, 1/4000, 1/10000
	23.98p	1/24, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	50p/50i	1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	25p	1/25, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
Synchro Scan	59.94 Hz	60.15 Hz to 642.21 Hz
	50 Hz	50.15 Hz to 535.71 Hz
Gamma		HD, SD, FILMLIKE1, FILMLIKE2, FILMLIKE3 0.30 to 0.75 (Manual setting)
White Balance		AWB A, AWB B, ATW, 3200K, 5600K, VAR (2000K to 15000K)
Chroma Amount Variability		OFF, -99 % to 40 %
Scene File		Scene1, Scene2, Scene3, Scene4

Synchronization System

Synchronization System	
Synchronization System	Internal/External synchronization (BBS/Tri-level sync)

Input

Input	
Input Connector	DC 12 V IN, G/L IN (BNC) • BBS (Black Burst Sync), tri-level sync supported • Locking to a color subcarrier is not possible with BBS. PoE+ (IEEE802.3at standard)

Output

Output		
Video output	HDMI	HDMI connector • HDCP is not supported. • Viera Link is not supported.
	3G/HD/ SD-SDI OUT	SMPTE424/SMPTE292/ SMPTE259 standards 75 Ω (BNC x 1)
	VIDEO OUT	NTSC/PAL 1.0 V [p-p]/75 Ω (BNC x 1)

Input/Output

| Input/Output		
Input/Output connector	LAN	LAN connector for IP control (RJ-45), PoE+
	RS-422	CONTROL IN RS-422A (RJ-45)
	MIC/LINE input	ø3.5 mm stereo mini jack Input impedance: High impedance • During MIC input Supported mic: Stereo mic (plug-in power, on/off switching via menu) • Supply voltage: 2.5 V ± 0.5 V Mic input sensitivity: Approx. −40 dBV ± 3 dBV (0 dB=1 V/Pa, 1 kHz) • During LINE input Input level: Approx. -10 dBV ±3 dBV

Pan-tilt Head Unit

Pan-tilt Head Unit	
Installation Method	Stand-alone (Desktop) or suspended (Hanging)*3
Camera/Pan-tilt Head Control	IP connecting cable • When connecting through a PoE+ hub: LAN cable*4 (category 5e or above, straight cable), max. 100 m (328 ft) • When a PoE+ hub is not used: LAN cable*4 (category 5 or above, crossover cable) max.100 m (328 ft) RP connecting Cable LAN cable*4 (category 5 or above, straight cable), max. 1000 m (3280 ft) RS-422A, AW series protocol
Pan-tilt Operation Speed	0.08°/s to 60°/s
Panning Range	±175°
Tilting Range*7	−30° to 210°*5
Quietness	NC35 or less

Standard Accessories

Mount bracket for installation surface (Hanging*6 / Desktop): 1, Drop-prevention wire: 1, Drop-prevention wire mounting screw (comes attached to the unit): 1, Bracket mounting screws (bind-head) M4 x 10 mm: 4, Main unit mounting screw (with flat washer,spring washer) M3 x 6 mm: 1, Cable cover: 1, Power cable: 1, AC adaptor: 1, CD-ROM

*1: It may be necessary to upgrade the version of the controller in order to support the unit. For details on upgrading, visit the support page on the following website (https://pro-av.panasonic.net/). *2: This cannot be configured when the format is 1080/29.97p, 1080/23.98p, 1080/29.97PsF 1080/23.98PsF, 1080/25p, or 1080/25PsF. *3: To ensure safety, the unit must be secured using the mount bracket supplied. *4: Use of an STP (shielded twisted pair) cable is recommended. *5: Depending on the pan or tilt position, the camera may be reflected in the image. *6: To ensure more safety, AW-HE130W/K can be secured by using the direct ceiling mount bracket (WV-Q105A).

Dimensions

Unit: mm(inches)

(Front)   (Side)
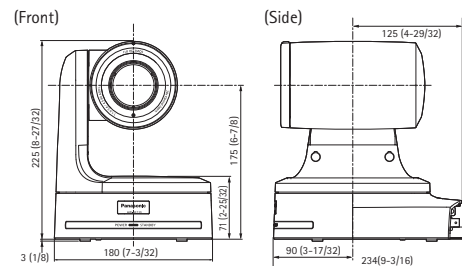
Pin Configuration

(Common for AW-UE70W/K, AW-UN70W/K, AW-HE130W/K, AW-HN130W/K, AW-HE40 series, AW-HN40HW/HK, AW-HE38HW/HK, AW-HN38HW/HK)

RS-422 Connector <RS-422>

This RS-422 connector (RJ45) is connected when exercising serial control over the unit from an external device. Use a cable with the following specifications for the connection to this connector. The tally lamp can be lit by shorting the TALLY signal (pin 2) with GND (pin 1).
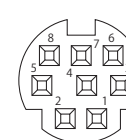• Do not apply a voltage to the TALLY signal pin.

LAN cable*1(category 5 or above, straight cable), max. 1000 m (3280 ft)
* Use of an STP (shielded twisted pair) cable is recommended.

Pin NO.	Signal	Pin NO.	Signal
1	GND	5	TXD+
2	TALLY	6	RXD+
3	RXD−	7	—
4	TXD−	8	—

RS-232C Connectors <RS-232C IN/OUT>

Connects to an RS-232C cable.

	RS-232C IN		RS-232C OUT
Pin NO.	Signal	Pin NO.	Signal
1	DTR_IN	1	DTR_OUT
2	DSR_IN	2	DSR_OUT
3	TXD_IN	3	TXD_OUT
4	GND	4	GND
5	RXD_IN	5	RXD_OUT
6	GND	6	GND
7	IR OUT R	7	NC
8	IR OUT L	8	NC

Rear View

Bottom View
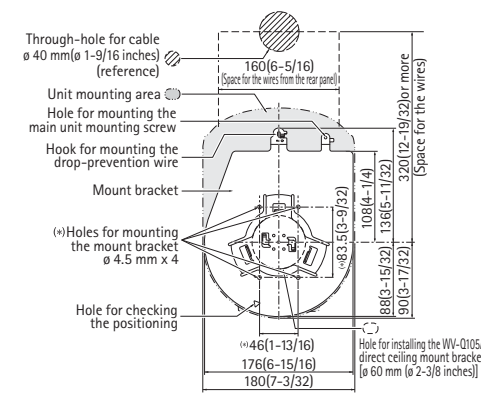
Unit: mm(inches)

Through-hole for cable ø 40 mm(ø 1-9/16 inches) (reference)
Unit mounting area
Hole for mounting the main unit mounting screw
Hook for mounting the drop-prevention wire
Mount bracket
(*)Holes for mounting the mount bracket ø 4.5 mm x 4
Hole for checking the positioning
160(6-5/16) (Space for the wires from the rear panel)
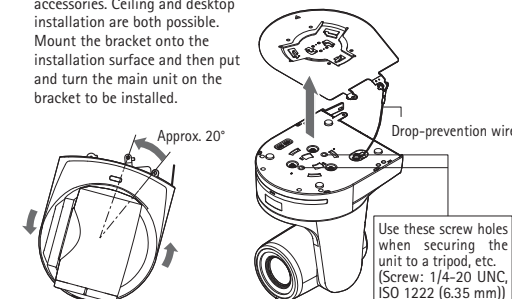Hole for installing the WV-Q105A direct ceiling mount bracket [ø 60 mm (ø 2-3/8 inches)]

The front panel of the unit on this side.

Ceiling Installation View

Optimal for both hanging and desktop installation.

The mounting bracket and drop-preventation wire are standard accessories. Ceiling and desktop installation are both possible. Mount the bracket onto the installation surface and then put and turn the main unit on the bracket to be installed.

Approx. 20°
Drop-prevention wire
Use these screw holes when securing the unit to a tripod, etc. (Screw: 1/4-20 UNC, ISO 1222 (6.35 mm))

● AW-HE120W/K installation mount bracket can be used. The mounting bracket for HE130 differs from that of discontinued AW-HE50 and AW-HE60 and current AW-UE70W/K, AW-UN70W/K, AW-HE40 Series, AW-HN40HW/HK, AW-HE38HW/HK and AW-HN38HW/HK.

* Wiring, mounting, and removal must be done by a qualified technician. To ensure safety, consult with the dealer from whom you purchased the system.

Remote Camera System – Specifications & Dimensions

AW–HE40SW/SK/HW/HK   AW–HN40HW/HK

General

Power Requirements	DC 12 V (Supplied AC adaptor) DC 42 - 57 V (PoE+ power supply)
Current Consumption	1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)
Ambient Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Allowable Humidity Ranges	20 % to 90 % (no condensation)
Storage Temperature	–20 °C to 50 °C (–4 °F to 122 °F)
Mass	Approx. 1.5 kg (3.30 lb)
Dimensions (W x H x D)	160 mm x 186 mm x 166 mm (6–5/16 inches x 7–41/128 inches x 6–17/32 inches) (excluding protrusions, direct ceiling mount bracket)
Finish	AW–HE40HW / AW–HE40SW / AW–HN40HW: Pearl white AW–HE40HK / AW–HE40SK / AW–HN40HK: Metallic black
Controller Supported*1	AW–RP50, AW–RP120G, AK–HRP200G

Camera Unit

Imaging Sensors		1/2.3–type MOS
Lens		Optical 30x zoom, F1.6 to F4.7[f=4.3 mm (11/64 inches) to 129 mm (5–5/64 inches); 35 mm (1–3/8 inches) equivalent: 31.6 mm (1–31/128 inches) to 962.0 mm (37–7/8 inches)]
Focus		Switching between auto and manual
Focus Distance		Entire zooming range: 1.2 m (3.94 ft) Wide end: 10 cm (0.33 ft)
Color Separation Optical System		On-chip color filter system
Minimum Illumination	59.94 Hz	0.7 lx (50 IRE, F1.6, 48 dB,1/60 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB,1/30 with accumulation [Frame Mix 6 dB])
	50 Hz	0.7 lx (50 IRE, F1.6, 48 dB,1/50 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB,1/25 with accumulation [Frame Mix 6 dB])
Horizontal Resolution		1000 TV lines Typ (Center area)
Gain Selection*2		Auto, 0 dB to 48 dB (3 dB step)
Frame Mix*3		Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB
Electronic Shutter Speed	Full Auto	1/30 to 1/2000[59.94 Hz] 1/25 to 1/2000[50 Hz]
	Auto	1/60 to 1/2000[59.94 Hz] 1/50 to 1/2000[50 Hz]
	Manual	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000[59.94 Hz] 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000[50 Hz]
Synchro Scan	59.94 Hz	59.94 Hz to 660.09 Hz (255 steps) 50.00 Hz to 570.12 Hz (255 steps)
Gamma	50 Hz	Off, Normal (Low, Mid, High), Cinema
White Balance		ATW, AWB A, AWB B, 3200K, 5600K, VAR (2400K to 9900K)
Chroma Amount Variability		±3 step
Scene File		Full Auto, Manual1, Manual2, Manual3
Color Bars		FULL BAR

Synchronization System

Synchronization System	Internal synchronization

Input

Power	DC 12 V IN, PoE+ (IEEE802.3at standard)
MIC/LINE Input	Stereo mini-jack (ø3.5 mm) Input impedance: Approx. 2 kΩ (unbalanced) [Mic input] •Supported microphones: Stereo mic (plug-in power,on/off switching via menu) •Supplied voltage: 2.5 V ± 0.5 V •Mic input level: –60 dBV ± 3 dBV [Line input] •Input level: –10 dBV ±3 dBV

Output

Video Output	AW–HE40H AW–HN40HW AW–HN40HK HDMI	HDMI connector • HDCP is not supported. • Viera Link is not supported.
	AW–HE40S HD–SDI	Compliant with the SMPTE292M standards/75 (BNC x 1)

Input/Output

Input/ Output Connnector	LAN	LAN connector for IP control (RJ-45), PoE+ Equipped with straight/crossover cable auto detection function
	RS–232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)
	RS–422	CONTROL IN RS422A (RJ-45)
	USB	Mini-B port (Used for maintenance)
	SD Card	microSD card slot (Used for maintenance)

USB connection * This may vary depending on the operating environment.

Video output	USB Video Class Ver1.0
Video compression format	Motion JPEG
Resolution	1920 x 1080, 1280 x 720, 640 x 360
Frame rate	max 30 fps (System frequency 59.94 Hz) max 25 fps (System frequency 50 Hz)
Audio output	USB Audio Class Ver1.0
Audio compression format	Linear PCM, 48 kHz, 16-bit, 2 channels
Supported models	Devices standardly equipped with a USB 2.0 compatible port

Pan–tilt Head Unit

Installation Method	Stand-alone (Desktop) or suspended (Hanging)*4
Pan-tilt Operation Speed	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s
Panning Range	±175°
Tilting Range*5	–30° to 90°*5
Quietness	During preset: NC40 or less During manual: NC35 or less
Camera/Pan–tilt Head Control	• When connecting through a PoE+ hub: LAN cable*6 (category 5e or above), max. 100 m (328 ft) • When a PoE+ hub is not used: LAN cable*6 (category 5 or above) max.100 m (328 ft) AW protocol connecting cable • LAN cable*6 (category 5 or above,straight cable), max. 1000 m (3280 ft) Standard protocol connecting cable • Mini DIN 8-pin cable, male

SD card recording

SD card type	micro SDHC (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), Speed class 10 or higher
System frequency	59.94 Hz/50 Hz
Video compression format	MPEG-4 AVC/H.264 High Profile
Audio compression format	AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)
Audio output	USB Audio Class Ver1.0
SD card recording	MPEG-4 AVC file standard compliant (.MP4)
Recording format	1920 x 1080/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p,1920 x 1080/25p, 1280 x 720/59.94p, 1280 x 720/50p, 1280 x 720/29.97p, 1280 x 720/25p

Network

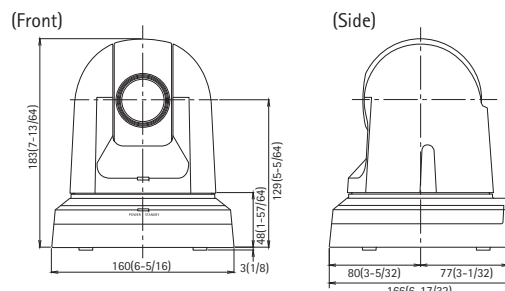|		
Resolution	JPEG	VGA (640 x 360), QVGA (320 x 180) max.30 fps 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.30 fps
	H.264	1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.60 fps
Supported protocol	IPv4	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
	IPv6	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS,NTP, ICMPv6(MLD), RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
i-OS, Android support		JPEG image display

Standard Accessories

Mount bracket for installation surface (Hanging*7/ Desktop): 1, Drop-prevention wire mounting screw (already attached to the unit): 1, Bracket mounting screws (bind-head) M4 x 10 mm: 4, Main unit mounting screw (with flat washer, spring washer) M3 x 6 mm: 1, Power cable (1.8 m [5.9 ft]): 1, AC adaptor: 1, CD-ROM

*1: It may be necessary to upgrade the version of the controller in order to support the unit. *2: During Auto, 6 dB to 48 dB (6 dB step) are available for AGC Max Gain setting. *3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting. *4: To ensure safety, the unit must be secured using the mount bracketsupplied. *5: Depending on the pan or tilt position, the camera may be reflected in the image. *6: Use of an STP (shielded twisted pair) cable is recommended. *7: To ensure more safety, AW–HE40SW/ SK/HW/HK can be secured by using the direct ceiling mount bracket (WV-Q105A).
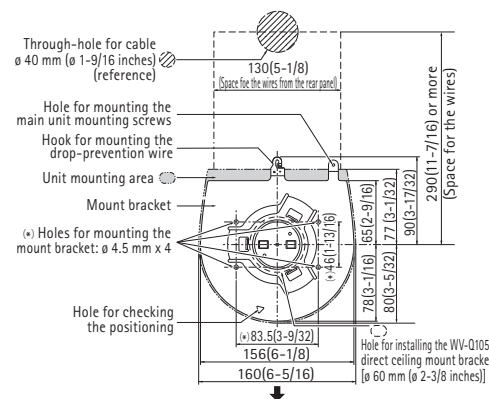
Dimensions

Unit: mm(inches)

(Front)   (Side)

183[7-13/64] 129[5-5/64] 48[1-57/64] 160(6–5/16) 3(1/8) 80(3-5/32) 77(3-1/32) 166(6-17/32)

Rear View

AW–HE40SW

AW–HE40HW / AW–HN40HW

Bottom View

Unit: mm(inches)

Through-hole for cable ø 40 mm (ø 1-9/16 inches) (reference)

130(5-1/8) (Space foe the wires from the rear panel)

Hole for mounting the main unit mounting screws
Hook for mounting the drop-prevention wire
Unit mounting area
Mount bracket
(∗) Holes for mounting the mount bracket: ø 4.5 mm x 4
Hole for checking the positioning

290(11-7/16) or more (Space for the wires)
90(3-17/32) 65(2-9/16) 78(3-1/16) 80(3-5/32)
(∗46(1-13/16))
(∗)83.5(3-9/32)
156(6-1/8)
160(6–5/16)

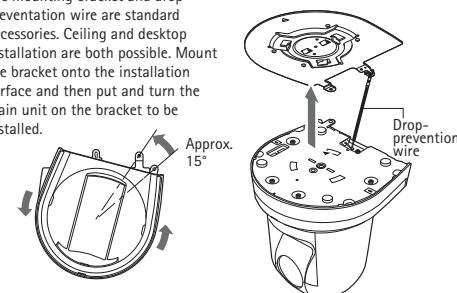Hole for installing the WV-Q105A direct ceiling mount bracket [ø 60 mm (ø 2-3/8 inches)]

The front panel of the unit on this side.

Ceiling Installation View

Optimal for both hanging and desktop installation.

The mounting bracket and drop-preventation wire are standard accessories. Ceiling and desktop installation are both possible. Mount the bracket onto the installation surface and then put and turn the main unit on the bracket to be installed.

Approx. 15°

Drop-prevention wire

●The mounting bracket for discontinued AW-HE50 and AW-HE60 and current AW-UE70W/K, AW-UN70W/K, AW-HE38HW/HK and AW-HN38HW/HK can also be used.

* Wiring, mounting, and removal must be done by a qualified technician. To ensure safety, consult with the dealer from whom you purchased the system.

Remote Camera System – Specifications & Dimensions

AW-HE38HW/HK   AW-HN38HW/HK

General

Power requirements	DC 12 V (Supplied AC adaptor) DC 42 V to 57 V (PoE+ power supply)
Current consumption	1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)
Ambient operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Allowable humidity ranges	20 % to 90 % (no condensation)
Storage temperature	–20 °C to 50 °C (–4 °F to 122 °F)
Mass	Approx. 1.5 kg (3.30 lb)
Dimensions (W x H x D)	160 mm x 186 mm x 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches) [excluding protrusions, direct ceiling mount bracket]
Finish	[AW-HE38HW/AW-HN38HW] Pearl white, [AW-HE38HK/AW-HN38HK] Metallic black
Controller supported*1	AW-RP50, AW-RP120G, AK-HRP200G

Camera unit

Imaging sensors	1/2.3-type MOS
Lens	AW-HE38HW/HK : Motorized 22x zoom, F1.6 to F4.3 [f=4.3 mm (11/64 inches) to 94.6 mm(3-23/32 inches); 35 mm (1-3/8 inches) equivalent: 31.6 mm (1-31/128 inches) to 705.0 mm (27-49/64 inches)]
Focus	Switching between auto and manual
Focus distance	Entire zooming range:1.2 m (3.94 ft) Wide end: 10 cm (0.33 ft)
Color separation optical system	On-chip color filter system

Minimum illumination	59.94 Hz	0.7 lx (50 IRE, F1.6, 48 dB,1/60 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB,1/30 with accumulation [Frame Mix 6 dB])
	50 Hz	0.7 lx (50 IRE, F1.6, 48 dB,1/50 without accumulation) 0.35 lx (50 IRE, F1.6, 48 dB,1/25 with accumulation [Frame Mix 6 dB])

Horizontal resolution	1000 TV lines Typ (Center area)
Gain selection*2	Auto, 0 dB to 48 dB (3 dB step)
Frame mix*3	Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB

Electronic shutter speed	During Full Auto	1/30 to 1/2000 [59.94 Hz] 1/25 to 1/2000 [50 Hz]
	During Auto	1/60 to 1/2000 [59.94 Hz] 1/50 to 1/2000 [50 Hz]
	During Manual	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [59.94 Hz] 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 [50 Hz]

Synchro scan	59.94 Hz : 59.94 Hz to 660.09 Hz 50 Hz : 50.00 Hz to 570.12 Hz
Gamma	Off, Normal (Low, Mid, High), Cinema
White balance	AWB A, AWB B, ATW, 3200K,5600K, VAR (2400K to 9900K)
Chroma amount variability	±3 step
Scene file	Full Auto, Manual1, Manual2, Manual3
Output format	HD	1080:59.94p/50p 1080:59.94i/50i 1080:29.97p/25p 1080:29.97PsF/25PsF 720:59.94p/50p
Synchronization system	Internal synchronization

INPUT

Power	DC 12 V IN, PoE+ (IEEE802.3at standard)
Mic/line input	Stereo mini-jack (ø3.5 mm) Input impedance: Approx. 2 kΩ (unbalanced) [Mic input] Supported microphones: Stereo mic (plug-in power, on/ off switching via menu) Supplied voltage: 2.5 V ± 0.5 V Mic input level: –60 dBV ± 3 dBV [Line input] Input level: -10 dBV ± 3 dBV

OUTPUT

Output Video	HDMI	HDMI connector * HDCP is not supported. * VIERA Link is not supported.

INPUT/OUTPUT

Input/ Output connector	LAN	LAN connector for IP control (RJ-45) Equipped with straight/crossover cable auto detection function
	RS–232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)
	RS–422	CONTROL IN RS422A (RJ-45)
	USB	Mini-B port
	SD card	microSD card slot

USB connection * This may vary depending on the operating environment.

Video output	USB Video Class Ver1.0
Video compression format	Motion JPEG
Resolution	1920 x 1080, 1280 x 720, 640 x 360
Frame rate	max 30 fps (System frequency 59.94 Hz) max 25 fps (System frequency 50 Hz)
Audio output	USB Audio Class Ver1.0
Audio compression format	Linear PCM, 48 kHz, 16-bit, 2 channels
Supported models	Devices standardly equipped with a USB 2.0 compatible port

Pan-tilt head unit

Installation method	Stand-alone (Desktop) or suspended (Hanging)*4
Pan/tilt operation speed	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s
Panning range	±175°
Tilting range	–30°to 90°*5
Quietness	During preset: NC40 or less During manual: NC35 or less

Camera/pan–tilt head control

IP connecting cable	When connecting through a hub: LAN cable*6 (category 5 or above),max. 100 m (328 ft) When using a PoE+ hub: LAN cable*6 (category 5e or above),max. 100 m (328 ft) When a hub is not used: LAN cable*6 (category 5 or above),max. 100 m (328 ft)
AW protocol connecting cable	LAN cable*6 (category 5 or above,straight cable), max. 1000 m (3280 ft)
Standard protocol connecting cable	Mini DIN 8-pin cable, male

SD card recording

|	
SD card type	micro SDHC (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), Speed class 10 or higher
System frequency	59.94 Hz/50 Hz

Video compression format	MPEG-4 AVC/H.264 High Profile
Audio compression format	AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)
SD card recording	MPEG-4 AVC file standard compliant (.MP4)
Recording format	1920 x 1080/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 1920 x 1080/25p, 1280 x 720/59.94p, 1280 x 720/50p, 1280 x 720/29.97p, 1280 x 720/25p

Network

Resolution	JPEG	VGA (640 x 360), QVGA (320 x 180) max.30 fps 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.30 fps
	H.264	1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.60 fps
Supported protocol	IPv4	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
	IPv6	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS, NTP, ICMPv6(MLD), RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast
i–OS, Android support		JPEG image display

Standard Accessories

Mount bracket for installation surface (Hanging*7 / Desktop): 1
Drop-prevention wire (already attached to the unit): 1
Bracket mounting screws (bind-head) M4 x 10 mm: 4
Main unit mounting screw (with flat washer, spring washer) M3 x 6 mm: 1
Power cable (1.5 m [4.92 ft]):[AW-HE38HW/HKPJ]:1, [AW-HE38HW/HKEJ]:3, [AW-HE38HW/HKPC]:1
AC adaptor: 1

*1: It may be necessary to upgrade the version of the controller so that the controller will support the unit. *2: During Auto, 6 dB to 48 dB (6 dB step) are available for AGC Max Gain setting. *3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting. *4: To ensure safety, the unit must be secured using the mount bracket supplied. *5: Depending on the pan or tilt position, the camera may be reflected in the image. *6: Use of an STP (shielded twisted pair) cable is recommended. *7: To ensure more safety, AW-HE38HW/HK can be secured by using the direct ceiling mount bracket (WV-Q105A).
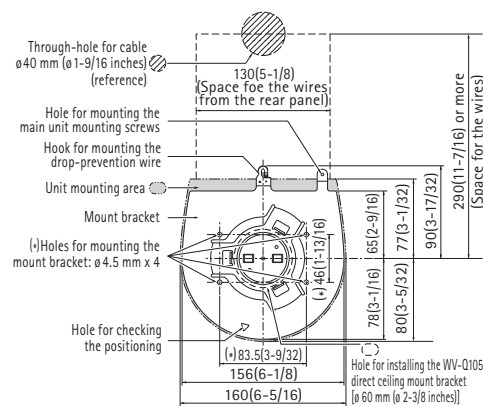
Dimensions

Unit: mm(inches)
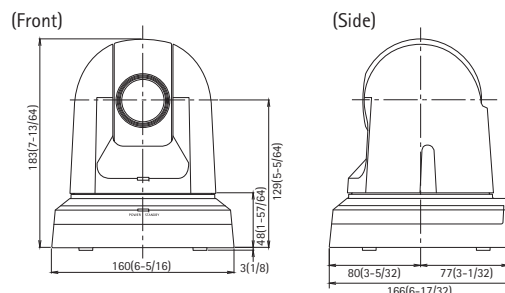
(Front)

(Side)

Rear View


Bottom View

Unit: mm(inches)

The front panel of the unit on this side.

Ceiling Installation View

Optimal for both hanging and desktop installation.

The mounting bracket and drop-prevention wire are standard accessories. Ceiling and desktop installation are both possible. Mount the bracket onto the installation surface and then put and turn the main unit on the bracket to be installed.
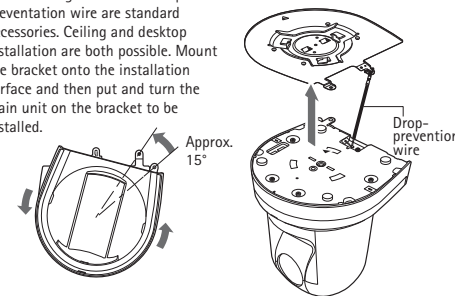
● The mounting bracket for discontinued AW-HE50 and AW-HE60 and current AW-UE70W/K, AW-UN70W/K, AW-HE40 series and AW-HN40HW/HK can also be used.

* Wiring, mounting, and removal must be done by a qualified technician. To ensure safety, consult with the dealer from whom you purchased the system.