

TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

	Day/Night (36X)	Day/Night (29X)
Signal Format	NTSC (DD436) PAL (DD436-X)	NTSC (DD429) PAL (DD429-X)
Scanning System	2:1 Interlace	2:1 Interlace
Image Sensor	1/4-inch EXview HAD™	1/4-inch EXview HAD
Effective Pixels		
NTSC	768 (H) X 494 (V)	768 (H) X 494 (V)
PAL	752 (H) X 582 (V)	752 (H) X 582 (V)
Horizontal Resolution		
NTSC	>540 TV Lines	>540 TV Lines
PAL	>540 TV Lines	>540 TV Lines
Lens	f/1.4 (focal length, 3.3 ~ 119 mm)	f/1.4 (focal length, 3.4 ~ 98.6 mm)
Zoom	36X optical, 12X digital	29X optical, 12X digital
Zoom Speed (optical range)	3.2/4.6/6.6 seconds	3.2/4.6/6.6 seconds
Horizontal Angle of view	57.2° at 3.3 mm wide zoom; 1.7° at 119 mm telephoto zoom	55.8° at 3.4 mm wide zoom; 1.7° at 98.6 mm telephoto zoom
Focus	Automatic with manual override	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)	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)	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)
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync	Internal/AC line lock, phase adjustable using remote control, V-Sync
White Balance	Automatic with manual override	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/Manual	Automatic (electronic iris)/Manual
NTSC	1/2 ~ 1/30,000	1/2 ~ 1/30,000
PAL	1/1.5 ~ 1/30,000	1/1.5 ~ 1/30,000
Iris Control	Automatic iris control with manual override	Automatic iris control with manual override
Gain Control	Automatic/OFF	Automatic/OFF
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms
Video Signal-to-Noise	>50 dB	>50 dB
Wide Dynamic Range	128X	128X
Electronic Image Stabilization	Integrated/Selectable	—
Auto Sharpness	Integrated/Selectable	Integrated/Selectable

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DOMES DRIVE FEATURES

- 256 Presets
- $\pm 0.1^\circ$ Preset Accuracy
- Electronic Image Stabilization (36X model)
- Image Enhancement (36X model)
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- $400^\circ/\text{sec}$ Pan Preset Speed and $200^\circ/\text{sec}$ Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking: Up to 8, Four-Sided, User-Defined Shapes
- 8 Zones (configurable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- 7 Alarm Inputs
- 1 Auxiliary (Form C) Relay Output and 1 Open Collector Auxiliary Output (can be alternately configured to operate upon alarm)
- Configurable Locations of Labels and On-Screen Displays
- Action on Alarm: Alarms Can Be Individually Configured for 3 Priority Levels, to Initiate a Stored Pattern, or to Go to an Associated Preset When Received
- Resume After Alarm: Allows the Dome to Return to a Previously Configured State After Alarm Acknowledgement or to its Previous Position Before Alarm
- Multiple Park and Power-Up Action
- Patterns: Up to 8, On-Screen, User-Defined Configurable Patterns; Includes Pan, Tilt, Zoom, and Preset Functions
- Proportional Pan/Tilt: Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom
- Variable Scan Speed: Scan Speed Can Be Configurable Between 1 to $40^\circ/\text{sec}$
- Pan Motion Allows 0.1 to $150^\circ/\text{sec}$ 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)

WINDOW BLANKING

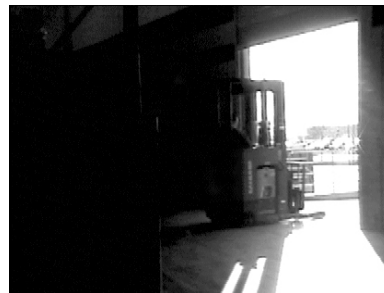
Window blanking allows a user to configure up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.



BEFORE



AFTER



BEFORE



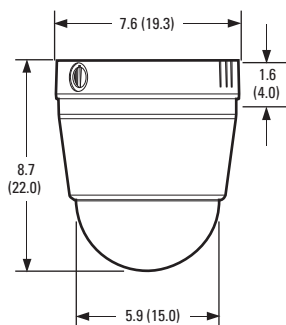
AFTER

WIDE DYNAMIC RANGE

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

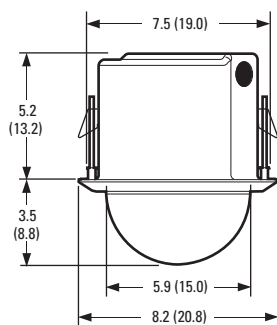
TECHNICAL SPECIFICATIONS

BACK BOX FEATURES



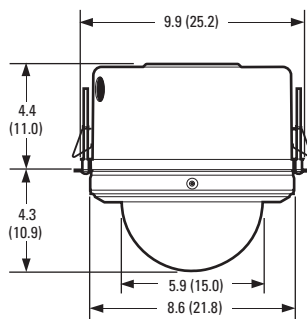
Surface Mount (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Available in Black or White Finish
- Quick Disconnect to Dome Drive
- Injection-Molded Plastic
- Integrated Passive UTP



In-Ceiling (Indoor)

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

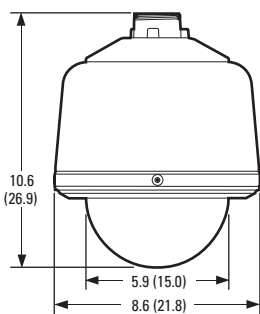


Environmental In-Ceiling

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



(ENVIRONMENTAL DOME WITH SUN SHROUD SHOWN)



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

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

Note: The Spectra IV SE 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 IV SE 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-F-E, BB4-PB, BB4-PG, and BB4-PG-E)
- Meets NEMA Type 1, IP40 (BB4-SMW, BB4-SMB, and BB4-F)
- 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		
Surface Mount	Plastic	
In-Ceiling	Aluminum	
Pendant	Aluminum	
Dome Drive	Aluminum, thermo plastic	
Bubble	Acrylic	
Light Attenuation		
Smoked	f/0.5 light loss	
Clear	Zero light loss	
Cable Entry (Back Box)		
In-Ceiling and	0.75-inch conduit fitting	
Surface Mount	Through 1.5-inch NPT pendant mount	
Pendant		
Weight (approximate)	<u>Unit</u>	<u>Shipping</u>
Back Box		
Surface Mount	0.7 lb (0.32 kg)	2 lb (0.90 kg)
In-Ceiling	1.5 lb (0.68 kg)	2 lb (0.90 kg)
Environmental		
In-Ceiling	2.1 lb (0.95 kg)	3 lb (1.36 kg)
Standard Pendant	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	3.3 lb (1.48 kg)	5 lb (2.27 kg)
Lower Dome		
Surface Mount	0.4 lb (0.18 kg)	1 lb (0.45 kg)
In-Ceiling	0.2 lb (0.09 kg)	1 lb (0.45 kg)
Pendant and		
Environmental		
In-Ceiling	0.6 lb (0.27 kg)	2 lb (0.90 kg)
Environment		
Surface Mount	Indoor	
In-Ceiling	Indoor	
Environmental In-Ceiling	Outdoor	
Pendant, Standard		
and Environmental	Indoor/outdoor	
Operating Temperature		
Surface Mount and		
Indoor In-Ceiling	0° to 50°C (32° to 122°F)	
Standard Pendant	(Assumes no wind chill factor)	
Maximum	45°C (113°F) absolute maximum; 35°C (95°F) sustained maximum	
Minimum	-4°C (25°F) sustained minimum	
Environmental In-Ceiling		
and		
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	47 square inches, with IWM Series mount

RELATED PRODUCTS

OPTIONAL ACCESSORIES

DD5-FM	Fixed camera mount adapter. Interchangeable with all Spectra IV dome drives.
IPS-CABLE	Remote monitor cable and software kit consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC. Refer to www.pelco.com for a list of compatible devices.
IPS-RDPE-2*	Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/configuration and software upgrades when used with the IPS-CABLE.
TXB Series*	Translator boards for AD™ Manchester, Hervis, Bosch® (Philips, Burle), TASS, and NTCIP protocols.
TXB-N Series*	Network-based communication module that allows you to control and monitor Spectra IV dome systems over an IP network (in-ceiling and pendant models only). When TXB-N is installed in the camera's back box, the camera system supports Web and Endura connectivity, and open architecture connectivity to third-party software. TXB-N allows simultaneous access to the camera from both an analog and IP-based control point.
FS85011A*	Fiber transmitter sends 1 unidirectional composite video channel and 1 bidirectional data channel over 1 multimode or single-mode fiber optical cable.
LD5F-2†	Flush in-ceiling lower dome with chrome bubble (f/2.0 light loss).
LD5F-3†	Flush in-ceiling lower dome with gold bubble (f/2.0 light loss).
LD53PB-2†	Pendant lower dome with black trim and chrome bubble (f/2.0 light loss).
LD53PB-3†	Pendant lower dome with black trim and gold bubble (f/2.0 light loss).

*If TXB or FS85011A boards are installed, remote upload of system software will not be possible.

† Not recommended for outdoor use due to possible light reflections.

RELATED PRODUCTS

RECOMMENDED MOUNTS

Surface Mount Domes

PASMB	Pendant adapter for surface mount dome, black
SD53SM-P	2' x 2' drop ceiling panel for BB4-SMW and BB4T-SMW series back boxes; replaces 2' x 2' ceiling tile; aluminum construction

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
PP4348	Parapet roof mount
PP350/PP351	Parapet wall/roof mount
SWM Series	Compact wall mount, black or gray finish; can be adapted for corner or pole applications

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

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	36X Day/Night (NTSC)	36X Day/Night (PAL)	29X Day/Night (NTSC)	29X Day/Night (PAL)
Surface Mount	White	Smoked	SD436-SMW-0	SD436-SMW-0-X	SD429-SMW-0	SD429-SMW-0-X
		Clear	SD436-SMW-1	SD436-SMW-1-X	SD429-SMW-1	SD429-SMW-1-X
	Black	Smoked	SD436-SMB-0	SD436-SMB-0-X	SD429-SMB-0	SD429-SMB-0-X
		Clear	SD436-SMB-1	SD436-SMB-1-X	SD429-SMB-1	SD429-SMB-1-X
In-Ceiling, Indoor	Black	Smoked	SD436-F0	SD436-F0-X	SD429-F0	SD429-F0-X
		Clear	SD436-F1	SD436-F1-X	SD429-F1	SD429-F1-X
In-Ceiling, Environmental*	Black	Smoked	SD436-F-E0	SD436-F-E0-X	SD429-F-E0	SD429-F-E0-X
		Clear	SD436-F-E1	SD436-F-E1-X	SD429-F-E1	SD429-F-E1-X
Pendant, Standard	Black	Smoked	SD436-PB-0	SD436-PB-0-X	SD429-PB-0	SD429-PB-0-X
		Clear	SD436-PB-1	SD436-PB-1-X	SD429-PB-1	SD429-PB-1-X
	Light Gray	Smoked	SD436-PG-0	SD436-PG-0-X	SD429-PG-0	SD429-PG-0-X
		Clear	SD436-PG-1	SD436-PG-1-X	SD429-PG-1	SD429-PG-1-X
Pendant, Environmental*	Light Gray	Smoked	SD436-PG-E0	SD436-PG-E0-X	SD429-PG-E0	SD429-PG-E0-X
		Clear	SD436-PG-E1	SD436-PG-E1-X	SD429-PG-E1	SD429-PG-E1-X

COMPONENT MODEL NUMBERS

Back Box		Dome Drive		Lower Dome [†]	
BB4-SMB	Surface mount, black	DD429	Day/Night (NTSC) camera (29X)	LD53SMB-0	Smoked, surface, black
BB4-SMW	Surface mount, white	DD429-X	Day/Night (PAL) camera (29X)	LD53SMB-1	Clear, surface, black
BB4-F	In-ceiling, black	DD436	Day/Night (NTSC) camera (36X)	LD53SMW-0	Smoked, surface, white
BB4-F-E	In-ceiling, black, environmental	DD436-X	Day/Night (PAL) camera (36X)	LD53SMW-1	Clear, surface, white
BB4-PB	Pendant mount, black, standard	DD5-FM	Removable, fixed mount bracket only (camera and lens not included); interchangeable with all Spectra IV dome drives	LDHQF-0	Smoked, in-ceiling
BB4-PG	Pendant mount, gray, standard			LDHQF-1	Clear, in-ceiling
BB4-PG-E	Pendant mount, gray, environmental			LDHQPB-0	Smoked, pendant, black
				LDHQPB-1	Clear, pendant, black

Notes:
 To order a fixed mount dome system, refer to the component models above and select one each of the following options: back box (BB4-F), dome drive (DD5-FM), plus choice of lower dome (LDHQF-0, LDHQF-1).
 For environmental applications, you must order an environmental back box (BB4-F-E or BB4-PG-E).
 DD5-FM accepts camera and lens combinations including a BNC connector up to 12.70 x 6.99 x 6.99 cm (5.00" D x 2.75" W x 2.75" H).

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

[†]Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.