ES3012 Series Integrated Positioning System

ESPRIT® PREMIUM PERFORMANCE P/T, COAXITRON® COMPATIBLE

Product Features

- Integrated Receiver, Pan/Tilt, and Housing with No Exposed Cabling
- Optional ImagePak® Integrated Optics Package
- Quick and Simple Electrical Connections
- Variable Speed Advanced Motor Control Technology
- 360° Continuous Pan Rotation
- Zone Blanking Allows up to 8 Zones (Configurable in Size) to Be Set to Output Blank Video
- Operational in 145 kph (90 mph) Wind Conditions; Can Withstand Wind Velocity Up to 209 kph (130 mph)
- Pan Preset Speed of 100° Per Second in 80 kph (50 mph) Winds and 50° Per Second in 145 kph (90 mph) Winds
- Tilt Range of +33° to –83° from Horizontal
- Preset Positioning
- Designed for Minimal Maintenance, No Gears to Adjust
- Lightweight Aluminum Construction
- Meets NEMA Type 4X and IP66 Standards

**ES3012-2W SYSTEM
WITH WALL MOUNT**

Pelco's **Esprit® ES3012 Series** integrated positioning system ingeniously integrates a pan/tilt, enclosure, and receiver into one compact system that is easy to install. On-screen, user-friendly menus also make the system easy to configure and operate.

The **ES3012 Series** is available as a standard or ImagePak® system. The **Esprit ImagePak** system combines the innovative design of the standard system with a factory-installed camera and lens package of your choice. Choose from a variety of high resolution, day/night and color cameras. The standard system does not include the camera and lens components. It is designed to accept any 24 VAC camera and lens combination up to 30.73 x 8.76 x 8.05 cm (12.10" L x 3.45" W x 3.17" H).

Every **ES3012** system (standard or ImagePak) has a built-in heater, window defroster/defogger, sun shroud, and insulation blanket. The system is available with an input voltage of 24 VAC or with a selectable power source of 120/230 VAC.

A powder-coated, aluminum construction makes the **ES3012 Series** ideal for either indoor or outdoor applications. The system has an absolute operating temperature range of –40° to 60°C (–40° to 140°F). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of –25°C (–13°F).

The **Esprit ES3012 Series** variable pan and tilt speeds range from 0.5 degrees to 40 degrees per second in manual pan mode and 0.5 degrees to 20 degrees per second in manual tilt. Pan preset and turbo speeds are 100 degrees per second in wind speeds of 80 kph (50 mph) and 50 degrees per second in the 145 kph (90 mph) wind-speed profile. Tilt preset speed is 30 degrees per second. The **ES3012 Series** is capable of 360 degrees of continuous pan rotation. The tilt range allows for horizontal viewing of +33 to –83 degrees. There are 64 configurable preset positions with a preset accuracy of one-quarter degree.

The **ES3012 Series** features on-screen configuration menus for pan and scan speed, limit stops, zone blanking, and patterns. The unit also has a power-up recovery mode that allows the user to specify what condition the system will resume whenever the power is cycled.

ELECTRICAL

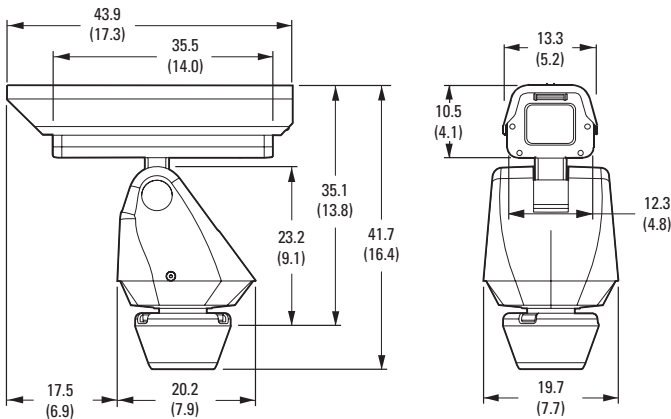|	
Input Voltage	24, 120, or 230 VAC, 50/60 Hz; switch selectable for 120/230 VAC inputs
Input Voltage Range	±10%
Power Consumption	Maximum 70 VA per system
Camera and Lens Voltage	24 VAC
Heater and Defroster	Thermostatically controlled
Electrical Connections	Two power source connections made at mount location with wire nut splices and one ground terminal; one BNC receptacle and four terminals on interconnect PCB at mount location

Video Coaxial Cable

Max. Wiring Distances	Cable Type*	Maximum Distance
	RG59/U	229 m (750 ft)
	RG6/U	305 m (1,000 ft)
	RG11/U	457 m (1,500 ft)

*Minimum cable requirements:
75-ohms impedance; all-copper center conductor; all copper braided shield with 95% braid coverage

MECHANICAL

Pan Movement	360° Continuous pan rotation
Vertical Tilt	Unobstructed +33° to –83°

Variable Pan/Tilt Speed

Pan	0.5° to 40°/sec variable-speed operation, 100°/sec Turbo
Tilt	0.5° to 20°/sec variable-speed operation

Preset Speeds

Pan	100°/sec
Tilt	30°/sec
Camera Mounting	Elongated holes on removable camera mount; supplied with an adapter bracket to accommodate various heights of cameras
Maximum Camera and Lens Size	Accepts camera and lens combinations (including BNC connector) up to: 30.73 x 8.76 x 8.05 cm (12.10" L x 3.45" W x 3.17" H)
Latches	One link-lock, No. 3 stainless-steel latch; can be secured with padlock (not supplied)

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

GENERAL

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware
Finish	Gray polyester powder coat
Viewing Window	4.76 mm (0.18-inch) thick, optically clear, impact-resistant MR5 coated Lexan® (UL 94 HB rated)
Window Viewing Area	5.71 cm (2.25-inch) diameter
Operating Temperature	–40° to 50°C (–40° to 122°F) for sustained system operation or 60°C (140°F) absolute maximum. Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of –25°C (–13°F).
Operating Environment	Will remain operational in 145 kph (90 mph) wind conditions; withstands 209 kph (130 mph)

Weight	Unit	Shipping
ES3012-2, ES3012-5	9.1 kg (20.0 lb)	12.3 kg (27.0 lb)
ES3012-2 or ES3012-5 with ImagePak option	11.7 kg (25.7 lb)	14.8 kg (33.0 lb)

CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- Meets NEMA Type 4X and IP66 standards
- U.S. Patents 340,940 and 5,224,675

LENS SPECIFICATIONS
(IMAGEPAK ESPRIT SYSTEMS ONLY)

	Z10/Z10P	Z20/Z20P	Z30/Z30P
Type	Motorized zoom	Motorized zoom	Motorized zoom
Format Size	1/3-inch	1/3-inch	1/3-inch
Focal Length	6 to 60 mm	5.6 to 112 mm	5.5 to 165 mm
Zoom Ratio	10X	20X	30X
Relative Aperture (F)	1.6 ~ 360	1.6 ~ 360	1.8 ~ 360
Operation			
Iris	Auto iris (direct drive)	Auto iris (direct drive)	Auto iris (direct drive)
Focus and Zoom	Motorized†	Motorized†	Motorized†
Angle of View			
Diagonal	9.7°~ 53.7°	3.2°~ 59.4°	2.1°~ 58.7°
Horizontal	7.8°~ 43.7°	2.6°~ 47.6°	1.7°~ 47.6°
Vertical	5.9°~ 33.0°	1.9°~ 35.7°	1.3°~ 33.9°
Min. Object Distance	1.0 m	1.5 m	1.8 m

†Model numbers with "P" suffix are motorized with preset capability.

TECHNICAL SPECIFICATIONS

CAMERA SPECIFICATIONS (IMAGEPAK ESPRIT SYSTEMS ONLY)

	Ultra High Resolution, Day/Night	High Resolution, Day/Night, WDR	
	C20-DN-6X (PF)	**C20-DW-6 (PJ)**	**C20-DW-6X (PK)**
Signal Format	PAL	NTSC	PAL
Image Device	Sony® 1/3-Inch EXview HAD CCD II™ 960H	Sony 1/3-inch Super HAD CCD II 960H	Sony 1/3-inch Super HAD CCD II 960H
Picture Elements	976 (H) x 582 (V), approx. 570k	976 (H) x 494 (V), approx. 480k	976 (H) x 582 (V), approx. 570k
Scanning System	625 lines, 2:1 interlace	525 lines, 2:1 interlace	625 lines, 2:1 interlace
Horizontal Resolution	650 TVL	650 TVL	650 TVL
Sensitivity			
B-W (SENS 4x)	0.05 lux, f/1.2, 30 IRE	500 ms, 0.05 lux, f/1.2, 30 IRE; 0.00004 lux, f/1.2, 30 IRE	20 ms, 0.05 lux, f/1.2, 30 IRE; 0.00004 lux, f/1.2, 30 IRE
Color (SENS 40x)	0.13 lux, f/1.2, 30 IRE	500 ms, 0.13 lux, f/1.2, 30 IRE; 0.03 lux, f/1.2, 30 IRE	20 ms, 0.13 lux, f/1.2, 30 IRE; 0.03 lux, f/1.2, 30 IRE
Electronic Shutter Range	Auto, 1/60 to 1/100,000 sec; Manual, 1/60 to 1/10,000 sec	Auto, 1/60 to 1/100,000 sec; Manual, 1/60 to 1/10,000 sec	Auto, 1/50 to 1/100,000 sec; Manual, 1/50 to 1/10,000 sec
Signal-to-Noise Ratio	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Automatic Gain Control	On/off 35 dB	Off/on up to 36 dB, 16 levels configurable	Off/on up to 36 dB, 16 levels configurable
Backlight Compensation	Yes	Yes	Yes

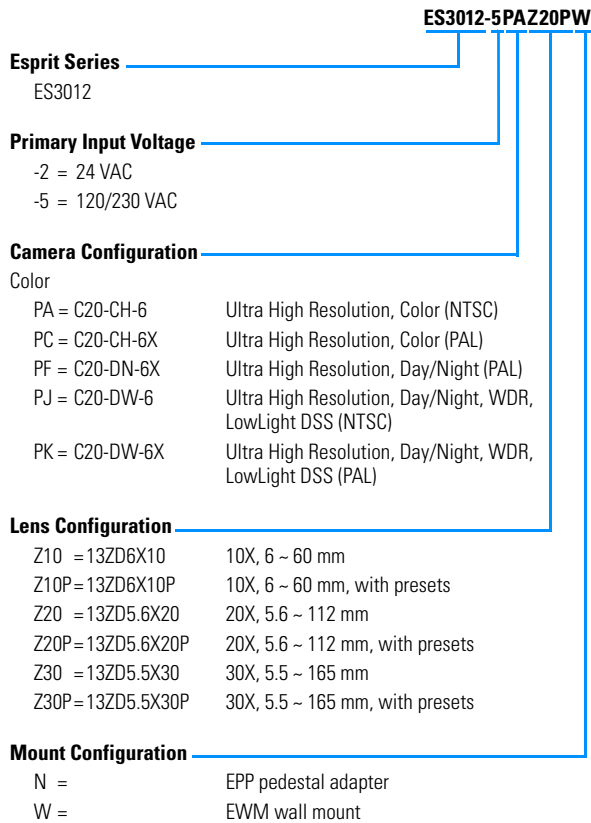|	Ultra High Resolution, Color	
	C20-CH-6 (PA)	**C20-CH-6X (PC)**
Signal Format	NTSC	PAL
Image Device	Sony 1/3-inch EXview HAD CCD II 960H	Sony 1/3-inch EXview HAD CCD II 960H
Picture Elements	976 (H) x 494 (V), approx. 480k	976 (H) x 582 (V), approx. 570k
Scanning System	525 lines, 2:1 interlace	625 lines, 2:1 interlace
Horizontal Resolution	650 TVL	650 TV L
Sensitivity		
Color	0.25 lux, f/1.2, 30 IRE	0.25 lux, f/1.2, 30 IRE
Electronic Shutter Range	Auto, 1/60 to 1/100,000 sec; Manual, 1/60 to 1/10,000 sec	Auto, 1/60 to 1/100,000 sec; Manual, 1/60 to 1/10,000 sec
Signal-to-Noise Ratio	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Automatic Gain Control	On/off 35 dB	On/off 35 dB
Backlight Compensation	Yes	Yes

MODELS

Basic

ES3012-2	Standard Esprit integrated positioning system (pan/tilt, enclosure and receiver), 24 VAC, no mount
ES3012-5	Same as ES3012-2 except 120/230 VAC
ES3012-2N	Standard Esprit integrated positioning system, 24 VAC, with EPP pedestal adapter plate
ES3012-5N	Same as ES3012-2N except 120/230 VAC
ES3012-2W	Standard Esprit integrated positioning system, 24 VAC, with EWM wall mount
ES3012-5W	Same as ES3012-2W except 120/230 VAC

ImagePak Esprit Systems

Create a complete, ready-to-install system (including optics package) from the optional components below or refer to the Esprit ImagePak Selection Guide for model numbers.

ES3012-5PAZ20PW

Esprit Series
ES3012

Primary Input Voltage
-2 = 24 VAC
-5 = 120/230 VAC

Camera Configuration
Color

PA = C20-CH-6	Ultra High Resolution, Color (NTSC)
PC = C20-CH-6X	Ultra High Resolution, Color (PAL)
PF = C20-DN-6X	Ultra High Resolution, Day/Night (PAL)
PJ = C20-DW-6	Ultra High Resolution, Day/Night, WDR, LowLight DSS (NTSC)
PK = C20-DW-6X	Ultra High Resolution, Day/Night, WDR, LowLight DSS (PAL)

Lens Configuration

Z10	= 13ZD6X10	10X, 6 ~ 60 mm
Z10P	= 13ZD6X10P	10X, 6 ~ 60 mm, with presets
Z20	= 13ZD5.6X20	20X, 5.6 ~ 112 mm
Z20P	= 13ZD5.6X20P	20X, 5.6 ~ 112 mm, with presets
Z30	= 13ZD5.5X30	30X, 5.5 ~ 165 mm
Z30P	= 13ZD5.5X30P	30X, 5.5 ~ 165 mm, with presets

Mount Configuration

N =		EPP pedestal adapter
W =		EWM wall mount

OPTIONAL MOUNTS AND ADAPTERS

ECM100	Corner mount adapter for use with EWM wall mount
EPM	Pole mount adapter for use with EWM wall mount
EA4348	EWM-to-Legacy adapter; use with PP4348 parapet mount
PM2000/PM2010	Pedestal mount with cable feedthrough; for use with Esprit systems with EPP pedestal adapter plate
PP4348	Parapet mount; requires EWM wall mount and EA4348 adapter when used with Esprit system

OPTIONAL ACCESSORIES

IPS-RDPE-2	Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/configuration when used with the IPS-CABLE. (No code upload.)
IPS-CABLE	Remote monitor cable and software kit.
TXB Series	Translator boards for model specific AD™ Manchester, Hernis, Bosch® (Philips, Burle), Sensormatic®, Vicon™, TASS, and NTCIP protocols.

RECOMMENDED POWER SUPPLIES

MCS Series	Multiple 24 VAC camera power supply, indoor
WCS Series	Single/multiple 24 VAC camera power supply, outdoor

RECOMMENDED CONTROLS

All Pelco multiplexer and matrix switchers (CM6700, CM6800, CM9700 Series, MPT9000, and MX4000 Series).

RECOMMENDED KEYBOARD CONTROLS

(For use in Direct Mode operation only)

KBD200A	Desktop keyboard, multispeed PTZ control
KBD300A	Desktop keyboard, variable speed PTZ control

Note: KBD Series keyboards require a remote keyboard wiring kit (KBDKIT) for directmode operation, which allows two-wire control of up to 16 daisy-chained receivers (or Esprit systems). KBD Series keyboards output Pelco P protocol at 4800 baud.