SONY

BRC Series

Color PTZ Video Cameras

BRC-H900
BRC-H700
BRC-Z700
BRC-Z330
BRC-300

APPLICATIONS

Corporate/Boardroom

BRC Series cameras are excellent for various business communication applications, videoconferencing, corporate training, and broadcasting management meetings to remote locations. Each camera in this series offers particular features and benefits to fit the various needs of applications.
The cameras are easy to operate and can be quickly reset after each use by simply touching a button on the optional controllers which recall pre-specified positions for capturing speech and switching scenes.

Auditorium/Concert Hall

With its pan/tilt/zoom (P/T/Z) capability, a single camera can capture a wide shooting range during an entire live performance, including audience shots. The BRC's wide range capability can reduce the need for additional cameras and cameras operators resulting in substantial cost savings. These cameras make it easy to get close-ups of performers from locations that are usually difficult for a camera operator to reach. Additionally, each camera's compact size and quiet movement does not distract the audience from the performance.

City Council

Remotely controlled by the RM-BR300 or RM-IP10, BRC Series cameras can quickly capture the actions at council meetings or trials. With the ability to select multiple pre-defined P/T/Z positions, each camera provides simple, streamlined operation.

Sports Events

With high-speed and extremely smooth pan/tilt movement, BRC Series cameras can follow the quick, spontaneous flow of sports action. With cameras installed in high positions, operators can obtain extensive views of each event, and capture shots at unique angles, which are usually very difficult to capture with conventional shooting. Also, optical fiber connection (max. 2,000 m) achieves long-distance data transfer and enables single-operator broadcasting.

Studio

The BRC Series is also ideal for use in the broadcast industry. The BRC-H900, BRC-H700, BRC-Z700, and BRC-Z330 can output HD-SDI signals*1 – a necessity for highly demanding broadcasters who seek uncompromising picture quality. With flexible installation, these cameras can be easily integrated into a working studio with tripods or ceiling brackets. For the wide angles required in studio shooting, wide conversion lenses are available*2. And there are numerous other benefits, including quiet and smooth P/T/Z movement, a tally indicator, cost-efficiency, and more.

Education

By deploying BRC Series cameras, teachers can offer students new educational opportunities anytime and anywhere. With the real-time distribution of lectures and other educational content, academic institutions can deliver e-learning classes, and professors can efficiently share their opinions and collaborate via networked communication.

Houses of Worship

By using large screens in combination with highly sensitive BRC Series cameras, clear video images can be delivered with accurate color reproduction. Attendees can become more involved in the service and follow ongoing events better than ever before. With a variety of peripheral components, a range of user-friendly systems can be designed to suit the size and budget of every organization.

Weddings

Pre-installed BRC Series cameras are ideal for capturing wedding ceremonies since their silent movement will not disturb the ceremony. With high picture performance and zooming capabilities, these cameras can capture natural facial expressions and, for example, the graceful movements of the bride. Also, due to their compact and sleek design, these cameras blend easily into the surrounding environment.

*1 The BRC-H700, BRC-Z700, and BRC-Z330 require optional video cards. (sold separately)
*2 Wide conversion lenses are available for the BRC-Z700 and BRC-300. (sold separately)

The BRC Series consists of five pan/tilt/zoom (P/T/Z) cameras – the BRC-H900, BRC-H700, BRC-Z700, BRC-Z330, and BRC-300. They offer wide and smooth P/T/Z capabilities together with exceptional picture quality from SD to Full HD images. You can remotely control these cameras using the RM-BR300 Remote Control Unit or RM-IP10 IP Remote Controller.*3 As a flagship model, the BRC-H900 delivers superb sensitivity (F10) and horizontal resolution (more than 1, 000 TV lines in HD-SDI output) to meet the needs of high image quality applications. The BRC Series is perfect for a variety of remote video shooting applications, and each camera integrates easily into a wide range of indoor and outdoor systems.

These features enable users to enjoy the benefits of BRC Series cameras, particularly in education, broadcast, wedding, and corporate applications. These cameras also enable a reduction in manned operation with their advanced remote capabilities.

PRODUCTS OVERVIEW

		BRC-H900	BRC-H700	BRC-Z700	BRC-Z330	BRC-300
Image Sensor		1/2-type Exmor CMOS x 3	1/3-type IT CCD x 3	1/4-type CMOS x 3	1/3-type CMOS	1/4.7-type CCD x 3
Signal System		1080i/59.94, 720p/59.94, 1080i/50, 720p/50, NTSC, PAL	1080i/59.94, 1080i/50	1080i/59.94, 1080i/50, NTSC, PAL	1080i/59.94, 720p/59.94, 1080i/50, 720p/50, NTSC, PAL	NTSC
Sensitivity		F10	NA			
Minimum Illumination		4 lx (50IRE, F1.9, +24 dB)	6 lx (50IRE, F1.6, +24 dB)	6 lx (50IRE, F1.6, +24 dB)	6 lx (50IRE, F1.6, +24 dB)	7 lx (25IRE, F1.6, +18 dB)
Advanced Color Adjustment		✔				
HD Video Output	HD/SD-SDI	✔	Option	Option	Option	
	Component, RGB	✔	✔	✔	✔	
SD Video Output	Composite, Y/C	✔		✔	✔	✔ (NTSC)
Optical Zoom (Digital Zoom)		14x	12x (4x)	20x (4x)	18x (4x)	12x (4x)
IP Control		Option		Option	Option	

KEY FEATURES

Superb Picture Quality

Thanks to Sony's amazing image sensor technology, BRC Series remote cameras deliver exceptionally high picture quality to meet demanding live production requirements. The BRC-H900 offers excellent performance at minimum illumination (as low as four lux) and therefore offers visibility even in dark environments*4.

Silent & Smooth Pan/Tilt/Zoom Mechanism

BRC Series remote cameras can be operated with slow to fast P/T/Z motion from remote locations*5. Also the silent mechanism enables the unit to be installed in noise-conscious environments.

Flexible Installation

In addition to typical desktop installation, BRC Series cameras can be ceiling mounted. With the use of a tripod and tripod screw, these cameras are also suitable for mobile applications, such as live events. Thanks to their compact design, these cameras can be installed in locations typically too small for camera operators and larger cameras.

IP Control

The BRC-H900, BRC-Z700, and BRC-Z330 can be controlled though an IP network with the use of an RM-IP10 IP Remote Controller and BRBK-IP10 or BRBK-IP7Z IP Control Card. This functionality allows for flexible configurations, and enables the installation of up to 112 units of BRC cameras and up to five units of RM-IP10 controller depending on customer requirements.

Advanced Color Adjustment

The BRC-H900 is equipped with a variety of picture adjustment features, including color, gamma, black, and knee settings. These feature-rich color adjustment functions allow fine tuning to meet professional demands.

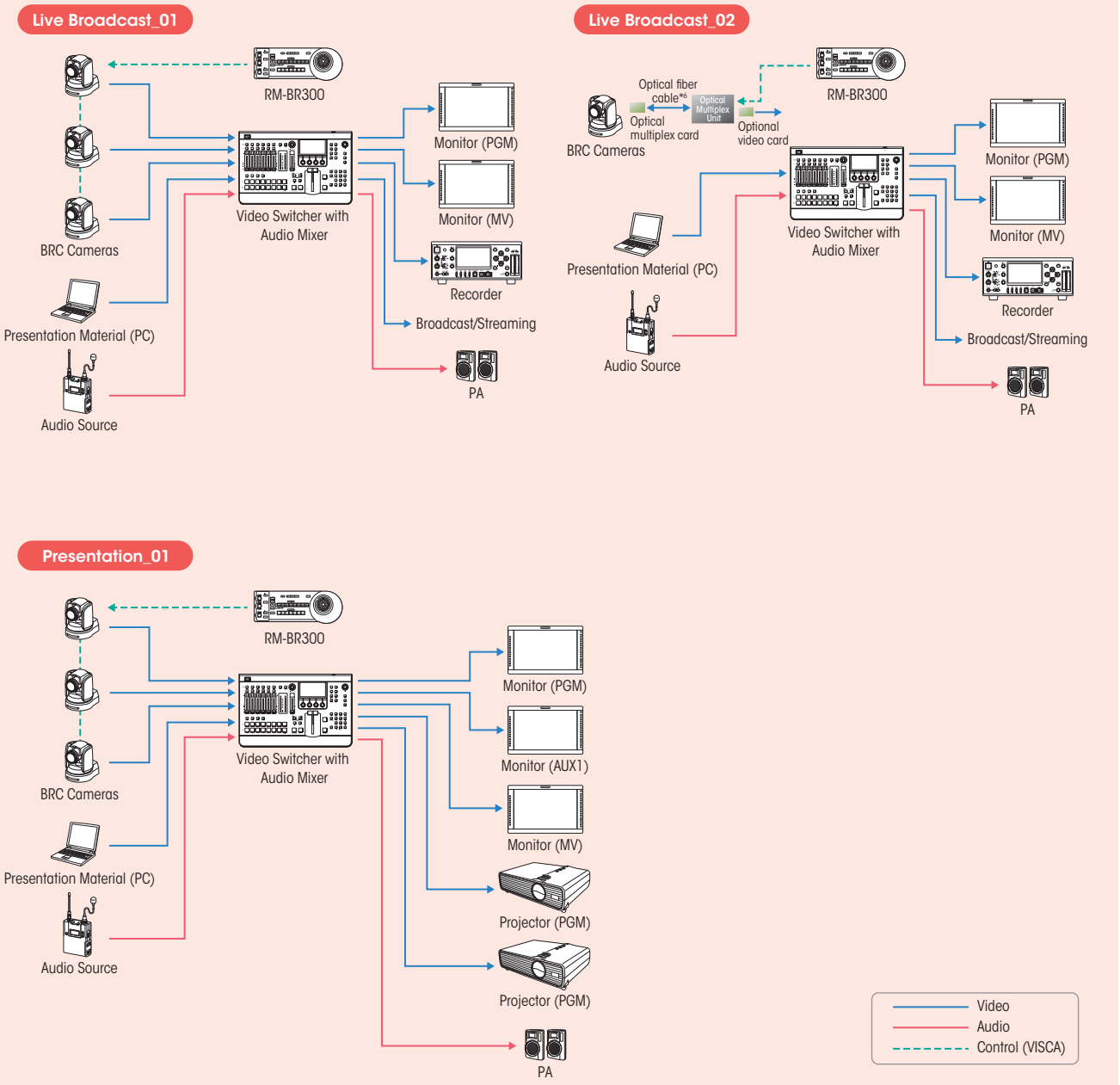
Tally Lamp

All BRC Series cameras are equipped with a tally lamp. Additionally, the BRC-H900 has a second tally lamp – one on the front and one on the rear, offering wider visibility.

*3 The RM-IP10 is compatible with the BRC-H900, BRC-Z700, and BRC-Z330 only.
*4 At 50IRE, F1.9, +24 dB.
*5 Ranging from 0.22° to 60° per second for the BRC-H900 and BRC-Z700.

SYSTEM CONFIGURATION

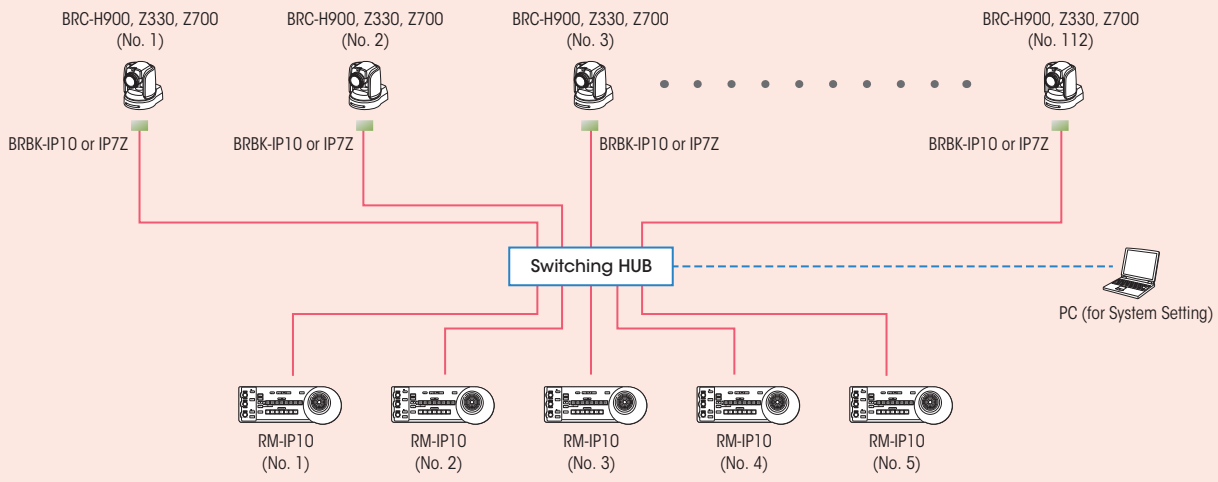
You can configure a variety of systems to meet your application needs by choosing HD and/or SD components.
Users can choose either HD or SD system components.



*6 There are two types of optical fiber cable (Single-mode/Multi-mode). Please refer to the specifications.

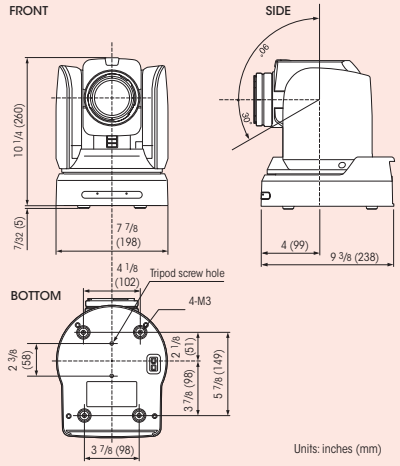
		BRC and BRU System			
	BRC-H900	BRC-H700	BRC-Z700	BRC-Z330	BRC-300
Wide Conversion Lens	—	—	—	—	VCL-0737W
Optical Multiplex Card (inserted to the BRC Series)	BRBK-SF1	BRBK-H700	BRBK-MF1	BRBK-SF1	—
Optical Fiber Cable	CCFC-S200 (Single-mode)	CCFC-M100HG (Multi-mode)		CCFC-S200 (Single-mode)	CCFC–M100 (Multi-mode)
Optical Multiplex Unit	BRU-SF10 (Supports Single-mode optical fiber)	BRU-H700 (Supports Multi-mode optical fiber)		BRU-SF10 (Supports Single-mode optical fiber)	—
Optional Video Card (inserted to the BRC Series)	BRBK-HSD2 HD/SD-SDI	HFBK-HD1 HD-SDI, HD Component (Y/Pb/Pr), RGB HFBK-SD1 SD-SDI, Composite, Y/C, SD Component (Y/Cb/Cr), RGB	BRBK-HSD1 HD-SDI, SD-SDI	BRBK-HSD2 HD/SD-SDI	BRBK-301 Composite, Y/C, SD Component (Y/Cb/Cr), RGB BRBK-302 SD-SDI
	BRBK-SA1 Analog SD Output	—		BRBK-SA1 Analog SD Output	—
IP Control Card	BRBK-IP10	—	BRBK-IP7Z	BRBK-IP10	—
Remote Control Unit (IP)	RM-IP10	—	RM-IP10	RM-IP10	—
Remote Control Unit (VISCA)	RM-BR300				

BRC Control by RM-IP10 IP Remote Controller

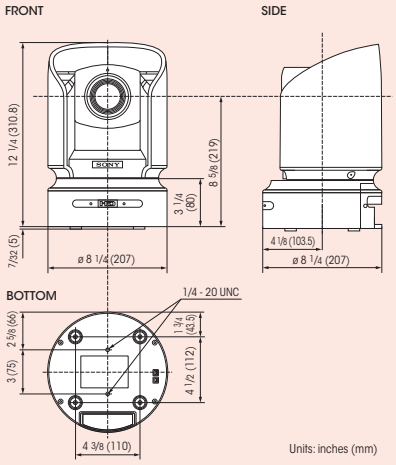


DIMENSIONS

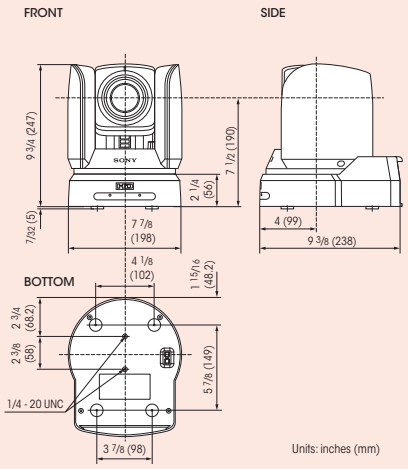
BRC-H900



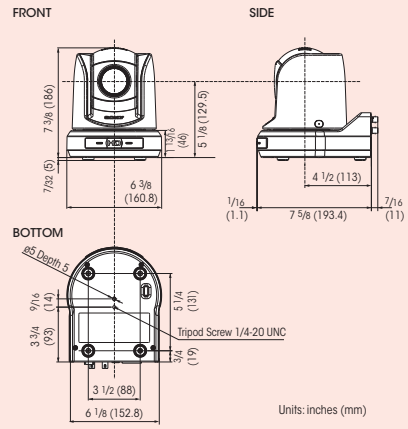
BRC-H700



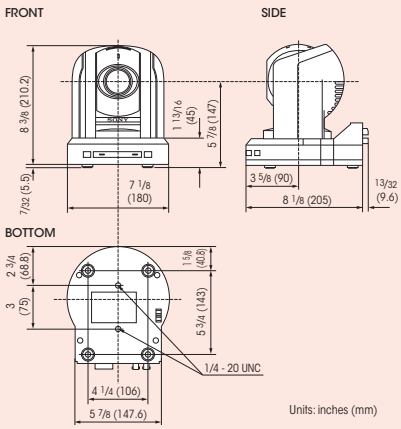
BRC-Z700



BRC-Z330

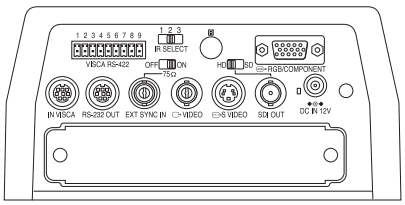


BRC-300

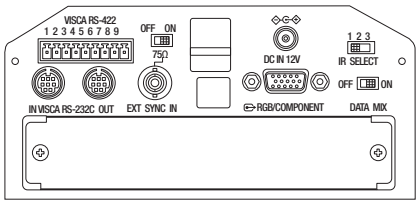


REAR PANELS

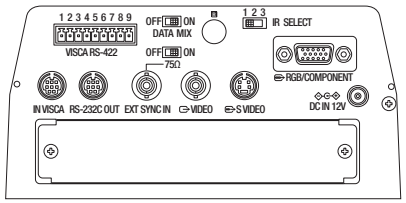
BRC-H900



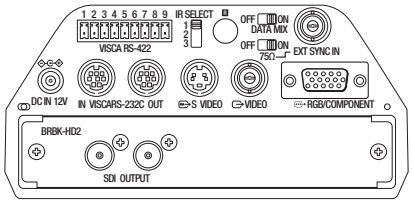
BRC-H700



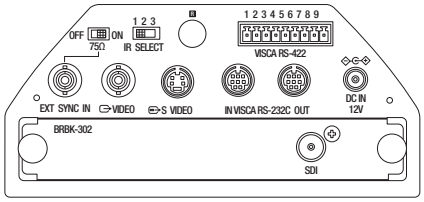
BRC-Z700



BRC-Z330



BRC-300



OPTIONAL ACCESSORIES

BRC-H900 BRC-Z330

BRBK-IP10
IP Control Card

BRC-Z700

BRBK-IP7Z
IP Control Card

BRC-H900
BRC-Z330 BRU-SF10

BRBK-HSD2
HD/SD-SDI Output Card

BRC-Z700

BRBK-HSD1
HD/SD-SDI Output Card

BRC-H700

BRBK-H700
HD Optical Multiplex Card

BRC-Z700

BRBK-MF1
HD Optical Multiplex Card

BRC-H900
BRC-Z330 BRU-SF10

BRBK-SA1
Analog SD Output Card

BRC-300 BRU-300

BRBK-301
Analog RGB Component Card

BRC-300 BRU-300

BRBK-302
SDI Card

BRC-H700 BRU-H700

HFBK-HD1
HD Interface Board

BRC-H700 BRU-H700

HFBK-SD1
SD Interface Board

BRC-H900 BRC-Z330

BRBK-SF1
HD Optical Multiplex Card

BRC-H700 BRC-Z700

BRU-H700
HD Optical Multiplex Unit
(Supports Multi-mode optical fiber)

BRC-H900 BRC-Z330

BRU-SF10
HD/SD Optical Multiplex Unit
(Supports Single-mode optical fiber)

BRC-H700 BRC-Z700

CCFC-M100HG
Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included

BRC-H900 BRC-Z330

CCFC-S200
Optical Fiber Cable
2-core Single-mode Optical Fiber Cable (200 m long), Extension Plug Included

BRC-300

CCFC-M100
Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included

CCMC-9DS[*7]
RGB/Component, Y/C Cable (9-pin D-sub)

CCXC-9DBS[*7]
RGB/Component, VBS Cable (9-pin D-sub)

BRC-300

VCL-0737W
Wide Conversion Lens

REMOTE CONTROL UNITS

RM-IP10[*8]
IP Remote Controller

- Comfortable P/T/Z operation with the optical three-axis joystick
- Versatile camera adjustment by simple panel operation
- The use of IP technology allows flexible installation and easy operation
- Preset feature saves camera settings (up to 16 positions)

RM-BR300
Remote Control Unit

- Comfortable P/T/Z operation with the optical three-axis joystick
- Versatile camera adjustment by simple panel operation
- VISCA RS-232C/RS-422 communication interfaces allow high-speed, long-distance control
- A tally/contact connector allows connection with a switcher and provides a short-circuit corresponding to the camera address
- Preset feature saves camera settings (up to 16 positions)[*9]

*7 These cables are for use with the BRBK-301 or HFBK-SD1.
*8 The RM-IP10 is compatible with the BRC-H900, BRC-Z700, and BRC-Z330 only.
*9 For the BRC-300, six positions can be saved.

SPECIFICATIONS

	BRC-H900	BRC-H700	BRC-Z700	BRC-Z330	BRC-300
Camera					
Image Sensor	1/2-type Exmor CMOS x3	1/3-type IT CCD x3	1/4-type CMOS x3	1/3-type CMOS	1/4.7-type IT Advanced HAD CCD x3
Image Sensor (Number of Effective Pixels)	Approx. 2.07 Megapixels	Approx. 1.07 Megapixels	Approx. 1.04 Megapixels	Approx. 2.16 Megapixels	Approx. 1.02 Megapixels
Signal System	60 Hz: 1080/59.94i, 720/59.94P, NTSC 50 Hz: 1080/50i, 720/50P, PAL	60 Hz: 1080/59.94i 50 Hz: 1080/50i	60 Hz: 1080/59.94i, NTSC 50 Hz: 1080/50i, PAL	60 Hz: 1080/59.94i, 720/59.94P, NTSC 50 Hz: 1080/50i, 720/50P, PAL	NTSC
Sensitivity	F10	NA			
Minimum Illumination (50IRE)	4 lx (50IRE, F1.9, +24 dB)	6 lx (50IRE, F1.6, +18 dB)	6 lx (50 IRE, F1.6, +24 dB)		NA
Minimum Illumination (25IRE)	NA				7 lx (25IRE, F1.6, +18dB)
Horizontal Resolution	>1,000 TV line (in HD-SDI output) (center)	NA			
S/N Ratio	50 dB				
Gain	Auto/Manual (-3 dB to +24 dB)	Auto/Manual (0 dB to +18 dB and Hyper Gain)	Auto/Manual (0 to +24 dB and Hyper Gain)	Auto/Manual (-3 dB to +24 dB and Hyper Gain)	Auto/Manual (-3 dB to +18 dB, 3 dB steps) switchable
Shutter Speed	1/8,000 s to 1/60 s or 1/8,000 s to 1/50 s	1/10,000 s to 1/60 s or 1/10,000 s to 1/50 s			NTSC: 1/10,000 s to 1/4 s
Exposure Control	Auto, Manual, Priority mode (shutter priority & iris priority), Back light, Spot light	Auto, Manual, Priority mode (shutter priority, Gain priority & iris priority), EV compensation		Auto, Manual, Priority mode (shutter priority, Gain priority & iris priority), EV compensation, Color AE	Auto, Manual, Priority mode (shutter priority & iris priority), Bright, spot AE
Color AE Function	No			Off/Narrow/STD/Wide switchable in menu	No
White Balance	Auto/Indoor/Outdoor/One-push/Manual		Auto1/Auto2/Indoor/Outdoor/One-push/Manual		Auto/Indoor/Outdoor/One-push/Manual
Optical Zoom	14x	12x	20x	18x	12x
Digital Zoom	–	4x	4x	4x	4x
Focusing System	Auto/Manual				
Horizontal Viewing Angle	59.6°(Wide-end)	60.3°(Wide-end)	55.2°(Wide-end)	55.1°(Wide-end)	4:3 mode: 37.8°, 16:9 mode: 45.4°(Wide end)
Focal Length	f=5.8 mm to 81.2 mm F1.9 (Wide), F2.8 (Tele)	f = 4.5 mm to 54 mm F1.6 (Wide), F2.8 (Tele)	f = 3.9 mm to 78 mm F1.6 (Wide), F2.8 (Tele)	f=4.6 mm to 82.8 mm F1.6 (Wide), F2.2 (Tele)	f = 3.6 mm to 43.2 mm F1.6 (Wide), F2.8 (Tele)
Minimum Object Distance	800mm	500 mm (Wide) 800mm (Tele)	10 mm (Wide, Limiter Off) 500 mm (Wide, Limiter On) 800 mm (Tele)	100 mm (Wide, Limiter Off) 500 mm (Wide, Limiter On) 1,500 mm (Tele)	300 mm (Wide) 800 mm (Tele)
Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-30°			Pan: ±175° Tilt: +90°/-30°	Pan: ±170° Tilt: +90°/-30°
Pan/Tilt Speed	Pan: 0.22° to 60°/s Tilt: 0.22° to 60°/s	Pan: 0.25° to 60°/s Tilt: 0.25° to 60°/s	Pan: 0.22° to 60°/s Tilt: 0.22° to 60°/s	Pan: 0.25° to 60°/s Tilt: 0.25° to 60°/s	Pan: 0.25° to 60°/s Tilt: 0.25° to 60°/s
Preset Position	16				6
Image Stabilization	On/Off (Optical)	On/Off (Optical)	On/Off (Optical)	No	No
Image Flip	On/Off	On/Off	On/Off	On/Off	On/Off
ND Filter	No	Off/ND1/ND2	No	Off/ 1/4 / 1/16 switchable in menu	No
Gamma	STD1/STD2/STD3/STD4/CINE1/CINE2/CINE3/CINE4	Normal/Cinema	Normal/Cinema	Normal/Cinema	No
Interface					
HD Video Output	HD/SD-SDI(switchable) Component (Y/Pb/Pr) or RGB, HD, VD or SYNC	Component (Y/Pb/Pr) or RGB, HD, VD or SYNC			–
SD Video Output	Composite, Y/C	No	Composite, Y/C		VBS, Y/C
Camera Control Interface	RS-232C/RS-422 (VISCA)				
External Sync. Input	Yes				
General					
Power Requirements	DC 10.8 V to 13.2 V				DC 12 V
Power Consumption	Max 28.8 W (without optional cards)	Max 24 W (without optional cards)	Max 28.8 W (without optional cards)	Max 18 W (without optional cards)	21.6 W (without optional cards)
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)				
Storage Temperature	-4 °F to +140 °F (-20 °C to +60 °C)				
Dimensions (W x H x D)	7 7/8 x 10 1/4 x 9 3/8 inch (198 x 260 x 238 mm)	8 1/4 x 12 1/4 x 8 1/4 inches (207 x 310.8 x 207 mm)	7 7/8 x 9 3/4 x 9 3/8 inches (198 x 247 x 238 mm)	6 3/8 x 7 3/8 x 7 5/8 inches (160.8 x 186 x 193.4 mm)	7 1/8 x 8 3/8 x 8 1/8 inches (180 x 210.1 x 205 mm)
Weight	11 lb 0.37 oz (5.0 kg)	9 lb 15 oz (4.5 kg)	9 lb 15 oz (4.5 kg)	4 lb 4 oz (1.9 kg)	5 lb 8 oz (2.5 kg)
Supplied Accessories	IR Remote Commander Unit (1), AC power adaptor (1), AC power cord (1), RS-422 connector plug (1), Ceiling bracket (2), Wire rope (1), Screws (M3 x 8) (7), Screws (M4 x 8) (1), Operating instructions (1)				IR Remote Commander Unit (1), AC power adaptor (1), AC power cord (1), RS-422 connector plug (1), Ceiling bracket (2), Wire rope (1), Screws (7), Operating instructions (1)

	BRU-H700	BRU-SF10
Interfaces		
Optical fiber connector	LC Duplex Fiber Connector	
Optical cable type	Multi-mode	Single-mode
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC	
SD video output	—	
External sync input	BNC	
External sync output	BNC	
Audio line output	Phono jack x2 (L/R)	
Camera control	Mini DIN 8 pin: RS-232C (VISCA IN), Mini DIN 8 pin: RS-232C (VISCA OUT), Connector plug 9 pin: RS-422 (VISCA IN/OUT)	
Optional card slots	2 slots	
General		
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)	
Storage temperature	-4 °F to +140 °F (-20 °C to +60 °C)	
Power requirements	AC 100 V to 240 V (50/60 Hz)	DC 12 V
Power consumption	Max. 10 W (without optional cards)	Max. 15.6 W (without optional cards)
Dimensions (W x H x D)	8 3/8 x 3 1/2 x 9 1/2 inches (210 x 86 x 240 mm)	
Weight	5 lb 5 oz (2.4 kg)	4 lb 7 oz (2.0 kg)
Supplied accessories	AC power cord, RS-422 connector plug, RS-232C cable (3 m, Mini DIN 8 pin), Operating instructions	AC adapter, Power cord, DC-cord secure connection attachment, RS-232C connecting cable, RS-422 connector plug, Operationg Instructions

	HFBK-HD1	HFBK-SD1	BRBK-MF1	BRBK-HSD1	BRBK-HSD2	BRBK-301
Video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC BNC x2: HD-SDI	D-Sub 9 pin: Component (Y/Pb/Pr) or RGB, Composite or Y/C, SYNC BNC: Composite BNC: SD-SDI	LC Duplex Fiber Connector	BNC x2: HD-SDI or SD-SDI	BNC x3, HD-SDI or SD-SDI	D-Sub 9 pin: Component (Y/Pb/Pr) or RGB, Composite or Y/C, SYNC
Audio line input	—	—	Phono jack x2 (L/R)	—	—	—

	BRBK-302	BRBK-SA1	BRBK-SF1	BRBK-IP10	BRBK-IP7Z
Video output	BNC: SD-SDI	BNC x1: VIDEO, Mini DIN 4pin x1: S VIDEO, D-sub 9pin x1: RGB/SYNC	LC Duplex Fiber Connector	BNC x2: HD-SDI or SD-SDI*	BNC x2: HD-SDI or SD-SDI
Audio line input	—	—	—	Phono jack x2 (L/R)	RJ-45 x1: 10Base-T/100Base-TXAuto

* DATA MIX ON/OFF selectable in HD-SDI

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Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656
sony.com/ptz

This RM-IP10 includes software designed for use with an MS Windows® operating system (OS). U.S. export control regulations may require an export license for export/re-export of the Windows OS (for details, contact Microsoft Corporation).

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