Spectra® IV SL Series Dome Systems
HIGH-PERFORMANCE INTEGRATED DOME SYSTEM

Product Features

• Autofocus, High Resolution Integrated LowLight™ Color Camera/Optics Package
• Day/Night, 540 TVL
• 23X Optical Zoom
• Window Blanking
• Camera Title Overlay, 20 User-Definable Characters
• On-Screen Compass and Tilt Display
• Password Protection
• Freeze Frame During Presets
• Built-in Surge and Limited Lightning Protection
• Integrated Passive Unshielded Twisted Pair (UTP) Circuit
• Internal Scheduling Clock
• Ability to Add IP Network Capability by Purchasing Optional TXB-N Module

Modularity
Spectra® IV SL Series was designed with ease of installation and ease of maintenance in mind. Each dome system consists of three components: a back box, a dome drive, and a lower dome. These three system components are interchangeable with other Spectra IV dome systems, making retrofitting and application adjustments simple. Also, dome drives and lower domes can be removed and replaced reducing maintenance time.

Back Box
Spectra IV SL back box options include the following models: environmental in-ceiling (ideal for outdoor soffits), indoor in-ceiling, indoor surface mount, standard pendant, and environmental pendant. A passive UTP circuit is located on the door assembly for convenient video transmission through twisted pair wire. For added flexibility, Pelco fiber modules can also be attached to the door assembly for transmission over single-mode or multimode fiber.

Dome Drive
The Spectra IV SL dome drive’s integrated optics package incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. The camera features 23X optical zoom and 12X digital zoom. Spectra IV SL dome drives feature an EXview HAD™ imager for increased sensitivity and LowLight™ technology to compensate for scenes where minimal light is present. The camera also offers freeze frame between presets and window blanking.

Lower Dome
Special consideration was taken when designing the Spectra IV SL lower dome bubble to ensure that an optimal optical relationship between the lens and bubble was achieved, providing crystal clear video at long focal lengths.

Dome Systems
Spectra IV SL dome systems feature many software enhancements that increase performance and make configuration and operation easy. An internal scheduling clock allows for the scheduling of presets and patterns. Window blanking enables a user to configure a four-sided, user-defined privacy area. Password protection prevents unauthorized users from changing the system settings. Configurable on-screen compass and tilt display provides positioning information when needed. Intuitive multilingual on-screen menus can be displayed in English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech.

Spectra IV SL’s variable speed capabilities range from a smooth, fast pan motion of 400 degrees per second to a smooth “creep” speed of 0.1 degree per second. The system is capable of continuous 360 degrees rotation and has an “auto flip” feature that allows the dome to rotate 180 degrees and reposition itself for uninterrupted viewing of any subject that passes directly beneath the dome.

In addition, with the optional Pelco TXB-N module, you can add IP network capability at any time to a Spectra IV dome system without losing analog viewing and control. By snapping the TXB-N module into the back box, you can stream network video to a Web browser, Endura®, Digital Sentry®, or third-party software recording solution allowing integration into virtually any IP-based system.
**TECHNICAL SPECIFICATIONS**

### CAMERA/OPTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal Format</strong></td>
<td>NTSC (DD423)</td>
</tr>
<tr>
<td></td>
<td>PAL (DD423-X)</td>
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<tr>
<td><strong>Scanning System</strong></td>
<td>2:1 Interface</td>
</tr>
<tr>
<td><strong>Image Sensor</strong></td>
<td>1/4-inch progressive scan CCD</td>
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<tr>
<td></td>
<td>NTSC</td>
</tr>
<tr>
<td></td>
<td>768 (H) X 494 (V)</td>
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<td>PAL</td>
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<tr>
<td></td>
<td>752 (H) X 582 (V)</td>
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<tr>
<td><strong>Horizontal Resolution</strong></td>
<td>NTSC/PAL</td>
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<tr>
<td></td>
<td>540 TV Lines</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>f/1.6 (focal length, 3.6 – 82.8 mm)</td>
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<tr>
<td><strong>Zoom</strong></td>
<td>23X optical, 12X digital</td>
</tr>
<tr>
<td><strong>Zoom Speed (optical range)</strong></td>
<td>2.9/4.2/5.8 seconds</td>
</tr>
<tr>
<td><strong>Horizontal Angle of View</strong></td>
<td>54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom</td>
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<tr>
<td><strong>Focus</strong></td>
<td>Automatic with manual override</td>
</tr>
<tr>
<td><strong>Maximum Sensitivity at 35 IRE</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NTSC/EIA</td>
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<tr>
<td></td>
<td>0.65 lux at 1/60 sec (color)</td>
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<tr>
<td></td>
<td>0.15 lux at 1/60 sec (B-W)</td>
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<td></td>
<td>PAL/CCIR</td>
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<td>0.55 lux at 1/50 sec (color)</td>
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<tr>
<td></td>
<td>0.12 lux at 1/50 sec (B-W)</td>
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<td><strong>Sync System</strong></td>
<td>Internal/AC line lock, phase adjustable using remote control, V-Sync</td>
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<tr>
<td><strong>White Balance</strong></td>
<td>Automatic with manual override</td>
</tr>
<tr>
<td><strong>Shutter Speed</strong></td>
<td>Automatic (electronic iris/manual)</td>
</tr>
<tr>
<td></td>
<td>NTSC</td>
</tr>
<tr>
<td></td>
<td>1/2 – 1/30,000</td>
</tr>
<tr>
<td></td>
<td>PAL</td>
</tr>
<tr>
<td></td>
<td>1/1.5 – 1/30,000</td>
</tr>
<tr>
<td><strong>Iris Control</strong></td>
<td>Automatic iris control with manual override</td>
</tr>
<tr>
<td><strong>Gain Control</strong></td>
<td>Automatic/Off</td>
</tr>
<tr>
<td><strong>Video Output</strong></td>
<td>1 Vp-p, 75 ohms</td>
</tr>
<tr>
<td><strong>Video Signal-to-Noise</strong></td>
<td>&gt;50 dB</td>
</tr>
</tbody>
</table>

### DOME DRIVE FEATURES

- 64 Presets
- ±0.1° Preset Accuracy
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- Password Protection
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- 8 Zones (configurable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- Configurable Locations of Labels and On-Screen Displays
- Patterns: 1 On-Screen, User-Defined Configurable Pattern; Includes Pan, Tilt, Zoom, and Preset Functions
- Proportional Pan/Tilt: Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom
- Variable Scan Speed: Scan Speed Can Be Configurable Between 1 to 40°/sec
- Pan Motion Allows 0.1 to 150°/sec Pan Speed
- Configurable Limit Stops for Auto/Random/Frame Scan Modes
- Auto-sensing Protocol (Coaxitron®, RS-422 Pelco P and Pelco D, Sensormatic®, Vicon®); Accepts Other Control Protocols with Optional Translator Card
- Digital Position and Zoom Control and Feedback Using D Protocol
- Built-in Menu System for Setup of Configurable Functions
- “Auto Flip” Rotates Dome 180° at Bottom of Tilt Travel
- Window Blanking: Up to 4 Four-Sided, User-Defined Shapes
- 1 Alarm Input
- 1 Auxiliary (Form C) Relay Output
- Freeze Frame Between Presets
BACK BOX FEATURES

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

Surface Mount (Indoor)
- Available in Black or White Finish
- Installs Quickly and Easily to Any Type of Ceiling
- Quick Disconnect to Dome Drive
- Injection-Molded Plastic

In-Ceiling (Indoor)
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 13.35 cm (5.25 in.) Space Above Ceiling and 8.25 cm (3.25 in.) Below
- Minimum Ceiling Thickness 1.27 cm (0.50 in.); Maximum 4.45 cm (1.75 in.)
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces

Environmental In-Ceiling
- Single Back Box for Hard Ceiling Applications
- Requires 11.18 cm (4.40 in.) Space Above Ceiling and 10.92 cm (4.30 in.) Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 1.27 cm (0.50 in.); Maximum 4.45 cm (1.75 in.)
- Quick Disconnect to Dome Drive
- Aluminum Construction

Standard and Environmental Pendant
- Standard and Environmental Models
- Standard Pendant Available in Black or Gray Finish; Environmental Pendant Gray Finish Only
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Environmental Model Includes Sun Shield, Fan, and Heater
**MECHANICAL (Dome Drive Only)**

- **Pan Movement**: 360° continuous pan rotation
- **Vertical Tilt**: Unobstructed +2° to –92°
- **Manual Pan/Tilt Speeds**
  - Pan: 0.1° to 80°/sec manual operation, 150°/sec Turbo
  - Tilt: 0.1° to 40°/sec manual operation
- **Preset Speeds**
  - Pan: 400°/sec
  - Tilt: 200°/sec
  - For variable-speed operation an appropriate controller is required (with nonvariable speed control, Spectra IV pan/tilt speed is 20°/sec)

**ELECTRICAL**

- **Input Voltage**: 18 to 32 VAC; 24 VAC nominal
  - 22 to 27 VDC; 24 VDC nominal
- **Input Power**
  - 24 VAC: 23 VA nominal (without heater); 73 VA nominal (with heater)
  - 24 VDC: 0.7 A nominal (without heater); 3 A nominal (with heater)
- **Fuse**: 1.25 A

**CERTIFICATIONS/RATINGS/PATENTS**

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- S Mark for Argentina
- Meets NEMA Type 4X, IP66 when installed properly (BB4-F-E, BB4-PB, BB4-PG, and BB4-PG-E)
- Meets NEMA Type 1, IP40 (BB4-SMW, BB4-SMB, and BB4-F)
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2; 7,161,615 B2

**GENERAL**

- **Construction**
  - Back Box: Plastic
  - In-Ceiling and Surface Mount: Aluminum
  - Dome Drive: Aluminum, thermo plastic Bubble Acrylic
  - Pendant: Acrylic
- **Light Attenuation**
  - Smoked: f/0.5 light loss
  - Clear: Zero light loss
  - Chrome: f/2.0 light loss
  - Gold: f/2.0 light loss
- **Cable Entry (Back Box)**
  - In-Ceiling and Surface Mount: 0.75-inch conduit fitting
  - Pendant: Through 1.5-inch NPT pendant mount
- **Weight (approximate)**
  - Unit: kg (lb)
  - Shipping: kg (lb)
  - Back Box: 0.32 kg (0.7 lb) 0.90 kg (2 lb)
  - In-Ceiling: 0.88 kg (1.5 lb) 0.90 kg (2 lb)
  - Environmental: 0.95 kg (2.1 lb) 1.36 kg (3 lb)
  - Standard Pendant: 1.08 kg (2.4 lb) 1.81 kg (4 lb)
  - Environmental Pendant: 1.59 kg (3.5 lb) 2.27 kg (5 lb)
  - Dome Drive: 1.48 kg (3.3 lb) 2.27 kg (5 lb)
  - Lower Dome: 0.18 kg (0.4 lb) 0.45 kg (1 lb)
  - In-Ceiling: 0.09 kg (0.2 lb) 0.45 kg (1 lb)
  - Standard Pendant and Environmental In-Ceiling: 0.27 kg (0.6 lb) 0.90 kg (2 lb)
- **Environment**
  - Surface Mount: Indoor
  - In-Ceiling: Indoor
  - Environmental In-Ceiling: Outdoor
  - Pendant, Standard and Environmental: Indoor/outdoor
- **Operating Temperature**
  - Surface Mount and Indoor In-Ceiling: 0° to 50°C (32° to 122°F) (Assumes no wind chill factor)
  - Standard Pendant and Maximum: 45°C (113°F) absolute maximum; 35°C (95°F) sustained maximum
  - Minimum: –4°C (25°F) sustained minimum
  - Environmental In-Ceiling and Environmental Pendant Maximum: (Assumes no wind chill factor)
  - Standard Pendant: 60°C (140°F) absolute maximum; 50°C (122°F) sustained maximum
  - Minimum: –51°C (~-60°F) absolute minimum; prevents icing at sustained minimum of –45°C (~-50°F); de-ices 2.5 mm (0.1 in.) within 3 hours after power-up
  - TSZ: –34° to 74°C (~-29.2° to 165°F)
- **Effective Projected Area (EPA)**
  - 20.5 square inches (without mount)
  - 47 square inches (with IWM Series mount)
OPTIONAL ACCESSORIES

DD5-FM  Fixed camera mount adapter. Interchangeable with all Spectra IV dome drives.

IPS-CABLE  Remote monitor cable and software kit consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC. Refer to www.pelco.com for a list of compatible devices.

IPS-RDPE-2*  Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/configuration and software upgrades when used with the IPS-CABLE.

TXB Series*  Translator boards for AD™ Manchester, Hernis, Bosch® (Philips, Burle), TASS, and NTCIP protocols.

TXB-N Series*  Network-based communication module that allows you to control and monitor Spectra IV dome systems over an IP network (in-ceiling and pendant models only). When TXB-N is installed in the camera’s back box, the camera system supports Web and Endura connectivity, and open architecture connectivity to third-party software. TXB-N allows simultaneous access to the camera from both an analog and IP-based control point.

FS85011A*  Fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over one multimode or single-mode fiber optical cable.

*If TXB or FS85011A boards are installed, it is not possible to upgrade system operating software through the remote data port (IPS-RDPE-2).

RECOMMENDED MOUNTS

Surface Mount Domes

PASMB  Pendant adapter for surface mount dome, black

In-Ceiling Domes

SD5-P  2’ x 2’ drop ceiling panel, aluminum construction. Replaces 2’ x 2’ ceiling tile.

SCA1  Support rails for BB4-F, for use in ceiling tile applications.

Pendant Domes

BBS-PCA-BK*  Pendant conduit adapter, black

BBS-PCA-GY*  Pendant conduit adapter, gray

IWM Series

MRCA  Ceiling mount, black

PP4348  Parapet roof mount

PP350/PP351  Parapet wall/roof mount

SWM Series  Compact wall mount, black or gray finish. Can be adapted for corner or pole applications.

† Not suitable for use with heavy-duty, pressurized, or stainless steel Spectra domes.

RECOMMENDED POWER SUPPLIES

MCS Series  Indoor, 24 VAC power supply

WCS Series  Outdoor, 24 VAC power supply

Refer to individual power supply specifications for more information.
### SYSTEM AND COMPONENT MODELS

#### SYSTEM MODEL NUMBERS

<table>
<thead>
<tr>
<th>Type</th>
<th>Back Box Color</th>
<th>Lower Dome 23X Day/Night (NTSC)</th>
<th>Lower Dome 23X Day/Night (PAL)</th>
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</thead>
<tbody>
<tr>
<td>Surface Mount</td>
<td>White</td>
<td>Smoked DD423-SMW-0</td>
<td>DD423-SMW-0-X</td>
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<td>Clear DD423-SMW-1</td>
<td>DD423-SMW-1-X</td>
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<td></td>
<td></td>
<td>Chrome DD423-SMW-2</td>
<td>DD423-SMW-2-X</td>
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<td></td>
<td></td>
<td>Gold DD423-SMW-3</td>
<td>DD423-SMW-3-X</td>
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<td>Black</td>
<td>Smoked</td>
<td>SD423-SMB-0</td>
<td>SD423-SMB-0-X</td>
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<tr>
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<td>Clear</td>
<td>SD423-SMB-1</td>
<td>SD423-SMB-1-X</td>
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<td>SD423-SMB-2</td>
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<td>Gold</td>
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<td>In-Ceiling, Environmental</td>
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<td>SD423-F-E1</td>
<td>SD423-F-E1-X</td>
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<tr>
<td>Pendant, Standard</td>
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<td>SD423-PB-0-X</td>
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<td></td>
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<td>Gold</td>
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#### COMPONENT MODEL NUMBERS

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<thead>
<tr>
<th>Back Box</th>
<th>Dome Drive</th>
<th>Lower Dome</th>
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<tbody>
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<td>LD53SMB-0</td>
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<td>BB4-SMW</td>
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<td>BB4-F</td>
<td>DDFM</td>
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<td>LD53SMB-3</td>
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<tr>
<td>LD53GPB-3</td>
<td>DDFM</td>
<td>LD53GPB-2</td>
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</table>

#### Notes:

- To order a fixed mount dome system refer to the component models above and select one each of the following options: back box (BB4-F), dome drive (DD5-FM), plus choice of lower dome (LDHQF-0, LDHQF-1, LD5F-2, or LD5F-3).
- For environmental applications, you must order an environmental back box (BB4-F or BB4-PG-E).
- DD5-FM accepts camera and lens combinations including a BNC connector up to 12.70 x 6.99 x 6.99 cm (5.00” D x 2.75” W x 2.75” H).

*Environmental dome systems include a heater and a fan, and the environmental pendant also includes a sun shield.

*Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.

*Not recommended for outdoor use due to possible light reflections.