

Spectra® V Series Dome Systems

PREMIER INTEGRATED DOME SYSTEM

Product Features

- 30x Zoom Autofocus, Integrated Camera/Optics Packages
- Multiple models: Indoor In-Ceiling, Standard and Environmental Pendant, Pressurized and Stainless Steel Environmental Pendant
- Day/Night, 740 TVL, Wide Dynamic Range (WDR)
- Low Lux Noise Reduction
- Motion Detection
- Window Blanking, Horizontal and Zone Blanking
- Camera Title Overlay, 20 User-Definable Characters
- On-Screen Compass and Tilt Display
- Password Protection
- Built-in Surge and Limited Lightening Protection
- Integrated Passive Unshielded Twisted Pair (UTP) Circuit
- Internal Scheduling Clock

Modularity

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

Back Box

Spectra V back box options include the following models: environmental pendant. The Spectra V Series can also be ordered with heavy-duty, pressurized, and stainless steel back box options (refer to the appropriate product specification sheets for more information). Each back box model features built-in **back box memory** to store camera and location-specific dome settings, including labels, presets, patterns, and zones. A **passive UTP circuit** is located on the door assembly for convenient video transmission through twisted pair wire.

Dome Drive

The Spectra V dome drive's unique **integrated optics package** incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. All cameras in Spectra V dome drives feature **LowLight™** technology allowing the cameras to compensate for scenes where minimal light is present. The cameras feature built-in motion detection and advanced **WDR** that enables the system to compensate for scenes where dramatic contrasts in lighting are present.

Lower Dome

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



IN-CEILING MODEL
SD530-FO



PENDANT MODEL
SD530-PG-0

Dome Systems

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

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

Durability

Pelco's **Pressurized** and **Stainless Steel** options are designed for harsh environmental installations. The Stainless Steel option meets NEMA Type 4X and IP66 standards. The components (back box and lower dome) provide added protection against corrosive conditions. The IDM4012SS mount is designed specifically for the Stainless Steel Spectra V and features an all stainless steel construction and conduit access in the bottom and back of the mount.

Pelco's **Pressurized** Spectra V option provides ultimate protection of the camera optics and electronics from moisture, corrosive gases, and airborne contaminants, meeting NEMA Type 6P and IP67 standards when installed properly. Domes are pressurized with dry nitrogen before or after installation to stabilize the internal environment. Temperature, pressure, and dew point sensors are placed inside the system to send "Alert" messages when conditions are beyond factory-set limits and allow for real time on-screen monitoring. The lower dome features an innovative single captivated fastener, O-ring seal, and a stainless steel V-band to create an easy and reliable pressure seal. Accessible on the lower dome trim ring is a Schrader valve for system purging and a pressure relief valve. The **Pressurized** Spectra V SE Series is supplied with a pre-wired cable with mating connector. The cable includes all wires for system functionality, including power, alarms, auxiliaries, coaxial video, UTP video, and serial control.



TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

| | Day/Night (30X) |
|---|--|
| Signal Format | NTSC / PAL |
| Scanning System | 2:1 Interlace |
| Image Sensor Effective Pixels | 1/3-inch 1,296 (H) x 1,041 (V) |
| Horizontal Resolution NTSC PAL | >740 TV Lines >740 TV Lines |
| Lens | f/1.4 (focal length, 4.3 ~ 129 mm) |
| Zoom | 30X optical, 12X digital |
| Zoom Speed (optical range) | 5.5/7.4/10.3 seconds |
| Horizontal Angle of view Focus | 58.3° at 4.3 mm wide zoom; 2.1° at 129 mm telephoto zoom Automatic with manual override |
| Maximum Sensitivity at 35 IRE NTSC/EIA | 0.55 lux at 1/60 sec (color) 0.018 lux at 1/2 sec (color) 0.0048 lux at 1/2 sec (B-W) |
| PAL/CCIR | 0.45 lux at 1/50 sec (color) 0.015 lux at 1/1.5 sec (color) 0.004 lux at 1/1.5 sec (B-W) |
| White Balance | Automatic with manual override |
| Shutter Speed NTSC PAL | Automatic (electronic iris)/Manual 1/15 ~ 1/30,000 1/13 ~ 1/30,000 |
| Iris Control | Automatic iris control with manual override |
| Gain Control | Automatic/OFF |
| Video Output | 1 Vp-p, 75 ohms |
| Video Signal-to-Noise | >50 dB |
| Wide Dynamic Range | 128 db |

DOME DRIVE FEATURES

- 256 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
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking: Up to 8, Four-Sided, User-Defined Shapes
- 8 Zones (configurable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- 7 Alarm Inputs
- 1 Auxiliary (Form C) Relay Output and 1 Open Collector Auxiliary Output (can be alternately configured to operate upon alarm)
- Configurable Locations of Labels and On-Screen Displays
- Action on Alarm: Alarms Can Be Individually Configured for 3 Priority Levels, to Initiate a Stored Pattern, or to Go to an Associated Preset When Received
- Resume After Alarm: Allows the Dome to Return to a Previously Configured State After Alarm Acknowledgment or to its Previous Position Before Alarm
- Multiple Park and Power-Up Action
- Patterns: Up to 8, On-Screen, User-Defined Configurable Patterns; Includes Pan, Tilt, Zoom, and Preset Functions
- Proportional Pan/Tilt: Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom
- Variable Scan Speed: Scan Speed Can Be Configurable Between 1 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
- Low Lux Noise Reduction (reduces noise in low light)

TECHNICAL SPECIFICATIONS

WINDOW BLANKING

Window blanking allows a user to configure up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.



BEFORE



AFTER



BEFORE



AFTER

WIDE DYNAMIC RANGE

The WDR setting balances the brightest and darkest sections of a scene to produce a picture that provides more detail.

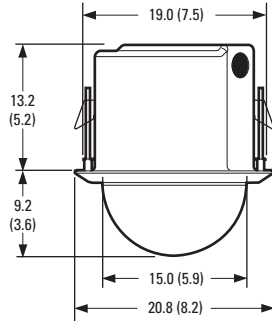
TECHNICAL SPECIFICATIONS

BACK BOX FEATURES

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



IN-CEILING INDOOR

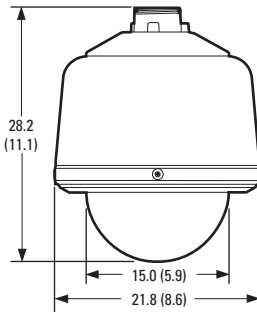


In-Ceiling (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 13.35 cm (5.25 in) Space Above Ceiling and 8.25 cm (3.25 in) Below
- Minimum Ceiling Thickness 1.27 cm (0.50 in); Maximum 4.45 cm (1.75 in)
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces
- Integrated Passive UTP



ENVIRONMENTAL DOME WITH SUN SHROUD

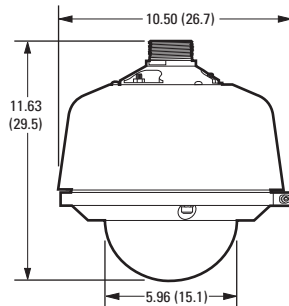


Standard and Environmental Pendant

- 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
- Integrated Passive UTP



ENVIRONMENTAL PENDANT PRESSURIZED

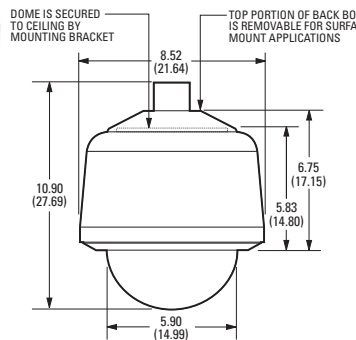


Environmental Pressurized Pendant Additions

- Back Box: Grey, Polyurethane Powder Coated Finish
- Type 316L Stainless Steel
- Schrader Valve Brass
- Connect Nickel-Plated Steel
- Meets NEMA Type 6P and IP67 Standards
- Pressurization:
 - Pressure 8 psig (55 kPa) (Not Factory Pressurized)
 - Pressure Relief 10 psig (69 kPa)



ENVIRONMENTAL PENDANT STAINLESS STEEL



Environmental Stainless Steel Pendant Additions

- Back Box: Grey, Polyurethane Powder Coated Finish
- Lower Trim Ring: Black Polyurethane Powder Coated Finish
- Type 316L Stainless Steel
- Meets NEMA Type 4X and IP66 Standards

Note: The Spectra V Series can be ordered with heavy-duty, pressurized, and stainless steel back box options. Refer to the appropriate product specification sheets for more information.

TECHNICAL SPECIFICATIONS

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 V pan/tilt speed is 20°/sec) |

ELECTRICAL

| | |
|-------------------|--|
| Input Voltage | 18 to 32 VAC; 24 VAC nominal 22 to 27 VDC; 24 VDC nominal |
| Input Power | |
| 24 VAC | 23 VA nominal (without heater); 73 VA nominal (with heater) |
| 24 VDC | 0.7 A nominal (without heater); 3 A nominal (with heater) |
| Fuse | 1.25 A |
| Auxiliary Outputs | 2 |
| Alarm Inputs | 7 |

CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- S Mark for Argentina
- Meets NEMA Type 4X, IP66 when installed properly (BB4-PG, BB4-PSG-E, and BB4-PG-E)
- Meets NEMA Type 1, IP40 (BB4-F)
- Meets NEMA Type 6P and IP67 standards when installed properly (BB4-PR-E, LD53PR-0)
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2; 7,161,615 B2

GENERAL

| | | |
|--------------------------------|---|-----------------|
| Construction | | |
| Back Box | | |
| In-Ceiling | Aluminum | |
| Pendant | Aluminum | |
| Dome Drive | Aluminum, thermo plastic | |
| Bubble | Acrylic | |
| Construction Pressurized | | |
| Back Box and Lower Dome | Type 316L stainless steel | |
| Bubble Polycarbonate | 0.090-inch thick Light Attenuation 1 F-stop (smoked); zero light loss (clear) | |
| V-Band Type | 316L stainless steel | |
| Pressure Relief | Brass | |
| Schrader Valve | Brass | |
| Connector | Nickel-plated steel | |
| Construction Stainless Steel | | |
| Back Box | 316 stainless steel; gray, polyurethane powder coated finish | |
| Lower Dome | Trim Ring 316 stainless steel; black, polyurethane powder coated finish | |
| Light Attenuation | | |
| Smoked | f/0.5 light loss | |
| Clear | Zero light loss | |
| Cable Entry (Back Box) | | |
| In-Ceiling and | | |
| Surface Mount | 0.75-inch conduit fitting | |
| Pendant | Through 1.5-inch NPT pendant mount | |
| Weight (Approximate) | <u>Unit</u> | <u>Shipping</u> |
| Back Box | | |
| In-Ceiling | 0.95 kg (2.1 lb) | 1.36 kg (3 lb) |
| Pendant | 1.59 kg (3.5 lb) | 2.27 kg (5 lb) |
| Dome Drive | 1.48 kg (3.3 lb) | 2.27 kg (5 lb) |
| Lower Dome | | |
| In-Ceiling | 0.09 kg (0.2 lb) | 0.45 kg (1 lb) |
| Pendant | 0.27 kg (0.6 lb) | 0.90 kg (2 lb) |
| Pressurized Weights | <u>Unit</u> | <u>Shipping</u> |
| Back Box | 4.6 kg (10.2 lb) | 5.9 kg (13 lb) |
| Lower Dome | 1.5 kg (3.3 lb) | 1.81 kg (4 lb) |
| Stainless Steel Weights | <u>Unit</u> | <u>Shipping</u> |
| Back Box | 2.15 kg (4.75 lb) | 3.18 kg (7 lb) |
| Lower Dome | 0.83 kg (1.83 lb) | 1.81 kg (4 lb) |
| Environment | | |
| In-Ceiling | Indoor | |
| Pendant, Environmental | Indoor/outdoor | |
| Operating Temperature | | |
| Indoor In-Ceiling | 32° to 122°F (0° to 50°C) | |
| Environmental Pendant | (Assumes no wind chill factor) | |
| Maximum | 60°C (140°F) absolute maximum; 50°C (122°F) sustained maximum | |
| Minimum | -51°C (-60°F) absolute minimum; prevents icing at sustained minimum of -45°C (-50°F); de-ices 2.5 mm (0.1 inch) within 3 hours after power-up | |
| TS2 | -34° to 74°C (-29.2° to 165°F) | |
| | <i>Per NEMA TS2, para. 2.1.5.1, using fig. 2.1 test profile</i> | |
| Effective Projected Area (EPA) | 52.07 square cm (20.5 square inches), without mount | |
| | 119.38 square cm (47 square inches), with IWM Series mount | |

TECHNICAL SPECIFICATIONS

RECOMMENDED MOUNTS

In-Ceiling Domes

| | |
|-------|--|
| SD5-P | 2' x 2' drop ceiling panel, aluminum construction; replaces 2' x 2' ceiling tile |
| SCA1 | Support rails for BB4-F; for use in ceiling tile applications |

Pendant Domes

| | |
|-------------|---|
| BB5-PCA-BK* | Pendant conduit adapter, black |
| 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 applications |
| MRCA | Ceiling mount, black |
| PP350/PP351 | Parapet wall/roof mount |
| SWM-GY | Compact wall mount |

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

Pressurized Domes and Stainless Domes

| | |
|-----------|---|
| IDM4012SS | Stainless steel wall mount with feed-through 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 | Spectra V Series, 30X Day/Night (NTSC/PAL) |
|--|----------------|------------|--|
| In-Ceiling, Indoor | White | Smoked | SD530-F0 |
| Pendant, Standard | Grey | Smoked | SD530-PG-0 |
| | | Clear | SD530-PG-1 |
| Pendant, Environmental* | Grey | Smoked | SD530-PG-E0 |
| | | Clear | SD530-PG-E1 |
| Pendant, Environmental, Pressurized* | Grey | Smoked | SD530-PRE0 |
| | | Clear | SD530-PRE1 |
| Pendant, Environmental, Stainless Steel* | Grey | Clear | SD530-PSGE1 |

*Environmental dome systems include a heater, a fan, and a sun shield.

COMPONENT MODEL NUMBERS

| Back Box | | Dome Drive | | Lower Dome ¹ | |
|---|---|------------|-----------------------------------|-------------------------|---------------------------|
| BB4-F | In-ceiling, white | DD530 | Day/Night (NTSC/PAL) camera (30X) | LDHQF-0 | Smoked, surface, white |
| BB4-PG | Pendant mount, grey | | | LDHQPB-0 | Smoked, pendant, grey |
| BB4-PG-E | Pendant mount, grey, environmental | | | LDHQPB-1 | Clear, pendant, grey |
| BB4-PR-E | Pendant mount, environmental, pressurized, grey | | | LD53PR-0 | Smoked, pressurized, grey |
| BB4-PSG-E | Pendant mount, stainless steel, grey | | | LD53PR-1 | Clear, pressurized, grey |
| | | | | LD53PSB-1 | Clear, stainless steel |
| Notes: To order a fixed mount dome system, refer to the component models above and select one each of the following options: back box, dome drive, plus choice of lower dome. | | | | | |

▲ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.
 ▲ **ADVERTENCIA:** Cáncer y Daño Reproductivo - www.P65Warnings.ca.gov.
 ▲ **AVERTISSEMENT:** Cancer et Troubles de l'appareil reproducteur - www.P65Warnings.ca.gov.

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