

# Spectra® IV IP Series Network Dome System

## DIGITAL PAN/TILT/ZOOM HIGH-SPEED DOME

### Product Features

- Ability to Control and Monitor Video Over IP Networks
- Simultaneous IP and Analog Video and Control
- Auto tracking
- 3 Simultaneous Video Streams: Dual MPEG-4 and MJPEG
- Supported Protocols: TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, and NTP
- Multilevel Password Protection
- 3 Autofocus, High Resolution Integrated Camera/Optics Packages
- Horizontal Zone and Window Blanking
- Sensitivity Down to 0.00018 Lux (36X Models)
- On-Screen Compass and Tilt Display
- Web Browser, Endura®, and Third-Party Network Interface
- Bidirectional Full-Duplex Audio

**Spectra® IV IP** dome systems incorporate all of the features and functions of Spectra IV (including analog), while allowing you to control and monitor video over an IP network from virtually anywhere in the world. **Spectra IV IP** is a high-speed dome with a built-in 100Base-TX network interface for live streaming to any network application. The dome system also features open architecture connectivity for third-party software recording solutions allowing integration into virtually any IP-based system. It is also compatible with Digital Sentry® video management systems. As with all Pelco IP camera solutions, **Spectra IV IP** is Endura Enabled™ to record, manage, configure, and view multiple live streams. When connected to an Endura® network-based video security system, the dome system has access to EnduraStor™ and EnduraView™ for optimized image quality and bandwidth efficiency.

**Spectra IV IP** is one of the only solutions on the market that allows you to view and control analog video while viewing, recording, and controlling network IP video. There is no need to abandon your current analog infrastructure if you are making the move to network video as a recording solution. Continue to monitor and control video in the analog domain while recording video in the network domain, and let **Spectra IV IP's** professional compression method do the work for you without the need for external encoders.



**Spectra IV IP** features the same ease of installation and ease of maintenance that you have come to expect from Spectra IV. Each dome system consists of a back box, a dome drive, and a lower dome. These three system components are interchangeable with other **Spectra IV IP** dome systems, making retrofitting and application adjustments simple.

As with all Spectra dome systems, **Spectra IV IP** features several back box options. All back boxes feature built-in memory, which can be used to store camera and location-specific dome settings, including labels, presets, patterns, and zones.

All cameras in **Spectra IV IP** dome drives feature an EXview HAD™ imager for increased sensitivity and LowLight™ technology allowing the cameras to compensate for scenes where minimal light is present. Both the 29X and the 36X cameras feature built-in motion detection and advanced 128X wide dynamic range (WDR) that enables the system to compensate for scenes where dramatic contrasts in lighting are present. The 36X day/night camera's electronic image stabilization digitally reduces blurring of the camera image due to vibration caused by external sources, such as wind and traffic.



by Schneider Electric

International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



C3443 / REVISED 2-3-14

# TECHNICAL SPECIFICATIONS

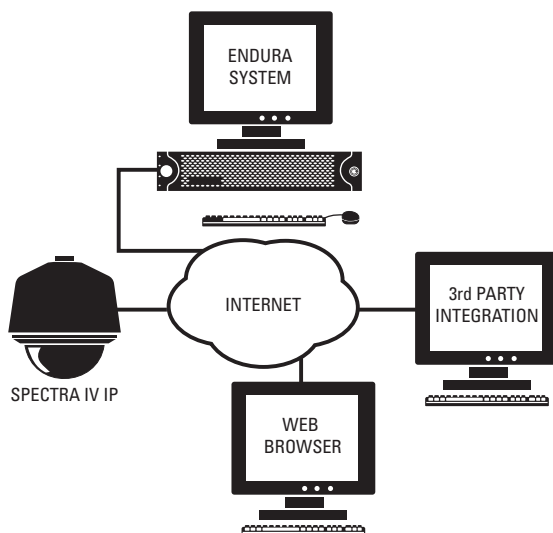
## CAMERA/OPTICS

|                                | Day/Night (36X)                                                                                                                                                                                                                                     | Day/Night (29X)                                                                                                                                                                                                                                     | Day/Night (23X)                                                                                                                                                  |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Format                  | NTSC ( <b>DD436</b> )<br>PAL ( <b>DD436-X</b> )                                                                                                                                                                                                     | NTSC ( <b>DD429</b> )<br>PAL ( <b>DD429-X</b> )                                                                                                                                                                                                     | NTSC ( <b>DD423</b> )<br>PAL ( <b>DD423-X</b> )                                                                                                                  |
| Scanning System                | Interlace/Progressive selectable                                                                                                                                                                                                                    | Interlace/Progressive selectable                                                                                                                                                                                                                    | 2:1 Interlace                                                                                                                                                    |
| Image Sensor                   | 1/4-inch EXview HAD™                                                                                                                                                                                                                                | 1/4-inch EXview HAD                                                                                                                                                                                                                                 | 1/4-inch EXview HAD                                                                                                                                              |
| Effective Pixels               | 768 (H) X 494 (V)<br>752 (H) X 582 (V)                                                                                                                                                                                                              | 768 (H) X 494 (V)<br>752 (H) X 582 (V)                                                                                                                                                                                                              | 768 (H) X 494 (V)<br>752 (H) X 582 (V)                                                                                                                           |
| NTSC                           |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| PAL                            |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Horizontal Resolution          | >540 TV Lines<br>>540 TV Lines                                                                                                                                                                                                                      | >540 TV Lines<br>>540 TV Lines                                                                                                                                                                                                                      | 540 TV Lines<br>540 TV Lines                                                                                                                                     |
| NTSC                           |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| PAL                            |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Lens                           | f/1.4 (focal length, 3.3 ~ 119 mm)                                                                                                                                                                                                                  | f/1.4 (focal length, 3.4 ~ 98.6 mm)                                                                                                                                                                                                                 | f/1.6 (focal length, 3.6 ~ 82.8 mm)                                                                                                                              |
| Zoom                           | 36X optical, 12X digital                                                                                                                                                                                                                            | 29X optical, 12X digital                                                                                                                                                                                                                            | 23X optical, 12X digital                                                                                                                                         |
| Zoom Speed (optical range)     | 3.2/4.6/6.6 seconds                                                                                                                                                                                                                                 | 3.2/4.6/6.6 seconds                                                                                                                                                                                                                                 | 2.9/4.2/5.8 seconds                                                                                                                                              |
| Horizontal                     | 57.2° at 3.3 mm wide zoom;<br>1.7° at 119 mm telephoto zoom<br>Automatic with manual override                                                                                                                                                       | 55.8° at 3.4 mm wide zoom;<br>1.7° at 98.6 mm telephoto zoom<br>Automatic with manual override                                                                                                                                                      | 54° at 3.6 mm wide zoom;<br>2.5° at 82.8 mm telephoto zoom<br>Automatic with manual override                                                                     |
| Angle of view                  |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Focus                          |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Maximum Sensitivity at 35 IRE  | 0.55 lux at 1/60 sec ( <b>color</b> )<br>0.018 lux at 1/2 sec ( <b>color</b> )<br>0.0048 lux at 1/2 sec ( <b>B-W</b> )<br>0.45 lux at 1/50 sec ( <b>color</b> )<br>0.015 lux at 1/1.5 sec ( <b>color</b> )<br>0.004 lux at 1/1.5 sec ( <b>B-W</b> ) | 0.55 lux at 1/60 sec ( <b>color</b> )<br>0.018 lux at 1/2 sec ( <b>color</b> )<br>0.0048 lux at 1/2 sec ( <b>B-W</b> )<br>0.45 lux at 1/50 sec ( <b>color</b> )<br>0.015 lux at 1/1.5 sec ( <b>color</b> )<br>0.004 lux at 1/1.5 sec ( <b>B-W</b> ) | 0.65 lux at 1/60 sec ( <b>color</b> )<br>0.15 lux at 1/60 sec ( <b>B-W</b> )<br><br>0.55 lux at 1/50 sec ( <b>color</b> )<br>0.12 lux at 1/50 sec ( <b>B-W</b> ) |
| NTSC/EIA                       |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| PAL/CCIR                       |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Sync System                    | Internal/AC line lock, phase adjustable<br>using remote control, V-Sync                                                                                                                                                                             | Internal/AC line lock, phase adjustable<br>using remote control, V-Sync                                                                                                                                                                             | Internal/AC line lock, phase adjustable<br>using remote control, V-Sync                                                                                          |
| White Balance                  | Automatic with manual override                                                                                                                                                                                                                      | Automatic with manual override                                                                                                                                                                                                                      | Automatic with manual override                                                                                                                                   |
| Shutter Speed                  | Automatic (electronic iris)/Manual<br>1/2 ~ 1/30,000<br>1/1.5 ~ 1/30,000                                                                                                                                                                            | Automatic (electronic iris)/Manual<br>1/2 ~ 1/30,000<br>1/1.5 ~ 1/30,000                                                                                                                                                                            | Automatic (electronic iris)/Manual<br>1/2 ~ 1/30,000<br>1/1.5 ~ 1/30,000                                                                                         |
| NTSC                           |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| PAL                            |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| Iris Control                   | Automatic iris control with manual<br>override                                                                                                                                                                                                      | Automatic iris control with manual<br>override                                                                                                                                                                                                      | Automatic iris control with manual<br>override                                                                                                                   |
| Gain Control                   | Automatic/OFF                                                                                                                                                                                                                                       | Automatic/OFF                                                                                                                                                                                                                                       | Automatic/OFF                                                                                                                                                    |
| Video Output                   | 1 Vp-p, 75 ohms                                                                                                                                                                                                                                     | 1 Vp-p, 75 ohms                                                                                                                                                                                                                                     | 1 Vp-p, 75 ohms                                                                                                                                                  |
| Video Signal-to-Noise          | >50 dB                                                                                                                                                                                                                                              | >50 dB                                                                                                                                                                                                                                              | >50 dB                                                                                                                                                           |
| Wide Dynamic Range             | 128X                                                                                                                                                                                                                                                | 128X                                                                                                                                                                                                                                                | —                                                                                                                                                                |
| Electronic Image Stabilization | Integrated/Selectable                                                                                                                                                                                                                               | —                                                                                                                                                                                                                                                   | —                                                                                                                                                                |
| Auto Sharpness                 | Integrated/Selectable                                                                                                                                                                                                                               | Integrated/Selectable                                                                                                                                                                                                                               | —                                                                                                                                                                |
| Video Motion Detection         | Integrated                                                                                                                                                                                                                                          | Integrated                                                                                                                                                                                                                                          | —                                                                                                                                                                |

# TECHNICAL SPECIFICATIONS

## VIDEO

|                             |                                                                                                        |           |
|-----------------------------|--------------------------------------------------------------------------------------------------------|-----------|
| Analog                      | NTSC/PAL                                                                                               |           |
| Digital Compression         | MJPEG, MPEG-4 (available only with Microsoft® Internet Explorer®)                                      |           |
| Video Streams               | 3, simultaneous                                                                                        |           |
| Video Resolutions           | NTSC                                                                                                   | PAL       |
| 4CIF                        | 704 x 480                                                                                              | 704 x 576 |
| 2CIF                        | 704 x 240                                                                                              | 704 x 288 |
| CIF                         | 352 x 240                                                                                              | 352 x 288 |
| QCIF                        | 176 x 120                                                                                              | 176 x 144 |
| Bit Rate Configurable       | 30 ips, 2 Mbps for primary stream, 1 Mbps for secondary stream; implements EnduraView                  |           |
| MJPEG                       | 15 ips, 3 Mbps, MJPEG                                                                                  |           |
| Web User Interface          | Pelco Device Utility interface for viewing HTTP, requires Java Runtime Environment (JRE™)              |           |
| Users                       | 5 simultaneous users MJPEG and MPEG-4 unicast; unlimited number of users using multicast (MPEG-4 only) |           |
| Minimum System Requirements |                                                                                                        |           |
| Processor                   | Intel® Pentium® 4 microprocessor, 1.6 GHz                                                              |           |
| Operating System            | Windows® 98, Windows 2000, Windows XP (or later), or Mac® OS X 10.3.9 (or later)                       |           |
| Memory                      | 512 MB RAM                                                                                             |           |
| Network Interface Card      | 100 megabits                                                                                           |           |
| Web Browser                 | Internet Explorer 5.5 (or later); Mozilla® Firefox® 1.5 (or later)                                     |           |
| Monitor                     | Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution                                 |           |
| Firmware Upgrade            | Pelco Device Utility or Endura Application                                                             |           |
| Supported Protocols         | TCP/IP, UDP/IP (unicast, multicast IGMP), UPnP, DNS, DHCP, RTP, NTP                                    |           |



**IMPORTANT NOTE: PLEASE READ.** The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

# TECHNICAL SPECIFICATIONS

## DOME DRIVE FEATURES

### 36X and 29X Models

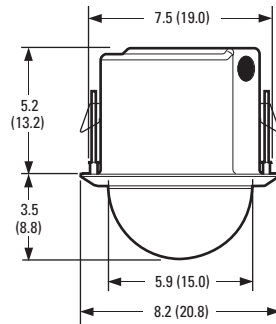
- 256 Presets
- $\pm 0.1^\circ$  Preset Accuracy
- Electronic Image Stabilization (36X model)
- Image Enhancement (36X model)
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- Password Protection
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- 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 Acknowledgement 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 to 40°/sec
- Pan Motion Allows 0.1° to 150°/sec Pan Speed
- Configurable Limit Stops for Auto/Random/Frame Scan Modes
- Autosensing 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 Through Pelco D Protocol
- Built-in Menu System for Setup of Configurable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Configurable Zoom Speeds
- Freeze Frame During Presets
- Low Lux Noise Reduction

### 23X Models

- 64 Presets
- $\pm 0.1^\circ$  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
- Window Blanking: Up to 4, 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
- 1 Alarm Input
- 1 Auxiliary (Form C) Relay Output
- 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
- Autosensing 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 through Pelco D Protocol
- Built-in Menu System for Setup of Configurable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Freeze Frame During Presets

# TECHNICAL SPECIFICATIONS

## BACK BOX FEATURES



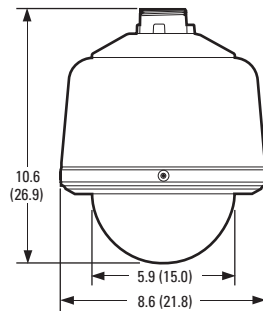
## BACK BOX FEATURES

### In-Ceiling (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 5.25-Inch Space Above Ceiling and 3.25 Inches Below
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces



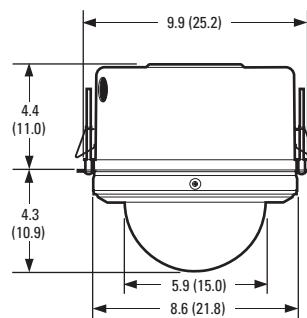
(ENVIRONMENTAL DOME  
WITH SUN SHROUD SHOWN)



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

### Standard and Environmental Pendant

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- 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

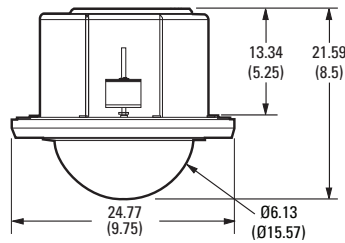


### Environmental In-Ceiling

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Hard Ceiling Applications
- Requires 4.4-Inch Space Above Ceiling and 4.3 Inches Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction

# TECHNICAL SPECIFICATIONS

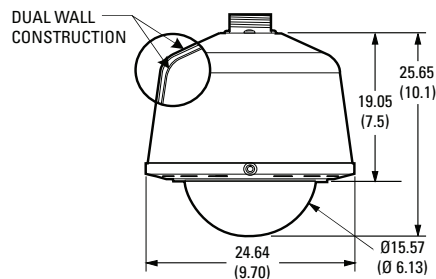
## BACK BOX FEATURES



### Heavy-Duty In-Ceiling (Indoor)

Available only with 29X and 36X models

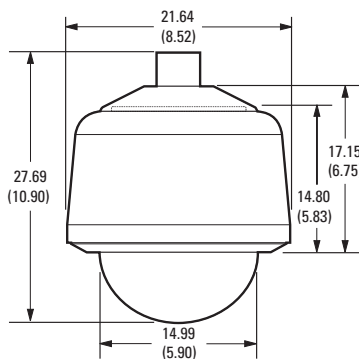
- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Hard Ceiling Applications
- Requires 5.25-Inch Space Above Ceiling and 3.25 Inches Below
- Quick Disconnect to Dome Drive
- Reinforced Mounting System
- Heavy-Duty Polycarbonate Dome Bubble
- Aluminum Trim Ring with Barrel-Type Key Locks
- Optional Protective Cage



### Heavy-Duty Pendant

Available only with 29X and 36X models

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Quick Disconnect to Dome Drive
- Dual Wall Construction
- Heavy-Duty Polycarbonate Dome Bubble
- Aluminum Trim Ring with Barrel-Type Key Locks
- Optional Protective Cage
- Environmental Model Includes Sun Shield, Fan, and Heater



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

### Stainless Steel Pendant

Available only with 29X and 36X models

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Quick Disconnect to Dome Drive
- All Stainless Steel Construction
- Includes Sun Shield, Fan, and Heater

# TECHNICAL SPECIFICATIONS

## GENERAL

|                           |                                                                                                                                                                                                    |                |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Construction              |                                                                                                                                                                                                    |                |
| Back Box                  |                                                                                                                                                                                                    |                |
| In-Ceiling                | Aluminum                                                                                                                                                                                           |                |
| Pendant                   | Aluminum                                                                                                                                                                                           |                |
| Heavy-Duty                | Aluminum                                                                                                                                                                                           |                |
| Stainless Steel           | 316 stainless steel; gray, polyurethane powder coated finish                                                                                                                                       |                |
| Dome Drive                | Aluminum, thermo plastic                                                                                                                                                                           |                |
| Lower Dome                |                                                                                                                                                                                                    |                |
| In-Ceiling                | Acrylic                                                                                                                                                                                            |                |
| Pendant                   | Acrylic                                                                                                                                                                                            |                |
| Heavy-Duty                | Polycarbonate, 0.09-inch thick                                                                                                                                                                     |                |
| Stainless Steel           | 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                | 0.75-inch conduit fitting                                                                                                                                                                          |                |
| Pendant                   | Through 1.5-inch NPT pendant mount                                                                                                                                                                 |                |
| Weight (approximate)      | Unit                                                                                                                                                                                               | Shipping       |
| In-Ceiling                | 5.2 lb (2.4 kg)                                                                                                                                                                                    | 8 lb (3.6 kg)  |
| Environmental In-Ceiling  | 6.2 lb (2.8 kg)                                                                                                                                                                                    | 10 lb (4.5 kg) |
| Standard Pendant          | 6.5 lb (3.0 kg)                                                                                                                                                                                    | 11 lb (5.0 kg) |
| Environmental Pendant     | 7.6 lb (3.5 kg)                                                                                                                                                                                    | 12 lb (5.4 kg) |
| Heavy-Duty In-Ceiling*    | 7.3 lb (3.3 kg)                                                                                                                                                                                    | 12 lb (5.4 kg) |
| Heavy-Duty Pendant*       | 9.8 lb (4.5 kg)                                                                                                                                                                                    | 16 lb (7.3 kg) |
| Heavy-Duty Environmental  |                                                                                                                                                                                                    |                |
| Pendant*                  | 9.8 lb (4.5 kg)                                                                                                                                                                                    | 16 lb (7.3 kg) |
| Stainless Steel           | 10.1 lb (4.6 kg)                                                                                                                                                                                   | 16 lb (7.3 kg) |
| Environment               |                                                                                                                                                                                                    |                |
| In-Ceiling                | Indoor                                                                                                                                                                                             |                |
| Environmental In-Ceiling  | Outdoor                                                                                                                                                                                            |                |
| Pendant, Standard and     |                                                                                                                                                                                                    |                |
| Environmental             | Indoor/outdoor                                                                                                                                                                                     |                |
| Heavy-Duty In-Ceiling     | Indoor                                                                                                                                                                                             |                |
| Heavy-Duty Pendant,       |                                                                                                                                                                                                    |                |
| Standard & Environmental  | Indoor/outdoor                                                                                                                                                                                     |                |
| Stainless Steel           | Indoor/outdoor                                                                                                                                                                                     |                |
| Operating Temperature     |                                                                                                                                                                                                    |                |
| In-Ceiling                | 32° to 122°F (0° to 50°C)                                                                                                                                                                          |                |
| Standard Pendant          | (Assumes no wind chill factor)                                                                                                                                                                     |                |
| Maximum                   | 113°F (45°C) absolute maximum; 95°F (35°C) sustained maximum                                                                                                                                       |                |
| Minimum                   | 25°F (–4°C) sustained minimum                                                                                                                                                                      |                |
| Environmental In-Ceiling  |                                                                                                                                                                                                    |                |
| and Environmental Pendant | (Assumes no wind chill factor)                                                                                                                                                                     |                |
| Maximum                   | 140°F (60°C) absolute maximum; 122°F (50°C) sustained maximum                                                                                                                                      |                |
| Minimum                   | –60°F (–51°C) absolute minimum; prevents icing at sustained minimum of –50°F (–45°C); de-ices 0.1 inch (2.5 mm) within 3 hours after power-up                                                      |                |
| Heavy-Duty In-Ceiling     | 32° to 122°F (0° to 50°C)                                                                                                                                                                          |                |
| Heavy-Duty Pendant        | 32° to 122°F (0° to 50°C) absolute maximum; 32° to 122°F (0° to 50°C) sustained maximum                                                                                                            |                |
| Heavy-Duty                |                                                                                                                                                                                                    |                |
| Environmental Pendant     | (Assumes no wind chill factor)                                                                                                                                                                     |                |
| Maximum                   | 140°F (60°C) absolute maximum; 122°F (50°C) sustained maximum                                                                                                                                      |                |
| Minimum                   | –60°F (–51°C) absolute minimum; minimal icing at sustained minimum of –50°F (–45°C); prevents icing at sustained minimum of –40°F (–40°C); de-ices 0.1 inch (2.5 mm) within 3 hours after power-up |                |

|                                |                                                                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stainless Steel                | (Assumes no wind chill factor)                                                                                                                                                                     |
| Maximum                        | 140°F (60°C) absolute maximum; 122°F (50°C) sustained maximum                                                                                                                                      |
| Minimum                        | –60°F (–51°C) absolute minimum; minimal icing at sustained minimum of –50°F (–45°C); prevents icing at sustained minimum of –40°F (–40°C); de-ices 0.1 inch (2.5 mm) within 3 hours after power-up |
| Effective Projected Area (EPA) | 20.5 square inches (without mount) 47 square inches (with IWM Series mount)                                                                                                                        |

## 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 IP pan/tilt speed is 20°/sec) |

## AUDIO

|              |                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------|
| Streaming    | Bidirectional: full or half duplex                                                                   |
| Input/Output | Terminal block, analog for microphone and speaker; 600-ohm differential; 1 Vp-p maximum signal level |
| Compression  | G.711 PCM 8 bit, 8 kHz mono at 64 kbit/s                                                             |

## ELECTRICAL

|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Ports             | RJ-45 connector for 100Base-TX<br>Auto MDI/MDI-X<br>Autonegotiate/Manual setting |
| Cabling Type      | Cat5 or better for 100Base-TX                                                    |
| Input Voltage     | 18 to 32 VAC; 24 VAC nominal<br>22 to 27 VDC; 24 VDC nominal                     |
| Input Power       |                                                                                  |
| 24 VAC            | 23 VA nominal (without heater);<br>73 VA nominal (with heater)                   |
| 24 VDC            | 0.7 A nominal (without heater);<br>3 A nominal (with heater)                     |
| Fuse              | 1.25 A                                                                           |
| Auxiliary Outputs | 2                                                                                |
| Alarm Inputs      | 7                                                                                |

## 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; 7,161,615 B2
- Meets the following standards:
- NEMA Type 4X, IP66 when installed properly (BB4N-F-E, BB4N-PB, BB4N-PG, BB4N-PG-E, BB4NHD-PG, BB4NHD-PG-E, and BB4N-PSG-E)
  - NEMA Type 1, IP40 (BB4N-F and BB4NHD-F)

\*Add 2 lb (0.90 kg) to the total weight if the system includes a lower dome

## RELATED PRODUCTS

### OPTIONAL ACCESSORIES

|            |                                                                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HD-KEYS    | 1 set of keys for heavy-duty lower dome.                                                                                                                                                                                                |
| 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 <a href="http://www.pelco.com">www.pelco.com</a> 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 when used with the IPS-CABLE.                                                                                              |
| LD5F-2*    | Flush in-ceiling lower dome with chrome bubble (f/2.0 light loss).                                                                                                                                                                      |
| LD5F-3*    | Flush in-ceiling lower dome with gold bubble (f/2.0 light loss).                                                                                                                                                                        |
| LD53PB-2*  | Pendant lower dome with black trim and chrome bubble (f/2.0 light loss).                                                                                                                                                                |
| LD53PB-3*  | Pendant lower dome with black trim and gold bubble (f/2.0 light loss).                                                                                                                                                                  |

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

### 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 BB4N-F; for use in ceiling tile applications                   |

#### Pendant Domes

|             |                                                                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| BB5-PCA-BK  | Pendant conduit adapter, black                                                                                                                |
| BB5-PCA-GY  | Pendant conduit adapter, gray                                                                                                                 |
| IWM Series  | Wall mount, with or without integral 24 VAC, 100 VA transformer; black or gray finish; can be adapted for corner, parapet or pole application |
| 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                                                      |
| IDM4012SS   | Stainless steel wall mount with feedthrough capabilities                                                                                      |

### 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

| Type                                    | Back Box Color  | Lower Dome | Cage | 36X Day/Night (NTSC) | 36X Day/Night (PAL) | 29X Day/Night (NTSC) | 29X Day/Night (PAL) | 23X Day/Night (NTSC) | 23X Day/Night (PAL) |
|-----------------------------------------|-----------------|------------|------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| In-Ceiling, Indoor                      | Black           | Smoked     |      | SD4N36-F0            | SD4N36-F0-X         | SD4N29-F0            | SD4N29-F0-X         | SD4N23-F0            | SD4N23-F0-X         |
|                                         |                 | Clear      |      | SD4N36-F1            | SD4N36-F1-X         | SD4N29-F1            | SD4N29-F1-X         | SD4N23-F1            | SD4N23-F1-X         |
| In-Ceiling, Environmental*              | Black           | Smoked     |      | SD4N36-F-E0          | SD4N36-F-E0-X       | SD4N29-F-E0          | SD4N29-F-E0-X       | SD4N23-F-E0          | SD4N23-F-E0-X       |
|                                         |                 | Clear      |      | SD4N36-F-E1          | SD4N36-F-E1-X       | SD4N29-F-E1          | SD4N29-F-E1-X       | SD4N23-F-E1          | SD4N23-F-E1-X       |
| Pendant, Standard                       | Black           | Smoked     |      | SD4N36-PB-0          | SD4N36-PB-0-X       | SD4N29-PB-0          | SD4N29-PB-0-X       | SD4N23-PB-0          | SD4N23-PB-0-X       |
|                                         |                 | Clear      |      | SD4N36-PB-1          | SD4N36-PB-1-X       | SD4N29-PB-1          | SD4N29-PB-1-X       | SD4N23-PB-1          | SD4N23-PB-1-X       |
|                                         | Light Gray      | Smoked     |      | SD4N36-PG-0          | SD4N36-PG-0-X       | SD4N29-PG-0          | SD4N29-PG-0-X       | SD4N23-PG-0          | SD4N23-PG-0-X       |
|                                         |                 | Clear      |      | SD4N36-PG-1          | SD4N36-PG-1-X       | SD4N29-PG-1          | SD4N29-PG-1-X       | SD4N23-PG-1          | SD4N23-PG-1-X       |
| Pendant, Environmental*                 | Light Gray      | Smoked     |      | SD4N36-PG-E0         | SD4N36-PG-E0-X      | SD4N29-PG-E0         | SD4N29-PG-E0-X      | SD4N23-PG-E0         | SD4N23-PG-E0-X      |
|                                         |                 | Clear      |      | SD4N36-PG-E1         | SD4N36-PG-E1-X      | SD4N29-PG-E1         | SD4N29-PG-E1-X      | SD4N23-PG-E1         | SD4N23-PG-E1-X      |
| Heavy-Duty In-Ceiling, Indoor           | Light Gray      | Smoked     | No   | SD4N36-HF0           | SD4N36-HF0-X        | SD4N29-HF0           | SD4N29-HF0-X        |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCF0          | SD4N36-HCF0-X       | SD4N29-HCF0          | SD4N29-HCF0-X       |                      |                     |
|                                         |                 | Clear      | No   | SD4N36-HF1           | SD4N36-HF1-X        | SD4N29-HF1           | SD4N29-HF1-X        |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCF1          | SD4N36-HCF1-X       | SD4N29-HCF1          | SD4N29-HCF1-X       |                      |                     |
| Heavy-Duty Pendant, Indoor              |                 | Smoked     | No   | SD4N36-HP0           | SD4N36-HP0-X        | SD4N29-HP0           | SD4N29-HP0-X        |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCP0          | SD4N36-HCP0-X       | SD4N29-HCP0          | SD4N29-HCP0-X       |                      |                     |
|                                         |                 | Clear      | No   | SD4N36-HP1           | SD4N36-HP1-X        | SD4N29-HP1           | SD4N29-HP1-X        |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCP1          | SD4N36-HCP1-X       | SD4N29-HCP1          | SD4N29-HCP1-X       |                      |                     |
| Heavy-Duty Pendant, Environmental*      |                 | Smoked     | No   | SD4N36-HPE0          | SD4N36-HPE0-X       | SD4N29-HPE0          | SD4N29-HPE0-X       |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCPE0         | SD4N36-HCPE0-X      | SD4N29-HCPE0         | SD4N29-HCPE0-X      |                      |                     |
|                                         |                 | Clear      | No   | SD4N36-HPE1          | SD4N36-HPE1-X       | SD4N29-HPE1          | SD4N29-HPE1-X       |                      |                     |
|                                         |                 |            | Yes  | SD4N36-HCPE1         | SD4N36-HCPE1-X      | SD4N29-HCPE1         | SD4N29-HCPE1-X      |                      |                     |
| Stainless Steel Pendant, Environmental* | Stainless Steel | Smoked     |      | SD4N36-PSGE0         | SD4N36-PSGE0-X      | SD4N29-PSGE0         | SD4N29-PSGE0-X      |                      |                     |
|                                         |                 | Clear      |      | SD4N36-PSGE1         | SD4N36-PSGE1-X      | SD4N29-PSGE1         | SD4N29-PSGE1-X      |                      |                     |

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

# SYSTEM AND COMPONENT MODELS

## COMPONENT MODEL NUMBERS

| Back Box*                                                                             |                                                                           | Dome Drive |                               | Lower Dome† |                                          |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------|-------------------------------|-------------|------------------------------------------|
| BB4N-F                                                                                | In-ceiling, black, with back box memory                                   | DD423      | Day/Night (NTSC) camera (23X) | LDHQF-0     | Smoked, in-ceiling                       |
|                                                                                       |                                                                           | DD423-X    | Day/Night (PAL) camera (23X)  | LDHQF-1     | Clear, in-ceiling                        |
|                                                                                       |                                                                           | DD429      | Day/Night (NTSC) camera (29X) | LDHQP-B-0   | Smoked, pendant, black                   |
| BB4N-F-E                                                                              | In-ceiling, black, environmental, with back box memory                    | DD429-X    | Day/Night (PAL) camera (29X)  | LDHQP-B-1   | Clear, pendant, black                    |
|                                                                                       |                                                                           | DD436      | Day/Night (NTSC) camera (36X) | LD53HDF-0   | Smoked, in-ceiling, heavy-duty           |
| BB4N-PB                                                                               | Pendant mount, black, standard, with back box memory                      | DD436-X    | Day/Night (PAL) camera (36X)  | LD53HDF-1   | Clear, in-ceiling, heavy-duty            |
|                                                                                       |                                                                           |            |                               | LD53HDCF-0  | Smoked, in-ceiling, heavy-duty with cage |
| BB4N-PG                                                                               | Pendant mount, gray, standard, with back box memory                       |            |                               | LD53HDCF-1  | Clear, in-ceiling, heavy-duty with cage  |
| BB4N-PG-E                                                                             | Pendant mount, gray, environmental, with back box memory                  |            |                               | LD53HDP-B-0 | Smoked, pendant, heavy-duty              |
| BB4NHD-F                                                                              | Heavy-duty, in-ceiling, gray, with back box memory                        |            |                               | LD53HDP-B-1 | Clear, pendant, heavy-duty               |
|                                                                                       |                                                                           |            |                               | LD53HDCPB-0 | Smoked, pendant, heavy-duty, with cage   |
| BB4NHD-PG                                                                             | Heavy-duty, pendant, gray, with back box memory                           |            |                               | LD53HDCPB-1 | Clear, pendant, heavy-duty, with cage    |
| BB4NHD-PG-E                                                                           | Heavy-duty, environmental pendant, gray, with back box memory             |            |                               | LD53PSB-0   | Smoked, pendant, black trim ring, 316 SS |
| BB4N-PSG-E                                                                            | Stainless steel, environmental pendant, gray 316 SS, with back box memory |            |                               | LD53PSB-1   | Clear, pendant, black trim ring, 316 SS  |
| <b>Note:</b> For environmental applications you must order an environmental back box. |                                                                           |            |                               |             |                                          |

\*Environmental models include a heater and 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.