

Spectra® IV SE Horizon Series Dome Systems

CRYSTAL CLEAR, INTEGRATED LOOK-UP DOME SYSTEM

Product Features

- Unparalleled Crystal Clear Video at Any Angle
- Vertical Tilt of up to 18° Above Horizontal
- Autofocus, High Resolution Integrated Camera/Optics Package
- Day/Night, 540 TVL, 128X Wide Dynamic Range (WDR), Motion Detection, and Electronic Image Stabilization
- Window Blanking
- Camera Title Overlay, 20 User-Definable Characters
- Horizontal and Zone Blanking
- On-Screen Compass and Tilt Display
- Password Protection
- Freeze Frame During Presets
- Built-in Surge and Limited Lightning Protection
- Integrated Passive Unshielded Twisted Pair (UTP) Circuit
- Internal Scheduling Clock
- Selectable Progressive Scan or Interlaced Output

An important, but often overlooked, component of a high-speed dome system is the relationship between the dome bubble and the camera lens. Special consideration was taken when designing the Spectra® IV SE Horizon 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 and extended vertical angles.

The Spectra IV SE Horizon 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. The camera in the Spectra IV SE Horizon dome drive features vertical tilt of 18° above the horizon, providing optical clarity and the ability to look up. **LowLight™** technology allows the camera to compensate for scenes where minimal light is present. The camera features advanced **128X wide dynamic range** that enables the system to compensate for scenes where dramatic contrasts in lighting are present. **Electronic image stabilization** digitally reduces blurring of the camera image due to vibration caused by external sources such as wind and traffic.

Spectra IV SE Horizon back box options include environmental in-ceiling, standard pendant, and environmental pendant models. 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



ENVIRONMENTAL
IN-CEILING MODEL
SD4H35-F-E0



PENDANT MODEL
SD4H35-PG-0

twisted pair wire. For added flexibility, Pelco fiber modules can also be attached to the door assembly for transmission over single-mode or multimode fiber.

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

Spectra IV SE Horizon'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.

Optional diagnostic/installation tools (IPS-RMK and IPS-CABLE) allow the installer to view video, control PTZ, and perform system setup and software upgrades at the installation site.

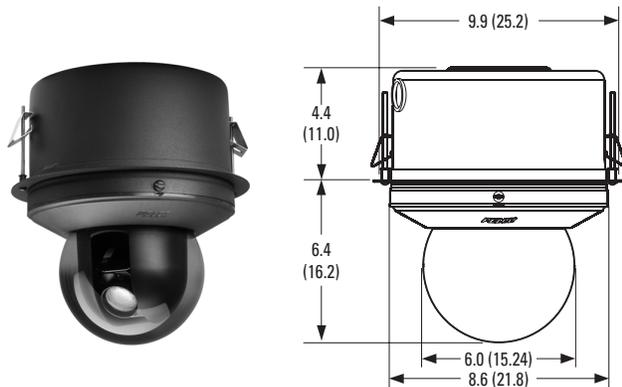


TECHNICAL SPECIFICATIONS

DOMES DRIVE FEATURES

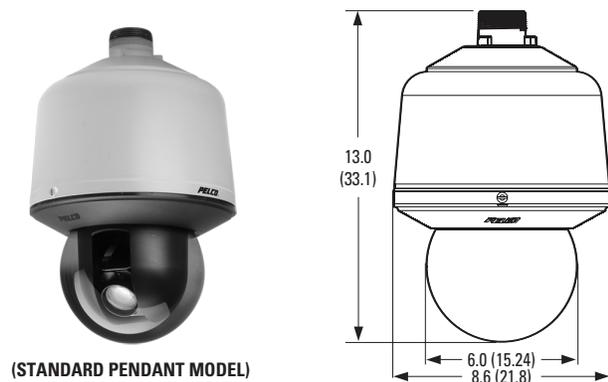
- Vertical Tilt of 18° Above Horizontal
- 256 Presets
- $\pm 0.1^\circ$ Preset Accuracy
- Electronic Image Stabilization
- Extended Vertical Angles
- Multilanguage Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update 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 (programmable 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 programmed to operate upon alarm)
- Programmable Locations of Labels and On-Screen Displays
- Action on Alarm: Alarms Can Be Individually Programmed 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 Programmed 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 Programmable 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 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
- Digital Position and Zoom Control and Feedback through D Protocol
- Built-in Menu System for Setup of Programmable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Programmable Zoom Speeds

BACK BOX FEATURES



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 6.4 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



(STANDARD PENDANT MODEL)

Standard and Environmental Pendant

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- 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.

TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

Signal Format	NTSC (DD4H35) PAL (DD4H35-X)
Scanning System	2:1 Interlace/1:1 progressive scan (user selectable)
Image Sensor	1/4-inch EXview HAD™
Effective Pixels	
NTSC	768 (H) X 494 (V)
PAL	752 (H) X 582 (V)
Horizontal Resolution	
NTSC	>540 TV Lines
PAL	>540 TV Lines
Lens	f/1.4 (focal length, 3.4–119 mm)
Zoom	35X optical, 12X digital
Zoom Speed (optical range)	3.2/4.6/6.6 seconds
Horizontal Angle of View	55.8° at 3.4 mm wide zoom; 1.7° at 119 mm telephoto zoom
Focus	Automatic with manual override
Maximum Sensitivity @ 35 IRE	
NTSC/EIA	0.55 lux at 1/60 sec (color) 0.063 lux at 1/4 sec (color) 0.00018 lux at 1/2 sec (B-W)
PAL/CCIR	0.50 lux at 1/50 sec (color) 0.062 lux at 1/3 sec (color) 0.00014 lux at 1/1.5 sec (B-W)
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync
White Balance	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/Manual
NTSC	1/2 – 1/30,000
PAL	1/1.5 – 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	128X
Electronic Image Stabilization	Integrated
Image Enhancement	Integrated

MECHANICAL (Dome Drive Only)

Pan Movement	360° continuous pan rotation
Vertical Tilt	Unobstructed +18° 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 non-variable speed control, Spectra IV SE Horizon 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
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2

Meets the following standards:

- NEMA Type 4X, IP66 when installed properly

GENERAL

Construction		
Back Box		
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	0.75-inch conduit fitting	
Pendant	Through 1.5-inch NPT pendant mount	
Weight (approximate)	<u>Unit</u>	<u>Shipping</u>
Back Box		
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	3.0 lb (1.36 kg)	4 lb (1.81 kg)
Lower Dome	0.8 lb (0.40 kg)	2 lb (0.90 kg)
Environment		
Environmental In-Ceiling	Outdoor	
Pendant, Standard and Environmental	Indoor/outdoor	
Operating Temperature		
Standard Pendant	(Assumes no wind chill factor)	
Maximum	113°F (45°C) absolute maximum; 95°F (35°C) sustained maximum	
Minimum	25°F (-4°C) sustained 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 0.1 inch (2.5 mm) within 3 hours after power-up	
Effective Projected Area (EPA)		
	24 square inches (without mount)	
	50.6 square inches (with IWM Series mount)	

RELATED PRODUCTS

SYSTEM MODEL NUMBERS

Type	Back Box Color	Lower Dome	NTSC	PAL
In-Ceiling, Environmental*	Black	Smoked	SD4H35-F-E0	SD4H35-F-E0-X
		Clear	SD4H35-F-E1	SD4H35-F-E1-X
Pendant, Standard	Lt. Gray	Smoked	SD4H35-PG-0	SD4H35-PG-0-X
		Clear	SD4H35-PG-1	SD4H35-PG-1-X
Pendant, Environmental*	Lt. Gray	Smoked	SD4H35-PG-E0	SD4H35-PG-E0-X
		Clear	SD4H35-PG-E1	SD4H35-PG-E1-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
BB4-F-E In-ceiling, black, environmental	DD4H35 Day/Night (NTSC) camera (35X)	LD4H-0 Smoked
BB4-PG Pendant mount, gray, standard		LD4H-1 Clear
BB4-PG-E Pendant mount, gray, environmental		

OPTIONAL ACCESSORIES

IPS-RMK	Remote monitor kit. Stand-alone kit consisting of a 5.6-inch TFT-LCD monitor, Palm™ OS compatible 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	Remote monitor cable and software kit consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC (Windows® 95, 98, Me, 2000), Palm OS compatible handheld or iPaq™ Series Pocket 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/programming and Spectra IV OS software upgrades when used with the IPS-RMK or IPS-CABLE.
TXB Series†	Translator boards for AD™ Manchester, Hervis, Bosch® (Philips, Burle), Sensormatic®, Vicon™, TASS, and NTCIP protocols.
FS85011A†	Fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over one multimode or single-mode fiber optical cable.

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

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
IWM Series	Wall mount, with or without integral 24 VAC, 100 VA transformer. Can be adapted for corner, parapet or pole applications.
MRCA	Ceiling mount, black
MRWA	Wall mount, black
PP4348	Parapet roof mount
PP350/PP351	Parapet wall/roof mount
SWM Series	Compact wall mount. Can be adapted for corner or pole applications.

RECOMMENDED POWER SUPPLIES

MCS Series	Indoor, 24 VAC power supply
MCS*E Series	Indoor, 24 VAC power supply
WCS Series	Outdoor, 24 VAC power supply

Refer to individual power supply specifications for more information.



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