SONY
make.believe

BRC Series
Color Video Cameras

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

The BRC Series consists of four Pan/Tilt/Zoom (P/T/Z) cameras—the BRC-H700, BRC-Z700, BRC-Z330, and BRC-300. They offer wide and smooth pan/tilt/zoom 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 the BRS-200 Remote Camera Operating Switcher. The BRC Series is ideal 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 the BRC Series cameras, particularly in education, broadcast, corporate, wedding and event applications.

PRODUCT LINEUP

BRC-H700

Equipped with three 1/3-type HD CCDs, the BRC-H700 offers excellent picture quality with high sensitivity and a high resolution of 1,070,000 effective pixels. This camera has the best sensitivity of the BRC Series; delivering superb performance in dimly lit environments, such as concerts or wedding venues. Moreover, the camera offers the widest viewing angle of the BRC Series, delivering broad images of each scene and providing a complete picture of ongoing events.

BRC-Z700

The BRC-Z700 offers a resolution of 1,040,000 effective pixels by deploying three 1/4-type ClearVid™ CMOS image sensors in combination with Sony-developed DSP technology. This camera includes a 20x optical auto-focus zoom lens with an optical image stabilizer. The perfect choice for long-distance-shooting applications, such as sporting coverage, this camera provides dual SD/HD outputs, enabling users to smoothly transition to a total HD system.

BRC-Z330

Equipped with a single 1/3-type 2-megapixel CMOS image sensor, the BRC-Z330 delivers stunning HD and SD images. This camera enables 1080i and 720p to be integrated in various HD systems. It also outputs SD signals simultaneously for added system flexibility; this is particularly useful when executing a system upgrade. In addition, the camera's quiet movement, compact size, light weight, and stylish design broaden the options when developing ideal applications.

BRC-300

The standard-definition BRC-300 comes equipped with three 1/4.7-type Advanced HAD™ CCD sensors. This camera delivers reliable picture quality and is the best choice for cost-efficient SD applications. It can capture images in 4:3 and 16:9 aspect ratios, the latter providing a wider viewing angle.

FEATURES

Auto White Balance

The BRC-Z700 and BRC-Z330 have an enhanced type of auto mode (Auto 2), which adds to the conventional auto mode (Auto 1). In Auto 2, the camera recognizes a wider range of color temperature as white – this is useful for video shooting when there are frequent variations in the lighting source.

Color Adjustment

The BRC-Z700 and BRC-Z330 can enhance or reduce a specific color region without changing the white balance focusing point. Both of these cameras adjust the saturation of six colors independently, and the BRC-H700 is able to modulate six colors simultaneously.

Color Detail

The BRC-Z700 and BRC-Z330 can adjust the image enhancer of a specific color, which is an enhancement over the conventional skin tone detail function. This allows you to adjust not only skin tone color but also all other colors.

Color AE

The BRC-Z330 is equipped with a Color AE function. When the camera detects a particular color, it adjusts exposure specifically for the color. This feature is useful when shooting objects that are located in front of a single-colored background. Also, the camera can adjust the skin tone color to the best brightness.

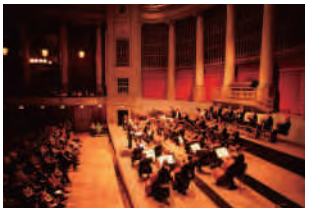
APPLICATIONS

Corporate/Boardroom

The BRC Series cameras are excellent for various business communication applications, such as videoconferencing, corporate training, and transmission of managers' regular speeches. Each camera in the series offers particular benefits, broadening the scope of camera choices for a wide range of applications. To quickly re-use a camera after someone else has been using it, simply touch a button on the supplied controller to recall pre-selected positions for capturing audio and switching scenes.

Auditorium/Concert Hall

With pan/tilt movement, the wide shooting range of a single camera can capture an entire live performance, including audience shots. This ability of the BRC Series means that fewer cameras and camera operators are required, resulting in huge cost savings. These cameras can easily get close shots of performers from locations that are typically difficult for a photographer to reach. Additionally, each camera's compact size and quiet movement avoid distracting audiences from the performance.

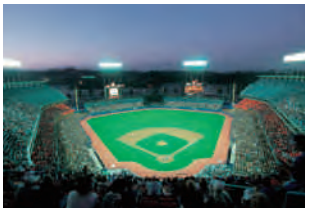


City Council

Remotely controlled by the RM-BR300 or BRS-200, BRC Series cameras move quickly to capture key scenes at council meetings and courtroom trials. Single-operator switching and broadcasting are supported by the BRS-200 switcher, while operation is simplified and streamlined by multiple pre-sets which pre-define P/T/Z positions and other parameters.

Sporting Events

With high-speed and extremely smooth pan/tilt movement, BRC Series cameras can follow the swift, spontaneous flow of sports action. By pre-installing cameras in elevated positions, they can deliver extensive views of each sporting event, and capture shots at unique angles, typically very difficult to achieve 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-H700, BRC-Z700 and BRC-Z330*2 can output HD-SDI signals – a necessity for highly demanding broadcasters who seek uncompromising picture quality. With flexible installation, these cameras can be painlessly integrated into the current operating studio with tripods or ceiling brackets. For the wide angles required in studio shooting, wide conversion lenses are available*3. And there are other camera benefits, including quiet and smooth P/T/Z movement, a tally indicator, cost-efficiency, and more.

*2 HD-SDI outputs are available using optional video cards.

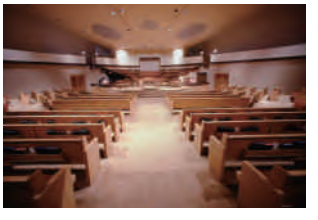
*3 Wide conversion lenses are available for the BRC-Z700 and BRC-300.

Education

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

House of Worship

By using a large screen in combination with the highly sensitive BRC Series cameras, an organizer can deliver clear video images with accurate color reproduction. Attendees can be 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 institution.



Wedding and Event

Pre-installed BRC Series cameras, with their quiet movement, are conducive to a perfectly peaceful and tranquil atmosphere. With high picture performance and zoom capabilities, these cameras can capture natural facial expressions and graceful movements. Also, due to their compact and sleek design, these cameras blend easily into the surrounding environment.

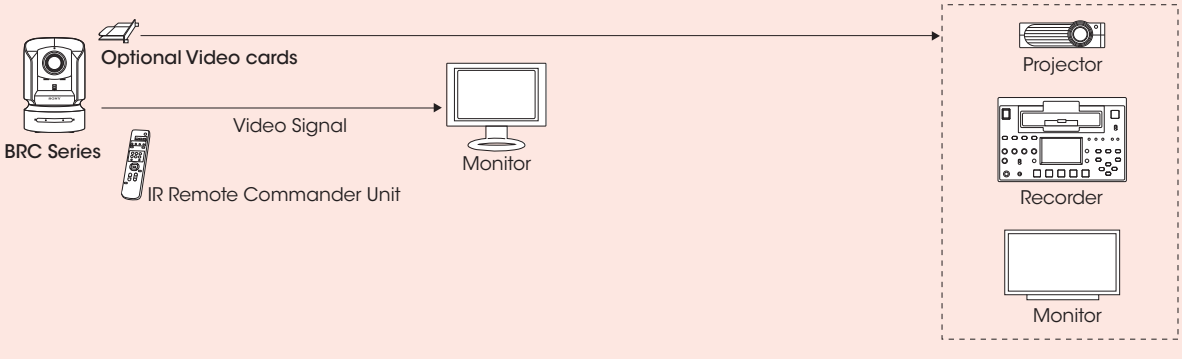
SYSTEM CONFIGURATION

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

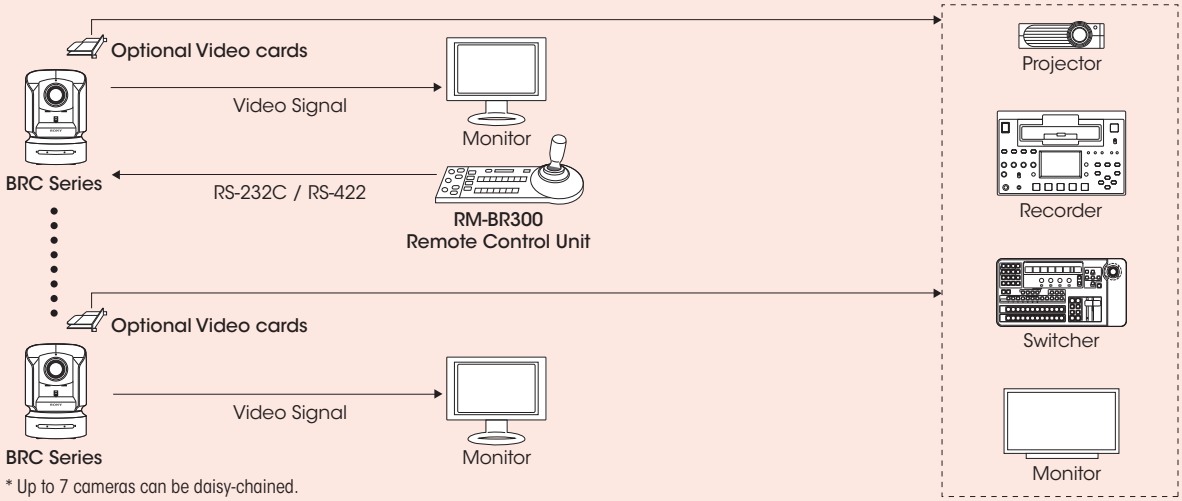
	BRC Simple System			
	BRC-H700 	**BRC-Z700** 	**BRC-Z330** 	**BRC-300** 
Wide Conversion Lens	—	VCL-HG0862*1 	—	VCL-0737W 
Optional Video Card (inserted to the BRC Series)	**HFBK-HD1** HD-SDI, HD Component (Y/Pb/Pr), RGB	**BRBK-HSD1** HD-SDI, SD-SDI	**BRBK-HSD2** HD/SD-SDI	**BRBK-301** Composite, Y/C, SD Component (Y/Cb/Cr), RGB
	HFBK-SD1 SD-SDI, Composite, Y/C, SD Component (Y/Cb/Cr), RGB		**BRBK-HD2***2 HD-SDI	**BRBK-302** SD-SDI
	HFBK-TS1 i.LINK (HDV)			
	HFBK-XG1 WXGA, XGA, VGA		**BRBK-SA1** Analog SD Output Card	**BRBK-304** i.LINK (DV)
Remote Control unit	RM-BR300 			

*1 The lens hood supplied with the VCL-HG0862K cannot be used.
*2 BRBK-HD2 can not be used with BRU-SF10.

Small Scale System



Medium-sized System

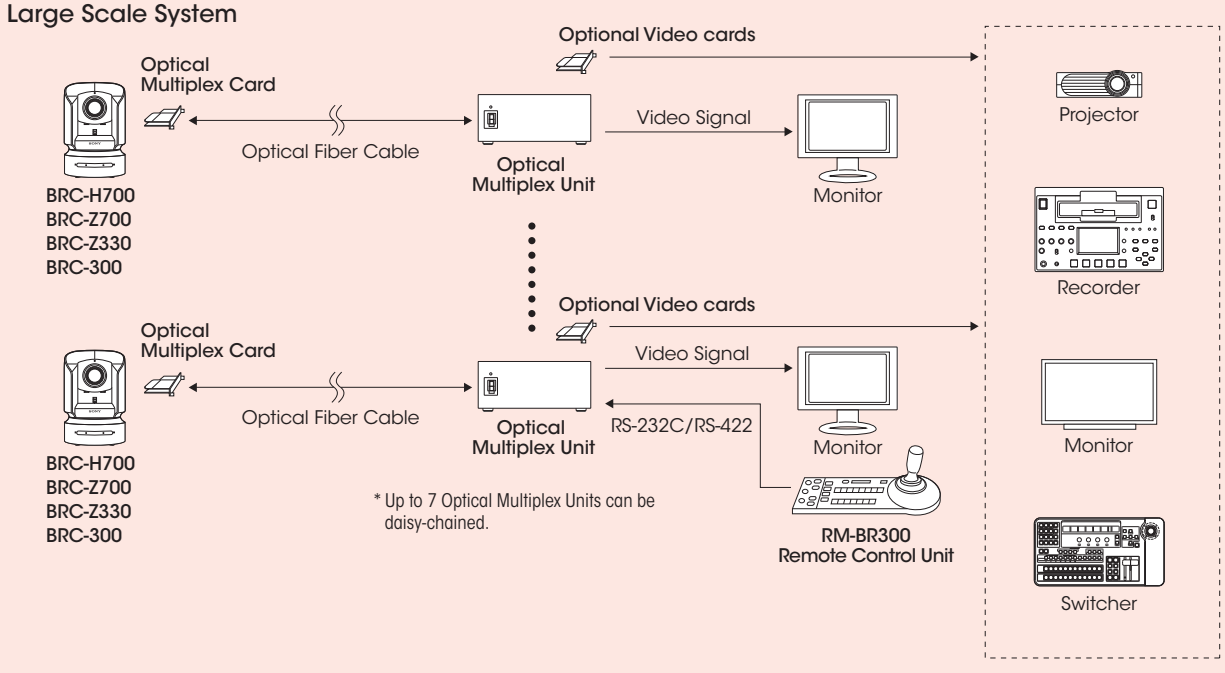


* Up to 7 cameras can be daisy-chained.

	BRC and BRU System			
	BRC-H700 	BRC-Z700 	BRC-Z330 	BRC-300 
Wide Conversion Lens	—	VCL-HG0862* 	—	VCL-0737W 
Optical Multiplex Card (inserted to the BRC Series)	BRBK-H700	BRBK-MF1	BRBK-SF1	BRBK-303
Optical Fiber Cable	CCFC-M100HG 		CCFC-S200 	CCFC–M100HG 
Optical Multiplex Unit	BRU-H700 		BRU-SF10 	BRU-300 
Optional Video Card (inserted to the BRC Series)	HFBK-HD1 HD-SDI, HD Component (Y/Pb/Pr), RGB		BRBK-HSD2 HD/SD-SDI	BRBK-301 Composite, Y/C, SD Component (Y/Cb/Cr), RGB
	HFBK-SD1 SD-SDI, Composite, Y/C, SD Component (Y/Cb/Cr), RGB			BRBK-302 SD-SDI
	HFBK-TS1 i.LINK (HDV)		BRBK-SA1 Analog SD Output	
	HFBK-XG1 WXGA, XGA, VGA			BRBK-304 i.LINK (DV)
Remote Control unit	RM-BR300 			

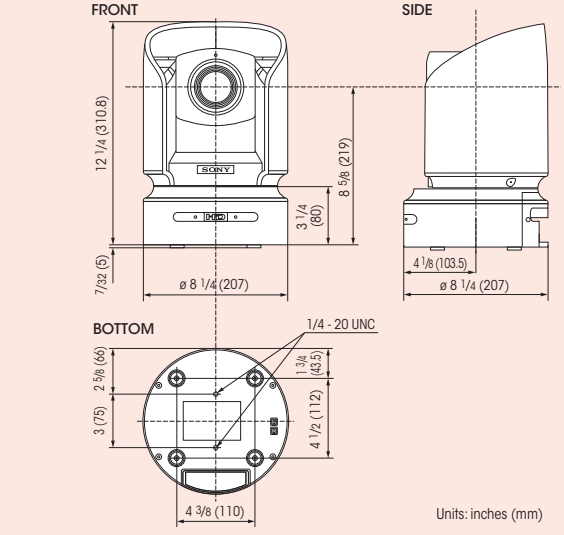
* The lens hood supplied with the VCL-HG0862K cannot be used.

Large Scale System



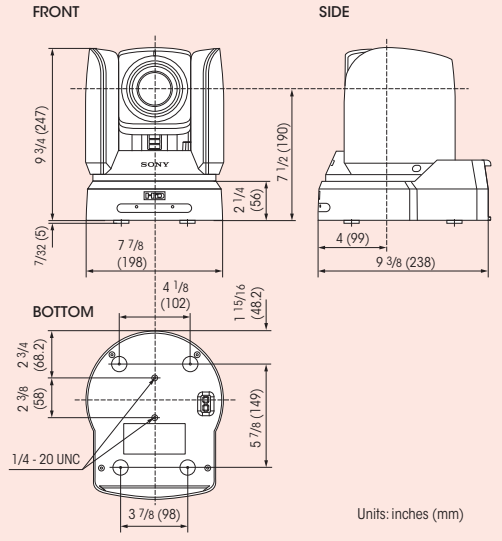
DIMENSIONS

BRC-H700



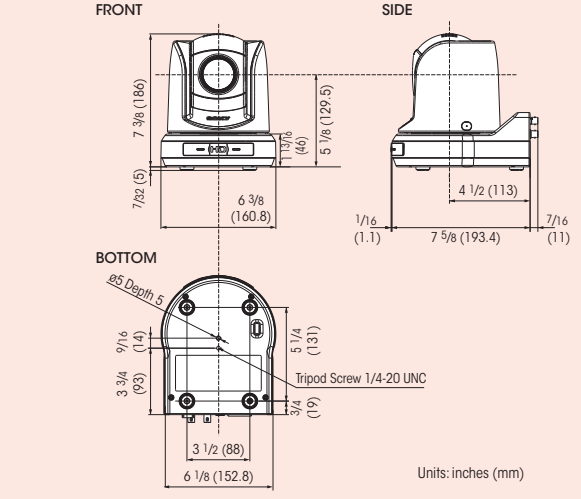
Units: inches (mm)

BRC-Z700



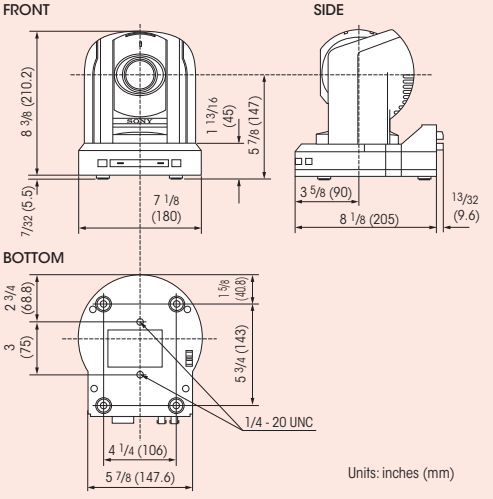
Units: inches (mm)

BRC-Z330



Units: inches (mm)

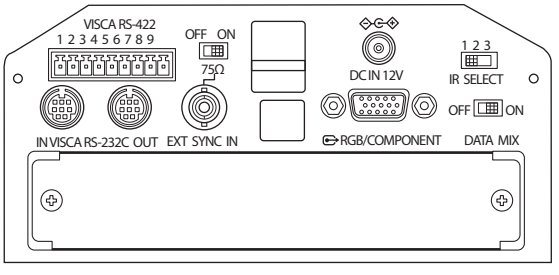
BRC-300



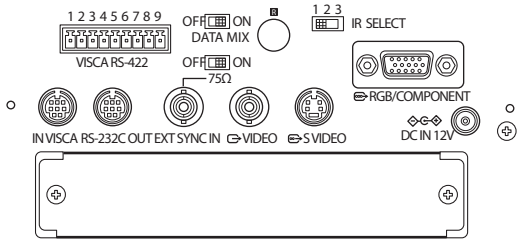
Units: inches (mm)

REAR PANELS

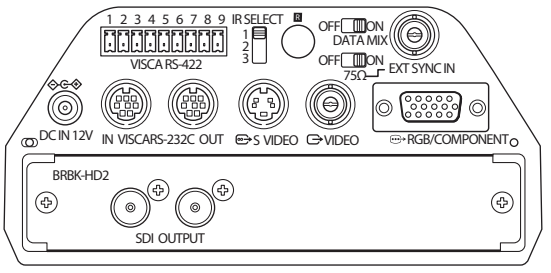
BRC-H700



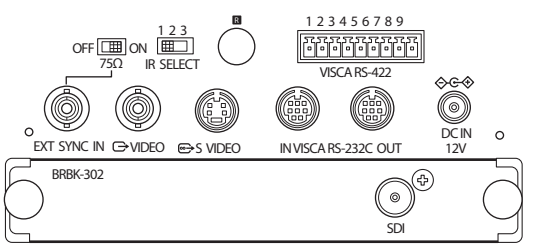
BRC-Z700



BRC-Z330



BRC-300



OPTIONAL ACCESSORIES

BRC-H700

BRBK-H700
HD Optical Multiplex Card

BRC-H700 BRU-H700

HFBK-HD1
HD Interface Board

BRC-H700 BRU-H700

HFBK-SD1
SD Interface Board

BRC-H700 BRU-H700

HFBK-XG1
XGA Interface Board

BRC-H700 BRU-H700

HFBK-TS1
i.LINK (HDV) Interface Board

BRC-Z700

BRBK-MF1
HD Optical Multiplex Card

BRC-Z700

BRBK-HSD1
HD/SD-SDI Output Card

BRC-Z330

BRBK-HD2
HD-SDI Output Card

BRC-300

BRBK-303
SD Optical Multiplex Card

BRC-300 BRU-300

BRBK-301
Analog RGB Component Card

BRC-300 BRU-300

BRBK-302
SDI Card

BRC-300 BRU-300

BRBK-304
DV Card

BRC-Z330 BRU-SF10

BRBK-HSD2
HD/SD-SDI Output Card

BRC-Z330 BRU-SF10

BRBK-SA1
Analog SD Output Card

BRC-Z330

BRBK-SF1
HD Optical Multiplex Card

BRC-H700 BRC-Z700

BRU-H700
HD Optical Multiplex Unit

BRC-Z330

BRU-SF10
HD/SD Optical Multiplex Unit

BRC-300

BRU-300
SD Optical Multiplex Unit

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

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

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

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

BRC-Z700

VCL-HG0862
VCL-HG0862K**
Wide Conversion Lens

BRC-300

VCL-0737W
Wide Conversion Lens

*These cables are for use with the BRBK-301 or HFBK-SD1. **The lens hood supplied with the VCL-HG0862K cannot be used.

PERIPHERAL EQUIPMENT

BRS-200
Remote Camera Operating Switcher

- Live Production and Presentation Switcher for HD or SD Systems
- Multi Viewing Function
- Rich Selection of Inputs and Outputs
  - Standard: SDI input x 4 / output x 4, DVI-I output x 1
  - With option: SDI input x 8 / output x 4, DVI-I input x 1 / output x 2
- BRC Series Camera Control Capability

RM-BR300
Remote Control Unit

- Easy Operation of Versatile Camera Adjustments
- The VISCA RS-232C/RS-422 Communication Interfaces Allow High-speed, Long-distance Communication
- A Tally Lamp Input/Contact Output Terminal Allows Connection of a Video Switcher
- Preset Feature to Save Camera Settings up to 16 positions*

* For the BRC-300, six positions can be saved.

SPECIFICATIONS

	BRC-H700	BRC-Z700	BRC-Z330	BRC-300	
Camera					
Signal systems	1080/59.94i or 1080/50i (switchable)	1080/59.94i, NTSC or 1080/50i, PAL (switchable)	60 Hz: 1080/59.94i, 720/59.94P, NTSC 50 Hz: 1080/50i, 720/50P, PAL	NTSC	
Sync systems	Internal/External				
Image device	1/3-type IT CCD x 3	1/4-type CMOS x 3	1/3-type CMOS image sensor	1/4.7- type CCD x 3	
Effective picture elements	Approx. 1.07 Megapixels	Approx. 1.04 Megapixels	Approx. 2.16 Megapixels	Approx. 0.69 Megapixels	
Lens	12x optical zoom (48x with digital zoom), Carl Zeiss Vario-Sonnar T* lens	20x optical zoom (80x with digital zoom), Carl Zeiss Vario-Sonnar T* lens	18x optical zoom (72x with digital zoom)	12x optical zoom (48x with digital zoom)	
Focal length	f=4.5 to 54 mm (F1.6 to F2.8)	f=3.9 to 78 mm (F1.6 to F2.8)	f=4.6 to 82.8 mm (F1.6 to F2.2)	f=3.6 to 43.2 mm (F1.6 to F2.8)	
Lens filter diameter	72 mm	62 mm	—	37 mm	
Minimum object distance	500 mm (Wide), 800 mm (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)	
Horizontal viewing angle	5.5 to 60.3 degrees	1.8 to 55.2 degrees	3.3 to 55.1 degrees	4:3 mode: 3.3 to 37.8 degrees, 16:9 mode: 4.0 to 45.4 degrees	
Focusing system	Auto/Manual				
Pan/Tilt angle	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)		-175 to +175 degrees (Pan), -30 to +90 degrees (Tilt)	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)	
Pan/Tilt speed	0.25 to 60 degrees/s (Pan/Tilt)	0.22 to 60 degrees/s (Pan/Tilt)	0.25 to 60 degrees/s (Pan/Tilt)		
Minimum illumination	6 lx (50 IRE, F1.6, +18 dB)	6 lx (50 IRE, F1.6, +24 dB)		7 lx (25 IRE, F1.6, +18 dB)	
Video S/N ratio	50 dB				
Shutter speed	1/10,000 s to 1/60 s or 1/10,000 s to 1/50 s			1/10,000 s to 1/4 s	
Gain	Auto/Manual (0 to 18 dB and Hyper Gain)	Auto/Manual (0 to 24 dB and Hyper Gain)	Auto/Manual (-3 to +24 dB and Hyper Gain)	Auto/Manual (-3 to +18 dB)	
White balance	Auto/Indoor/Outdoor/One-push/Manual	Auto1/Auto2/Indoor/Outdoor/One-push/Manual		Auto/Indoor/Outdoor/One-push/Manual	
Image stabilizer	On/Off (Optical)		—		
Image flip	On/Off				
ND filter	Off/ND1/ND2	—	Off/1/4/1/16 switchable in menu	—	
Preset positions	16			6	
Interfaces					
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC			—	
SD video output	—	BNC: Composite, Mini DIN 4 pin : Y/C	Composite, Y/C	BNC: Composite (NTSC), Mini DIN 4 pin: Y/C	BNC: Composite (PAL), Mini DIN 4 pin : Y/C
External Sync input	BNC				
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)				
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	DC 10.8 V to 13.2 V				
Power consumption	Max. 24 W (without optional cards)	Max 28.8 W (without optional cards)	Max 18 W (without optional cards)	Max. 21.6 W (without optional cards)	
Dimensions (W x H x D)	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	9 lb 15 oz (4.5 kg)		4 oz (1.9 kg)	5 lb 8 oz (2.5 kg)	
Supplied accessories	IR Remote Commander Unit, AC power adaptor, AC power cord, RS-422 connector plug, Ceiling bracket x2, Wire rope, Screws, Operating instructions				

	BRU-H700	BRU-SF10	BRU-300
Interfaces			
Optical fiber connector	LC Duplex Fiber Connector		
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC		—
SD video output	—		BNC: Composite (NTSC), Mini DIN 4 pin: Y/C
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		2 slots (When both slots are used simultaneously, the interface cards must be of two different types.)
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	AC 100 V to 240 V (50/60 Hz)
Power consumption	Max. 10 W (without optional cards)	Max. 15.6 W (without optional cards)	Max. 9 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)		8 3/8 x 3 1/2 x 8 3/8 inches (212 x 88 x 210 mm)
Weight	5 lb 5 oz (2.4 kg)	4 lb 7 oz (2.0 kg)	4 lb 10 oz (2.1 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	AC power cord, RS-422 connector plug, RS-232C cable (3 m, Mini DIN 8 pin), Operating instructions

	HFBK-HD1	HFBK-SD1	HFBK-XG1	HFBK-TS1	BRBK-MF1 *1	BRBK-HSD1	BRBK-HD2
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	D-Sub 15 pin: RGB, HD, VD (WXGA/XGA/VGA)	i.LINK 6 pin: HDV OUT (IEEE1394 S100)	LC Duplex Fiber Connector	BNC x2: HD-SDI or SD-SDI	HD-SDI
Audio line input	—	—	—	Phono jack x2 (L/R)	Phono jack x2 (L/R)	—	—

	BRBK-303 *1	BRBK-301	BRBK-302	BRBK-304	BRBK-HSD2	BRBK-SA1	BRBK-SF1 *2
Video output	LC Duplex Fiber Connector	D-Sub 9 pin: Component (Y/Pb/Pr) or RGB, Composite or Y/C, SYNC	BNC: SD-SDI	i.LINK 6 pin: DV OUT (IEEE1394 S100)	BNC x3, HD-SDI or SD-SDI	BNC x1: VIDEO, Mini DIN 4pin x1: S VIDEO, D-sub 9pin x1: RGB/SYNC	LC Duplex Fiber Connector
Audio line input	—	—	—	—	—	—	Phono jack x2 (L/R)

*1 Connection to CCFC-M100HG
*2 Connection to CCFC-S200

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

V-2456-B (MK10595V2)

Printed in USA (8/11)