

# CV228 Quick Start Guide

Lipstick Camera with 3GSDI

www.marshall-usa.com



## Precautions

**WARNING** Do not use the camera if fumes, smoke, or strange odors are emitted from the unit, or if it seems not to function correctly. Disconnect the power source immediately and consult your supplier.

**CAUTION** Always follow the instructions in the installation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly. For the correct power supply, refer to the specification sheet.

**CAUTION** Do not install or operate in small, unventilated areas. Heat buildup can significantly reduce the performance and operating life of the product and may cause a fire.

**CAUTION** To prevent damage, do not drop the camera or subject it to strong shock or vibration.

**CAUTION** If installed close to a TV, radio transmitter, magnet, electric motor transformer or audio speakers the magnetic field generated may interfere with or distort the image.

**CAUTION** Whether or not the camera is used outdoors, never point it toward the sun. Use caution when operating the camera in the vicinity of spot lights or other bright lights and light reflecting objects.

**CAUTION** Do not use the camera in extreme environments where high temperatures or high humidity exists. Use the camera under conditions where temperatures are between 14°F ~122°F (-10°C ~ 50°C), and humidity is below 90%.

## Regulatory Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference,
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## Features

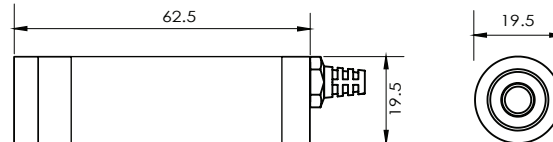
- Full-sized 3G/HDSI (BNC) output
- 2.5 Megapixel (1/2.86") sensor (4:2:2 color)
- 10-foot (3 meter) breakout cable with BNC (3GSDI), RS485 remote adjust, and locking 12V power
- Interchangeable 4.0mm (85-degree) lens under IP67 cap
- IP67-rated weatherproof housing; submerge in water up to 10-feet for several hours
- Full-HD resolutions: 1920 x 1080p, 1920 x 1080i and 1280 x 720p Frame rates: 60, 59.94, 50, 30, 29.97, 25, 24, 23.98 fps
- Remote adjustable through RS485 (Visca) or OSD menu joystick
- CV-RCP-V2 Touchscreen RCP compatible and free Camera Control Software option
- Wide range of picture adjustment settings including white balance, color, gain control, pedestal (blacks), white clip, exposure, gamma, and more

## Connectors



## CV228 Dimensions

### DIMENSIONS



Design and specifications are subject to change without notice.

## CV228 Specifications

Sensor	Image Sensor	1/2.86" Progressive CMOS (Approx. 2.4 Mega)
	Scanning System	16:9 Progressive
	Sync. System	Internal
	Effective Pixel	1944(H) x 1212 (V)
	Min. Illumination	0.2Lux(Day), 0.1Lux(Night), 0.005Lux(DSS on)
	Horizontal Resolution	1000TVL
Optics	Lens	M12 4.0mm (85-degree)
Functions	Back Light Compensation	WDR, BLC, Spot
	Exposure	Auto / Manual Shutter / Flickerless
	White Balance	Auto / ATW / Manual / Push
	Electronic Shutter	1/1 ~ 1/30000
	Functions	Privacy Mask, Image Mirror/Flip, DNR, D-Zoom, Defog, DIS (Digital Image Stabilizer)
Video Outputs	SDI	SMPTE 292M (1.485Gbps): 1920x1080p @25, 29.97, 30 fps / 1920x1080i @50, 59.94, 60 fps / 1280x720p @25, 29.97, 30, 50, 59.94, 60 fps
		SMPTE 424M(2.97Gbps): 1920x1080p @ 50, 59.94, 60 fps
		800mVp-p, 75Ω, unbalanced generator (single-ended)
Control Interface	RS485	Sony VISCA protocol 8 bits data, 1 stop bit, no parity, 2400 ~ 115200 bps
General	Operation Temperature	-10 C ~ 50 C
	Power Input	12VDC (7VDC to 15VDC)
	Power Consumption	Max 6W