Spectra® IV SE Horizon Series Dome Systems
CRYSTAL CLEAR, INTEGRATED LOOK-UP DOME SYSTEM

Product Features

- Unparalleled Crystal Clear Video at Any Angle
- Vertical Tilt of up to 18° Above Horizontal
- Autofocus, High Resolution Integrated Camera/Optics Package
- Day/Night, 540 TVL, 128X Wide Dynamic Range (WDR), Motion Detection, and Electronic Image Stabilization
- Autotracking
- Window Blanking
- Camera Title Overlay, 20 User-Definable Characters
- Horizontal and Zone Blanking
- 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

An important, but often overlooked, component of a high-speed dome system is the relationship between the dome bubble and the camera lens. Special consideration was taken when designing the Spectra® IV SE Horizon 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 and extended vertical angles.

The Spectra IV SE Horizon dome drive’s unique integrated optics package incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. The camera in the Spectra IV SE Horizon dome drive features vertical tilt of 18° above the horizon, providing optical clarity and the ability to look up. LowLight™ technology allows the camera to compensate for scenes where minimal light is present. The camera features advanced 128X wide dynamic range that enables the system to compensate for scenes where dramatic contrasts in lighting are present. Electronic image stabilization digitally reduces blurring of the camera image due to vibration caused by external sources such as wind and traffic.

Spectra IV SE Horizon back box options include environmental in-ceiling, standard pendant, and environmental pendant models. Each back box model features built-in back box memory to store camera and location-specific dome settings, including labels, presets, patterns, and zones. 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.

Spectra IV SE Horizon 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 up to eight, four-sided, user-defined privacy areas. 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 SE Horizon’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**

**DOME DRIVE FEATURES**
- Vertical Tilt of 18° Above Horizontal
- 256 Presets
- ±0.1° Preset Accuracy
- Electronic Image Stabilization
- Extended Vertical Angles
- Multilanguage 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
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking: Up to 8, Four-Sided, User-Defined Shapes
- 8 Zones (configurable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- 7 Alarm Inputs
- 1 Auxiliary (Form C) Relay Output and 1 Open Collector Auxiliary Output (can be alternately configured to operate upon alarm)
- Configurable Locations of Labels and On-Screen Displays
- Action on Alarm: Alarms Can Be Individually Configured for 3 Priority Levels, to Initiate a Stored Pattern, or to Go to an Associated Preset When Received
- Resume After Alarm: Allows the Dome to Return to a Previously Configured State After Alarm Acknowledgment or to its Previous Position Before Alarm
- Multiple Park and Power-Up Action
- Patterns: Up to 8, On-Screen, User-Defined Configurable Patterns; 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 1–40°/sec
- Pan Motion Allows 0.1–150°/sec Pan Speed
- Configurable Limit Stops for Auto/Random/Frame Scan Modes
- Auto-sensing Protocol (Coaxitron®, RS-422 Pelco P and Pelco D); Accepts Competitive Control Protocol with Optional Translator Card
- Digital Position, Zoom Control, and Feedback Through Pelco D Protocol
- Built-in Menu System for Setup of Configurable Functions

**BACK BOX FEATURES**

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

**Environmental In-Ceiling**
- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Hard Ceiling Applications
- Requires 11.2 cm (4.4 in.) Space Above Ceiling and 16.3 cm (6.4 in.) Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 1.3 cm (0.5 in.); Maximum 4.5 cm (1.75 in.)
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Integrated Passive UTP

**Standard and Environmental Pendant**
- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Environmental Model Includes Sun Shield, Fan, and Heater
- Integrated Passive UTP

(IMAGE OF DOME DRIVE FEATURES)

(IMAGE OF BACK BOX FEATURES)
CAMERA/OPTICS

Signal Format
- NTSC (DD4H36)
- PAL (DD4H36-X)

Scanning System
- 2:1 Interlace/1:1 progressive scan (user selectable)

Image Sensor
- 1/4-inch EXview HAD™

Effective Pixels
- NTSC: 768 (H) X 494 (V)
- PAL: 752 (H) X 582 (V)

Horizontal Resolution
- NTSC: >540 TV Lines
- PAL: >540 TV Lines

Lens
- f/1.4 (focal length, 3.3 ~ 119 mm)

Zoom
- 36X optical, 12X digital

Zoom Speed (optical range)
- 3.2/4.6/6.6 seconds

Horizontal Angle of View
- 57.2° at 3. mm wide zoom; 1.7° at 119 mm telephoto zoom

Focus
- Automatic with manual override

Maximum Sensitivity
- NTSC/EIA: 0.55 lux at 1/60 sec shutter (color)
- 0.018 lux at 1/2 sec shutter (color)
- 0.055 lux at 1/60 sec shutter (B-W)
- 0.0018 lux at 1/2 sec shutter (B-W)
- PAL/CCIR: 0.45 lux at 1/50 sec shutter (color)
- 0.015 lux at 1/1.5 sec shutter (color)
- 0.045 lux at 1/50 sec shutter (B-W)
- 0.0015 lux at 1/1.5 sec shutter (B-W)

Sync System
- Internal/AC line lock, phase adjustable using remote control, V-Sync

White Balance
- Automatic with manual override

Shutter Speed
- Automatic (electronic iris)/Manual
- NTSC: 1/2 ~ 1/30,000
- PAL: 1/1.5 ~ 1/30,000

Iris Control
- Automatic Iris Control with manual override

Gain Control
- Automatic/OFF

Video Output
- 1 Vp-p, 75 ohms

Video Signal to Noise
- >50 dB

Wide Dynamic Range
- 128X

Electronic Image Stabilization
- Integrated

Image Enhancement
- Integrated

MECHANICAL (Dome Drive Only)

Pan Movement
- 360° continuous pan rotation

Vertical Tilt
- Unobstructed +18° 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 SE Horizon pan/tilt speed is 20°/sec)

CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2

Meets the following standards:
- NEMA Type 4X, IP66 when installed properly

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

Auxiliary Outputs
- 2

Alarm Inputs
- 7

GENERAL

Construction
- Back Box: Aluminum
- Pendant: Aluminum
- Dome Drive: Aluminum, thermo plastic
- Bubble: Acrylic

Light Attenuation
- Smoked: f/0.5 light loss
- Clear: Zero light loss

Cable Entry (back box)
- In-Ceiling: 0.75-inch conduit fitting
- Pendant: Through 1.5-inch NPT pendant mount

Weight (approximate)
- Unit
- Shipping

Environmental
- In-Ceiling: 0.95 kg (2.1 lb) 1.36 kg (3 lb)
- Standard Pendant: 1.09 kg (2.4 lb) 1.81 kg (4 lb)
- Environmental Pendant: 1.59 kg (3.5 lb) 2.27 kg (5 lb)
- Dome Drive: 1.36 kg (3.0 lb) 1.81 kg (4 lb)
- Lower Dome: 0.40 kg (0.8 lb) 0.90 kg (2 lb)

Environment
- Environmental In-Ceiling: Outdoor
- Standard Pendant, Standard and Environmental: Indoor/outdoor

Operating Temperature
- Standard Pendant
  - 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: 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 inch) within 3 hours after power-up

Effective Projected Area (EPA)
- 60.96 square centimeters (24 square inches) (without mount)
- 128.5 square centimeters (50.6 square inches) (with IWM Series mount)

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- 22 to 27 VDC; 24 VDC nominal

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- Clear: Zero light loss

Cable Entry (back box)
- In-Ceiling: 0.75-inch conduit fitting
- Pendant: Through 1.5-inch NPT pendant mount

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**SYSTEM MODEL NUMBERS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Back Box Color</th>
<th>Lower Dome</th>
<th>NTSC</th>
<th>PAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Ceiling, Environmental*</td>
<td>Black</td>
<td>Smoked</td>
<td>SD4H36-F-E0</td>
<td>SD4H36-F-E0-X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear</td>
<td>SD4H36-F-E1</td>
<td>SD4H36-F-E1-X</td>
</tr>
<tr>
<td>Pendant, Standard</td>
<td>Lt. Gray</td>
<td>Smoked</td>
<td>SD4H36-PG-0</td>
<td>SD4H36-PG-0-X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear</td>
<td>SD4H36-PG-1</td>
<td>SD4H36-PG-1-X</td>
</tr>
<tr>
<td>Pendant, Environmental*</td>
<td>Lt. Gray</td>
<td>Smoked</td>
<td>SD4H36-PG-E0</td>
<td>SD4H36-PG-E0-X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear</td>
<td>SD4H36-PG-E1</td>
<td>SD4H36-PG-E1-X</td>
</tr>
</tbody>
</table>

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

**COMPONENT MODEL NUMBERS**

<table>
<thead>
<tr>
<th>Back Box</th>
<th>Dome Drive</th>
<th>Lower Dome</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB4-F-E</td>
<td>DD4H36 Day/Night (NTSC) camera</td>
<td>LD4H-0 Smoked</td>
</tr>
<tr>
<td>BB4-PG</td>
<td></td>
<td>LD4H-1 Clear</td>
</tr>
<tr>
<td>BB4-PG-E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES**

- **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), Sensormatic®, Vicon®, TASS, and NTCP 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 to Pelco products and open architecture connectivity to third-party software. TXB-N provides simultaneous access to the camera from both an analog and IP-based control point.

- **FS85011A†**
  Fiber transmitter sends one unidirectional composite video channel and 1 bidirectional data channel over 1 multimode or single-mode fiber optical cable.

†If TXB or FS85011A boards are installed, remote upload of system software will not be possible.

**RECOMMENDED MOUNTS**

### 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

- **BB5-PCA-BK**
  Pendant conduit adapter, black

- **IWM Series**
  Wall mount, with or without integral 24 VAC, 100 VA transformer. Can be adapted for corner, parapet, or pole applications.

- **MRCA**
  Ceiling mount, black

- **PP4348**
  Parapet roof mount

- **PP350/PP351**
  Parapet wall/roof mount

- **SWM Series**
  Compact wall mount. Can be adapted for corner or pole applications.

**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.