Smart operation with IP control

An Integrated Pan-tilt HD/SD Camera for a Wide Range of Shooting Conditions

HD Integrated Camera

| For indoor use |

AW-HE120WP/WE/KP/KE

| Full HD 3MOS | HD/SD | 20x optical zoom | 10x digital zoom |
| IP/Serial control | DRS | Turn-lock mounting mechanism | 60Hz/50Hz switchable |

| **HD** | 1080/59.94p (HDMI only), 59.94i, 50p (HDMI only), 50i, 720/59.94p, 50p, |
| **SD** | 576/50p (HDMI only), 50i, 480/59.94p (HDMI only), 59.94i |

AW-HE120WP/WE (White Model)
*Suspended (Hanging) style

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

AW-HE120KP/KE (Black Model)
*Stand-alone (Desktop) style

| **Option** | Wireless remote control **AW-RM50G** ("AA", "R6" or "LR6" battery x 2 are not included.) | Direct Ceiling Mount Bracket **WV-Q105** |

System example

HD/SD Camera System

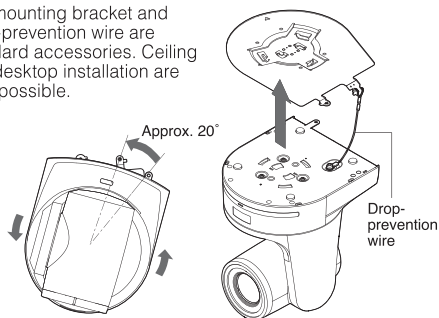### Ideal for shooting in large places such as concert halls and government chambers

■ **Key Points**
• Up to a hundred AW-HE120WP/WE/KP/KE units can be controlled by AW-RP50N/E via IP connections when using Ethernet hubs.

[Key Products] ···
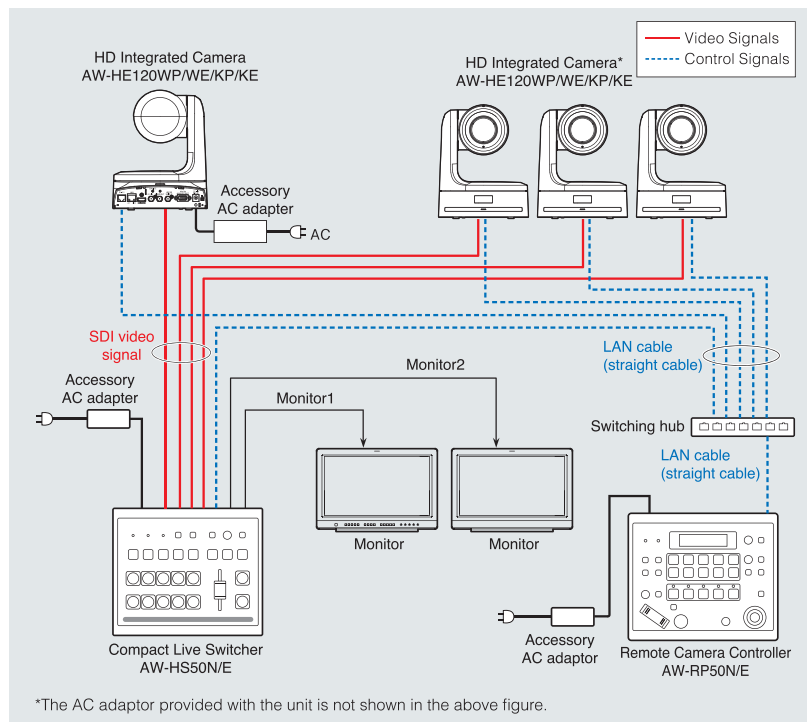AW-HE120WP/WE/KP/KE AW-HS50N/E AW-RP50N/E

Optimal for both hanging and desktop installation.

The mounting bracket and drop-prevention wire are standard accessories. Ceiling and desktop installation are both possible.

Approx. 20˚

Drop-prevention wire

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

HD Integrated Camera
AW-HE120WP/WE/KP/KE

HD Integrated Camera*
AW-HE120WP/WE/KP/KE

—— Video Signals
----- Control Signals

Accessory
AC adapter

AC

SDI video
signal

LAN cable
(straight cable)

Accessory
AC adapter

Monitor2

Monitor1

Switching hub

LAN cable
(straight cable)

Monitor   Monitor

Compact Live Switcher
AW-HS50N/E

Accessory
AC adaptor

Remote Camera Controller
AW-RP50N/E

*The AC adaptor provided with the unit is not shown in the above figure.

Integrated Pan-tilt camera with a compact body and simple system configuration

Both SDI and HDMI are supported, and IP connection enables flexible system configuration, easy connection and settings. It can also be connected to current camera controllers. Both size and weight have been reduced by approximately 60 % compared to our previous model (the AW-HE100) to achieve a lightweight, compact body. With its sleek design and color variation, it blends with atmospheres in a variety of situations.
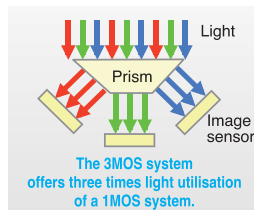
228 mm

180 mm

Compared with the previous AW-HE100 model

Shooting high-quality images with 1/3 type Full-HD "U.L.T." 3MOS image sensors

● Ultra Luminance Technology

High resolution and high image quality are produced by the newly developed 1/3 type 2.2 mega pixels "U.L.T." 3MOS sensors and digital signal processor (DSP).

The 3MOS System uses three MOS sensors to process the three primary colors (R, G, B) of light. (MOS = Metal Oxide Semiconductor)

Light

Prism

Image sensor

The 3MOS system offers three times light utilisation of a 1MOS system.

A 20x optical zoom lens covers wide-angle to ultra telephoto shots.

In addition to a wide-angle design that features 32.13 mm (35 mm equivalent) at the wide end, the AW-HE120 has a 20x optical zoom lens and a 10x digital zoom power. This lets you shoot a wide variety of sharp and crisp images from wide angle to close up.
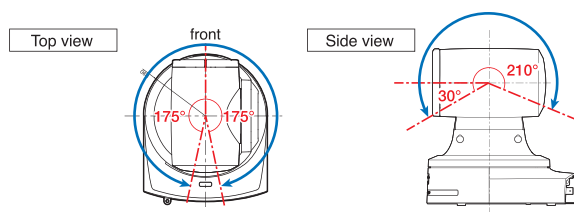
×1

×20

From wide angle to telescopic shots - the cameras deliver clear and crisp images for a wide range of applications.

(Images are simulated.)

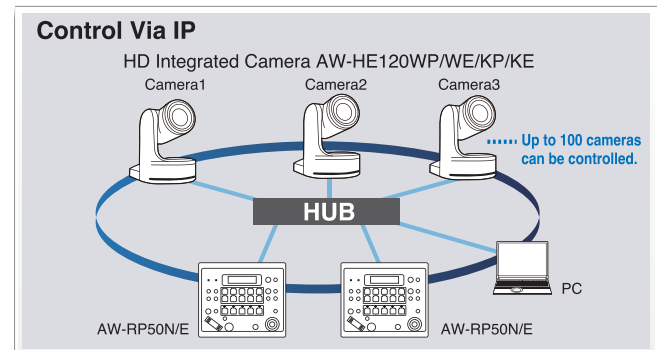## A wide range pan-tilt, high-speed control, and silent design apply for versatile operations.

More smooth and natural movement is achieved for the pan-tilt operation. The pan-tilt head also allows a wide range* shooting, with a pan range of ±175 ° and a tilt range of -30 ° to 210 °. The newly developed pan tilt drive provides high-speed operation at maximum 60 °/s, excellent response from remote control operation, and highly precise stop control. These features combine to accurately capture fast-action sports scenes with comfortable remote shooting. The noise level during operation is also very low, at NC35 or less, which is ideal for shooting in concert halls.

* Depending on the position of the pan and tilt, its own unit may be reflected in the image.

Top view   front   Side view

210°

30°

175° 175°

IP control provides easy connection and settings for comfortable camera control

Up to 100 x AW-HE120WP/WE/KP/KE units can be controlled from the AW-RP50N/E or a PC through a switching hub using the IP connection. IP connection also allows one AW-HE120WP/WE/KP/KE to be controlled simultaneously from up to five AW-RP50N/E units.

Control Via IP

HD Integrated Camera AW-HE120WP/WE/KP/KE

Camera1   Camera2   Camera3

•••••• Up to 100 cameras can be controlled.

HUB

PC

AW-RP50N/E   AW-RP50N/E

Dynamic Range Strech (DRS) automatically optimizes images that have a wide contrast range.

A gamma curve and knee slope are estimated to match the contrast of each pixel in real time. When dark, bright, and intermediate areas are all contained in the same scene, this function produces excellent gradation for each area and minimizes blocked shadows and blown highlights. The images of results are enhanced by a visually wider dynamic range.

DRS OFF
With the iris expanded, this blown highlight appears on the blackboard

DRS OFF
With the iris contracted, a blocked shadow appears on the figure

(Images are simulated.)

DRS ON
Both highlights and shadows are clearly visible

Other features

● **Setting camera menus with a PC**
Camera menus can be set up via a web browser by connecting the AW-HE120WP/WE/KP/KE to a PC.

● **Wireless remote controller for easy operation (option)**
Up to 4 cameras can be controlled by an optional wireless remote controller (AW-RM50G). The basic operations and menu settings can be done by using the wireless remote controller.

● **Simple connection and installation enable a flexible camera layout**
IP control, a lightweight body, and the turn-lock mounting mechanism enable easy connection and mounting by a single person (indoor mounting only).

● **Compact design for energy-saving**
The compact, lightweight body realizes low power consumption and low cost operation of multiple cameras.

● **Allows up to 100 pre-set memories per camera**

● **Four-position (Through, 1/4, 1/16, 1/64) ND filter**

Specifications

	AW-HE120WP/WE/KP/KE	
Power Requirements	DC 12 V (AC adaptor supplied)	
Power Consumption	1.75 A	
Operating Temperature	0°C to 40°C (32°F to 104°F)	
Allowable Humidity Range	35 % to 90 % (no condensation)	
Storage Temperature	-20°C to 50°C (-4°F to 122°F)	
Weight	Approx.3.0 kg (Approx 6.61 lbs) (Including mount bracket)	
Dimensions (W × H × D)	180 mm × 228 mm × 220 mm (7-3/32 inches × 8-31/32 inches × 8-21/32 inches) (excluding protrusions, cable cover, direct ceiling mount bracket)	
Image Sensors	1/3 type Full-HD 3MOS	
Lens	Motorized 20x 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, Wide end: 400 mm	
Color Separation Optical System	3MOS	
Minimum Illumination	7 lx (50 IRE, F1.6, +18 dB)	
Horizontal Resolution	1 000 TV lines Typ (Center area)	
Gain Selection	Auto, 0 dB to 18 dB	
Frame Mix[1]	0 dB, 6 dB, 12 dB, 18 dB, 24 dB	
Electronic Shutter Speed	59.94 Hz	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	50 Hz	1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
SynchroScan	59.94 Hz	60.17 Hz to 644.26 Hz
	50 Hz	50.19 Hz to 537.13 Hz
Gamma	Off, Normal (Low, Mid, High), Cinema	
White Balance	AWB A, AWB B, ATW, 3 200K, 5 600K	

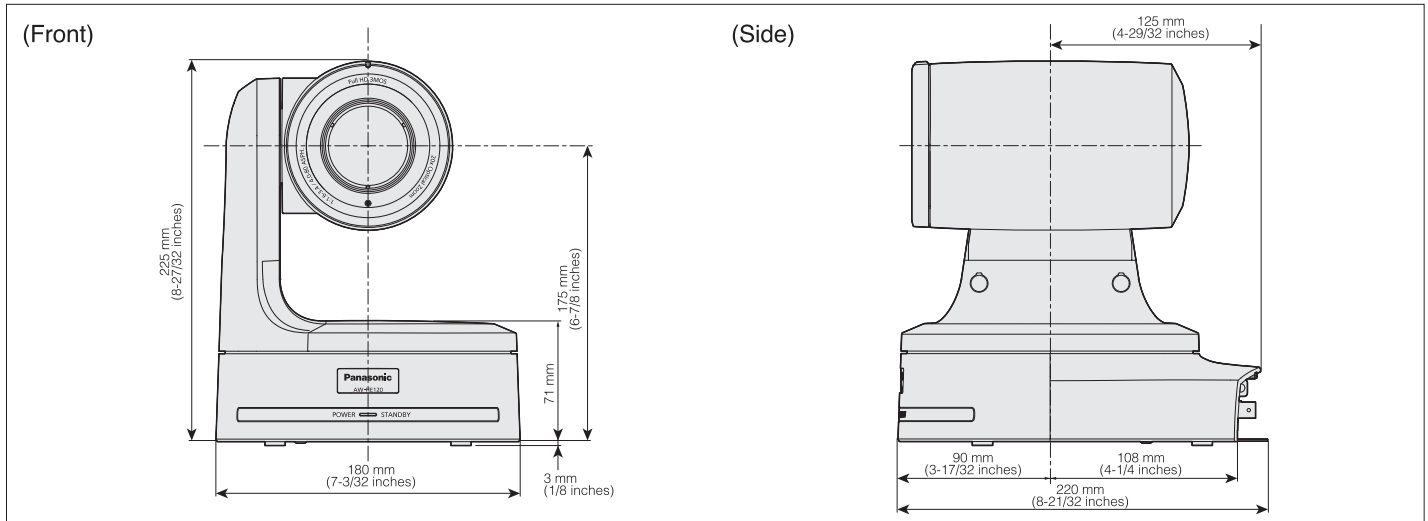|			AW-HE120WP/WE/KP/KE
Camera	Scene File		Scene1, Scene2, Scene3,Scene4
	Output Format	HD	1080/59.94p[2], 1080/59.94i, 1080/50p[2], 1080/50i, 720/59.94p, 720/50p
		SD	576/50p[2], 576/50i, 480/59.94p[2], 480/59.94i
	Synchronization System		Internal/External synchronization (BBS/Tri-level sync)
	Input Connector		DC 12 V IN, G/L IN (BNC×1)[3] *BBS (Black Burst Sync), tri-level sync supported
Output Connector	HDMI		HDMI×1
	HD/SD SDI OUT		BNC×1 Compliant with the SMPTE292M/SMPTE259M standards/75 Ω
	VIDEO OUT		BNC×1 NTSC/PAL 1.0 V[p-p]/75 Ω
	HD/SD ANALOG OUT		Y/P$_B$/P$_R$ or R/G/B D-sub 15 pin x 1
Input/Output Connector	LAN		LAN connector for IP control (RJ-45)
	RS-422		CONTROL IN RS422A (RJ-45)
Pan-Tilt Mechanism	Pan/Tilt Operation Speed		MAX 60°/s
	Panning Range		±175°
	Tilting Range		-30° to 210°
	Quietness		NC35
	Standard Accessories		Mount bracket for installation surface (Hanging[4]/ Desktop) Drop-prevention wire, Drop-prevention wire mounting screw (already attached to the unit), Bracket mounting screws (bind-head) M4 × 10 mm, Main unit mounting screw (with flat washer, spring washer) M3 × 6 mm, Cable cover, Power cable (1.8 m [5.9 ft]), AC adaptor

*1 Cannot be set when using 1080/59.94i nor 1080/50i formats.
*2 When 1080/59.94p, 1080/50p, 480/59.94p or 576/50p mode is selected, a Progressive signal is output to HDMI and an Interlace signal is output to SDI and analog component outputs.
*3 Supports BBS (Black Burst Sync) and Tri-level Sync. BBS does not allow locking of the color subcarrier.
*4 To ensure more safety, AW-HE120WP/WE/KP/KE can be secured by using the direct ceiling mount bracket (WV-Q105).

Dimensions

(Front)

225 mm (8-27/32 inches)
175 mm (6-7/8 inches)
71 mm
180 mm (7-3/32 inches)
3 mm (1/8 inches)

Panasonic
AW-HE120
POWER STANDBY

(Side)

125 mm (4-29/32 inches)
90 mm (3-17/32 inches)
108 mm (4-1/4 inches)
220 mm (8-21/32 inches)

Rear view

RS-422 LAN ACT LNK HDMI SERVICE G/L IN VIDEO OUT HD/SD SDI OUT HD/SD ANALOG OUT 12V IN

Unit: mm (inch)

Through-hole for cable ø 40 mm(ø 1-9/16 inches) (reference)
160(6-5/16) (Space for the wires from the rear panel)
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 × 4
Hole for checking the positioning
320(12-19/32)or more (Space for the wires)
136(5-11/32)
108(4-1/4)
ø83.5(3-9/32)
88(3-15/32)
90(3-17/32)
(*)46 (1-13/16)
176(6-15/16)
180(7-3/32)
Hole for installing the WV-Q105 direct ceiling mount bracket [ø 60 mm (ø 2-3/8 inches)]
The front panel of the unit on this side.