EVI-D70, D70P (Black Model)
EVI-D70/W, D70P/W (White Model)

1/4 Type CCD | Zoom X 18 Lens | Auto Focus Lens | VBS Output | Y/C Output | * Long Exposure | Normal Shutter

* CCD Iris | * ATW White Balance | * AUTO White Balance | * One-Push White Balance | * Fixed White Balance | * Manual White Balance | PTZ Pan/Tilt/Zoom

Horizontal Flip | Vertical Flip | E-Zoom X 12 | RS232C Control | RS422C Control | Power Save

Connection Diagram P112

* For RS-232C control

Outline

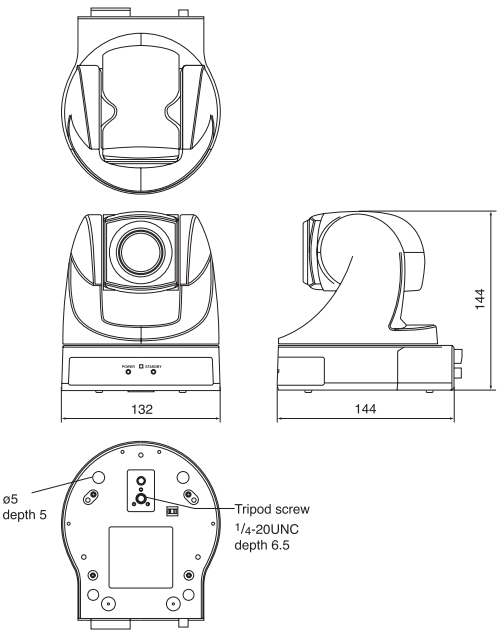
The EVI-D70, EVI-D70P, EVI-D70/W, EVI-D70P/W is a high-performance, high-sensitivity color video camera for day/night use, and is equipped with a wide range pan/tilter in one package, making it ideal for full-scale remote monitoring applications. With a high-sensitivity Exview HAD CCD™ and auto ICR function, this camera can provide sharp images whether day or night. The newly developed wide range pan/tilter allows a wide imaging range, and the built-in vertical flip function enables you to choose whether to mount the unit on the ceiling or in a standard position. The camera can also be used in combination with conversion lenses. Precise control is possible using the included remote commander or VISCA commands, and customized settings that support a variety of system demands can be made, allowing you to optimize your operations.

Features

- An EXview HAD CCD provides 380,000 (EVI-D70, EVI-D70/W)/410,000 (EVI-D70P, EVI-D70P/W) effective picture elements (pixels) enabling high-resolution imaging with this camera.
- The use of VISCA commands allows you to control the camera from a computer.
- High-speed, wide angle PAN and TILT functions and Image Flip (turning the displayed image upside down) allow the unit to be mounted on the ceiling, broadening the range of uses for this versatile camera.
- With the addition of external RS-232C communication, RS-422 and VISCA commands provide the ability to remotely control this camera from greater distances.
- The lens offers an18x optical zoom feature.
- Use of a newly developed digital signal processor (DSP) improves the image quality of the digital zoom feature.
- An IR (infrared) cut filter can be physically removed. In addition, it can be switched on and off automatically, providing the best image quality for a wide range of subjects, from high resolution to brightly lit.
- Up to six combinations of camera position and settings can be retained in memory and called up when needed.
- A multi-function Remote Commander is also provided.

* Exview HAD CCD™ and VISCA are trademarks of Sony Corporation

Dimensions

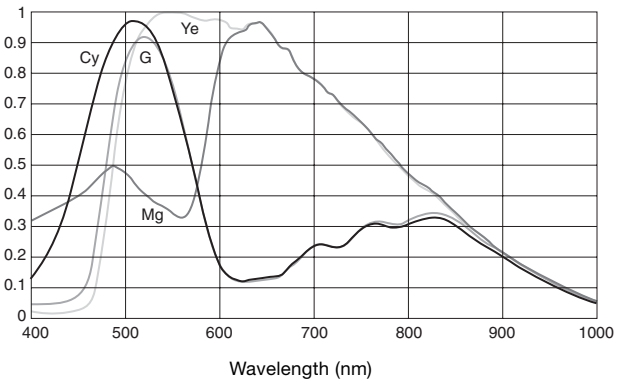


Unit: mm

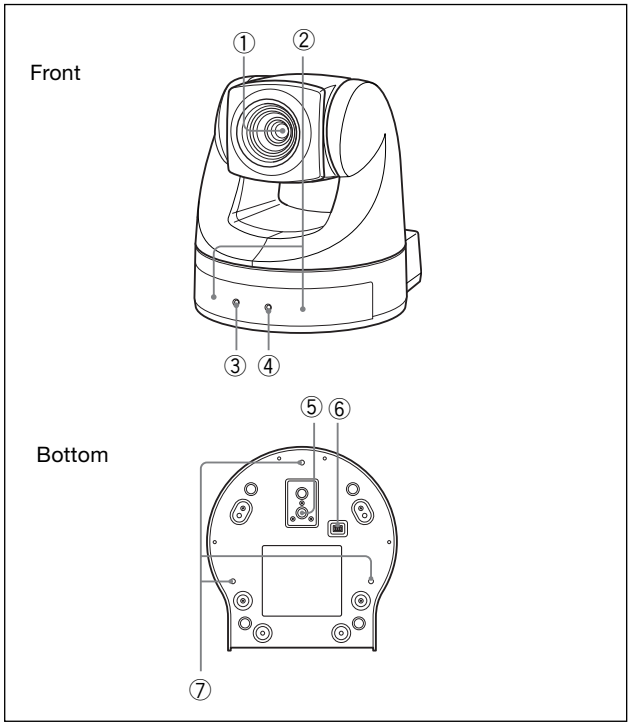
Spectral Sensitivity Characteristics

●EVI-D70, EVI-D70P, EVI-D70/W, EVI-D70P/W (Typical Values)

Relative sensitivity



Location and Function of Parts and Controls



① **Lens**
A wide conversion lens can be attached. Ø37 (M37P0.75)

② **Sensor for the Remote Commander**

③ **POWER lamp**

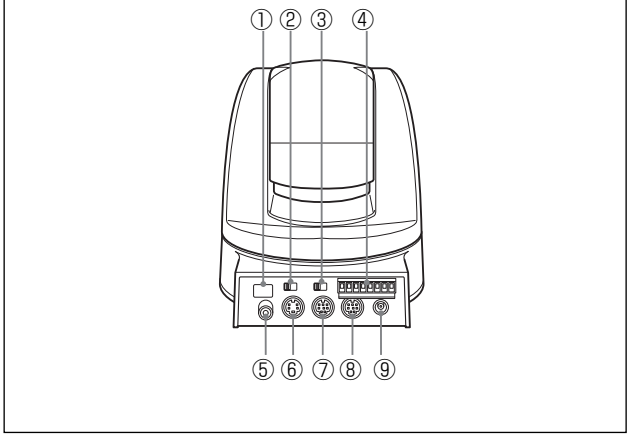
④ **STANDBY lamp**

⑤ **Tripod screw hole**

⑥ **BOTTOM switch**
Used to switch between RS-232C and RS-422, to switch between D30 and D31 modes, to make the IR OUT output setting, or switch between speeds of 9600 bps or 38,400 bps. For details, consult the Technical Manual.

⑦ **Ceiling bracket mounting screw holes**

Rear Panel



① **Sensor for the Remote Commander**

② **IMAGE FLIP switch**
Flips the image upside down. Normally set this to OFF when you use the camera. When the camera is attached to the ceiling, set this to ON. When you switch this, the pre-set setting is returned to the initial setting. It takes about 7 seconds for the image displayed to respond to the setting change.

③ **IR SELECT switch**

④ **VISCA RS-422 connector**
A VISCA RS-422 connector plug is attached to the unit at the factory.

⑤ **VIDEO (output) connector**

⑥ **S VIDEO (output) connector**

⑦ **VISCA RS-232C IN connector**

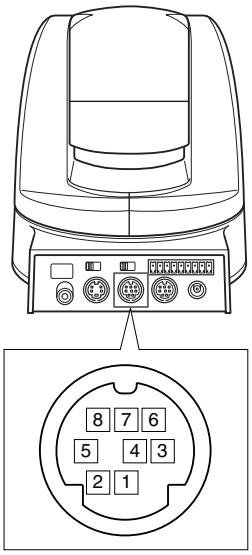
⑧ **VISCA RS-232C OUT connector**

⑨ **DC IN 12V connector**

Specifications

	EVI-D70, EVI-D70/W	EVI-D70P, EVI-D70P/W
Image device	1/4 type EXview HAD CCD	
Signal system	NTSC	PAL
Effective picture elements	768 (H) x 494 (V)	752 (H) x 582 (V)
Effective lines	470 TV lines (wide end)	460 TV lines (wide end)
Lens	18x zoom, f=4.1 mm (wide) to 73.8 mm (tele), F1.4 to F3.0	
Horizontal angle of view	2.7 (tele end) to 48 (wide end)	
Minimum object distance	10 mm (wide end)	
Minimum illumination	1 lx (F1.4) (50 IRE)	
Auto exposure	Auto/Manual/Priority AE, Exposure compensation, Back-light compensation	
Shutter speed	1 to 1/10,000 s	
Gain	Auto/Manual (-3 to +28 dB, 2 dB steps)	
White balance	Auto/ATW/Indoor/Outdoor/One push/Manual	
S/N ratio	50 dB	
Pan/tilt	Pan: ±170 (Max. speed: 100/s), Tilt: -30 to +90 (Max. speed: 90/s)	
Position preset	6 positions	
Picture effect	Neg. Art, Black & White	
Video output	VBS, Y/C	
Control terminal	RS-232C (8-pin mini DIN) control (VISCA)/RS-422 (9-pin) control (VISCA), baud rate: 9.6 Kb/s, 38.4 Kb/s	
Power requirement	DC 10.8 to 13.2 V	
Current consumption0	1.0 AÅiDC12 VÅj	
Operating temperature	0 to 40 °C	
Storage temperature	-20 to +60 °C	
Dimensions (W x H x D)	132 x 144 x 144 mm	
Mass	950 g	
Supplied accessories	AC adaptor (1), IR remote commander unit (1), Ceiling bracket (1), Operating instructions (1)	

● VISCA RS-232C

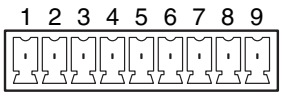


VISCA RS-232C IN

No	Pins	Signals
1	DTR	DataTransmission Ready (OUTPUT)
2	DSR	Data Set Ready (INPUT)
3	TXD	Transmit Data (OUTPUT)
4	GND	Ground
5	RXD	Receive Data (INPUT)
6	GND	Ground
7	IR OUT	IR Commander Signal (OUTPUT)
8	N.C.	No Connection

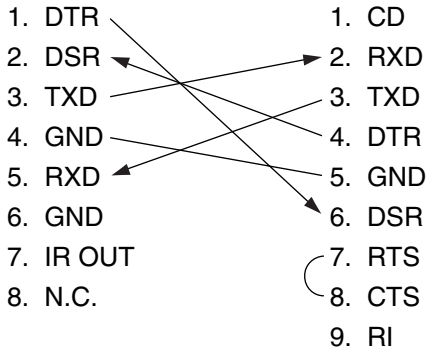
IR OUT outputs the signals of the Remote Commander at 0 to 5 V when the IR OUT switch is set to ON.

● VISCA RS-422

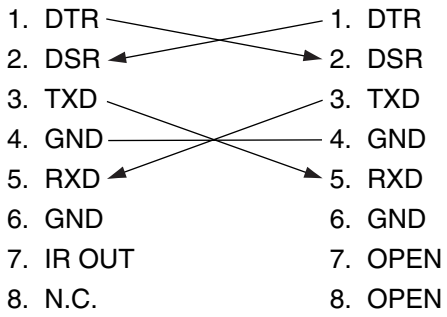


No.	Function
1	TXD IN +
2	TXD IN -
3	RXD IN +
4	RXD IN -
5	GND
6	TXD OUT +
7	TXD OUT -
8	RXD OUT +
9	RXD OUT-

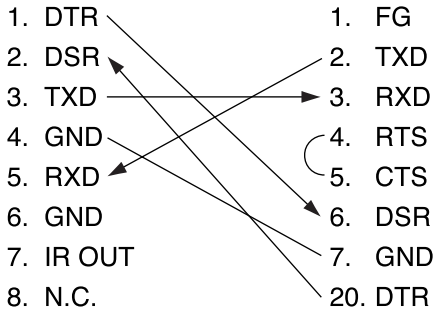
● EVI-D70 Series — Windows D-Sub 9 pin



● EVI-D70 Series — EVI Camara or Mini DIM 8 pin serial



● EVI-D70 Series — Windows D-Sub25 pin



Initial Values and Backup

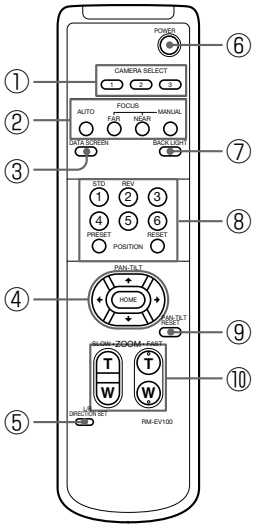
The initial values are those set at the factory. Settings for items in Position presets 1 to 6 that will be retained even when the power to the camera is turned off are indicated by a "○", those that will be lost are indicated by an "×".

Mode/Position	Initial Setting	Position preset	Positio preset 2 to 6
Pan/Tilt Position	Home position	○	○
Pan/Tilt Limit Position	Movable range maximum	○	×
Zoom Position	Wide end	○	○
Zoom On/Off	On	○	○
Zoom Separate/Combine	Combine	○	×
Zoom Position	00h	○	○
Focus Position	—	○	○
Focus Auto/Manual	Auto	○	○
Near Limit	8000h (29 cm)	○	○
AF Sensitivity	Normal	○	×
AF Mode	Normal	○	×
AF	5 sec	○	×
AF Interval	5 sec	○	×
WB Mode	Auto	○	○
WB Data (Rgain, Bgain)	—	○	○
One Push WB Data	—	○	×
AE Mode Full	Auto	○	○
Slow Shutter Mode	Manual	○	○
Shutter Position	1/60sec (NTSC), 1/50sec (PAL)	○	○
Iris Position	—	○	○
Gain Position	—	○	○
Bright Position	—	○	○
Expose revision On/Off	Off	○	○
Expose revision	±0	○	○
BackLight On/Off	Off	○	○
Spot AE On/Off	Off	○	×
Spot AE	X=8, Y=8	○	×
Aperture Level	5	○	○
IR_Receive On/Off	On	○	×
IR_ReceiveReturn On/Off	Off	○	×
Auto Power Off Timer	0	○	×
Night Power Off Timer	0	○	×
LR Reverse On/Off	Off	○	×
Freeze On/Off	Off	×	×
Picture Effect	Off	○	×
ICR On/Off	Off	○	○
Auto ICR On/Off	Off	○	×
Preset Memory	Initial setting	○	○
Display On/Off	Off	○	○
Mute On/Off	Off	×	×
Title Display On/Off	Off	○	×
Title	—	○	×
Alarm On/Off	Off	○	×
Alarm Mode	—	○	×
Alarm Detect Level	—	○	×

Note

- The number of times data can be written to the EEPROM (by executing Position Preset) is limited.
- If you want the camera status and Pan/Tilt positions in effect before the camera is turned off to be retained when the power is turned OFF, then turned ON again, have the camera memorize those positions in POSITION 1.
- It takes approximately 2 seconds longer to memorize or erase settings in POSITTION 1 than it does to memorize or erase setttings in any other channel.
- Camera ID data will be saved regardless of the position preset.

Remote Commander



① **CAMERA SELECT buttons**

② **FOCUS buttons**
AUTO button
FAR button
NEAR button
MANUAL button

③ **DATA SCREEN button**

④ **PAN-TILT button**
Arrow buttons
HOME button

⑤ **L/R DIRECTION SET button**

⑥ **POWER switch**

⑦ **BACK LIGHT button**

⑧ **POSITION buttons**
Numeric buttons (Button 1 also works as the STD button. Button 2 also works as the REV button.)
PRESET button
RESET button

⑨ **PAN-TILT RESET button**

⑩ **ZOOM buttons**
SLOW T button
SLOW W button
FAST T button
FAST W button