

SPECTRA® IV SL 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, miniature camera dome system consisting of a dome drive with a variable speed/high speed pan/tilt drive unit with continuous 360° rotation; 1/4-inch high resolution color 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 64 positions with a 20-character label available for each position; configurable camera settings, including selectable auto focus modes, iris level, 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. Zones	8 zones with up to 20-character labeling for each, with the ability to blank the video in the zone
9. Motor Drive	Cogged belt with 0.9° stepper motor
10. Motor Operating Mode	Microstep to 0.015° steps
11. Motor	Continuous duty and variable speed, operating at 18 to 32 VAC, 24 VAC nominal
12. Inner Liner	Rotating black ABS liner inside a sealed lower dome
13. Alarm Input	Ability to control 1 alarm input
14. Alarm Output	Ability to control 1 auxiliary Form C Relay Output
15. Window Blanking	4, four-sided, user-defined shape, 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
16. Patterns	1 user-defined configurable pattern including pan/tilt/zoom and preset functions, and pattern configuration through control keyboard or through dome system on-screen menu
17. Pattern Length	1 pattern of user-defined length based on dome memory
18. Internal Clock	Internal system clock, user configurable for 12- or 24- hour day format and mm/dd/yy or dd/mm/yy calendar format
19. Scheduler	Internal scheduling system for configuration of presets, patterns, window blanks, alarms, and auxiliary functions based on internal clock settings
20. 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
21. Menu System	Built-in setup of configurable functions and multiple languages including English, French, Italian, Spanish, Portuguese, German, Russian, Turkish, Polish, and Czech
22. Auto Flip	Rotates dome 180° at bottom of tilt travel
23. Password Protection	Configurable settings with optional password protection
24. Clear	Clear individual, grouped, or all configured settings
25. Freeze Frame	Freeze current scene of video during preset movement
26. Display Setup	User-definable locations of all labels and displays and user-selectable time duration of each display
27. Azimuth/Elevation/Zoom	On-screen display of pan/tilt locations and zoom ratio
28. Compass Display	On-screen display of compass heading and user-definable Zero Azimuth setting
29. Camera Title Overlay	20 user-definable characters on the screen camera title display
30. Video Output Level	User-selectable for normal or high output levels to compensate for long video wire runs
31. Dome Drive Compatibility	All dome drives are compatible with all back box configurations

- | | |
|------------------------------------|---|
| 32. RJ-45 Port | Contains a plug-in port 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™ |
| 33. 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 |
| 34. Power Consumption | Maximum 70 VA |
- B. The high resolution CCD camera shall meet or exceed the following design and performance specifications.

Color Optic System (23X)

- | | |
|----------------------------------|---|
| 1. Image Sensor | 1/4-inch progressive scan CCD |
| 2. Scanning System | 2:1 interlace |
| 3. Effective Pixels | |
| a. NTSC | 768 (H) x 494 (V) |
| b. PAL | 752 (H) x 582 (V) |
| 4. Horizontal Resolution | |
| a. NTSC/PAL | 540 TV Lines |
| 5. Lens | f/1.6 (focal length, 3.6~82.8 mm; 23X optical zoom, 12X digital zoom) |
| 6. Zoom Speed (optical range) | 2.9/4.2/5.8 seconds |
| 7. Horizontal Angle of View | 54° at 3.6 mm wide zoom, 2.5° at 82.8 mm telephoto zoom |
| 8. Focus | Automatic with manual override |
| 9. Maximum Sensitivity at 35 IRE | |
| a. NTSC/EIA | 0.65 lux at 1/60 sec (color), 0.15 lux at 1/60 sec (BW) |
| b. PAL/CCIR | 0.55 lux at 1/50 sec (color), 0.12 lux at 1/50 sec (B-W) |
| 10. Synch System | Internal/AC line lock, phase adjustable using remote control, V-sync |
| 11. White Balance | Automatic with manual override |
| 12. Shutter Speed | Automatic (electronic iris)/manual |
| a. NTSC | 1/2 ~ 1/30,000 |
| b. PAL | 1/1.5 ~ 1/30,000 |
| 13. Iris Control | Automatic iris control with manual override |
| 14. Gain Control | Automatic/OFF |
| 15. Video Output | Vp-p, 75 ohms |
| 16. Video Signal-to-Noise | >50 dB |

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. Integrated UTP Circuit	Integrated circuit that converts video output to passive, UTP transmission
5. 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
6. Third-Party Control Systems	Ability to plug in an 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. Installation	Quick-mount wall, corner, pole, parapet, or ceiling adapter
9. Cable Entry	Through a 1.5-inch NPT fitting
10. Environmental Features	Factory-installed heaters, blowers, and sun shroud
11. Operating Temperatures	Maximum temperature 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)
12. Color	Gray, baked-on enamel powder coat
13. Construction	Aluminum
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	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 wire
4. Integrated UTP Circuit	Integrated circuit board that converts video output to passive, UTP transmission
5. 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
6. Third-Party Control Systems	Ability to plug in an 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. Installation	Quick-mount spring clips
9. Cable Entry	Through a 0.75-inch conduit hole

10. Environmental Features	Factory-installed heaters and blowers
11. Lower Dome Material	Acrylic, optically clear, with no optical distortion up to +2° above the horizon
12. Dome Color	Clear and smoked versions
13. 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 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. Integrated UTP Circuit	Integrated circuit board that converts video output to passive, UTP transmission
5. 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
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. Installation	Quick-mount spring clips
9. Cable Entry	Through a 0.75-inch conduit hole
10. Operating Temperatures	Maximum temperature range of 32° to 122°F (0° to 50°C)
11. Color	Black back box with baked-on enamel powder coat; white trim ring
12. Construction	Aluminum
13. Lower Dome Material	Acrylic, optically clear, with no optical distortion up to +2° above the horizon
14. Dome Color	Clear, smoked, chrome, and gold versions
15. Trim Ring Connection	Snaps in place
16. Safety Cable	Plastic tether
D. 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. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
5. 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

6. Third-Party Control Systems	Ability to plug in an 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. Installation	Quick-mount wall, corner, pole, parapet, or ceiling adapter
9. Cable Entry	Through a 1.5-inch NPT fitting
10. Operating Temperatures	Maximum temperature 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)
11. Colors	Gray or black, baked-on enamel powder coat
12. Construction	Aluminum
13. Lower Dome Material	Acrylic, optically clear, with no optical distortion up to +2° above the horizon
14. Dome Color	Clear, smoked, chrome, and gold versions
15. Trim Ring Connection	2 screws
E. Surface Mount, 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. Integrated UTP Circuit	Integrated circuit board that converts video output to passive UTP transmission
5. 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
6. Third-Party Control Systems	Ability to plug in an optional TXB board that converts control signals from selected third-party controllers
7. Installation	Surface mount
8. Cable Entry	Through a 0.75-inch conduit hole
9. Operating Temperatures	Maximum temperature range of 32° to 122°F (0° to 50°C)
10. Colors	Black or white finish
11. Construction	Plastic
12. Lower Dome Material	Acrylic, optically clear, with no optical distortion up to +2° above the horizon
13. Dome Color	Clear, smoked, chrome, and gold versions
14. Trim Ring Connection	Snaps in place
15. Safety Cable	Plastic tether

2.05 DOME SYSTEM DIMENSIONS

A. Bubble Diameter, All Models	Maximum of 5.9 inches (15 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

2.06 DOME SYSTEM WEIGHTS

A. Pendant, Environmental	7.4 lb (3.34 kg)
B. In-Ceiling, Environmental	6.0 lb (2.70 kg)
C. In-Ceiling, Interior	5.0 lb (2.30 kg)
D. Pendant, Standard	6.3 lb (2.86 kg)
E. Surface Mount, Interior	4.4 lb (2.00 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

2.09 MODELS

- A. The discreet camera dome system shall be the Pelco Spectra IV SL Series.

Color Dome System (23X)

<u>Type</u>	<u>Back Box</u>	<u>Model</u>	<u>Dome</u>
Surface Mount	White	SD423-SMW-0	Smoked
		SD423-SMW-1	Clear
		SD423-SMW-2	Chrome
		SD423-SMW-3	Gold
Surface Mount	Black	SD423-SMB-0	Smoked
		SD423-SMB-1	Clear
		SD423-SMB-2	Chrome
		SD423-SMB-3	Gold
In-Ceiling, Indoor	Black	SD423-F0	Smoked
		SD423-F1	Clear
		SD423-F2	Chrome
		SD423-F3	Gold

In-Ceiling, Environmental	Black	SD423-F-E0 SD423-F-E1	Smoked Clear
Pendant, Standard	Black	SD423-PB-0 SD423-PB-1 SD423-PB-2 SD423-PB-3	Smoked Clear Chrome Gold

Color Dome System (23X)

<u>Type</u>	<u>Back Box</u>	<u>Model</u>	<u>Dome</u>
Pendant, Standard	Lt. Gray	SD423-PG-0 SD423-PG-1 SD423-PG-2 SD423-PG-3	Smoked Clear Chrome Gold
Pendant, Environmental	Lt. Gray	SD423-PG-E0 SD423-PG-E1	Smoked Clear

(Revised July 30, 2010)