

# COMPACT COLOR CAMERAS



## DESCRIPTION

TOA's compact color cameras represent new approaches to high-performance and high-resolution cameras for CCTV applications, each camera having specific features and functions.

- Indoor type:** C-CV14-CS (lens is optional)  
C-CV14-2 (with 2X varifocal lens)  
C-CV24-2 (with 2X varifocal lens)
- Outdoor type:** C-CV44-3 (with 2X varifocal lens)

## FEATURES

- **Easy power requirements**  
TOA compact color cameras operate on 24V AC or 12V DC.
- **High-performance CCDs**  
Each camera incorporates a 1/4" CCD with a resolution of 440,000 pixels (PAL) resulting a high horizontal resolution that exceeds 470 lines (PAL)
- **2X varifocal lens**  
To easily allow on-site adjustment for the viewing angle, each camera is fitted with a 2X manual varifocal lens having an auto iris.

- **Wide-ranging view angles**  
Optimal camera angle of view extends from 53.2 to a wide 105 degrees, enhancing coverage over a wide range for more effective monitoring (C-CV14-2 and C-CV24-2).
- **Versatile enough to handle less than perfect lighting.**  
To cope with varying lighting conditions, backlight compensation can be switched on or off as required.
- **Flicker-free for easier viewing**  
The cameras do not cause the image to deteriorate as often caused by fluorescent lighting. Annoying image flicker is eliminated for more effective monitoring.
- **Focus adjustment switch for easy focusing**  
To simplify focusing even without using the ND filter\*, an adjustment switch is provided for foolproof focusing.

### Adjustment switch makes focusing simple.

TOA Compact Cameras do not require an ND filter for adjusting focus. By just setting the focus adjustment switch on the camera to ON, the lens iris opens and a shallow depth of field is maintained. To achieve perfect focus simply and easily, just set the adjustment switch ON, adjust focus and then set the switch OFF.



# C-CV14-CS

## COLOR CAMERA

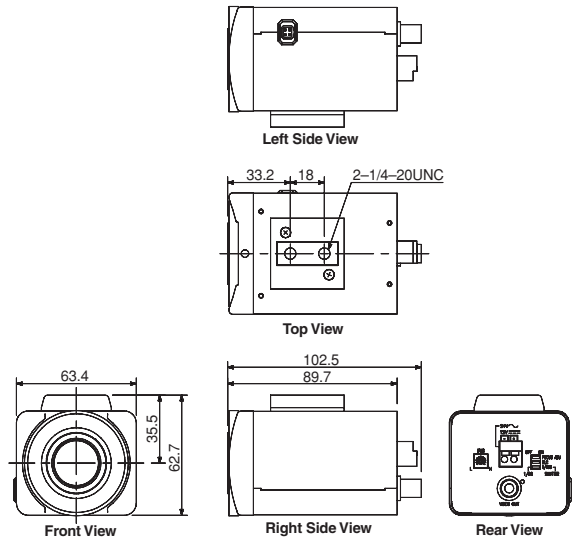


Lens is optional

Compact  
Color Cameras

- Specifically designed for use in indoor applications
- Lens available separately from a range of lens options. Camera accepts any CS mounted lens.
- 24V AC or 12V DC operation
- Horizontal resolution exceeds 470 lines PAL
- Equipped with backlight compensation function
- Flickerless operation for viewing ease
- Adjustment switch for easy focusing without using an ND filter

### APPEARANCE AND DIMENSIONAL DIAGRAM



unit: mm

### SPECIFICATIONS (PAL)

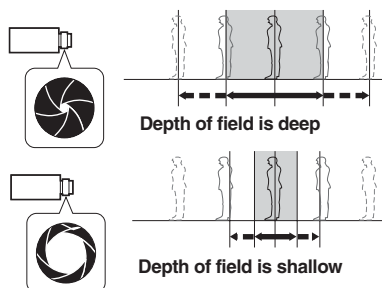
Power Source	24V AC, 50/60Hz or 12V DC
Power Consumption	2W
Image Device	1/4" CCD
Number of Effective Pixels	752 (H) × 582 (V) (440,000 pixels)
Scanning System	2:1 interlace
Scanning Frequency	Horizontal: 15.625kHz, Vertical: 50Hz
Video Output	1.0V (p-p) 75Ω, BNC connector
Synchronizing System	Internal synchronization
Resolution	Horizontal: 470 lines (at center), Vertical: 410 lines (at center)
S/N Ratio	48dB
Minimum Illumination	3 lx (F1.4, 350mV)
White Balance Mode	ATW
Lens Mount	CS mount
Auto-Iris Lens Output	DC input type (4 pin connector)
Control Switch	ON/OFF (used for focus adjustment)
Other Function	Backlight compensation, Shutter speed (1/50, 1/120), Iris control
Operating Temperature	-10°C to +50°C
Operating Humidity	Under 90% RH (no due condensation produced)
Applications	Indoor use
Finish	Case: Surface-treated steel plate, light grey, paint Front cover: Zinc, light grey, paint
Dimensions	63.4 (W) × 62.7 (H) × 102.5 (D)mm
Weight	300g
Option	Camera mounting bracket/Lens

### \*Focus Adjustment and the ND Filter

#### Iris and field of depth

When adjusting focus, an important aspect is depth of field, actually the depth of the focus. The term depth is used is because we can describe it as being deep or shallow. If the in-focus area goes well into (long distance) the subject field is referred to as being deep. If the background area is not in focus but the subject field is in sharp focus, the field is referred to as being shallow.

The depth of field will change depending on the focal length of the lens, the iris of the lens and the shooting distance. And in surveillance cameras, the lens iris has an effect on focusing. As the diagram makes clear, the wider the lens iris opening size, the shallower will be the depth of field.

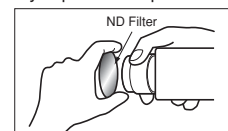


#### Why will correct focus set during the day go off at night?

That's because focus has not been precisely set. Shooting with an auto-iris lens, the amount of light during the day makes the lens iris opening stay small. This results in a deep depth of field. But as day turns to night, the lens iris opens to get more light, the depth of field is reduced and the focus goes off. To adjust the focus, it is necessary to open the lens iris and reduce the depth of field.

When using an auto-iris lens, the ND filter must be used to approximate nighttime light conditions so that the lens iris stays open and depth of field is reduced before adjusting the focus.

\* Neutral Density (ND) Filter:  
A filter which reduces light coming through the camera lens without any effect on the light's color temperature.



\* TOA Compact Cameras do not require the ND Filter for adjusting focus.