



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 eight 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 standard or high-resolution, color or black-white camera and lens combinations. 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 3.45" W x 3.17" H x 12.10" L (8.76 x 8.05 x 30.73 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 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** 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** 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.



C306 / REVISED 4-05

IP66



U.S. Patents 340,940 and 5,224,675

International Standards
Organization Registered Firm;
ISO 9001 Quality System



TECHNICAL SPECIFICATIONS

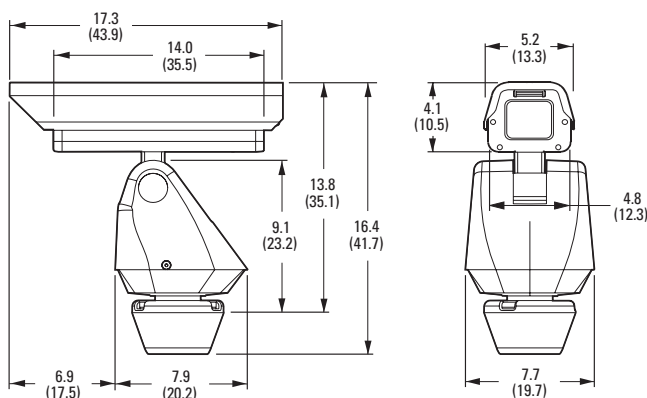
ELECTRICAL

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	<table> <tr> <th>Cable Type*</th><th>Maximum Distance</th></tr> <tr> <td>RG59/U</td><td>750 feet (229 m)</td></tr> <tr> <td>RG6/U</td><td>1,000 feet (305 m)</td></tr> <tr> <td>RG11/U</td><td>1,500 feet (457 m)</td></tr> </table>	Cable Type*	Maximum Distance	RG59/U	750 feet (229 m)	RG6/U	1,000 feet (305 m)	RG11/U	1,500 feet (457 m)
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RG59/U	750 feet (229 m)								
RG6/U	1,000 feet (305 m)								
RG11/U	1,500 feet (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: 3.45" W x 3.17" H x 12.10" L (8.76 x 8.05 x 30.73 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" (4.76 mm) thick, optically clear, impact-resistant MR5 coated Lexan® (U.L. 94HB 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
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class B
- 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	6-60 mm	5.6-112 mm	5.5-165 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	1.0m	1.5m	1.8m

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

TECHNICAL SPECIFICATIONS

CAMERA SPECIFICATIONS (IMAGEPAK® ESPRIT SYSTEMS ONLY)

	High Resolution, Color, LowLight™ DSS		High Resolution, Black-White, EXview LowLight™	
	CC3751H-2 (CL)	CC3651H-2X (CM)	MC3651H-2 (ML)	MC3651H-2X (MM)
Signal Format	NTSC	PAL	EIA	CCIR
Image Device	1/3-inch CCD	1/3-inch CCD	1/3-inch Ex-View HAD™ CCD	1/3-inch Ex-View HAD™ CCD
Picture Elements	768 (H) x 494 (V)	795 (H) x 696 (V)	768 (H) x 494 (V)	795 (H) x 596 (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	480 TVL	480 TVL	570 TVL	570 TVL
Minimum Illumination	0.01 lux at 40 IRE, f1.2	0.01 lux at 40 IRE, f1.2	0.07 lux at 40 IRE, f1.2*	0.07 lux at 40 IRE, f1.2*
Electronic Shutter Range	1/60 to 1/100,000 sec	1/60 to 1/100,000 sec	1/60 to 1/100,000 sec	1/60 to 1/100,000 sec
Signal-to-Noise Ratio	50 dB	50 dB	50 dB	50 dB
Automatic Gain Control	Automatic	Automatic	On/off selectable	On/off selectable
Backlight Compensation	On/off selectable	On/off selectable	On/off selectable	On/off selectable
*With integration 1/2 second				
	High Resolution, Color, Extended Dynamic Range		High Resolution, Black-White, EXview	
	CC3701H-2 (CB)	CC3701H-2X (CD)	MC3610H-6 (BH)	MC3610H-6X (BE)
Signal Format	NTSC	PAL	EIA	CCIR
Image Device	1/3-inch CCD	1/3-inch CCD	1/3-inch Ex-View HAD™ CCD	1/3-inch Ex-View HAD™ CCD
Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)	768 (H) x 494 (V)	752 (H) x 582 (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	480 TVL	480 TVL	570 TVL	570 TVL
Minimum Illumination	0.5 lux at 40 IRE, f1.2	0.5 lux at 40 IRE, f1.2	0.04 lux at 40 IRE, f1.2	0.04 lux at 40 IRE, f1.2
Electronic Shutter Range	1/60 to 1/100,000 sec	1/60 to 1/100,000 sec	1/60 to 1/100,000 sec	1/50 to 1/100,000 sec
Signal-to-Noise Ratio	52 dB	52 dB	>50 dB	>50 dB
Automatic Gain Control	On/off selectable	On/off selectable	On/off selectable	On/off selectable
Backlight Compensation	On/off selectable	On/off selectable	On/off selectable	On/off selectable
	High Resolution, Color, Day/Night		High Resolution, Black-White	
	CC3770H-6 (KA)	CC3770H-6X (KB)	MC3710H-6 (BF)	MC3710H-6X (BK)
Signal Format	NTSC	PAL	EIA	CCIR
Image Device	1/3-inch CCD	1/3-inch CCD	1/3-inch CCD	1/3-inch CCD
Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)	768 (H) x 494 (V)	752 (H) x 582 (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	480 TVL (color); 530 TVL (B-W)	480 TVL (color); 530 TVL (B-W)	570 TVL	570 TVL
Minimum Illumination	0.7 lux at 40 IRE, f1.2 (color) 0.09 lux at 40 IRE, f1.2 (B-W)	0.7 lux at 40 IRE, f1.2 (color) 0.09 lux at 40 IRE, f1.2 (B-W)	0.07 lux at 40 IRE, f1.2	0.07 lux at 40 IRE, f1.2
Electronic Shutter Range	1/60 to 1/100,000 sec	1/50 to 1/100,000 sec	1/60 to 1/100,000 sec	1/50 to 1/100,000 sec
Signal-to-Noise Ratio	>50 dB	>50 dB	>50 dB	>50 dB
Automatic Gain Control	On/off selectable	On/off selectable	On/off selectable	On/off selectable
Backlight Compensation	On/off selectable	On/off selectable	On/off selectable	On/off selectable
	High Resolution, Color		Standard Resolution, Black-White	
	CC3710H-6 (KH)	CC3710H-6X (KK)	MC3710S-6 (BG)	MC3710S-6X (BJ)
Signal Format	NTSC	PAL	EIA	CCIR
Image Device	1/3-inch CCD	1/3-inch CCD	1/3-inch CCD	1/3-inch CCD
Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)	510 (H) x 492 (V)	500 (H) x 582 (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	480 TVL	480 TVL	380 TVL	380 TVL
Minimum Illumination	0.7 lux at 40 IRE, f1.2	0.7 lux at 40 IRE, f1.2	0.06 lux at 40 IRE, f1.2	0.06 lux at 40 IRE, f1.2
Electronic Shutter Range	1/60 to 1/100,000 sec	1/50 to 1/100,000 sec	1/60 to 1/100,000 sec	1/50 to 1/100,000 sec
Signal-to-Noise Ratio	>50 dB	>50 dB	>50 dB	>50 dB
Automatic Gain Control	On/off selectable	On/off selectable	On/off selectable	On/off selectable
Backlight Compensation	On/off selectable	On/off selectable	On/off selectable	On/off selectable
	High Resolution, Color, WDR (SA)		High Resolution, Color, WDR with RGB Filter (SC)	
Signal Format	NTSC/PAL autosensing		NTSC/PAL autosensing	
Image Device	1/3-inch SIMD		1/3-inch SIMD	
Picture Elements	Sensor resolution: 742 (H) x 552 (V)		Sensor resolution: 742 (H) x 552 (V)	
Scanning System	525 (NTSC), 625 (PAL), 2:1 interlace		525 (NTSC), 625 (PAL), 2:1 interlace	
Horizontal Resolution	480 TVL		480 TVL	
Minimum Illumination	0.8 lux, f1.2, 40 IRE, AGC on		1.2 lux, f1.2, 40 IRE, AGC on	
Electronic Shutter Range	1/15 to 1/3,500 sec		1/15 to 1/3,500 sec	
Signal-to-Noise Ratio	>50 dB		>50 dB	
Automatic Gain Control	On-screen menu, adjustable to 21 dB		On-screen menu, adjustable to 21 dB	
Backlight Compensation	On-screen menu, on/off, four regions		On-screen menu, on/off, four regions	

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 pedestal adapter plate.
ES3012-5N	Same as ES3012-2N except 120/230 VAC.
ES3012-2W	Standard Esprit integrated positioning system, 24 VAC, with wall mount.
ES3012-5W	Same as ES3012-2W except 120/230 VAC.

RECOMMENDED MOUNTS

Esprit Series	Includes mounts for wall, pedestal, corner, parapet, and pole applications.
PM2000/PM2010	Pedestal mount with cable feedthrough. For use with Esprit systems with pedestal adapter plate.

RELATED PRODUCTS

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, Philips (Burle), Sensormatic, and Vicon® 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, MPT9500, 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
MPT9500	Microprocessor-based transmitter/controller

*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.

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.

		ES3012-5KH220PW
Esprit® Series	ES3012	
Primary Input Voltage	-2 = 24 VAC -5 = 120/230 VAC	
Camera Configuration		
Color		
CL =	CC3751H-2	High Res, LowLight (NTSC)
CM =	CC3651H-2X	High Res, LowLight (PAL)
CB =	CC3701H-2	High Res, EDR (NTSC)
CD =	CC3701H-2X	High Res, EDR (PAL)
KA =	CC3770H-6	High Res, Day/Night (NTSC)
KB =	CC3770H-6X	High Res, Day/Night (PAL)
KH =	CC3710H-6	High Res (NTSC)
KK =	CC3710H-6X	High Res (PAL)
SA =	CCC5100H-6	High Res, WDR (NTSC/PAL)
SC =	CCC5110H-6	High Res, WDR with RGB Filter (NTSC/PAL)
Black-White		
ML =	MC3651H-2	High Res, EXview LowLight (EIA)
MM =	MC3651H-2X	High Res, EXview LowLight (CCIR)
BH =	MC3610H-6	High Res, EXview (EIA)
BE =	MC3610H-6X	High Res, EXview (CCIR)
BF =	MC3710H-6	High Res (EIA)
BK =	MC3710H-6X	High Res (CCIR)
BG =	MC3710S-6	Standard Res (EIA)
BJ =	MC3710S-6X	Standard Res (CCIR)
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 =	13ZD5.5X.30P	30X, 5.5-165 mm, with presets
Mount Configuration		
N =	EPP pedestal adapter	
W =	EWM wall mount	



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