

# Spectra III™ SE Series Dome Systems

## PREMIER INTEGRATED DOME SYSTEM

### Product Features

- Three Auto Focus, High-Resolution Integrated Camera/Optics Packages; Five Back Box Models
- Color/Black-White, 80X Wide Dynamic Range, and Motion Detection (SD53CBW Series)
- Built-in Back Box Memory
- ExView HAD™ CCD (SD53M22 and SD53C22 Series)
- Window Blanking
- Horizontal and Zone Blanking
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass and Tilt Display
- Multilanguage On-Screen Menus
- Password Protection
- Freeze Frame During Presets
- 7 Alarm Inputs; 2 Programmable Auxiliary Outputs
- Built-in Power Line Surge and Lightning Protection

**Spectra III SE** features multiple back box configurations and three auto focus, high-resolution dome drives with programmable software.

**Spectra III SE's** back box models feature built-in memory to store camera and location-specific dome settings, including labels, presets, patterns, and zones. These settings are automatically downloaded if a new dome drive is installed. Two new back box models have been added to the line: an environmental in-ceiling model for outdoor soffits and an indoor surface mount model that installs quickly and easily to any type of ceiling.

All cameras in **Spectra III SE** dome drives feature LowLight™ Technology. The color/black-white model features a 23X lens, built-in motion detection and 80X wide dynamic range imager. Two standard cameras, available in color or monochrome, feature 22X lens and Exview HAD™ imagers for increased sensitivity.

**Spectra III SE** dome systems feature many new software enhancements that increase performance and make programming and operation easy. Window blanking allows a user to program up to eight, four-sided, user-defined privacy areas. Password protection prevents unauthorized users from changing the system settings.



**SURFACE MOUNT MODEL**



**PENDANT MODEL**

- Optional UTP Video Converter
- Third-Party Fiber Modules
- Heavy-Duty and Stainless Steel Models Available

Other new features include an on-screen compass and tilt display; Multilanguage menus programmable for English, Spanish, Portuguese, Italian, French, and German; and an RJ-45 data port for software uploads and on-site setup and programming.

**Spectra III SE's** variable speed capabilities range from a smooth, fast pan motion of 360 degrees per second to a smooth "creep" speed of .1 degree per second. The system is capable of 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.

**Spectra III SE's** remote monitor kit (**IPS-RMK**) and remote monitor cable (**IPS-CABLE**) are optional diagnostic/installation tools. These accessories allow the installer to view video, control PTZ, and perform system setup and software upgrades at the installation site. The **IPS-RMK** is a stand-alone kit consisting of a 5.6-inch TFT-LCD monitor, Palm™ m105 handheld and interface cable, carrying case, and the remote monitor cable (**IPS-CABLE**).

Also available are video conversion modules for applications using unshielded twisted pair (UTP) and fiber. See *OPTIONAL ACCESSORIES* for information.



**DataFAX**  
SPEC: 22440  
**MANUAL:** Not Available through DataFAX  
C2440 / REVISED 4-03

IP66    
U.S. Patent #5,931,432

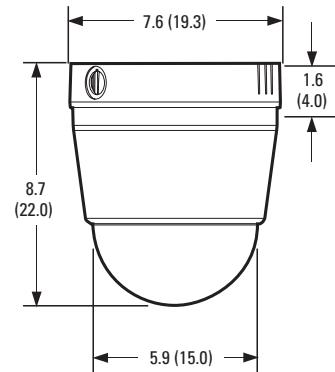
International Standards  
Organization Registered  
Firm ISO 9001 Quality System  


# FEATURES/BENEFITS

## COMPONENT FEATURES

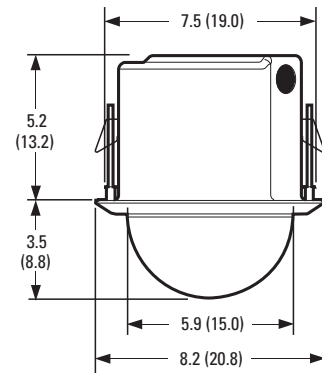
### Surface Mount (Indoor), Back Box and Lower Dome

- Built-in Memory Stores Camera/Dome Settings
- Available in Black or White Finish
- Installs Quickly and Easily to Any Type of Ceiling
- Quick Disconnect to Dome Drive
- Injection-Molded Plastic
- 5.9-Inch Acrylic Bubble



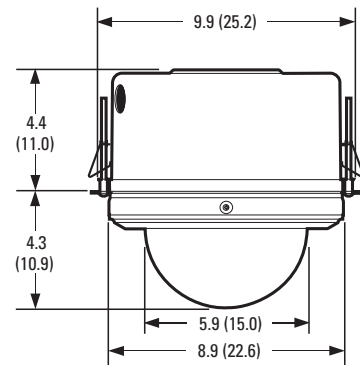
### In-Ceiling (Indoor), Back Box and Lower Dome

- 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
- 5.9-Inch Acrylic Bubble
- Minimum Ceiling Thickness .5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Meets NEMA Type 1, IP40 Standards
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces



### Environmental In-Ceiling, Back Box and Lower Dome

- 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 .5-Inch; Maximum 1.75 Inches
- 5.9-Inch Acrylic Bubble
- Quick Disconnect to Dome Drive
- Meets NEMA Type 4X, IP66 Standards
- Aluminum Construction

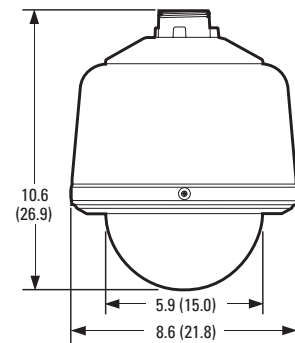


### Standard and Environmental Pendant, Back Box and Lower Dome

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Available in Black or Gray Finish
- Quick Disconnect to Dome Drive
- Meets NEMA Type 4X, IP66 Standards
- Aluminum Construction
- 5.9-Inch Acrylic Bubble
- Environmental Model Includes Sun Shield, Fan, and Heater



(ENVIRONMENTAL DOME WITH SUN SHROUD SHOWN.)



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

# TECHNICAL SPECIFICATIONS

## Dome Drive

- 80 Presets with Camera Settings and Labels
- $\pm 0.1^\circ$  Preset Accuracy
- Multilanguage Menus (English, Spanish, Portuguese, Italian, French, and German)
- Alternate Language Files (includes Russian, Polish, Turkish) Available as Optional Software Upload
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- Password Protection
- $360^\circ/\text{sec}$  Pan Preset Speed and  $200^\circ/\text{sec}$  Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking – Up to Eight, Four-Sided, User-Defined Shapes
- Eight Zones (programmable in size) Can Be Labeled with Up to 20 Characters Each or Set to Output Blank Video
- Seven Alarm Inputs
- One Auxiliary (Form C) Relay Output and One Open Collector Auxiliary Output (can be alternately programmed to operate upon alarm)
- Programmable Locations of Labels and On-Screen Displays
- Action on Alarm – Alarms can be individually programmed for three 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 programmed state after alarm acknowledgement or to its previous position before alarm
- Patterns – Up to four, on-screen, user-defined programmable patterns. Includes pan, tilt, zoom, and preset functions
- Proportional Pan & Tilt – Continually decreases pan and tilt speeds in proportion to depth of zoom
- Variable Scan Speed – Scan speed can be programmable between 1-40°/sec
- Pan Motion Allows 0.1-150°/sec Pan Speed
- Programmable Limit Stops for Auto/Random/Frame Scan Modes
- Auto-sensing Protocol (Coaxitron®, RS-422 P and D); Accepts Competitive Control Protocol with Optional Translator Card
- Built-in Menu System for Setup of Programmable Functions
- “Auto Flip” Rotates Dome 180° at Bottom of Tilt Travel

## GENERAL

Construction			
Back Box			
Surface Mount		Plastic	
In-ceiling		Aluminum	
Pendant		Aluminum	
Dome Drive		Aluminum, thermo plastic	
Lower Dome		Acrylic	
Light Attenuation			
Smoked		1/2 f-stop light loss	
Clear		Zero light loss	
Chrome		2 f-stops light loss	
Gold		2 f-stops light loss	
Cable Entry (Back Box)			
In-Ceiling and			
Surface Mount		.75-inch conduit fitting	
Pendant		Through 1.5-inch NPT pendant mount	
Weight (approximate)			
		<u>Unit</u>	<u>Shipping</u>
Back Box			
Surface Mount	.7 lb	(.32 kg)	2 lb (.90 kg)
In-Ceiling	1.5 lb	(.68 kg)	2 lb (.90 kg)
Environmental In-Ceiling	2.1 lb	(.95 kg)	3 lb (1.36 kg)
Pendant Indoor	2.4 lb	(1.09 kg)	4 lb (1.81 kg)
Environmental Pendant	3.5 lb	(1.59 kg)	5 lb (2.27 kg)
Dome Drive			
Lower Dome			
Surface Mount	.4 lb	(.18 kg)	1 lb (.45 kg)
In-Ceiling	.2 lb	(.09 kg)	1 lb (.45 kg)
Pendant and			
Environmental In-Ceiling	.6 lb	(.27 kg)	2 lb (.90 kg)
Environment			
Surface Mount		Indoor	
In-Ceiling		Indoor	
Environmental In-Ceiling		Outdoor	
Pendant Standard			
and Environmental		Indoor/Outdoor	
Operating Temperature			
Surface Mount and			
In-Ceiling Indoor		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;	
		25°F (-4°C) sustained minimum	
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 .1 inch (2.5 mm)	
		within 3 hours after power-up.	
Effective Projected Area (EPA)			
		~175 square inches	

# TECHNICAL SPECIFICATIONS

## MECHANICAL

	<i>(Dome Drive Only)</i>
Pan Movement	360° Continuous pan rotation
Vertical Tilt	Unobstructed +2° to -92°
Manual Pan/Tilt Speeds	
Pan	0.1°-80°/sec manual operation, 150°/sec
Turbo	
Tilt	0.1°-40°/sec manual operation
Preset Speeds	
Pan	360°/sec
Tilt	200°/sec
	For variable-speed operation an appropriate controller is required. (With non-variable speed control, Spectra III® pan/tilt speed is 20°/sec)

## ELECTRICAL

Input Voltage	18-30 VAC; 24 VAC nominal
Input Power	25 VA nominal (without heater); 70 VA nominal (with heater)
Fuse	1.25A
Auxiliary Outputs	2
Alarm Inputs	7

## CERTIFICATIONS

- CE, Class B
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class B

Meets the following standards:

- NEMA Type 4X, IP66 when installed properly (BB53-F-E, BB53-PB, BB53-PG, and BB53-PG-E)
- NEMA Type 1, IP40 (BB53-SMW, BB53-SMB and BB53-F)

## OPTIONAL ACCESSORIES

IPS-RMK	Spectra III Remote Monitor Kit. Stand alone kit consisting of a 5.6-inch TFT-LCD monitor, Palm™ m105 handheld, cables and carrying case. Allows viewing of camera video, local PTZ control, system setup, and system software upgrades at any installed dome.
IPS-CABLE	Spectra III Remote Monitor Cable and software kit consisting of the Spectra III remote monitor interface cable and necessary software for use with a PC (Windows® 95, 98, Me, 2000), Palm Series handheld or iPaq™ Series Pocket PC. See <a href="http://www.pelco.com">www.pelco.com</a> for a list of compatible devices.
IPS-RDPE-2	Remote Date Port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/programming and Spectra III OS software upgrades when used with the IPS-RMK or IPS-CABLE.
TXB Series	Translator boards for AD Manchester, Philips (Burle), Sensormatic and Vicon® protocols.
VC-UTP	Converts video for use with unshielded twisted pair (UTP); maximum distance to passive receiver 500 feet (152 m). Plugs into TXB connector in Spectra back box. Coaxitron-ready when used with passive receiver. Works with all major suppliers of UTP modules. Not for use in conjunction with TXB boards.

## FIBER COMPATIBLE PRODUCTS

Fiber optic video transmitter/data receiver modules that plug directly into Spectra III SE and Spectra III back boxes are available through various manufacturers. Consult your fiber optics vendor for models and compatibility. Fiber optic modules cannot be used with TXB translator boards.

## RECOMMENDED MOUNTS

### Surface Mount Domes

PASMB SD53SM-P	Pendant adapter for surface mount dome, black 2' x 2' drop ceiling panel for BB53-SMW and BB53T-SMW series back boxes. Replaces 2' x 2' ceiling tile. Aluminum construction.
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### In-Ceiling Domes

SD5-P	2' x 2' drop ceiling panel, aluminum construction. Replaces 2' x 2' ceiling tile
SCA1	Support rails for BB53-F; for use in ceiling tile applications.

### Pendant Domes

BB5-PCA-BK BB5-PCA-GY IWM Series	Pendant conduit adapter, black Pendant conduit adapter, gray 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 MRWA PP4348 PP350/PP351 SWM Series	Ceiling mount, black Wall mount, black Parapet roof mount Parapet wall/roof mount Compact wall mount, black or gray finish. Can be adapted for corner or pole applications.



IPS-RMK REMOTE MONITOR KIT

# TECHNICAL SPECIFICATIONS

## CAMERA/OPTICS

	Color/Black-White (23X)	Color (22X)	Monochrome (22X)
Signal Format	NTSC ( <b>DD53CBW</b> ) PAL ( <b>DD53CBW-X</b> )	NTSC ( <b>DD53C22</b> ) PAL ( <b>DD53C22-X</b> )	EIA ( <b>DD53M22</b> ) CCIR ( <b>DD53M22-X</b> )
Scanning System	Progressive (2:1 Interlace output)	2:1 Interlace	2:1 Interlace
Image Sensor	1/4-inch CCD	1/4-inch Ex-View HAD™ CCD	1/4-inch Ex-View HAD™ CCD
Effective pixels	NTSC 724 (H) X 494 (V) PAL 724 (H) X 582 (V)	768 (H) X 494 (V) 752 (H) X 582 (V)	768 (H) X 494 (V) 752 (H) X 582 (V)
Horizontal Resolution	NTSC >470 TV Lines PAL >470 TV Lines	>470 TV Lines >460 TV Lines	>500 TV Lines >500 TV Lines
Lens	F1.6 (f = 3.6–82.8mm optical)	F1.6 (f = 4–88mm optical)	F1.6 (f = 4–88mm optical)
Zoom	23X optical, 10X electronic	22X optical, 12X electronic	22X optical, 12X electronic
Zoom Speed	4.2 seconds	3.9 seconds	3.9 seconds
Horizontal Angle of view	54° at 3.6mm wide zoom; 2.5° at 82.8mm telephoto zoom	47° at 4.0mm wide zoom; 2.2° at 88mm telephoto zoom	47° at 4.0mm wide zoom; 2.2° at 88mm telephoto zoom
Focus	Automatic with manual override	Automatic with manual override	Automatic with manual override
Maximum Sensitivity @35 IRE	NTSC/EIA 0.08 lux at 1/2 sec ( <b>color</b> ) 0.3 lux at 1/60 sec shutter ( <b>B/W</b> ) 0.013 lux at 1/2 sec ( <b>B/W</b> ) PAL/CCIR 0.08 lux at 1/1.5 sec ( <b>color</b> ) 0.3 lux at 1/50 sec shutter ( <b>B/W</b> ) 0.013 lux at 1/1.5 sec ( <b>B/W</b> )	0.02 lux at 1/2 sec shutter  0.02 lux at 1/1.5 sec shutter	0.005 lux at 1/2 sec shutter  0.005 lux at 1/1.5 sec shutter
Sync System	Internal/AC line lock, phase adjustable via remote control, V-Sync	Internal/AC line lock, phase adjustable via remote control, V-Sync	Internal/AC line lock, phase adjustable via remote control, V-Sync
White Balance	Automatic with manual override	Automatic with manual override	—
Shutter Speed	Automatic (electronic iris)/Manual NTSC 1/2 ~1/30,000 PAL 1/1.5 ~1/30,000	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000
Iris Control	Automatic Iris Control with manual override	Automatic Iris Control with manual override	Automatic Iris Control with manual 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	>48 dB	>48 dB
Wide Dynamic Range	80X	—	—

### WINDOW BLANKING

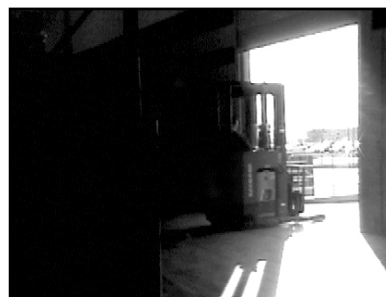
Window blanking allows a user to program up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.



BEFORE



AFTER



BEFORE



AFTER

### WIDE DYNAMIC RANGE

The Wide Dynamic Range (WDR) setting balances the brightest and darkest sections of a scene to produce a picture that provides more detail. The range from the darkest to the brightest sections of the scene is 80X more when WDR is ON than when OFF.

# SYSTEM MODELS AND RELATED PRODUCTS

## SYSTEM MODEL NUMBERS

Type	Back Box Color	Lower Dome	23X Color/B-W*	22X Color*	22X Monochrome*
Surface Mount	White	Smoked	SD53CBW-SMW-0	SD53C22-SMW-0	SD53M22-SMW-0
		Clear	SD53CBW-SMW-1	SD53C22-SMW-1	SD53M22-SMW-1
		Chrome	SD53CBW-SMW-2	SD53C22-SMW-2	SD53M22-SMW-2
		Gold	SD53CBW-SMW-3	SD53C22-SMW-3	SD53M22-SMW-3
	Black	Smoked	SD53CBW-SMB-0	SD53C22-SMB-0	SD53M22-SMB-0
		Clear	SD53CBW-SMB-1	SD53C22-SMB-1	SD53M22-SMB-1
		Chrome	SD53CBW-SMB-2	SD53C22-SMB-2	SD53M22-SMB-2
		Gold	SD53CBW-SMB-3	SD53C22-SMB-3	SD53M22-SMB-3
In-Ceiling, Indoor	Black	Smoked	SD53CBW-F0	SD53C22-F0	SD53M22-F0
		Clear	SD53CBW-F1	SD53C22-F1	SD53M22-F1
		Chrome	SD53CBW-F2	SD53C22-F2	SD53M22-F2
		Gold	SD53CBW-F3	SD53C22-F3	SD53M22-F3
In-Ceiling, Environmental**	Black	Smoked	SD53CBW-F-E0	SD53C22-F-E0	SD53M22-F-E0
		Clear	SD53CBW-F-E1	SD53C22-F-E1	SD53M22-F-E1
Pendant, Standard	Black	Smoked	SD53CBW-PB-0	SD53C22-PB-0	SD53M22-PB-0
		Clear	SD53CBW-PB-1	SD53C22-PB-1	SD53M22-PB-1
		Chrome	SD53CBW-PB-2	SD53C22-PB-2	SD53M22-PB-2
		Gold	SD53CBW-PB-3	SD53C22-PB-3	SD53M22-PB-3
	Lt. Gray	Smoked	SD53CBW-PG-0	SD53C22-PG-0	SD53M22-PG-0
		Clear	SD53CBW-PG-1	SD53C22-PG-1	SD53M22-PG-1
		Chrome	SD53CBW-PG-2	SD53C22-PG-2	SD53M22-PG-2
		Gold	SD53CBW-PG-3	SD53C22-PG-3	SD53M22-PG-3
Pendant, Environmental**	Lt. Gray	Smoked	SD53CBW-PG-E0	SD53C22-PG-E0	SD53M22-PG-E0
		Clear	SD53CBW-PG-E1	SD53C22-PG-E1	SD53M22-PG-E1

\*For PAL and CCIR models add "-X" suffix to part number. (Example: SD53C22-PG-E0-X)

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

## COMPONENT MODEL NUMBERS

Back Box	Dome Drive	Lower Dome***
BB53-SMW Surface mount, white	DD53CBW Color/B&W (NTSC/EIA) camera (230X)	LD53SMW-0 Smoked, surface, white
BB53-SMB Surface mount, black	DD53CBW-X Color/B&W (PAL/CCIR) camera (230X)	LD53SMW-1 Clear, surface, white
BB53-F In-ceiling, black	DD53C22 Color (NTSC) camera (264X)	LD53SMW-2 Chrome, surface, white
BB53-F-E In-ceiling, black, environmental	DD53C22-X Color (PAL) camera (264X)	LD53SMW-3 Gold, surface, white
BB53-PB Pendant mount, black, standard	DD53M22 Monochrome (EIA) camera (264X)	LD53SMB-0 Smoked, surface, black
BB53-PG Pendant mount, gray, standard	DD53M22-X Monochrome (CCIR) camera (264X)	LD53SMB-1 Clear, surface, black
BB53-PG-E Pendant mount, gray, environmental	DD5-FM Removable, fixed mount bracket only (camera and lens not included)	LD53SMB-2 Chrome, surface, black
		LD53SMB-3 Gold, surface, black
		LD5F-0 Smoked, in-ceiling
		LD5F-1 Clear, in-ceiling
		LD5F-2 Chrome, in-ceiling
		LD5F-3 Gold, in-ceiling
		LD53PB-0 Smoked, pendant, black
		LD53PB-1 Clear, pendant, black
		LD53PB-2 Chrome, pendant, black****
		LD53PB-3 Gold, pendant, black****

**Notes:**

To order a fixed mount dome system, refer to the component models above and select one each of the following: back box (BB53-F), dome drive (DD5-FM), plus choice of lower dome (LD5F-0, LD5F-1, LD5F-2, or LD5F-3).

For environmental applications, you must order an environmental back box (BB53-F-E) or (BB53-PG-E).

DD5-FM is ideal for use with Pelco CCC1370H-2, CCC1370H-2X, and MCC1370H-2 cameras with selected Pelco lenses.

\*\*\*Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.

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



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