Remote Camera System – Specifications & Dimensions

As of April, 2018

AW-HR140

*Specifications are subject to change without notice.

General		
Power Requirements		DC 12 V to 21.8 V (DC IN connector) DC 42 V to 57 V (PoE++ power supply)
Current Consumption		3.1 A to 5.5 A (DC IN connector) 1.2 A (PoE++ power supply)
Ambient Operating Temperature		–15 °C to 45 °C (5 °F to 113 °F) (preheating is required when –5 °C (23 °F) or less)
Ambient Operating Humidity		10% to 100% (no condensation)
Storage Temperature		–20 °C to 55 °C (–4 °F to 131 °F)
Storage Humidity		10% to 95% (no condensation)
Mass		Approx. 9.0 kg (19.84 lb)
Dimensions (W x H x D)		258 mm x 357 mm x 397 mm (10-5/32 inches x 14-1/16 inches x 15-5/8 inches) (including protrusions and cable cover)
Finish		Silver, salt resistant coating
Waterproof and Dust Proof		IP65 compliant
Maximum Permissible Wind Speed		15 m/sec: Operates normally 50 m/sec: Operation possible 60 m/sec: No damage
Wiper		Installed as standard
Heater		Installed as standard
Defroster		Installed as standard
Controller supported		AW-RP120G, AW-RP50, AK-HRP200G • 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/)
Camera Unit		
Imaging Sensors		1/2.86-type Full-HD 3MOS
Lens		Optical 20x zoom/10x digital 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, without accumulation)
Horizontal Resolution		1000 TV lines Typ (Center area)
Gain Selection		Auto, 0 dB to 42 dB (1 dB steps) 37 dB to 42 dB is Super Gain Mode
Frame Mix		0 dB, 6 dB, 12 dB, 18 dB, 24 dB • 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. • When [Iris Mode] or [Focus Mode] is set to [Auto], this cannot be set to 18 dB or 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 (255 steps)
	50 Hz	50.15 Hz to 535.71 Hz (255 steps)
Gamma		HD, 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
Intelligent Functions		Auto function for each of accumulation, gain, iris, electronic shutter, ND, and ATW

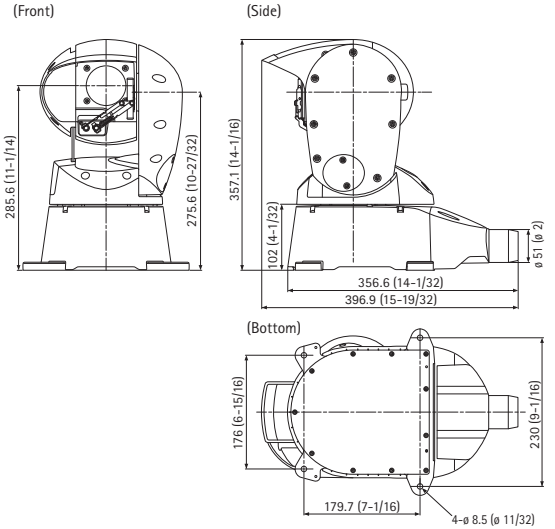
Synchronization System		
Synchronization System		Internal/External synchronization (BBS/Tri-level sync)
Line Input <AUDIO IN(1/2)>	Input impedance	High impedance
	Input	• 2 channels, XLR balanced input • Input signal level: +4 dBu/0 dBu/–20 dBu (selectable in menu) • Volume variable range: –40 dB to +12 dB (can be changed in 1 dB steps in the menu)
	Output	• 4 channels, superimposed over SDI output • Embedded audio output level: FS-12 dB: –12 dBFS, FS-18 dB: –18 dBFS, FS-20 dB: –20 dBFS (selectable in menu) • Sampling frequency: 48 kHz (synchronized to video) • Quantization bit rate: 24-bit (LPCM) • Audio compression format (IP): G.726, AAC-LC (High quality)
Input		
Input Connector	12V IN	XLR connector
	G/L IN	BNC connector • BBS (Black Burst Sync), tri-level sync supported • Locking to a subcarrier is not possible with BBS.
	Audio input	mini XLR connector (line input) #1: INPUT1 Common, #2: INPUT1 HOT, #3: INPUT1 COLD, #4: INPUT2 Common, #5: INPUT2 HOT, #6: INPUT2 COLD
Output		
Video Output	3G/HD-SDI OUT	SMPTE424/SMPTE292 standards 75 Ω (BNC x 2) • OSD output is possible from the SDI OUT 1/PM connector but not from the SDI OUT 2 connector.
Input/Output		
Input/ Output Connector	LAN	LAN connector for IP control/video output/Audio output/ PoE++ power supply PoE++ (IEEE802.3bt Draft ver.2.0 standard)
	RS-422	CONTROL IN RS-422A
	EXT	#1: DC GND, #2: HOT, #3: COLD, #4: 12V-OUT
Pan-tilt Head Unit		
Installation Method		Stand-alone (Desktop) or suspended (Hanging) • To ensure safety, the unit must be secured using the mount bracket supplied.
Camera/ Pan-tilt Head Control	IP connecting cable	• When connecting through a PoE++ hub: LAN cable*1 (category 5e or above, straight cable), max. 100 m (328 ft) • When a PoE++ hub is not used: LAN cable*1 (category 5 or above, straight cable) max. 100 m (328 ft)
	AW series connecting cable/ standard protocol connecting cable	LAN cable*1 (category 5 or above, straight cable), max. 1000 m (3280 ft)
Pan/Tilt Operation Speed		Maximum speed 60°/s or higher
Panning Range		±175° • For suspended installations, the positions of the pins that determine the movement range must be changed.
Tilting Range		–30° to 210° • Depending on the pan or tilt position, the camera may be reflected in the image. • For suspended installations, the positions of the pins that determine the movement range must be changed.
Quietness		60°/s (NC45 or less)
Vibration Correction		D.I.S.S. (Dynamic Image Stabilizing System)

Standard Accessories
Hexagonal bolt M8 x 30 mm: 4, M8 washer: 4, Spring washer: 4, Cable cover: 1, Washer nozzle mount bracket: 1, Drop-prevention wire: 1, Drop-prevention wire mounting screw (with hexagonal socket, for unit) M4 x 10 mm: 1

*1: Use of an STP (shielded twisted pair) cable is recommended.
• When connecting directly to a controller without an Ethernet hub, use a cross cable.

Dimensions

Unit: mm(inches)

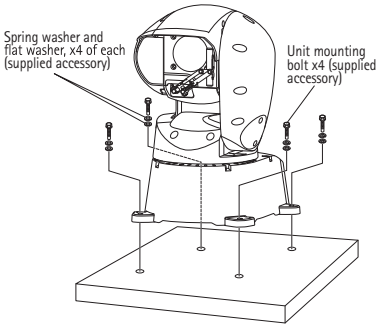


Rear View

Mounting the camera to the installation surface

When fixing directly to the installation surface

Pass the cables through the bottom wiring hole or side wiring hole before putting the camera down on the installation surface.



Pin Configuration

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	–

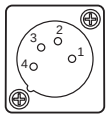
AUDIO IN Connector [AUDIO IN]

External audio (LINE) input connector

Amphenol LTW TECHNOLOGY CO., LTD.

Pin NO.	Signal
1	INPUT1 Common
2	INPUT1 Hot
3	INPUT1 Cold
4	INPUT2 Common
5	INPUT2 Hot
6	INPUT2 Cold

12 V IN Connector

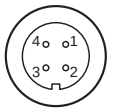


HA16RA-4P (77)
(Hirose Electric Co.)

Pin NO.	Signal
1	GND
2	–
3	–
4	+12V

EXT Connector [EXIT]

Output connector for washer control and DC 12 V



HR10A-7R-4SC (73)
(Hirose Electric Co.)

Pin NO.	Signal
1	GND
2	Hot
3	Cold
4	DC 12V OUT