

## **SPECTRA® IV SE SERIES DISCREET DOME SYSTEM**

### **TECHNICAL SPECIFICATIONS**

### **SECURITY SYSTEM**

#### **DIVISION – 28 ELECTRONIC SAFETY AND SECURITY**

#### **LEVEL 1\_\_28 20 00 ELECTRONIC SURVEILLANCE**

#### **LEVEL 2\_\_28 23 00 VIDEO SURVEILLANCE**

#### **LEVEL 3\_\_28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS**

## **PART 2 - PRODUCTS**

### **2.01 GENERAL**

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll-free (U.S. and Canada), 24-hour technical assistance program (TAP) from the manufacturer. The TAP shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.
- D. All systems and components shall be provided with a one-day turnaround repair express and 24-hour parts replacement. The repair and parts express shall be guaranteed by the manufacturer on warranty and nonwarranty items.

### **2.02 INDOOR/OUTDOOR CAMERA DOME SYSTEM**

- A. The indoor/outdoor camera dome system shall be a discreet, camera dome system consisting of a dome drive with a variable speed/high speed pan/tilt drive unit and continuous 360° rotation; 1/4-inch high resolution color, monochrome, or color/black-white CCD camera; motorized zoom lens with optical and digital zoom; auto focus; and an enclosure consisting of a back box, lower dome, and a quick-install mounting.
- B. The indoor/outdoor camera dome system shall meet or exceed the following design and performance specifications.

### **2.03 DOME DRIVE**

- A. The variable speed/high speed pan/tilt dome drive unit shall meet or exceed the following design and performance specifications.
  - 1. Pan Speed Variable between 400° per second continuous pan to 0.1° per second
  - 2. Vertical Tilt Unobstructed tilt of +2° to -92°
  - 3. Manual Control Speed Pan speed of 0.1° to 80° per second, and pan at 150° per second in turbo mode. Tilt operation shall range from 0.1° to 40° per second
  - 4. Automatic Preset Speed Pan speed of 400° and a tilt speed of 200° per second
  - 5. Presets 256 positions with a 20-character label available for each position; configurable camera settings, including selectable auto focus modes, iris level, LowLight™ limit, and backlight compensation for each preset; command to copy camera settings from one preset to another; and preset configuration through control keyboard or through dome system on-screen menu
  - 6. Preset Accuracy ± 0.1°

7. Proportional Pan/Tilt Speed	Speed decreases in proportion to the increasing depth of zoom
8. Automatic Power Up	User-selectable to the mode of operation; the dome will resume when power is cycled, including an automatic return to position or function before power outage
9. Zones	8 zones with up to 20-character labeling for each, with the ability to blank the video in the zone
10. Motor Drive	Cogged belt with 0.9° stepper motor
11. Motor Operating Mode	Microstep to 0.015° steps
12. Motor	Continuous duty and variable speed, operating at 18 to 32 VAC, 24 VAC nominal
13. Limit Stops	Configurable for manual panning, auto/random scanning, and frame scanning
14. Inner Liner	Rotating black ABS liner inside a sealed lower dome
15. Alarm Inputs	Ability to control 7 alarm inputs located in the back box
16. Alarm Outputs	Ability to control 1 auxiliary Form C relay output and 1 open collector auxiliary output located in the back box
17. Alarm Output Configuration	Auxiliary outputs can be alternately configurable to operate on alarm
18. Alarm Action	Individually configurable for 3 priority levels, initiating a stored pattern or going to a pre-assigned preset position
19. Resume after Alarm	After completion of alarm, dome returns to previously configurable state or its previous position
20. Window Blanking	8, four-sided user-defined shapes, each side with different lengths; window blanking setting to turn off at user-defined zoom ratio; window blanking set to opaque gray or translucent smear; blank all video above user-defined tilt angle; blank all video below user-defined tilt angle
21. Patterns	8 user-defined configurable patterns including pan/tilt/zoom and preset functions, and pattern configuration through control keyboard or through dome system on-screen menu.
22. Pattern Length	8 patterns of user-defined length based on dome memory
23. Internal Clock	Internal system clock, user configurable for 12- or 24- hour day format and mm/dd/yy or dd/mm/yy calendar format
24. Scheduler	Internal scheduling system for configuration of presets, patterns, window blanks, alarms, and auxiliary functions based on internal clock settings
25. Autosensing	Automatically sense and respond to protocol utilized for controlling the unit whether Coaxitron® or RS-422 Pelco P or Pelco D protocols, and accept third-party control protocols with the use of optional translator cards
26. Menu System	Built-in setup of configurable functions and multiple languages including English, French, Italian, Spanish, Portuguese, German, Russian, Turkish, Polish, and Czech
27. Auto Flip	Rotates dome 180° at bottom of tilt travel
28. Password Protection	Configurable settings with optional password protection
29. Clear	Clear individual, grouped, or all configured settings

- |                                    |   |
|------------------------------------|---|
| 30. Freeze Frame                   | Freeze current scene of video during preset movement  |
| 31. Display Setup                  | User-definable locations of all labels and displays and user-selectable time duration of each display   |
| 32. Azimuth/Elevation/Zoom         | On-screen display of pan/tilt locations and zoom ratio  |
| 33. Compass Display                | On-screen display of compass heading and user-definable Zero Azimuth setting.   |
| 34. Camera Title Overlay           | 20 user-definable characters on the screen camera title display   |
| 35. Video Output Level             | User-selectable for normal or high output levels to compensate for long video wire runs   |
| 36. Dome Drive Compatibility       | All dome drives are compatible with all back box configurations   |
| 37. RJ-45 Jack                     | Contains a plug-in jack on the dome drive for control and setup of the unit, the uploading of new operating code and language file updates, and is compatible with personal computers and PDAs such as Palm™ and iPAQ™                          |
| 38. Remote Data Port Compatibility | Ability to set up and control unit, and upload new operating code and language file updates through the easily accessible optional remote data port; remote data port is also compatible with personal computers and PDAs such as Palm and iPAQ |
| 39. Power Consumption              | Maximum 70 VA   |
- B. The high resolution CCD camera shall meet or exceed the following design and performance specifications:

**Color/Black-White Optic System (27X)**

- |                             |  |
|-----------------------------|--|
| 1. Image Sensor             | 1/4-inch EXview HAD™ CCD   |
| 2. Scanning System          | 2:1 interlaced output  |
| 3. Effective Pixels         |  |
| a. NTSC                     | 768 x 494  |
| b. PAL                      | 752 x 582  |
| 4. Horizontal Resolution    |  |
| a. NTSC                     | >540 TVL   |
| b. PAL                      | >540 TVL   |
| 5. Lens                     | f/1.4 (focal length, 3.4~91.8 mm; 27X optical zoom, 12X digital zoom)                            |
| 6. Configurable Zoom Speeds | 3.2, 4.6, or 6.6 seconds   |
| 7. Horizontal Angle of View | 55.8° at 3.4 mm wide zoom, 2.3° at 91.8 mm telephoto zoom  |
| 8. Focus                    | Automatic with manual override   |
| 9. Sensitivity at 35 IRE    |  |
| a. NTSC/EIA                 | 0.55 lux at 1/60 sec (color)<br>0.018 lux at 1/2 sec (color)<br>0.00018 lux at 1/2 sec (B-W)     |
| b. PAL/CCIR                 | 0.45 lux at 1/50 sec (color)<br>0.015 lux at 1/1.5 sec (color)<br>0.00015 lux at 1/1.5 sec (B-W) |
| 10. Synchronization System  | Internal/AC line lock phase adjustable through remote control, V-sync                            |
| 11. White Balance           | Automatic with manual override   |

- |                           |  |
|---------------------------|--|
| 12. Shutter Speed         |  |
| a. NTSC                   | 1/2~1/30,000   |
| b. PAL                    | 1/1.5~1/30,000   |
| 13. Iris Control          | Automatic with manual override   |
| 14. Gain Control          | Automatic/ OFF   |
| 15. Video Output          | 1 Vp-p, 75 ohms  |
| 16. Video Signal-to-Noise | >50 dB   |
| 17. Type of Lighting      | Menu selection of indoor or outdoor lighting for optimum camera performance  |
| 18. Wide Dynamic Range    | 128X   |
| 19. Motion Detection      | User-definable motion detection settings for each preset scene, can activate auxiliary outputs, and contains three sensitivity levels per zone |

#### Color/Black-White Optic System (35X)

- |                             |  |
|-----------------------------|--|
| 1. Image Sensor             | 1/4-inch EXview HAD™ CCD   |
| 2. Scanning System          | 2:1 interlaced output  |
| 3. Effective Pixels         |  |
| a. NTSC                     | 768 x 494  |
| b. PAL                      | 752 x 582  |
| 4. Horizontal Resolution    |  |
| a. NTSC                     | >540 TVL   |
| b. PAL                      | >540 TVL   |
| 5. Lens                     | f/1.4 (focal length, 3.4~119 mm; 35X optical zoom, 12X digital zoom)   |
| 6. Configurable Zoom Speeds | 3.2, 4.6, or 6.6 seconds   |
| 7. Horizontal Angle of View | 55.8° at 3.4 mm wide zoom, 1.7° at 119 mm telephoto zoom   |
| 8. Focus                    | Automatic with manual override   |
| 9. Sensitivity at 35 IRE    |  |
| a. NTSC/EIA                 | 0.55 lux at 1/60 sec shutter speed (color)<br>0.063 lux at 1/4 sec shutter speed (color)<br>0.00018 lux at 1/2 sec shutter speed (B-W)         |
| b. PAL/CCIR                 | 0.50 lux at 1/50 sec shutter speed (color)<br>0.062 lux at 1/3 sec shutter speed (color)<br>0.00014 lux at 1/1.5 sec shutter speed (B-W)       |
| 10. Synchronization System  | Internal/AC line lock phase adjustable through remote control, V-sync  |
| 11. White Balance           | Automatic with manual override   |
| 12. Shutter Speed           |  |
| a. NTSC                     | 1/2~1/30,000   |
| b. PAL                      | 1/1.5~1/30,000   |
| 13. Iris Control            | Automatic with manual override   |
| 14. Gain Control            | Automatic/ off   |
| 15. Video Output            | 1 Vp-p, 75 ohms  |
| 16. Video Signal-to-Noise   | >50 dB   |
| 17. Type of Lighting        | Menu selection of indoor or outdoor lighting for optimum camera performance  |
| 18. Wide Dynamic Range      | 128X   |
| 19. Motion Detection        | User-definable motion detection settings for each preset scene, can activate auxiliary outputs, and contains three sensitivity levels per zone |

- |                                    |   |
|------------------------------------|---|
| 20. Electronic Image Stabilization | Electronic compensation for external vibration sources that cause image blurring; user selectable for 2 frequency ranges, 5Hz (3 to 7Hz) and 10Hz (8 to 12Hz) |
| 21. Image Enhancement              | Electronic improvement of sharpness of objects, lines or text in high contrast areas  |

## 2.04 BACK BOX AND LOWER DOME

The back box and lower dome shall meet or exceed the following design and performance specifications:

### A. Pendant, Environmental

- |                                |  |
|--------------------------------|--|
| 1. Connection to Dome Drive    | Quick, positive mechanical and electrical disconnect without the use of any tools  |
| 2. Trap Door                   | Easy access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed  |
| 3. Terminal Strips             | Removable terminal strips with screw-type terminals for use with 22-14 gauge wire  |
| 4. Auxiliary Connections       | 1 Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum  |
| 5. Alarm Inputs                | 7 alarm inputs   |
| 6. Integrated UTP Circuit      | Integrated circuit that converts video output to passive UTP transmission  |
| 7. Fiber Optic Compatibility   | Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission   |
| 8. Third-Party Control Systems | Ability to plug in an optional TXB board that converts control signals from selected third-party controllers   |
| 9. IP Compatibility            | Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)                  |
| 10. Installation               | Quick-mount wall, corner, pole, parapet, or ceiling adapter  |
| 11. Cable Entry                | Through a 1.5-inch NPT fitting   |
| 12. Environmental Features     | Factory-installed heaters, blowers, and sun shroud   |
| 13. Operating Temperatures     | Maximum range of -60° to 140°F (-51.1° to 60°C) for two hours, and a continuous operating range of -50° to 122°F (-51.1° to 50°C)  |
| 14. Memory                     | Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive |
| 15. Color                      | Gray, baked-on enamel powder coat  |
| 16. Construction               | Aluminum   |
| 17. Lower Dome Material        | Acrylic, optically clear, with no optical distortion up to +2° above the horizon   |
| 18. Dome Color                 | Clear and smoked versions  |
| 19. Trim Ring Connection       | 2 screws   |

**B. In-Ceiling, Environmental**

- |                                |  |
|--------------------------------|--|
| 1. Connection to Dome Drive    | Quick, positive mechanical and electrical disconnect without the use of any tools  |
| 2. Trap Door                   | Easy access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed  |
| 3. Terminal Strips             | Removable terminal strips with screw-type terminals for use with 22-14 gauge   |
| 4. Auxiliary Connections       | 1 Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum  |
| 5. Alarm Inputs                | 7 alarm inputs   |
| 6. Integrated UTP Circuit      | Integrated circuit board that converts video output to passive UTP transmission  |
| 7. Fiber Optic Compatibility   | Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission   |
| 8. Third-Party Control Systems | Ability to plug in an optional TXB board that converts control signals from selected third-party controllers   |
| 9. IP Compatibility            | Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)                  |
| 10. Installation               | Quick-mount spring clips   |
| 11. Cable Entry                | Through a 0.75-inch conduit hole   |
| 12. Environmental Features     | Factory-installed heaters and blowers  |
| 13. Operating Temperatures     | Maximum range of -60° to 140°F (-51.1° to 60°C) for two hours, and a continuous operating range of -50° to 122°F (-51.1° to 50°C)  |
| 14. Memory                     | Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive |
| 15. Color                      | Black, baked-on enamel powder coat   |
| 16. Construction               | Aluminum   |
| 17. Lower Dome Material        | Acrylic, optically clear, with no optical distortion up to +2° above the horizon   |
| 18. Dome Color                 | Clear and smoked versions  |
| 19. Trim Ring Connection       | 2 screws   |

**C. In-Ceiling, Interior**

- |                             |  |
|-----------------------------|--|
| 1. Connection to Dome Drive | Quick, positive mechanical and electrical disconnect without the use of any tools  |
| 2. Trap Door                | Easy access trap door allowing complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed |
| 3. Terminal Strips          | Removable terminal strips with screw-type terminals for use with 22-14 gauge wire  |
| 4. Auxiliary Connections    | 1 Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum  |

5. Alarm Inputs	7 alarm inputs
6. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
7. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
8. Third-Party Control Systems	Ability to plug in optional TXB board that converts control signals from selected third-party controllers
9. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control while maintaining analog viewing and control)
10. Installation	Quick-mount spring clips
11. Cable Entry	Through a 0.75-inch conduit hole
12. Operating Temperatures	Maximum range of 32° to 122°F (0° to 50°C)
13. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive
14. Color	Black back box with baked-on enamel powder coat; white trim ring
15. Construction	Aluminum
16. Lower Dome Material	Acrylic, optically clear with no optical distortion up to +2° above the horizon
17. Dome Color	Clear, smoked, chrome, and gold versions
18. Trim Ring Connection	Snaps in place
19. Safety Cable	Plastic tether
<b>D. Pendant, Standard</b>	
1. Connection to Dome Drive	Quick, positive mechanical and electrical disconnect without the use of any tools
2. Trap Door	Easy access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed
3. Terminal Strips	Removable terminal strips with screw-type terminals for use with 22-14 gauge wire
4. Auxiliary Connections	1 Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32VDC at 150 mA maximum
5. Alarm Inputs	7 alarm inputs
6. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
7. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
8. Third-Party Control Systems	Ability to plug in an optional TXB board that converts control signals from selected third-party controllers

9. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)
10. Installation	Quick-mount wall, corner, pole, parapet, or ceiling adapter
11. Cable Entry	Through a 1.5-inch NPT fitting
12. Operating Temperatures	Maximum range of 25° to 113°F (–4° to 45°C) for two hours, and a continuous operating range of 25° to 95°F (–4° to 35°C)
13. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive
14. Colors	Gray or black, baked-on enamel powder coat
15. Construction	Aluminum
16. Lower Dome Material	Acrylic, optically clear with no optical distortion up to +2° above the horizon
17. Dome Color	Clear, smoked, chrome, and gold versions
18. Trim Ring Connection	2 screws
<b>E. Surface Mount, Interior</b>	
1. Connection to Dome Drive	Quick, positive mechanical and electrical disconnect without the use of any tools
2. Trap Door	Easy access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed
3. Terminal Strips	Removable terminal strips with screw-type terminals for use with 22-14 gauge wire
4. Auxiliary Connections	1 Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum
5. Alarm Inputs	7 alarm inputs
6. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
7. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
8. Third-Party Control Systems	Ability to plug in an optional TXB board that converts control signals from selected third-party controllers
9. Installation	Surface mount
10. Cable Entry	Through a 0.75-inch conduit hole
11. Operating Temperatures	Maximum range of 32° to 122°F (0° to 50°C)
12. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive
13. Colors	Black or white finish
14. Construction	Plastic



- |                          |   |
|--------------------------|---|
| 15. Lower Dome Material  | Acrylic, optically clear with no optical distortion up to +2° above the horizon |
| 16. Dome Color           | Clear, smoked, chrome, and gold versions  |
| 17. Trim Ring Connection | Snaps in place  |
| 18. Safety Cable         | Plastic tether  |

#### **F. Heavy Duty In-Ceiling Interior**

- |                                |  |
|--------------------------------|--|
| 1. Connection to Dome Drive    | Quick, positive mechanical and electrical disconnect without the use of any tools  |
| 2. Trap Door                   | Easy-access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed  |
| 3. Terminal Strips             | Removable terminal strips with screw-type terminals for use with 22-14 gauge wire  |
| 4. Auxiliary Connections       | One Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum  |
| 5. Integrated UTP Circuit      | Integrated circuit board that converts video output to passive UTP transmission  |
| 6. Third-Party Control Systems | Ability to plug in optional TXB board that converts control signals from selected third-party controllers  |
| 7. IP Compatibility            | Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)                |
| 8. Alarm Inputs                | Seven alarm inputs   |
| 9. Installation                | Quick-mount spring clips   |
| 10. Cable Entry                | Through a 0.75-inch conduit hole   |
| 11. Operating Temperatures     | Maximum range of 32° to 122°F (0° to 50°C)   |
| 12. Memory                     | Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings to download automatically into new dome drive |
| 13. Color                      | Gray, baked-on enamel powder coat  |
| 14. Construction               | Aluminum, with 0.090-inch thick, clear polycarbonate lower dome and aluminum trim ring   |
| 15. Trim Ring Connection       | Barrel type key locks  |
| 16. Lower Dome Protection      | Available with optional stainless steel cage around lower dome; bars of cage not to interfere with picture at medium to high zoom rates  |

#### **G. Heavy Duty Pendant Environmental**

- |                             |   |
|-----------------------------|---|
| 1. Connection to Dome Drive | Quick, positive mechanical and electrical disconnect without the use of any tools   |
| 2. Trap Door                | Easy-access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed |
| 3. Terminal Strips          | Removable terminal strips with screw-type terminals for use with 22-14 gauge wire   |

4. Auxiliary Connections	One Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum
5. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
6. Third-Party Control Systems	Ability to plug in optional TXB board that converts control signals from selected third-party controllers
7. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)
8. Alarm Inputs	Seven alarm inputs
9. Installation	Quick-mount spring clips
10. Cable Entry	Through a 0.75-inch conduit hole
11. Operating Temperatures	Maximum range of –60° to 140°F (–51.1° to 60°C) for two hours, and a continuous operating range of –50° to 122°F (–51.1° to 50°C) continuous operation
12. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings to download automatically into new dome drive
13. Color	Gray, baked-on enamel powder coat
14. Construction	Aluminum, with 0.090-inch thick, clear polycarbonate lower dome and aluminum trim ring
15. Trim Ring Connection	Barrel type key locks
16. Lower Dome Protection	Available with optional stainless steel cage around lower dome; bars of cage not to interfere with picture at medium to high zoom rates
<b>H. Heavy Duty Pendant Standard</b>	
1. Connection to Dome Drive	Quick, positive mechanical and electrical disconnect without the use of any tools
2. Trap Door	Easy-access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed
3. Terminal Strips	Removable terminal strips with screw-type terminals for use with 22-14 gauge wire
4. Auxiliary Connections	One Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum
5. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
6. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
7. Third-Party Control Systems	Ability to plug in optional TXB board that converts control signals from selected third-party controllers
8. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)
9. Alarm Inputs	Seven alarm inputs
10. Installation	Quick-mount spring clips

11. Cable Entry	Through a 0.75-inch conduit hole
12. Operating Temperatures	Maximum range of 32° to 122°F (0° to 50°C)
13. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings to download automatically into new dome drive
14. Color	Gray, baked-on enamel powder coat
15. Construction	Aluminum, with 0.090-inch thick, clear polycarbonate lower dome and aluminum trim ring
16. Trim Ring Connection	Barrel type key locks
17. Lower Dome Protection	Available with optional stainless steel cage around lower dome; bars of cage not to interfere with picture at medium to high zoom rates

#### I. Stainless Steel Pendant Environmental

1. Connection to Dome Drive	Quick, positive mechanical and electrical disconnect without the use of any tools
2. Trap Door	Easy-access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed
3. Terminal Strips	Removable terminal strips with screw-type terminals for use with 22-14 gauge wire
4. Auxiliary Connections	One Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum
5. Alarm Inputs	Seven alarm inputs
6. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
7. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
8. Third-Party Control Systems	Ability to plug in optional TXB board that converts control signals from selected third-party controllers
9. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)
10. Installation	Quick-mount wall, corner, pole, parapet, or ceiling adapter
11. Cable Entry	Through a 1.5-inch NPT fitting
12. Environmental Features	Factory-installed heaters, blowers, and sun shroud
13. Operating Temperatures	Maximum range of -60° to 140°F (-51.1° to 60°C) for two hours, and a continuous operating range of -50° to 122°F (-51.1° to 50°C) continuous operation
14. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings to download automatically into new dome drive
15. Color	Gray, baked-on enamel powder coat
16. Construction	All 316 stainless steel enclosure, sun shroud, trim ring, and mounting plate

- |                          |  |
|--------------------------|--|
| 17. Lower Dome Material  | Acrylic, optically clear, with no optical distortion up to +2° above the horizon |
| 18. Dome Color           | Clear and smoked versions  |
| 19. Trim Ring Connection | 2 screws   |

#### **J. Pressurized Stainless Steel Pendant Environmental**

- |                                   |  |
|-----------------------------------|--|
| 1. Connection to Dome Drive       | Quick, positive mechanical and electrical disconnect without the use of any tools  |
| 2. Trap Door                      | Easy-access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed  |
| 3. Terminal Strips                | Removable terminal strips with screw-type terminals for use with 22-14 gauge wire  |
| 4. Auxiliary Connections          | One Form-C relay output up to 40 VAC or 40 VDC at 2 A maximum, 1 open-collector output up to 32 VDC at 150 mA maximum  |
| 5. Alarm Inputs                   | Seven alarm inputs   |
| 6. Integrated UTP Circuit         | Integrated circuit board that converts video output to passive UTP transmission  |
| 7. Installation                   | Quick-mount wall, corner, pole, parapet, or ceiling adapter  |
| 8. Cable Entry                    | Through a 1.5-inch NPT fitting   |
| 9. Environmental Features         | Factory-installed heaters, blowers, and sun shroud   |
| 10. Operating Temperatures        | Maximum range of -60° to 140°F (-51.1° to 60°C) for two hours, and a continuous operating range of -50° to 122°F (-51.1° to 50°C) continuous operation   |
| 11. Memory                        | Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings to download automatically into new dome drive |
| 12. Color                         | Gray, baked-on enamel powder coat  |
| 13. Construction                  | All 316 stainless steel enclosure, sun shroud, trim ring, and mounting plate   |
| 14. Lower Dome Material           | Acrylic, optically clear, with no optical distortion up to +2° above the horizon   |
| 15. Dome Color                    | Clear and smoked versions  |
| 16. Trim Ring Connection          | Two screws   |
| 17. Pressure Ports                | Schrader valve and pressure relief valve   |
| 18. Operating Pressure            | 5 psig typical, 7 psig pressure relief   |
| 19. Internal Sensors              | Pressure, dew point, and temperature   |
| 20. Internal Sensor Reporting     | On-screen display  |
| 21. Sensor Out-of-Range Reporting | On-screen alerts with acknowledgment options and selectable position on the display monitor.   |
| 22. Fiber Optic Feedthrough       | Optional single-mode or multimode fiber optic  |

#### **K. Horizon Pendant Standard**

- |                             |   |
|-----------------------------|---|
| 1. Connection to Dome Drive | Quick, positive mechanical and electrical disconnect without the use of any tools   |
| 2. Trap Door                | Easy access trap door that allows complete access to the installation wiring, providing complete separation of the wiring from the dome drive mechanics when closed |

3. Terminal Strips	Removable terminal strips with screw-type terminals for use with 22-14 gauge wire
4. Auxiliary Connections	1 Form-C relay output up to 40VAC or 40VDC at 2A maximum, 1 open-collector output up to 32VDC at 150mA maximum
5. Alarm Inputs	7 alarm inputs
6. Integrated UTP Circuit	Integrated circuit that converts video output to passive UTP transmission
7. Fiber Optic Compatibility	Ability to plug into back box an optional Pelco fiber optic module, or a third-party board that converts video output and control input for fiber optic transmission
8. Third-Party Control Systems	Ability to plug in an optional TXB board that converts control signals from selected third-party controllers
9. IP Compatibility	Ability to plug into back box an optional Pelco IP module (TXB-N) to allow for H.264, MPEG-4, and MJPEG encoding with IP viewing and control (while maintaining analog viewing and control)
10. Installation	Quick-mount wall, corner, pole, parapet, or ceiling adapter
11. Cable Entry	Through a 1.5-inch NPT fitting
12. Environmental Features	Factory-installed heaters, blowers, and sun shroud
13. Operating Temperatures	Maximum range of -60° to 140°F (-51.1° to 60°C) for two hours, and a continuous operating range of -50° to 122°F (-51.1° to 50°C)
14. Memory	Built-in memory storage of camera and location-specific dome settings such as presets and patterns; if new dome drive is installed in back box, all settings will automatically download into new dome drive
15. Color	Gray, baked-on enamel powder coat
16. Construction	Aluminum
17. Lower Dome Material	Acrylic, optically superior, with no optical distortion up to +18° above the horizon
18. Dome Color	Clear and smoked versions
19. Trim Ring Connection	2 screws

## 2.05 DOME SYSTEM DIMENSIONS

A. Bubble Diameter, All Models	Maximum of 5.9 inches (15.0 cm)
B. Pendant, Environmental	10.6-inch (26.9 cm) overall length (including dome) by 8.6-inch (21.8 cm) diameter
C. In-Ceiling, Environmental	4.4 inches (11.0 cm) above ceiling, lower dome 4.3 inches (10.9 cm) below ceiling, 8.6-inch (21.8 cm) diameter
D. In-Ceiling, Interior	5.2 inches (13.2 cm) above ceiling, 3.5 inches (8.8 cm) below ceiling, 8.2-inch (20.8 cm) diameter
E. Pendant, Standard	Pendant 10.6-inch (26.9 cm) overall length (including dome) by 8.6-inch (21.8 cm) diameter
F. Surface Mount, Interior	8.7 inches (22.0 cm) by 7.6-inch (19.3 cm) diameter

G. Heavy Duty In-Ceiling Interior	5.22 inches (13.26 cm) above ceiling, 3.53 inches (8.97 cm) below ceiling, 8.52-inch (20.96 cm) diameter; lower dome maximum of 2.75 inches (6.7 cm) below ceiling
H. Heavy Duty Pendant Environ.	Pendant 10.1 inch (25.65 cm) overall length (including dome) by 9.7-inch (24.64 cm) diameter
I. Heavy Duty Pendant Standard	Pendant 10.1 inch (25.65 cm) overall length (including dome) by 9.7-inch (24.64 cm) diameter
J. Stainless Steel Pendant Environ.	Pendant 10.76-inch (27.33 cm) overall length (including dome) by 9.7-inch (24.7 cm) diameter
K. Stainless Steel Pressurized Environmental Pendant	Pendant 11.63-inch (29.5 cm) overall length (including dome) by 10.5-inch (26.7 cm) diameter

## 2.06 DOME SYSTEM WEIGHTS

A. Pendant, Environmental	7.40 lb (3.34 kg)
B. In-Ceiling, Environmental	6.00 lb (2.70 kg)
C. In-Ceiling, Interior	5.00 lb (2.30 kg)
D. Pendant, Standard	6.30 lb (2.86 kg)
E. Surface Mount, Interior	4.40 lb (2.00 kg)
F. Heavy Duty In-Ceiling Interior	
1. Back Box	2.17lb (0.98 kg)
2. Lower Dome	1.60 lb (0.73 kg)
3. Lower Dome with Cage	3.60 lb (1.63 kg)
G. Heavy Duty Pendant Environ.	
1. Back Box	4.75 lb (2.15 kg)
2. Lower Dome	1.83 lb (0.83 kg)
3. Lower Dome with Cage	3.83 lb (1.74 kg)
H. Heavy Duty Pendant Standard	
1. Back Box	4.45 lb (2.02 kg)
2. Lower Dome	1.83 lb (0.83 kg)
3. Lower Dome with Cage	3.83 lb (1.74 kg)
I. Stainless Steel Pendant Environ.	9.00 lb (4.10 kg)
J. Stainless Steel Pressurized Environmental Pendant	11.00 lb (5.00 kg)

## 2.07 MANUFACTURER'S WARRANTY

- A. Repair or replacement of defective parts for a period of three years from the date of shipment, including continuous motion modes.

## 2.08 CERTIFICATIONS AND RATINGS

A. Certifications	
1. All Models	UL and cUL, FCC Class B, and CE Class B
B. Ratings	
1. Pendant Environmental	Meets NEMA Type 4X, IP66 standards
2. In-Ceiling Environmental	Meets NEMA Type 4X, IP66 standards
3. Pendant Standard	Meets NEMA Type 4X, IP66 standards
4. Heavy Duty In-Ceiling Interior	Meets NEMA Type 1, IP40 standards
5. Heavy Duty Pendant Environ.	Meets NEMA Type 4X, IP66 standards
6. Heavy Duty Pendant Standard	Meets NEMA Type 4X, IP66 standards

- |   |                                    |
|---|------------------------------------|
| 7. Stainless Steel Pendant<br>Environmental | Meets NEMA Type 4X, IP66 standards |
| 8. Stainless Steel Pressurized              | Meets NEMA Type 6P, IP67 standards |

## 2.09 MODELS

The discreet camera dome system shall be the Pelco Spectra IV SE Series.

### A. Color/Black-White Dome System (27X)

<u>Type</u>	<u>Back Box</u>	<u>Model</u>	<u>Dome</u>
Surface Mount	White	SD427-SMW-0 SD427-SMW-1	Smoked Clear
Surface Mount	Black	SD427-SMW-2 SD427-SMW-3 SD427-SMB-0 SD427-SMB-1 SD427-SMB-2 SD427-SMB-3	Chrome Gold Smoked Clear Chrome Gold
In-Ceiling, Indoor	Black	SD427-F0 SD427-F1 SD427-F2 SD427-F3	Smoked Clear Chrome Gold
In-Ceiling, Environmental	Black	SD427-F-E0 SD427-F-E1	Smoked Clear
Pendant, Standard	Black	SD427-PB-0 SD427-PB-1 SD427-PB-2 SD427-PB-3	Smoked Clear Chrome Gold
Pendant, Standard	Lt. Gray	SD427-PG-0 SD427-PG-1 SD427-PG-2 SD427-PG-3	Smoked Clear Chrome Gold
Pendant, Environmental	Lt. Gray	SD427-PG-E0 SD427-PG-E1	Smoked Clear
Stainless Steel Pendant, Environmental	Lt. Gray	SD427-PSGE0 SD427-PSGE1	Smoked Clear
Stainless Steel Pendant, Pressurized Environmental	Lt. Gray	SD427-PRE0 SD4427-PRE1	Smoked Clear
Stainless Steel Pendant, Pressurized Environmental With Single-Mode Fiber Optic Feedthrough	Lt. Gray	SD427-PRSE0 SD427-PRSE1	Smoked Clear

Stainless Steel Pendant, Pressurized Environmental With Multimode Fiber Optic Feedthrough or approved equal	Lt. Gray	SD427-PRME0 SD427-PRME1	Smoked Clear
--	----------	----------------------------	-----------------

**B. Color/Black-White Dome System (35X)**

<u>Type</u>	<u>Back Box</u>	<u>Model</u>	<u>Dome</u>
Surface Mount	White	SD435-SMW-0 SD435-SMW-1 SD435-SMW-2 SD435-SMW-3	Smoked Clear Chrome Gold
Surface Mount	Black	SD435-SMB-0 SD435-SMB-1 SD435-SMB-2 SD435-SMB-3	Smoked Clear Chrome Gold
In-Ceiling, Indoor	Black	SD435-F0 SD435-F1 SD435-F2 SD435-F3	Smoked Clear Chrome Gold
In-Ceiling, Environmental	Black	SD435-F-E0 SD435-F-E1	Smoked Clear
Pendant, Standard	Black	SD435-PB-0 SD435-PB-1 SD435-PB-2 SD435-PB-3	Smoked Clear Chrome Gold
Pendant, Standard	Lt. Gray	SD435-PG-0 SD435-PG-1 SD435-PG-2 SD435-PG-3	Smoked Clear Chrome Gold
Pendant, Environmental	Lt. Gray	SD435-PG-E0 SD435-PG-E1	Smoked Clear
Heavy Duty In-Ceiling, Indoor, Without Cage	Lt. Gray	SD435-HF1	Clear
Heavy Duty In-Ceiling, Indoor, With Cage	Lt. Gray	SD435-HCF1	Clear
Heavy Duty Pendant, Standard, Without Cage	Lt. Gray	SD4C35-HP1	Clear
Heavy Duty Pendant, Standard, With Cage	Lt. Gray	SD4C35-HCP1	Clear
Heavy Duty Pendant, Environmental, Without Cage	Lt. Gray	SD435-HPE1	Clear
Heavy Duty Pendant, Environmental, With Cage	Lt. Gray	SD435-HCPE1	Clear



Stainless Steel Pendant, Environmental	Lt. Gray	SD435-PSGE0 SD435-PSGE1	Smoked Clear
Stainless Steel Pendant, Pressurized Environmental	Lt. Gray	SD435-PRE0 SD435-PRE1	Smoked Clear
Stainless Steel Pendant, Pressurized Environmental With Single-Mode Fiber Optic Feedthrough	Lt. Gray	SD435-PRSE0 SD435-PRSE1	Smoked Clear
Stainless Steel Pendant,  Pressurized Environmental With Multimode Fiber Optic Feedthrough or approved equal	Lt. Gray	SD435-PRME0 SD435-PRME1	Smoked Clear

(Revised July 29, 2010)