

# 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 (Programmable in Size) to Be Set to Output Blank Video
- Operational in 90 mph Wind Conditions; Can Withstand Wind Velocity Up to 130 mph
- Pan Preset Speed of 100° Per Second in 50 mph Winds and 50° Per Second in 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

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 program 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 12.10" L x 3.45" W x 3.17" H (30.73 x 8.76 x 8.05 cm).

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.



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

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 140°F (-40° to 60°C). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -13°F (-25°C).

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 50 mph and 50 degrees per second in the 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 programmable preset positions with a preset accuracy of one-quarter degree.

The **ES3012 Series** features on-screen programmable 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.



# TECHNICAL SPECIFICATIONS

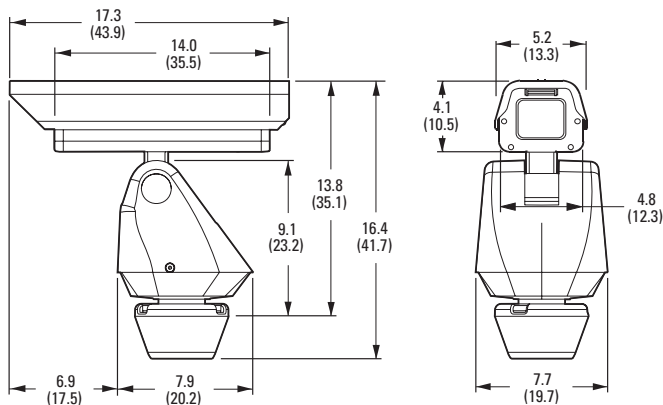
## ELECTRICAL

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	<u>Cable Type*</u>	<u>Maximum Distance</u>
	RG59/U	750 ft (229 m)
	RG6/U	1,000 ft (305 m)
	RG11/U	1,500 ft (457 m)

\*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: 12.10" L x 3.45" W x 3.17" H (30.73 x 8.76 x 8.05 cm)
Latches	One link-lock, No. 3 stainless-steel latch; can be secured with padlock (not supplied)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE INCHES.

## GENERAL

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware
Finish	Gray polyester powder coat
Viewing Window	0.18-inch (4.76 mm) thick, optically clear, impact-resistant MR5 coated Lexan® (UL 94 HB rated)
Window Viewing Area	2.25-inch (5.71 cm) diameter
Operating Temperature	-40° to 122°F (-40° to 50°C) for sustained system operation or 140°F (60°C) absolute maximum. Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -13°F (-25°C).
Operating Environment	Will remain operational in 90 mph wind conditions; withstands 130 mph
Unit Weight	
ES3012-2, ES3012-5	20 lb (9.1 kg)
ES3012-2 or ES3012-5 with ImagePak option	25.7 lb (11.7 kg)
Shipping Weight	
ES3012-2, ES3012-5	27 lb (12.3 kg)
ES3012-2 or ES3012-5 with ImagePak option	33 lb (14.8 kg)

## 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 <sup>†</sup>	Motorized <sup>†</sup>	Motorized <sup>†</sup>
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

<sup>†</sup>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, Color, LowLight™ DSS	
	C10DN-6 (AM)	C10DN-6X (AN)	CC3751H-2 (CL)	CC3651H-2X (CM)
Signal Format	NTSC	PAL	NTSC	PAL
Image Device	1/3-inch image format interline transfer CCD	1/3-inch image format interline transfer CCD	1/3-inch image format interline transfer CCD	1/3-inch image format interline transfer CCD
Picture Elements	768 (H) x 494 (V) (approx. 380k)	752 (H) x 582 (V)	768 (H) x 494 (V)	795 (H) x 696 (V)
Scanning System	525 lines, 2:1 interlace	625 lines; 2:1 interlace	525 lines; 2:1 interlace	625 lines; 2:1 interlace
Horizontal Resolution	540 TVL	540 TVL	480 TVL	480 TVL
Minimum Illumination B-W	0.07 lux, f/1.2, 40 IRE, AGC on, 75% scene reflectance	0.07 lux, f/1.2, 40 IRE, AGC on, 75% scene reflectance	0.01 lux at 40 IRE, f/1.2	0.01 lux at 40 IRE, f/1.2
Color	0.3 lux, f/1.2, 40 IRE, AGC on, 75% scene reflectance	0.3 lux, f/1.2, 40 IRE, AGC on, 75% scene reflectance	—	—
Sensitivity B-W (SENS 40x)	0.08 lux, f/1.2, 50 IRE, AGC on, 89% scene reflectance	0.08 lux, f/1.2, 50 IRE, AGC on, 89% scene reflectance	—	—
Color (SENS 40x)	0.4 lux, f/1.2, 50 IRE, AGC on, 89% scene reflectance	0.4 lux, f/1.2, 50 IRE, AGC on, 89% scene reflectance	—	—
Electronic Shutter Range	1/60 ~ 1/100,000 sec	1/50 ~ 1/100,000 sec	1/60 ~ 1/100,000 sec	1/60 ~ 1/100,000 sec
Signal-to-Noise Ratio	>50 dB	>50 dB	50 dB	50 dB
Automatic Gain Control	Selectable	Selectable	Automatic	Automatic
Backlight Compensation	Selectable	Selectable	On/off selectable	On/off selectable
	High Resolution, Color, Extended Dynamic Range			
	CC3701H-2 (CB)	CC3701H-2X (CD)		
Signal Format	NTSC	PAL		
Image Device	1/3-inch image format interline transfer CCD	1/3-inch image format interline transfer CCD		
Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)		
Scanning System	525 lines; 2:1 interlace	625 lines; 2:1 interlace		
Horizontal Resolution	480 TVL	480 TVL		
Minimum Illumination	0.5 lux at 40 IRE, f/1.2	0.5 lux at 40 IRE, f/1.2		
Electronic Shutter Range	1/60 ~ 1/100,000 sec	1/60 ~ 1/100,000 sec		
Signal-to-Noise Ratio	52 dB	52 dB		
Automatic Gain Control	On/off selectable	On/off selectable		
Backlight Compensation	On/off selectable	On/off selectable		
	Ultra High Resolution, Color,			
	C10CH-6 (AJ)	C10CH-6X (AK)		
Signal Format	NTSC	PAL		
Image Device	1/3-inch image format interline transfer CCD	1/3-inch image format interline transfer CCD		
Picture Elements	768 (H) x 494 (V) (approx. 380k)	752 (H) x 582 (V) (approx. 440k)		
Scanning System	525 lines, 2:1 interlace	625 lines, 2:1 interlace		
Horizontal Resolution	540 TVL	540 TVL		
Minimum Illumination	0.3 lux, f/1.2, 50 IRE, AGC on, 75% reflectance	0.3 lux, f/1.2, 50 IRE, AGC on, 75% reflectance		
Electronic Shutter Range	Selectable	Selectable		
Signal-to-Noise Ratio	>50 dB	>50 dB		
Automatic Gain Control	Selectable	Selectable		
Backlight Compensation	Selectable	Selectable		
Signal Processing	DSP	DSP		

# MODEL NUMBERS

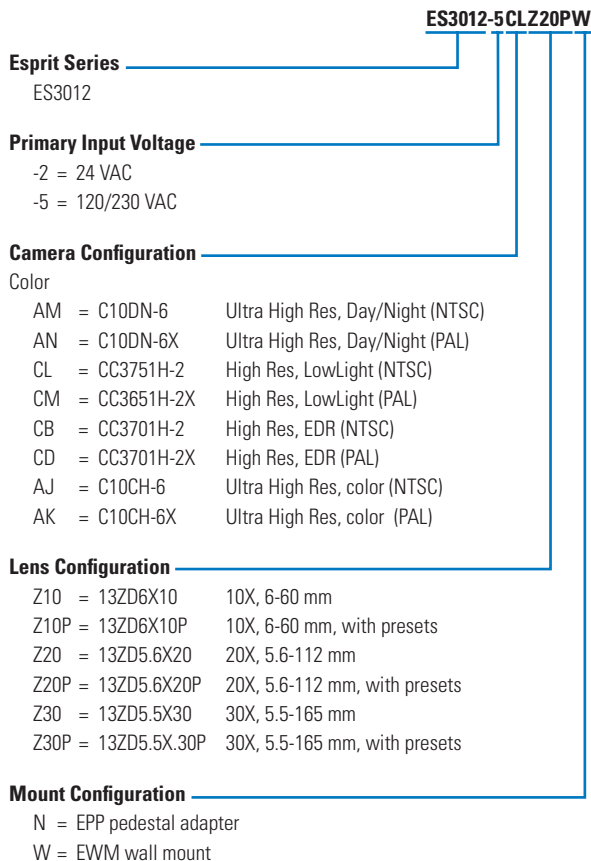
## MODELS

### 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.



## 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/programming when used with the IPS-RMK. (No code upload.)
IPS-RMK	Remote monitor kit. Includes TFT-LCD monitor, PDA handheld, cables, and carrying case. Allows viewing of camera video, local PTZ control, and system setup.
TXB Series	Translator boards for model specific AD™ Manchester, Hervis, 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) and PelcoNet™ 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 keyboards require a remote keyboard wiring kit (KBDKIT) for direct mode operation; allows two-wire control of up to 16 daisy-chained receivers (or Esprit systems). Keyboards output Pelco P protocol at 4800 baud.

GSA Contract #GS-07F-9323S

### Pelco, Inc. Worldwide Headquarters:

3500 Pelco Way, Clovis, California 93612-5699 USA

**USA & Canada** Tel: (800) 289-9100 • FAX: (800) 289-9150

**International** Tel: +1 (559) 292-1981 • FAX: +1 (559) 348-1120

[www.pelco.com](http://www.pelco.com)

Pelco, the Pelco logo, Coaxitron, ImagePak, and Esprit are registered trademarks of Pelco, Inc. PelcoNet and LowLight are trademarks of Pelco, Inc. All product names and services identified throughout this document are trademarks or registered trademarks of their respective companies. The absence of a trademark or registered trademark from this document does not constitute a waiver of intellectual property rights. Product specifications and availability subject to change without notice. ©Copyright 2010, Pelco, Inc. All rights reserved.