

## COLOUR VIDEO CAMERA

The FCB-EX780S/EX780SP colour block cameras incorporate a newly developed, powerful 25x AF zoom lens and a 1/6 type Super HAD CCD™ as well as an image stabiliser function. These cameras also feature a newly developed Digital Signal Processing (DSP) that greatly enhances the quality realised by the slow shutter function and the digital zoom. The image stabiliser minimises the appearance of shaky images caused by low frequency vibration, making the FCB-EX780S/EX780SP cameras ideal for outdoor surveillance and traffic monitoring applications. Also incorporated in the FCB-EX780S Series is a new automatic ICR (IR Cut filter removal) mode for increased sensitivity in low light environments. The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day and night environments. With the combination of the ICR mode and slow shutter speed operation, the FCB-EX780S/EX780SP cameras can achieve superb near-infrared sensitivity of 0.02 lux. The FCB-EX780S/EX780SP cameras also offer privacy zone masking, quick camera control via high-speed serial interface (max. 38.4 Kbps) and convenient preset functions perfectly suited for a wide range of surveillance and monitoring applications.

# FCB-EX780S FCB-EX780SP



## Component/OEM

### FEATURES

- **Super HAD CCD™** with 680,000 pixels (NTSC) /800,000 pixels (PAL)
- **300x zoom ratio** (25x optical, 12x digital)
- **Auto ICR (IR Cut filter removal) Mode**  
Auto ICR function automatically controls ICR to achieve sensitivity to near-infrared range in low light environments, making the camera ideal for day/night monitoring operations.
- **Spot AE** With its new DSP system, the AE area can be user-defined and controlled to optimise the brightness within the specific area.
- **Electric shutter/slow shutter** (long time exposure)
- **Image Stabiliser** Image Stabiliser minimises the effect of shaky images caused by low frequency vibration allowing the camera to be used in outdoor applications. When this function is activated, horizontal resolution is kept as normal.
- **Privacy Zone Masking** The Privacy Zone Masking function allows preset, prohibited sections from being captured when monitoring outside environments. Up to 6 positions can be preset.
- **Various Auto Functions** AE (Auto Exposure), WB (White Balance) and AF (Auto Focus)
- **Various digital effects** (Mirror Image, Freeze, Neg. Art, Black White, etc.)
- **High speed serial interface** (max. 38.4 Kbps) and TTL signal level control (VISCA protocol)
- **Preset** (6 positions)
- **Internal/External sync.**
- **Low power consumption** – min. 1.5 W (with non-active motors)

[www.sony-vision.com](http://www.sony-vision.com)

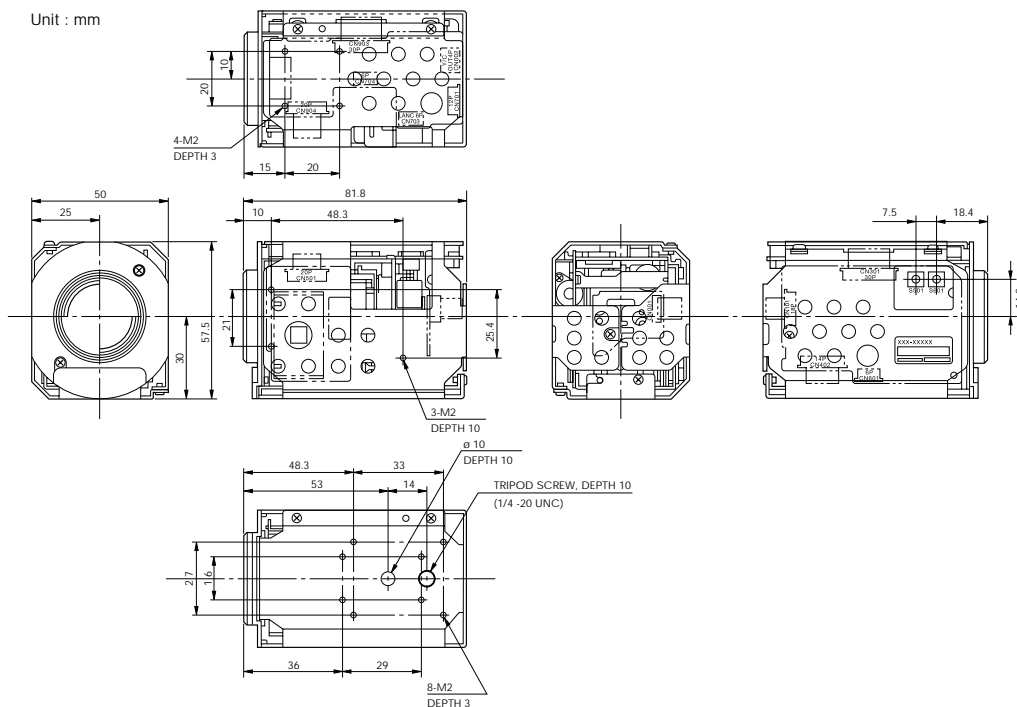
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# SPECIFICATIONS

	FCB-EX780S	FCB-EX780SP
CCD Sensor	1/6 Type CCD	1/6 Type CCD
Signal System	NTSC	PAL
Picture Elements	Approx. 680 K pixels	Approx. 800 K pixels
Horizontal Resolution	470 TV lines	460 TV lines
Lens	25x zoom, f=2.4 mm (wide) to 60 mm (tele), F1.6 to F2.7	
Digital Zoom	12x (300x with optical zoom)	
Angle of View	(H) 45 degree (wide end) to 2.0 degree (tele end)	
Min. Working Distance	35 mm (wide end), 800 mm (tele end)	
Sync System	Internal / External (V-Lock)	
Recommended Illumination	100 to 100,000 lux	
Min. Illumination	3.0 lux (50 IRE) / 0.02 lux in Auto ICR Mode	
S/N Ratio	49 dB	
Electronic Shutter Speed	1/4 to 1/10,000 s, 20 steps	1/3 to 1/10,000 s, 20 steps
White Balance	Auto, ATW, Indoor, Outdoor, One-Push WB, Manual WB	
Gain	Auto/Manual (-3 to 28 dB, 16 steps)	
AE Control	Auto, Manual, Priority mode, Bright, Exposure compensation, Back Light compensation	
EV Compensation	-10.5 to +10.5 dB (1.5 dB steps)	
Focusing System	Auto (Sensitivity: Normal, Low), One-Push AF, Manual, Infinity, Interval AF, Zoom Trigger AF	
Picture Effects	Mirror Image, Negative/Positive Reversal, Black White (Monochrome Image), Freeze Frame	
Camera Operation Switch	Zoom tele, Zoom wide	
Aperture Control	16 steps	
Preset	6 positions	
Serial Interface	VISCA protocol (TTL), 9.6 Kbps, 19.2 Kbps, 38.4 Kbps, Stop bit 1/2 bit	
Video Output	VBS: 1.0 Vp-p (Sync negative) Y/C Output	
Storage Temperature/ Humidity	-20 to 60 °C/20 to 95 %	
Operating Temperature/ Humidity	0 to +50 °C/20 to 80 %	
Power Requirements	6 to 12 V DC	
Power Consumption	With 9.0 V input voltage: 1.5 W (with non-active lens motors), 2.3 W (with active lens motors)	
Mass	230 g (8.1 oz)	
Dimensions	50.0 (W) x 57.5 (H) x 82 (D) mm (2 x 2 3/8 x 3 1/4 inches)	

## DIMENSIONS

Unit : mm



## PIN ASSIGNMENT

### CN901

Pin No.	Name	Level
1	RxD	CMOS 5 V (low: max 0.8 V, high: min 2.0 V) Read Data
2	TxD	CMOS 5 V (low: max 0.1 V, high: min 4.4 V) Send Data
3	GND (for RxD&TxD)	
4	DC IN	9.0 ± 3V
5	GND (for DC IN)	
6	VBS OUT	1.0 ± 0.2 V (75 Ω terminated)
7	GND (for VBS OUT)	
8	V LOCK PULSE	External VD-Lock Pulse (EX.FV: Negative, 3 Vp-p 50 % duty)
9	GND (VL PULSE)	

Connector: PG-FPC9SM-T (ELCO)

### CN902

Pin No.	Name
1	Y_OUT
2	GND (for Y signal)
3	C_OUT
4	GND (for C signal)

Connector: S4B-ZR-ST3-TF (JST)

Product information is available on the Sony Home Page

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<http://www.sony-vision.com>

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