

# General Specifications

GS 85A7C01-11E

FC15U (Outdoor)  
High Rotation-speed  
Pan-tilt Type  
CCD Color Camera



## ■ GENERAL

The FC15U High Rotation-speed pan-tilt type outdoor CCD color camera is compact and lightweight, making it suitable for installation in small spaces. The camera is an intelligent pan-tilt type, which has an embedded controller and can memorize preset point values. The camera employs an integrated structure which can be equipped with visible light illumination or infrared illumination. The camera, which also has excellent durability, can be used for a wide range of applications, such as monitoring and diagnosis of facilities. What's more, the camera line-up includes the following types of FC15U cameras.

- High-sensitivity type that permits whole day continuous monitoring without special lighting
- RS-485 type which offers more PC-friendly camera control
- Variable-speed type that can pan and tilt at an optionally set speed

## ■ Standard Specifications

### Camera

Camera type: Color  
Image Sensor : 1/4 interline CCD-Alley  
(An infrared ray cut filter ON/OFF function is available for the infrared camera.)  
Signal : NTSC, (PAL\*)  
Effective pixels : 380,000 pixels, 768 (H) x 494 (V)  
(PAL\*: 438,000 pixels, 752 (H) x 582 (V))  
Horizontal resolution: 470 TV lines  
Synchronous system: Internal synchronization  
Video S/N: 50 dB  
White balance: ATW  
Electronic shutter: 1/10,000 to 1/60 to 1/4 second  
Minimum illuminance of subject (typical)  
Standard sensitivity: 0.7 lx/F1.4 at a shutter speed of 1/60 second  
High sensitivity: 0.05 lx/F1.4 at a shutter speed of 1/4 second  
Zoom magnification: (18x optical) x (12x digital)  
Lens: f4.1 to 73.8 mm/F1.4 to 3.0 (focal length/F Number), auto focus  
Horizontal field of vision: Approx. 48.0° (wide-angle) to approx. 2.8° (telephoto)

### Preset

Number of preset points: 24  
Preset items: Pan-tilt, zoom, and focus positions



## Pan-tilt Specifications

Rotation angle	Pan: approx. 360° Tilt: approx. 180°
Rotational speed	When manually operated Pan: 3 to 15°/second Tilt: About 2/3 of the pan setting value (Variable-speed model)
	Movement to pre-set points Pan: 3 to 15, 30, 45, 60, 90°/second (Variable-speed model) Tilt: About 2/3 of the pan setting value
Rotational accuracy	±0.5°

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## Input/Output

### Common to all models

Video output: VBS 1.0 Vp-p 75Ω  
Video transmission distance:  
Max. 300 m (when 5C-2V cable is used)  
Distance can be extended using a cable compensator (up to 1,200 m) or an optical converter.

### Multiplex signal control model

Control signal input: Multiplexed video and control signals (multiplex signal on a single coaxial cable)  
Control signal transmission distance: Max. 1,200 m (when 5C-2V cable is used)

### RS-485 control model

Control signal input: Asynchronous communication of 8-bit data and 1 stop bit, at 9,600 bps via an RS-485 interface  
Control signal transmission distance: 1,200 m (when 0.5 mm<sup>2</sup>, dual twisted-pair shielded cable is used. Depends on the RS-485 specifications)

**Main Body**

- Waterproof construction: IEC IP66 equivalent
- Material (case): Aluminum alloy
- Coating: Polyurethane corrosion-resistant coating
- Paint colors
  - Cover: Deep sea moss green (Munsell 0.6GY3.1/2.0 equivalent)
  - Case: Frosty white (Munsell 2.5Y8.4/1.2 equivalent)
- Weight: 15.0 kg (main body including the illumination part)
- Others: A wiper, shade, hood and a defroster as standard devices. Heater to be specified using an suffix code

**Power Supply**

- Allowable power supply: 85 to 132 V AC at 50/60 Hz ±5%
- Power consumption: 170 VA at 100 V AC (excluding illumination)

**Installation Environment**

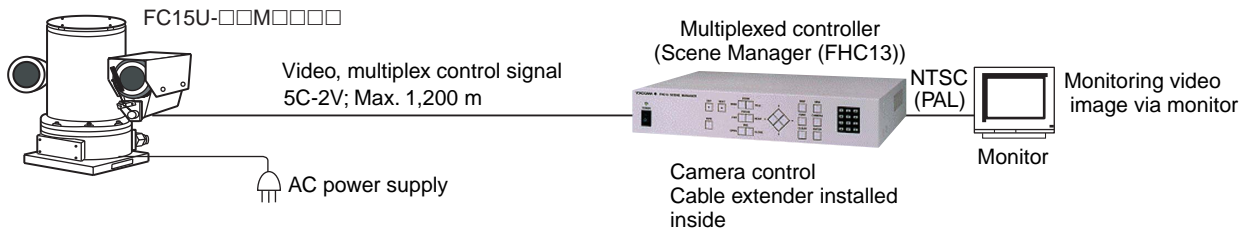
- Operating temperature
  - with Heater: -10 to +50°C (14 to 122°F)
  - without Heater: 0 to +50°C (32 to 122°F)
- Tilted alignment: Within ±10° from horizontal in either a left or right side orientation
- Others: Salt-tolerant coating is to be custom-ordered

**Illumination**

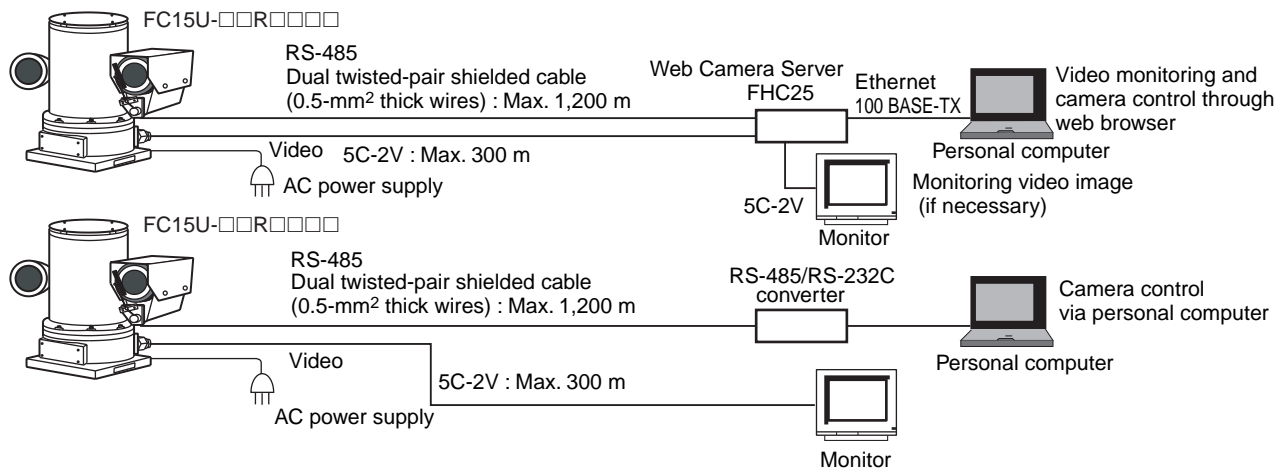
- Types: Selection of either visible light illumination or (invisible) infrared illumination. No illumination can also be specified.
- Illumination distance: About 100 meters  
(The center illuminance for visible light illumination is approximately 1.0 lx. The center illuminance for infrared illumination is approximately 0.7 lx.)
- Illumination range: Approximately six degrees horizontally and five degrees vertically
- Power consumption: About 40 W

**■ System Configuration for Each Type of Control**

**1. Multiplex signal control model**

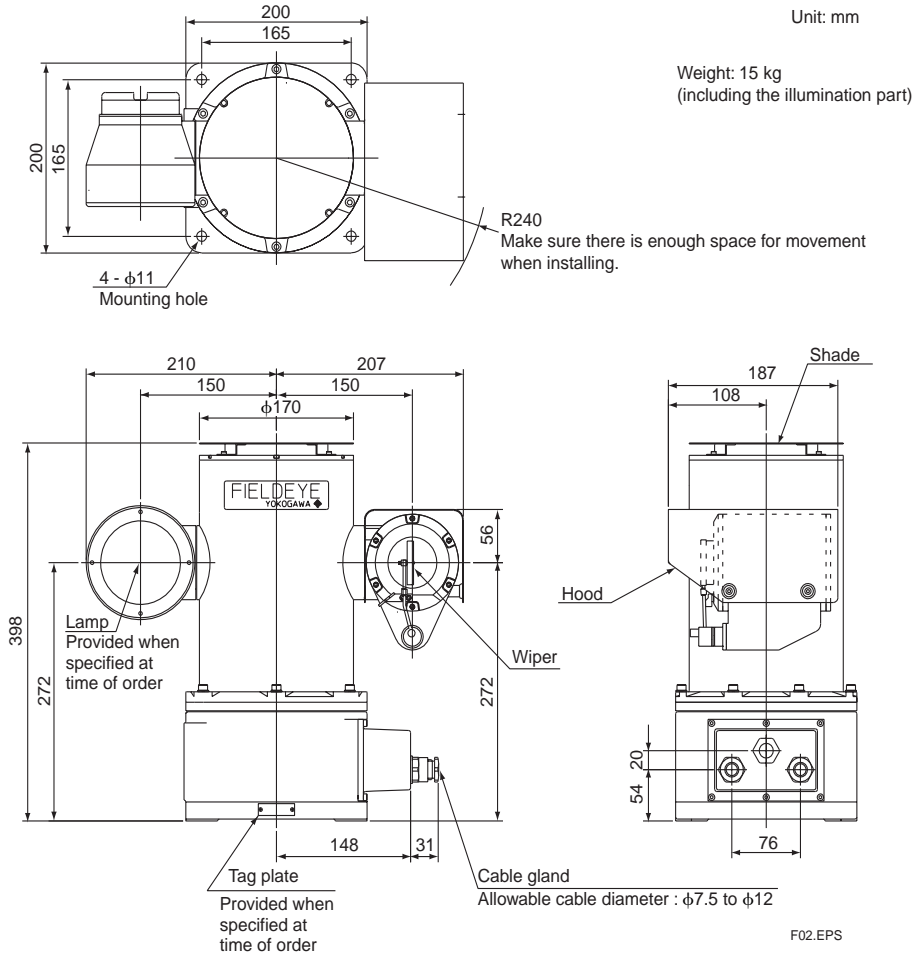


**2. RS-485 control model**



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**External Dimension**

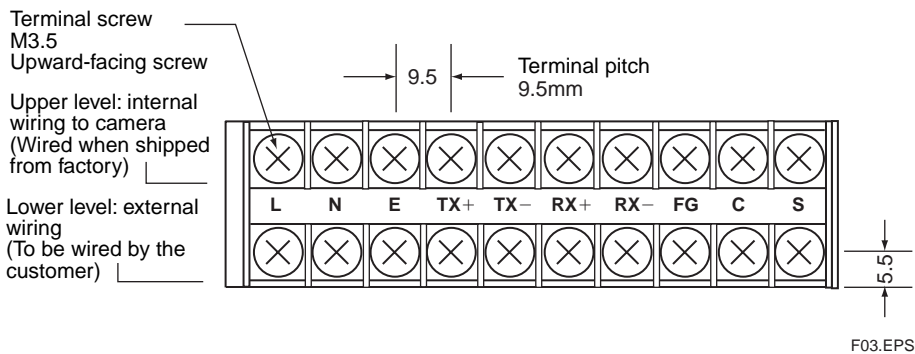


**Cables (to be provided by user)**

<b>Power supply cable</b>	3 wire cable with 1.25mm <sup>2</sup> wires	A crimping terminal is used for connection on the camera side. Use an M3.5 crimping terminal. (which is available as an accessory)
<b>Video signal cable</b>	Coaxial cable with a 75- $\Omega$ characteristic impedance equivalent to 5C-2V or 7C-2V. Dual shielded cables are recommended in terms of noise tolerance.	
<b>RS-485 cable</b>	Dual twisted-pair (of 0.5mm <sup>2</sup> wires) shielded cable	

The terminal unit for cable wiring is laid out as follows:

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**Model and Suffix Codes**

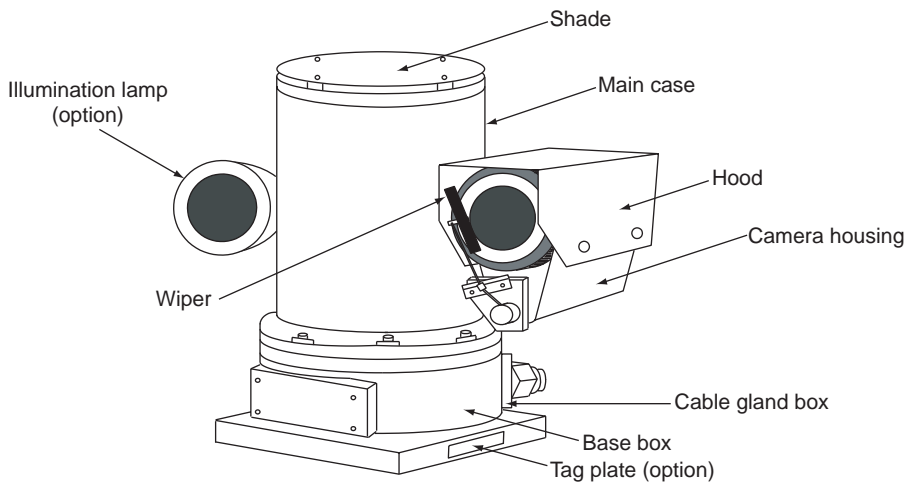
Model	Suffix Code	Option Code	Description
FC15U			Integrated illumination outdoor pan-tilt type CCD color camera (With wiper, defroster, shade, hood)
Camera type	-B		Standard sensitivity, 1/4 inch, 380,000 pixels (PAL: 438,000pixels)
	-C		High sensitivity, 1/4 inch, 380,000 pixels (PAL: 438,000pixels)
	- R(Note 1)		High sensitivity infrared, 1/4 inch, 380,000 pixels (PAL: 438,000pixels)
Heater	H		With heater
	N		Without heater
Control type	M(Note 2)		Multiplex signal
	R		RS-485
Pan-tilt speed	006		6°/second, fixed speed
	090		3 to 15, 30, 45, 60, 90°/second, variable speed
Illumination type	H		Visible light illumination
	R		Infrared illumination (Note1)
	N		No illumination
Option		/ T(Note3)	Tag plate (Stainless plate attached)
		/ LA	Built-in arrester
		/TK	Tool kit for illumination lamp change

Note 1: When high sensitivity infrared is chosen, choose "infrared illumination" for illumination type.

Note 2: For multiplex signal control cameras, always order the Multiplexed controller, FHC13 Scene Manager.

Note 3: Specify the tag number using up to 15 alphanumeric and/or " - ", " / " characters.

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**Associated Equipment**

For information about the multiplexed controller, FHC13 scene manager, see GS 85A7C01-07E.

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