



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



**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 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 monochrome 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.

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.



DataFAX
SPEC: 2306
MANUAL: Not Available through DataFAX

C306 / REVISED 8-04



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



TECHNICAL SPECIFICATIONS

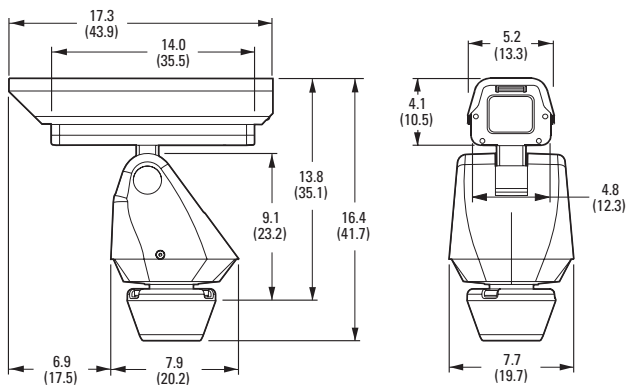
ELECTRICAL

| | | |
|-------------------------|--|-------------------------|
| Input Voltage | 24, 120, or 230 VAC, 50/60 Hz; switch selectable for 120/230 VAC inputs | |
| Input Voltage Range | ±10% | |
| Power Consumption | Maximum 50 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 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. Patent 340,940 and 5,224,675

LENS SPECIFICATIONS (IMAGEPAK® ESPRIT SYSTEMS ONLY)

| | Z10/Z10P | Z18/Z18P |
|-----------------------|--------------------------|--------------------------|
| Type | Motorized zoom | Motorized zoom |
| Format Size | 1/3-inch | 1/2-inch |
| Focal Length | 6-60 mm | 11-200 mm |
| Zoom Ratio | 10X | 18X |
| Relative Aperture (F) | 1.6-360 | 1.8-360 |
| Operation | | |
| Iris | Auto iris (direct drive) | Auto iris (video drive) |
| Focus and Zoom | Motorized* | Motorized* |
| Angle of View | | |
| Diagonal | 9.7°-53.7° | 2.3°-39.7° |
| Horizontal | 7.8°-43.7° | 1.9°-24.1° |
| Vertical | 5.9°-33.0° | 1.4°-24.3° |
| Min. Object Distance | 1.0m | 1.5m |
| | Z20/Z20P | Z30/Z30P |
| Type | Motorized zoom | Motorized zoom |
| Format Size | 1/3-inch | 1/3-inch |
| Focal Length | 5.6-112 mm | 5.5-165 mm |
| Zoom Ratio | 20X | 30X |
| Relative Aperture (F) | 1.6-360 | 1.8-360 |
| Operation | | |
| Iris | Auto iris (direct drive) | Auto iris (direct drive) |
| Focus and Zoom | Motorized* | Motorized* |
| Angle of View | | |
| Diagonal | 3.2°-59.4° | 2.1°-58.7° |
| Horizontal | 2.6°-47.6° | 1.7°-47.6° |
| Vertical | 1.9°-35.7° | 1.3°-33.9° |
| Min. Object Distance | 1.5m | 1.8m |

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

TECHNICAL SPECIFICATIONS

CAMERA SPECIFICATIONS (IMAGEPAK® ESPRIT SYSTEMS ONLY)

| | COLOR | | MONOCHROME | |
|------------------------------|---|---|-----------------------------------|-----------------------------------|
| | High Resolution, LowLight™ DSS | | High Resolution, EXview LowLight™ | |
| | CC3751H-2 (ImagePak Model CL) | CC3651H-2X (ImagePak Model CM) | MC3651H-2 (ImagePak Model ML) | MC3651H-2X (ImagePak Model 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* |
| CCD Iris | 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, Extended Dynamic Range | | High Resolution, EXview | |
| | CC3701H-2 (ImagePak Model CB) | CC3701H-2X (ImagePak Model CD) | MC3610H-6 (ImagePak Model BH) | MC3610H-6X (ImagePak Model BE) |
| | 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 |
| CCD Iris | 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, Day/Night | | High Resolution | |
| | CC3770H-6 (ImagePak Model KA) | CC3770H-6X (ImagePak Model KB) | MC3710H-6 (ImagePak Model BF) | MC3710H-6X (ImagePak Model BK) |
| | 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 |
| CCD Iris | 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 | | Standard Resolution | |
| | CC3710H-6 (ImagePak Model KH) | CC3710H-6X (ImagePak Model KK) | MC3710S-6 (ImagePak Model BG) | MC3710S-6X (ImagePak Model BJ) |
| | 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 |
| CCD Iris | 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 |

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, CM9740, CM9760, CM9770, CM9780, 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.

ES3012-5CHZ20PW

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) |

Monochrome

| | | | |
|----|---|------------|----------------------------------|
| 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 |
| Z18* | = | 12ZV11X18 | 18X, 11-200 mm |
| Z18P* | = | 12ZV11X18P | 18X, 11-200 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 |

*18X and 30X lenses compatible only with CB, CD, CL, CM, ML, and MM camera types.



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