Panasonic
ideas for life

Super Dynamic Ⅲ
Weather Resistant Dome Camera
WV-CW970 Series
WV-CW960 Series
(Advanced Auto Track)

NTSC WV-CW974 (24 V AC) PAL WV-CW970 (220 ~ 240 V AC) WV-CW974 (24 V AC)
WV-CW964 (24 V AC) WV-CW960 (220 ~ 240 V AC) WV-CW964 (24 V AC)

SDⅢ
Super Dynamic

IP66 standard 30x OPTICAL ZOOM day/night

All-in-one 24-hour outdoor surveillance camera featuring 30x zoom and *Super Dynamic Ⅲ*

Key Features

- *Super Dynamic Ⅲ* technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- High resolution: 540 TV lines typical / 520 TV lines minimum (Color HIGH mode), 480 TV lines minimum (Color NORMAL mode), 570 TV lines minimum (B/W mode)
- High sensitivity with Day/Night function: 0.5 lux (Color) at F1.4 (Wide), 0.04 lux (B/W) at F1.4 (Wide). IR cut filter switches on/off to enhance the sensitivity in B/W mode.
- Adaptive Digital Noise Reduction: Integration of 2D-DNR and 3D-DNR ensures noise reduction in various conditions.
- Electronic sensitivity enhancement: Auto (Up to 32x) / Manual (Up to 32x)
- Electronic shutter from 1/100 (NTSC), 1/120 (PAL) to 1/10,000 sec.
- 30x zoom lens: 3.8 ~ 114 mm (approx. 300x with digital zoom)
- Pan/Tilt speed of max. 400°/s at preset mode and 0.065°/s super fine control at manual mode
- 5 degrees upper view for various applications
- 256 preset positions that can be activated from the system controller with a switcher or recorder (specific models).
- Advanced auto tracking with new template matching algorithm (WV-CW970 Series) Operates zoom to focus on the target, ON/OFF selectable for each preset position, Manual lock-on by controller operation, Alarm activation by tracking duration and Alarm area setup. Auto release to minimize false detection, Total of 8 Masking and Alarm areas
- Auto tracking (WV-CW960 Series): The camera follows the largest movement in the image automatically. The camera will pan and tilt to keep the subject in the center of the image.
- VMD (Video Motion Detector) with Mask 8 x 6 areas
- Scene Change Detection alarms when lens is covered, spray painted, removed or defocused.
- 4 alarm inputs and 2 outputs terminals

- Alarm actions include Terminal output, Camera positioning, Auto pan, Patrol, SEQ, Sort, Auto track, B/W and command output.
- Auto Image Stabilizer for applications where vibration or wind is a concern.
- Internal / Line-lock / Multiplexed Vertical Drive (VD2) synchronization
- Over the coaxial cable or RS-485 data communication
- 16 alphanumerics camera title display
- Multi language: English, French, Italian, Spanish, German, Russian, Chinese, Japanese
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.
- Built-in fan/heater for temperature changes of –40 °C ~ +50 °C (–40 °F ~ +122 °F)
- Built-in sun shield permits camera locations in direct sunlight.

Standard Accessories

- Operating Instructions .... 1 pc.
  The following items are for installation.
- 8P Alarm Cable .... 1 pc.
- 4P Alarm Cable .... 1 pc.
- Connector for 24 V AC
  (only for WV-CW974/WV-CW964) ..... 1 pc.
- Front/rear sun shield .... 1 set
- Front/rear sun shield mounting screws
  .... 2 pcs. (*one screw is a spare)
- Waterproof cap .... 3 pcs.

Optional Accessory

Wall Mount Bracket
WV-Q122

This catalog is provided for all over the world.
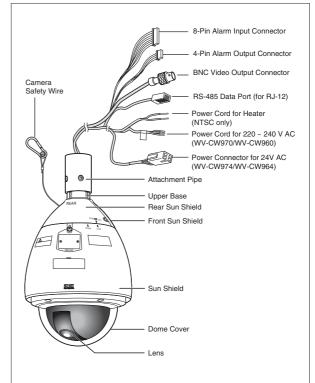Some accessories may not be available in some countries.

Specifications

TV System		NTSC	PAL
Camera	Image Sensor	1/4 inch interline transfer CCD	
	Effective Pixels	768 (H) x 494 (V)	752 (H) x 582 (V)
	Scanning Mode	2:1 interlace	
	Scanning Area	3.65 (H) x 2.74 (V) mm	3.65 (H) x 2.71 (V) mm
	Scanning Frequency	Horizontal: 15.734 kHz Vertical: 59.94 Hz	Horizontal: 15.625 kHz Vertical: 50 Hz
	Scanning Line	525 lines	625 lines
	Horizontal Resolution	540 TV lines typical / 520 TV lines minimum (Color HIGH mode), 480 TV lines minimum (Color NORMAL mode), 570 TV lines minimum (B/W mode)	
	Minimum Illumination	Color (30 IRE): 0.5 lux (SENS UP: OFF), 0.016 lux (SENS UP: 32x) at F1.4 B/W (10 IRE): 0.04 lux (SENS UP: OFF), 0.0013 lux (SENS UP: 32x) at F1.4	
	Signal-to-Noise Ratio	50 dB (AGC: OFF, Weight: ON)	
	White Balance	AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)	
	Light Control	ALC / MANUAL	
	AGC	ON (LOW, MID, HIGH) / OFF	
	Super Dynamic III	ON / OFF (With BLC masking 8 x 6 areas)	
	Dynamic Range	52 dB typical (Super Dynamic III : ON)	54 dB typical (Super Dynamic III : ON)
	Electronic Shutter	OFF (1/60), AUTO, 1/100, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s	OFF (1/50), AUTO, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s
	Electronic Sensitivity UP	OFF / AUTO (2x, 4x, 6x, 10x, 16x, 32x) / FIX (2x, 4x, 6x, 10x, 16x, 32x)	
	Digital Noise Reduction	High or Low	
	Resolution Mode	Normal or High	
	Black and White Mode	Mode: AUTO / ON / OFF, Level: High / Low, with external control	
	Digital Zoom	10x	
	Scene File	10 patterns (Shutter, AGC, Sens UP, White balance, VMD)	
	Scene Select Setting	INDOOR (L) / INDOOR (H) / OUTDOOR (L) / OUTDOOR (H)	
	Video Motion Detection	OFF / Mode1 (VMD) / Mode2 (Scene change), Mask 8 x 6 areas	
	Privacy Zone	OFF / Gray / Mosaic, 8 zones	
	Auto Image Stabilizer	ON / OFF	
	Camera Title	16 alphanumeric characters	
	Auto Focus	Manual S/M/L (one push) / AUTO S/M/L (after PTZ operation)	
	Synchronization	Internal (INT), Multiplexed Vertical Drive (VD2), Line-Lock (LL)	
Lens	Focal Length	3.8 mm ~ 114 mm, 30x zoom (approx. 300x with digital zoom)	
	Zoom Speed	approx. 6.0 second (Tele ~ Wide) in manual mode	
	Zoom Limit	1x ~ 300x (Over 30x is digital zoom)	
	Angular Field of View	H: 1.9° (Tele) ~ 52.0° (Wide), V: 1.4° (Tele) ~ 40.0° (Wide)	
	Maximum Aperture Ratio	1:1.4 (Wide) ~ 3.7 (Tele)	
	Focusing Range	1.5 m (4.9 ft.) ~ ∞	
	Aperture Range	F1.4 ~ 22, Close	
Pan and Tilt	Panning Range	360° endless	
	Panning Speed	Manual: approx. 0.065 °/s ~ 120 °/s, 256 steps, Preset: approx. 400 °/s	
	Tilting Range	~5° ~ 185° (5° upper view available)	
	Tilting Speed	Manual: approx. 0.065 °/s ~ 120 °/s, 256 steps, Preset: approx. 400 °/s	
	Proportional Pan/Tilt Control	Supported	
	Number of Preset Positions	256	
	Auto Mode	OFF, Home, SEQ, SORT, AUTO PAN, PATROL 1 ~ 4, AUTO TRACK	
	Auto Track — WV-CW970 Series	PTZ operated, Detection area masking, Auto release ON/OFF selectable for each preset position, Manual lock-on, Alarm activation by duration and programmable Alarm area. Total of Masking and Alarm area is 8.	
	Auto Track — WV-CW960 Series	Standard Auto Track	
	Patrol	Selectable: 2 min. (1 program) / 1 min. (2 programs) / 30 sec. (4 programs)	
	Image Hold	ON / OFF	
	Digital Flip	ON / OFF	
	Area Title	8 area titles, 16 characters/area	
	Preset Alarm	ON / OFF	
Alarm	Alarm Source	Terminal input, VMD, Command alarm	
	Alarm Actions	Preset position 1 ~ 4, PATROL 1 ~ 4, AUTO TRACK 1 ~ 4, SEQ, SORT, AUTO PAN, B/W	
Input / Output	Video Output	1.0 V [p-p] / NTSC composite 75 Ω / BNC Connector, Multiplexed VD2 and control data capable	1.0 V [p-p] / PAL composite 75 Ω / BNC Connector, Multiplexed VD2 and control data capable
	RS-485 Control IF	RS-485 (RJ-11) x1, 2/4wire, Full/Half duplex	
	External I/O Terminals	4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 outputs (ALARM/AUX1, BW/AUX2)	
General	Setup Method	OSD setup menu	
	Password Lock	ON / OFF	
	Language	English, Russian (For setup menu and camera title), German, French, Italian, Spanish (For setup menu), Chinese, Japanese (Only for camera title. Setup menu will be English.)	
	Safety/EMC Standard	UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA)	CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558)
	Power Source and Power Consumption	24 V AC, 60 Hz, 17 W, (for camera) 62 W (for heater)	WV-CW974/WV-CW964: 24 V AC, 50 Hz, 77 W (including heater) WV-CW970/WV-CW960: 220 ~ 240 V AC, 50 Hz, 90 W (including heater)
	Ambient Operating Temperature	−40 °C ~ +50 °C (−40 °F ~ 122 °F)	
	Ambient Operating Humidity	90 % or less (without condensation)	
	Water and Dust Resistance	IP66, IEC60529 measuring standard compatible	
	Dimensions	ø239 mm (D) x 395.5 mm (H) (ø9-7/16" (D) x 15-9/16" (H))	
	Weight (approx.)	4.7 kg (10.4 lbs.)	
	Finish	Camera: Die cast Aluminum, backed on coating (Pain color: Fine Silver) Sun Shield: ASA resin, coated (Paint color: Fine Silver) Dome: Clear polycarbonate resin	

Trademarks and registered trademarks
– "Super Dynamic", "SDII", "SDIII" and "i-Pro" logos are trademarks or registered trademarks of Panasonic Corporation.
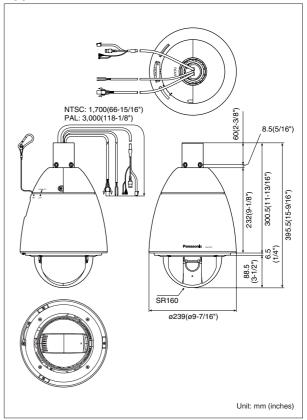**Important**
– Safety Precaution: carefully read the operating instructions and installation manual before using this product.

DISTRIBUTED BY:

Part Names and Functions

- 8-Pin Alarm Input Connector
- 4-Pin Alarm Output Connector
- BNC Video Output Connector
- RS-485 Data Port (for RJ-12)
- Power Cord for Heater (NTSC only)
- Power Cord for 220 ~ 240 V AC (WV-CW970/WV-CW960)
- Power Connector for 24V AC (WV-CW974/WV-CW964)
- Attachment Pipe
- Upper Base
- Rear Sun Shield
- Front Sun Shield
- Sun Shield
- Dome Cover
- Lens
- Camera Safety Wire

Appearance

NTSC: 1,700(66-15/16")
PAL: 3,000(118-1/8")

60(2-3/8")
8.5(5/16")
232(9-1/8")
300.5(11-13/16")
395.5(15-9/16")
6.5 (1/4")
88.5 (3-1/2")
SR160
ø239(ø9-7/16")

Unit: mm (inches)

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.

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