



## Product comparison guide

### > Analog video solutions



Discover the power of integrated security.

**PELCO**

by Schneider Electric

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As the global leader in the design and development of video security systems, Pelco™ by Schneider Electric™ produces and an unmatched array of cameras, positioning systems, video matrix systems, next-generation DVRs and HVRs, and displays. Pelco has a video solution to suit your application.

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## Analog PTZ cameras

For more than a decade, Spectra™ has set the benchmark for PTZ performance and reliability. From the flagship 35x Spectra IV SE to Spectra mini to environmental and ruggedized models, there's a Spectra dome to meet nearly any application need.





	Spectra mini	Spectra IV		
				
	<b>Spectra Mini SD4</b>	<b>23x SL Standard Pendant</b>	<b>23x SL Environmental Pendant</b>	<b>27x SE Standard Pendant</b>
Imager	1/4 Inch Interline CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD
Processors	1	1	1	1
Scanning	2:1 Interlace	2:1 Interlace	2:1 Interlace	Interlaced/Progressive
Lens	F1.8, 4.2 mm - 42 mm	F1.6, 3.6 - 82.8 mm	F1.6, 3.6 - 82.8 mm	F1.4, 3.4 - 98.1 mm
Field Of View	5.0° to 46.4°	2.5° to 54°	2.5° to 54°	2.3° to 55.8°
Day/Night	No	Yes	Yes	Yes
Resolution	470 TVL	540 TVL	540 TVL	540 TVL
Digital Slow Shutter (DSS)	No	No	No	Yes
Sensitivity NTSC (or MP)	3 lux	35 IRE: 0.65 lux at 1/60 sec (color), 0.15 lux at 1/60 sec (B-W)	35 IRE: 0.65 lux at 1/60 sec (color), 0.15 lux at 1/60 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)
Sensitivity PAL	3 lux	35 IRE: 0.55 lux at 1/50 sec (color), 0.12 lux at 1/50 sec (B-W)	35 IRE: 0.55 lux at 1/50 sec (color), 0.12 lux at 1/50 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)
Wide Dynamic Range	No	No	No	Yes
Optical Zoom	10x	23x	23x	27x
Digital Zoom	8x	12x	12x	12x
Total Zoom	80x	276x	276x	324x
Proportional Pan/Tilt	Yes	Yes	Yes	Yes
Auto Flip	Mechanical	Mechanical	Mechanical	Mechanical
Pan Range	360° continuous	360° continuous	360° continuous	360° continuous
Tilt Range	92°	92°	92°	92°
Presets	64	64	64	256
Preset Accuracy	±0.1°	±0.1°	±0.1°	±0.1°
Preset Speed	140°/sec	400°/sec	400°/sec	400°/sec
Patterns/Preset Tours	1	1	1	8
Preset Video Analytics	No	No	No	No
Directional Indicators	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display
Motion Detection	No	No	No	No
Window Blanking	1, Programmable	4, Programmable	4, Programmable	8, Programmable
Image Stabilization	No	No	No	No
Image Enhancement	No	No	No	No
Sure Focus menu selection	No	No	No	Yes
Low Lux Noise Reduction	No	No	No	Yes
Programmable Zoom Speeds	Yes	No	No	Yes
Low Light focus/limit selection	Yes	No	No	Yes
Power Up Actions	Yes	No	No	Yes
Warranty	2 Years	3 Years	3 Years	3 Years
Back Box Construction	Aluminum	Aluminum	Aluminum	Aluminum
Relay Outputs		1	1	2
Alarm Inputs		1	1	8
Bubble Options	Smoked, Clear	Smoked, Clear, Chrome, Gold	Smoked, Clear	Smoked, Clear, Chrome, Gold
Bubble Construction	Acrylic	Acrylic	Acrylic	Acrylic
Bubble Diameter	4.1"	5.9"	5.9"	5.9"
Multi-Language Support	Yes	Yes	Yes	Yes
Includes Heater and Blower	No	No	Yes	No
Includes Protective Cage	No	No	No	No
Lockable (with keys)	No	No	No	No
Operating Temperature Range	32 to 122 °F (0 to 50 °C)	Minimum of 25 °F (-4 °C), (Assumes no wind chill factor) Sustained Minimum 95 °F (35 °C), Absolute Maximum 113 °F (45 °C)	Minimum of 25 °F (-4 °C), (Assumes no wind chill factor) Sustained Minimum 95 °F (35 °C), Absolute Maximum 113 °F (45 °C)	Minimum of 25 °F (-4 °C), (Assumes no wind chill factor) Sustained Minimum 95 °F (35 °C), Absolute Maximum 113 °F (45 °C)
Environmental Ratings	IP40	IP66	IP66	IP66
Power	18 - 30 VAC, 24 VAC nominal; 0.75 A, 50/60 Hz nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal
Certifications	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC

\* Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers.



## Analog PTZ cameras

For more than a decade, Spectra has set the benchmark for PTZ performance and reliability. From the flagship 35x Spectra IV SE to Spectra mini to environmental and ruggedized models, there's a Spectra dome to meet nearly any application need.





	Spectra IV		Spectra IV SE	
				
	27x SE Environmental Pendant	27x SE Heavy Duty Pendant	27x SE Stainless Steel Pendant	35x SE Standard Pendant
Imager	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD
Processors	1	1	1	1
Scanning	Interlaced/Progressive	Interlaced/Progressive	Interlaced/Progressive	Interlaced/Progressive
Lens	F1.4, 3.4 - 98.1 mm	F1.4, 3.4 - 98.1 mm	F1.4, 3.4 - 98.1 mm	F1.4, 3.4 - 119 mm
Field Of View	2.3° to 55.8°	2.3° to 55.8°	2.3° to 55.8°	1.7° to 55.8°
Day/Night	Yes	Yes	Yes	Yes
Resolution	540 TVL	540 TVL	540 TVL	540 TVL
Digital Slow Shutter (DSS)	Yes	Yes	Yes	Yes
Sensitivity NTSC (or MP)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)
Sensitivity PAL	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)
Wide Dynamic Range	Yes	Yes	Yes	Yes
Optical Zoom	27x	27x	27x	35x
Digital Zoom	12x	12x	12x	12x
Total Zoom	324x	324x	324x	420x
Proportional Pan/Tilt	Yes	Yes	Yes	Yes
Auto Flip	Mechanical	Mechanical	Mechanical	Mechanical
Pan Range	360° continuous	360° continuous	360° continuous	360° continuous
Tilt Range	92°	92°	92°	92°
Presets	256	256	256	256
Preset Accuracy	±0.1°	±0.1°	±0.1°	±0.1°
Preset Speed	400°/sec	400°/sec	400°/sec	400°/sec
Patterns/Preset Tours	8	8	8	8
Preset Video Analytics	No	No	No	No
Directional Indicators	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display
Motion Detection	Yes	Yes	Yes	Yes
Window Blanking	8, Programmable	8, Programmable	8, Programmable	8, Programmable
Image Stabilization	Yes	Yes	Yes	Yes
Image Enhancement	No	No	No	Yes
Sure Focus menu selection	Yes	Yes	Yes	Yes
Low Lux Noise Reduction	Yes	Yes	Yes	Yes
Programmable Zoom Speeds	Yes	Yes	Yes	Yes
Low Light focus/limit selection	Yes	Yes	Yes	Yes
Power Up Actions	Yes	Yes	Yes	Yes
Warranty	3 Years	3 Years	3 Years	3 Years
Back Box Construction	Aluminum	Aluminum	Stainless Steel	Aluminum
Relay Outputs	2	2	2	2
Alarm Inputs	8	8	8	8
Bubble Options	Smoked, Clear	Smoked, Clear	Smoked, Clear	Smoked, Clear, Chrome, Gold
Bubble Construction	Acrylic	Polycarbonate	Acrylic	Acrylic
Bubble Diameter	5.9"	5.9"	5.9"	5.9"
Multi-Language Support	Yes	Yes	Yes	Yes
Includes Heater and Blower	Yes	Yes	Yes	No
Includes Protective Cage	No	Optional	No	No
Lockable (with keys)	No	Yes	No	No
Operating Temperature Range	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Minimum of 25 °F (-4 °C), (Assumes no wind chill factor) Sustained Minimum 95 °F (35 °C), Absolute Maximum 113 °F (45 °C)
Environmental Ratings	IP66	IP66	IP66	IP66
Power	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal
Certifications	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC

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Analog PTZ cameras continued >>

## Analog PTZ cameras

For more than a decade, Spectra has set the benchmark for PTZ performance and reliability. From the flagship 35x Spectra IV SE to Spectra mini to environmental and ruggedized models, there's a Spectra dome to meet nearly any application need.

Spectra IV SE				
				
	35x SE Environmental Pendant	35x SE Heavy Duty Pendant	35x SE Stainless Steel Pendant	35x SE Horizon Pendant
Imager	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD
Processors	1	1	1	1
Scanning	Interlaced/Progressive	Interlaced/Progressive	Interlaced/Progressive	Interlaced/Progressive
Lens	F1.4, 3.4 - 119 mm	F1.4, 3.4 - 119 mm	F1.4, 3.4 - 119 mm	F1.4, 3.4 - 119 mm
Field Of View	1.7° to 55.8°	1.7° to 55.8°	1.7° to 55.8°	1.7° to 55.8°
Day/Night	Yes	Yes	Yes	Yes
Resolution	540 TVL	540 TVL	540 TVL	540 TVL
Digital Slow Shutter (DSS)	Yes	Yes	Yes	Yes
Sensitivity NTSC (or MP)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)
Sensitivity PAL	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)
Wide Dynamic Range	Yes	Yes	Yes	Yes
Optical Zoom	35x	35x	35x	35x
Digital Zoom	12x	12x	12x	12x
Total Zoom	420x	420x	420x	420x
Proportional Pan/Tilt	Yes	Yes	Yes	Yes
Auto Flip	Mechanical	Mechanical	Mechanical	Mechanical
Pan Range	360° continuous	360° continuous	360° continuous	360° continuous
Tilt Range	92°	92°	92°	92°
Presets	256	256	256	256
Preset Accuracy	±0.1°	±0.1°	±0.1°	±0.1°
Preset Speed	400°/sec	400°/sec	400°/sec	400°/sec
Patterns/Preset Tours	8	8	8	8
Preset Video Analytics	No	No	No	No
Directional Indicators	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display
Motion Detection	Yes	Yes	Yes	Yes
Window Blanking	8, Programable	8, Programable	8, Programable	8, Programable
Image Stabilization	Yes	Yes	Yes	Yes
Image Enhancement	Yes	Yes	Yes	Yes
Sure Focus menu selection	Yes	Yes	Yes	Yes
Low Lux Noise Reduction	Yes	Yes	Yes	Yes
Programmable Zoom Speeds	Yes	Yes	Yes	Yes
Low Light focus/limit selection	Yes	Yes	Yes	Yes
Power Up Actions	Yes	Yes	Yes	Yes
Warranty	3 Years	3 Years	3 Years	3 Years
Back Box Construction	Aluminum	Aluminum	Stainless Steel	Aluminum
Relay Outputs	2	2	2	2
Alarm Inputs	8	8	8	8
Bubble Options	Smoked, Clear	Smoked, Clear	Smoked, Clear	Smoked, Clear
Bubble Construction	Acrylic	Polycarbonate	Acrylic	Acrylic
Bubble Diameter	5.9"	5.9"	5.9"	5.9"
Multi-Language Support	Yes	Yes	Yes	Yes
Includes Heater and Blower	Yes	Yes	Yes	Yes
Includes Protective Cage	No	Optional	No	No
Lockable (with keys)	No	Yes	No	No
Operating Temperature Range	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)	Absolute Minimum -60 °F (-51 °C), Sustained Minimum of -50 °F (-45 °C), Absolute Maximum (4 hour peak) 140 °F (60 °C), Sustained Maximum 122 °F (50 °C)
Environmental Ratings	IP66	IP66	IP66	IP66
Power	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18 - 32 VAC (24 VAC); 22 - 27 VDC (24 VDC); 23 VA nominal	18-32 VAC (24 VAC); 22-27 VDC (24 VDC); 23 VA nominal
Certifications	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC	FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC

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## Analog PTZ cameras

The Esprit™ SE positioning system brings together the very best in enclosure design, pan-and-tilt mechanics, and receiver technologies. This completely integrated package offers responsive, high-speed positioning capabilities, outstanding weather protection, and a level of aesthetics and ease-of-installation that remains unmatched in the industry.

### Esprit SE



**36x Esprit SE  
deterrent PTZ**



**36x Esprit SE pressurized  
deterrent PTZ**

Imager	1/4 Inch Exview HAD CCD	1/4 Inch Exview HAD CCD
Processors	1	1
Scanning	Interlaced/Progressive	Interlaced/Progressive
Lens	f/1.4, 3.3 ~ 119 mm	f/1.4, 3.3 ~ 119 mm
Field Of View	1.7° to 57.2°	1.7° to 57.2°
Day/night	Yes	Yes
Resolution	540 TVL	540 TVL
Digital Slow Shutter (DSS)	Yes	Yes
Sensitivity NTSC	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)
Sensitivity PAL	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)
Wide Dynamic Range	Yes	Yes
Optical Zoom	36x	36x
Digital Zoom	12x	12x
Total Zoom	432x	432x
Proportional Pan/Tilt	Yes	Yes
Auto Flip	Mechanical	Mechanical
Pan Range	360° continuous	360° continuous
Tilt Range	Unobstructed +36° to -85°	Unobstructed +36° to -85°
Presets	256	256
Preset Accuracy	±0.1°	±0.1°
Preset Speed	100°/sec	100°/sec
Patterns/Preset Tours	8	8
Preset Video Analytics	yes	Yes
Directional Indicators	On-screen Compass, Tilt, and Zoom Display	On-screen Compass, Tilt, and Zoom Display
Motion Detection	yes	Yes
Window Blanking	8, Programmable	8, Programmable
Image Stabilization	yes	Yes
Image Enhancement	yes	Yes
Sure Focus menu selection	yes	Yes
Low Lux Noise Reduction	yes	Yes
Programmable Zoom Speeds	yes	Yes
Low Light focus/limit selection	yes	Yes
Power Up Actions	yes	Yes
Warranty	3 Years	3 Years
Construction	Aluminum	Aluminum
Relay Outputs	1	1
Alarm Inputs	0	0
Multi-Language Support	Yes	Yes
Includes Heater	Yes	Yes
Operating Temperature Range	-45 to 50 °C (-50 to 122 °F)	-45 to 50 °C (-50 to 122 °F)
Environmental Ratings	IP66	IP66 pan/tilt, Optics package meets IP67
Power	24 VAC or 120, or 230 VAC, 50/60 Hz	24 VAC or 120, or 230 VAC, 50/60 Hz
Certifications	CE, Class B, FCC, Class B, UL/cUL Listed, C-Tick	CE, Class B, FCC, Class B, UL/cUL Listed, C-Tick

### ExSite



**36x ExSite  
Explosion proof PTZ and fixed**

Imager	1/4 Inch Exview HAD CCD
Processors	1
Scanning	Interlaced/Progressive
Lens	f/1.4, 3.3 ~ 119 mm
Field Of View	1.7° to 57.2°
Day/night	Yes
Resolution	540 TVL
Digital Slow Shutter (DSS)	Yes
Sensitivity NTSC	35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)
Sensitivity PAL	35 IRE: 0.45 lux at 1/50 sec (color), 0.015 lux at 1/1.5 sec (color), 0.00015 lux at 1/2 sec (B-W)
Wide Dynamic Range	Yes
Optical Zoom	36x
Digital Zoom	12x
Total Zoom	432x
Proportional Pan/Tilt	Yes
Auto Flip	Mechanical
Pan Range	360° continuous
Tilt Range	Unobstructed +36° to -85°
Presets	256
Preset Accuracy	±0.1°
Preset Speed	100°/sec
Patterns/Preset Tours	8
Preset Video Analytics	yes
Directional Indicators	On-screen Compass, Tilt, and Zoom Display
Motion Detection	Yes
Window Blanking	8, Programmable
Image Stabilization	Yes
Image Enhancement	Yes
Sure Focus menu selection	Yes
Low Lux Noise Reduction	Yes
Programmable Zoom Speeds	Yes
Low Light focus/limit selection	Yes
Power Up Actions	Yes
Warranty	3 Years
Construction	316L Stainless steel
Relay Outputs	3
Alarm Inputs	7
Multi-Language Support	Yes
Includes Heater	Yes
Operating Temperature Range	-76 to 140 °F (-60 to 60 °C)
Environmental Ratings	IP66
Power	24 VAC or 100 to 240 VAC, 50/60 Hz
Certifications	DEMKO 04 ATEX 0413858X 0539 II 2 G Ex d IIC, T5 II 2 D Ex tD A21 IP66 T105 °C

\* Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers.

## Analog fixed dome cameras

Featuring Super Dynamic Five (SD5®) image technology, Camclosure™ 2 delivers unmatched performance and reliability at a remarkably affordable price. With a choice of high-resolution color CCD cameras built into a reliable, easy-to-install system – Camclosure 2 will soon be your video security camera system of choice.

### IS20/IS21 Camclosure 2 - Indoor models



**IS20/IS21-DWS Series**  
Super Dynamic (SD5®) Day/Night  
Wide Dynamic Range Models



**IS20/IS21-DN Series**  
True Day/Night Models



**IS20/IS21-CH Series**  
Color Models with Simple Day/Night

Image Sensor	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD
Effective pixels			
NTSC	976 (H) x 494 (V)	768 (H) x 494 (V)	768 (H) x 494 (V)
PAL	976 (H) x 582 (V)	752 (H) x 582 (V)	752 (H) x 582 (V)
Scanning Area	0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace
Scanning Lines			
NTSC	525 lines	525 lines	525 lines
PAL	625 lines	625 lines	625 lines
Scanning Frequency			
NTSC	Horizontal, 15.734 kHz Vertical, 59.94 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz
PAL	Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal LL (phase adjustable power supply synchronization)	Internal	Internal
Horizontal Resolution	650 TV lines, typical (color mode) 700 TV lines or more (B-W mode)	540 TV lines (color mode, at center) 570 TV lines (B-W mode)	540 TV lines (at center)
Minimum Illumination	0.1 lux (color mode) 0.003 lux (sensitivity up x32) 0.01 lux (B-W mode) 0.0003 lux (sensitivity up x32)	0.06 lux (color mode) 0.05 lux (B-W mode)	0.6 lux (color mode) 0.4 lux (B-W mode)
Dynamic Range	54 dB	Adaptive Black Stretch	Adaptive Black Stretch
Day/Night Type	IR filter removal	IR filter removal	Simple
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control
Signal to Noise Ratio	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)
Lens	2x varifocal lens	3.6x varifocal lens	3.6x varifocal lens
Focal Length	3.8 ~ 8.0 mm	2.8 ~ 10.0 mm	2.8 ~ 10.0 mm
F-Number	f/1.4 (WIDE) to f/1.8 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)
Focus Range	× to 3.9 ft (1.2 m)	× to 3.9 ft (1.2 m)	× to 3.9 ft (1.2 m)
Angle of View			
Horizontal	73.6° wide zoom; 35.6° telephoto zoom	100° at 50 ft wide zoom; 27° at 39 ft telephoto zoom	100° at 18 ft wide zoom; 27° at 39 ft telephoto zoom
Vertical	53.4° wide zoom; 26.6° telephoto zoom	73° at 51 ft wide zoom; 20° at 45 ft telephoto zoom	73° at 33 ft wide zoom; 20° at 45 ft telephoto zoom
Adjusting Angle			
Panning Range	+/-170°	+180° to -140°	+180° to -140°
Tilting Range	+/-75°	+/-75°	+/-75°
Rotation Range	+/-100°	+/-100°	+/-100°
Power	24 VAC or 12 VDC operation, autosensing	24 VAC or 12 VDC operation, autosensing	24 VAC or 12 VDC operation, autosensing
Certifications	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick



## Analog fixed dome cameras

Featuring Super Dynamic Five (SD5) image technology, Camclosure 2 delivers unmatched performance and reliability at a remarkably affordable price. With a choice of high-resolution color CCD cameras built into a reliable, easy-to-install system – Camclosure 2 will soon be your video security camera system of choice.

### IS50/IS51 Camclosure 2 - Outdoor models



**IS50/IS51-DWS Series**  
Super Dynamic (SD5) Day/Night  
Wide Dynamic Range Models



**IS50/IS51-DN Series**  
True Day/Night Models






**IS50/IS51-CH Series**  
Color Models with Simple Day/Night

Image Sensor	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD
Effective Pixels			
NTSC	976 (H) x 494 (V)	768 (H) x 494 (V)	768 (H) x 494 (V)
PAL	976 (H) x 582 (V)	752 (H) x 582 (V)	752 (H) x 582 (V)
Scanning Area	0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace
Scanning Lines			
NTSC	525 lines	525 lines	525 lines
PAL	625 lines	625 lines	625 lines
Scanning Frequency			
NTSC	Horizontal, 15.734 kHz Vertical, 59.94 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz
PAL	Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal LL (phase adjustable power supply synchronization)	Internal	Internal
Horizontal Resolution	650 TV lines, typical (color mode) 700 TV lines or more (B-W mode)	540 TV lines (color mode, at center) 570 TV lines (B-W mode)	540 TV lines (at center)
Minimum Illumination	0.1 lux (color mode) 0.003 lux (sensitivity up x32) 0.01 lux (B-W mode) 0.0003 lux (sensitivity up x32)	0.06 lux (color mode) 0.05 lux (B-W mode)	0.6 lux (color mode) 0.4 lux (B-W mode)
Dynamic Range	54 dB/128X	Adaptive Black Stretch	Adaptive Black Stretch
Day/Night Type	IR filter removal	IR filter removal	Simple
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control
Signal to Noise Ratio	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)
Lens	2X varifocal lens	3.6X varifocal lens	3.6X varifocal lens
Focal Length	3.8 ~ 8.0 mm	2.8 ~ 10.0 mm	2.8 ~ 10.0 mm
F-Number	f/1.4 (WIDE) to f/1.8 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)
Focus Range	x to 3.9 ft (1.2 m)	x to 3.9 ft (1.2 m)	x to 3.9 ft (1.2 m)
Angle of View			
Horizontal	73.6° wide zoom; 35.6° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom
Vertical	53.4° wide zoom; 26.6° telephoto zoom	73.3° wide zoom; 20.3° telephoto zoom	73.3° wide zoom; 20.3° telephoto zoom
Adjusting Angle			
Panning Range	+/-170°	+180° to -140°	+180° to -140°
Tilting Range	+/-75°	+/-75°	+/-75°
Rotation Range	+/-100°	+/-100°	+/-100°
Power	24 VAC or 12 VDC operation, autosensing	24 VAC or 12 VDC operation, autosensing	24 VAC or 12 VDC operation, autosensing
Certifications	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick	CE-Class A; FCC-Class A; UL/cUL Listed; C-Tick

## C20 Series box cameras

Pelco has phased out all existing C10 Series cameras — upgrading the line with the all-new C20 Series analog box cameras. But the C20 Series represents much more than a simple upgrade. At 700 TV lines, the C20 Series are the highest resolution, most full-featured and affordable CCTV cameras available. These new cameras offer color, day/night, and WDR capabilities typically reserved for much more expensive video security systems.

C20 Series			
			
	C20-CH-6(6X)(7X)	C20-DN-6X (7X)(PAL ONLY)	C20-DW-6(6X)(7X)
<b>GENERAL</b>			
Imaging Device	Sony® 1/3-inch EXview HAD CCD II™ 960H	Sony 1/3-inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H
Signal Processing	Sony new digital signal processor, Effio-E™	Sony new digital signal processor, Effio-E	Sony new digital signal processor, Effio-E
<b>PICTURE ELEMENTS</b>			
NTSC	976 (H) x 494 (V), approx. 480k	976 (H) x 582 (V), approx. 570k	976 (H) x 582 (V), approx. 570k
PAL	976 (H) x 582 (V), approx. 570k	976 (H) x 582 (V), approx. 570k	976 (H) x 582 (V), approx. 570k
Sensing Area	3/16 x 1/8-inch (4.7 x 3.5 mm)	1/3 inch - 3/16 x 1/8-inch (4.7 x 3.5 mm)	1/3 inch - 3/16 x 1/8-inch (4.7 x 3.5 mm)
<b>SCANNING SYSTEM</b>			
NTSC	525 lines, 2:1 interlace	625 lines, 2:1 interlace	525 lines, 2:1 interlace
PAL	625 lines, 2:1 interlace	625 lines, 2:1 interlace	625 lines, 2:1 interlace
Synchronization System	Internal	Internal	AC line lock/Internal
Horizontal Resolution	650 TV lines	650 TV lines	650 TV lines
Auto Iris Lens Type	DC drive	DC drive	DC drive
Sensitivity	0.25 lux, f/1.2, 30 IRE	Color 0.13 lux, f/1.2, 30 IRE / Mono 0.05 lux, f/1.2, 30 IRE	Color 0.13 lux, f/1.2, 30 IRE / Mono 0.05 lux, f/1.2, 30 IRE
<b>ELECTRONIC DAY/NIGHT SWITCH</b>			
Signal to Noise Ratio 48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	49 dB (>52 dB by parameter adjustment)
Automatic Gain Control	On/off 35 dB	On/off 35 dB	Off/on up to 36 dB, 16 levels configurable
Backlight Compensation	Yes	Yes	Yes
White Balance	ATW/push lock/manual/anti-CR/user2/user/push	ATW/push lock/manual/anti-CR/user2/user/push	ATW/push lock/manual/anti-CR/user2/user/push
Color Correction	With White Balance	With White Balance	White Balance
Gamma	Selectable (ATR)	Selectable (ATR)	Selectable (ATR)
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms	2 Vp-p, 75 ohms
Auto White Balance Range	2,500° to 9,500°K	2,500° to 9,500°K	2,500° to 9,500°K
Noise Reduction DNR 2D	2D	2D	3D
Privacy Zones	Yes	Yes	Yes, 15 sizable windows
Motion Detection	Yes	Yes	Yes, four areas sensitivity selectable
Camera Titles	Yes	Yes	Yes, up to 20 characters
<b>POWER REQUIREMENT</b>			
	12 VDC/24 VAC +10% to -15%, 60 Hz	12 VDC/24 VAC +10% to -15%, 60 Hz	12 VDC/24 VAC +10% to -15%, 60 Hz
	12 VDC/24 VAC +10% to -15%, 50 Hz	12 VDC/24 VAC +10% to -15%, 50 Hz	C20-DW-6X 12 VDC/24 VAC +10% to -15%, 50 Hz
	220 VAC +10% to -15%, 50 Hz	220 VAC +10% to -15%, 50 Hz	220 VAC +10% to -15%, 50 Hz
<b>POWER CONSUMPTION AND DIMENSIONS</b>			
	3.5 W	4 W	4.5 W
	4 W	5 W	4.5 W
Dimensions (includes BNC)	108 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)	109 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)	109 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)
<b>CERTIFICATIONS</b>			
	CE, Class B	CE, Class B	CE, Class B
	FCC, Class B	FCC, Class B	FCC, Class B
	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed

## BU Series bullet cameras with IR options




Offering the most feature-rich, highest-resolution analog performance available with IR capabilities, these new bullet cameras are built for quick, easy setup and years of reliable performance. Choose from a wide selection of long- and short-range infrared illumination options and capture clear images in most any low-light or no-light condition.



BU Series			
GENERAL			
Imaging Device	Sony 1/3-Inch Super HAD CCD	Sony 1/3-Inch Super HAD CCD	Sony 1/3-Inch Super HAD CCD
Signal Processing	NextChip DSP	Sony DSP Effio E	Sony DSP Effio P
PICTURE ELEMENTS			
NTSC	NTSC 768 (H) x 494 (V), approx. 380k	NTSC 976 (H) x 494 (V) approx. 480k	NTSC 976 (H) x 494 (V) approx. 480k
PAL	PAL 752 (H) x 582 (V), approx. 440k	PAL 87 6 (H) x 582 (V) approx 570k	PAL 87 6 (H) x 582 (V) approx 570k
Sensing Area	5.6 (H) mm x 4.7 (V) mm (0.22 x 0.19 inch)	4.7 (H) mm x 3.5 (V) mm (0.19 x 0.14 inch)	4.7 (H) mm x 3.5 (V) mm (0.19 x 0.14 inch)
SCANNING SYSTEM			
NTSC	525 lines, 2:1 interlace	525 lines, 2:1 interlace	525 lines, 2:1 interlace
PAL	625 lines, 2:1 interlace	625 lines, 2:1 interlace	625 lines, 2:1 interlace
Synchronization System	Internal	Internal	Internal
Horizontal Resolution	540 TV lines	650 TV lines	650 TV lines
Minimum Illumination	f/2.0; 2,850°K; 30 IRE	f/2.0; 2,850°K; 30 IRE	f/2.0; 2,850°K; 30 IRE
ELECTRONIC DAY/NIGHT SWITCH			
Signal to Noise Ratio 48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Automatic Gain Control	On/off 35 dB	On/off 35 dB	On/off 35 dB
Backlight Compensation	Yes	Yes	Yes
White Balance	ATW/push lock/manual/anti-CR/user2/user/push	ATW/push lock/manual/anti-CR/user2/user/push	ATW/push lock/manual/anti-CR/user2/user/push
Color Correction	With white balance	With white balance	With white balance
Gamma	Selectable (ATR)	Selectable (ATR)	Selectable (ATR)
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms
Auto White Balance Range	2,500° to 9,500°K	2,500° to 9,500°K	2,000° to 10,000°K
Noise Reduction DNR 2D	2D	2D	3D
Privacy Zones	Yes	Yes	Yes
Motion Detection	Yes	Yes	Yes
Camera Titles	Yes	Yes	Yes
POWER REQUIREMENT			
	12 VDC/24 VAC +10% to -15%, 60 Hz	12 VDC/24 VAC +10% to -15%, 60 Hz	12 VDC/24 VAC +10% to -15%, 60 Hz
	12 VDC/24 VAC +10% to -15%, 50 Hz	12 VDC/24 VAC +10% to -15%, 50 Hz	12 VDC/24 VAC +10% to -15%, 50 Hz
	220 VAC +10% to -15%, 50 Hz	220 VAC +10% to -15%, 50 Hz	220 VAC +10% to -15%, 50 Hz
POWER CONSUMPTION AND DIMENSIONS			
	3.5 W	7 W	7.5 W
	4 W	50 W	22.5 W
CERTIFICATIONS			
	CE, Class B	CE, Class B	CE, Class B
	FCC, Class B	FCC, Class B	FCC, Class B
	UL/cUL Listed	UL/cUL Listed	UL/cUL Listed






## FD1 Series mini domes with IR options

The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall mount or ceiling mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

FD1 Series			
			
	<b>FD1-F Series Fixed Lens Models</b>	<b>FD1-IRF Series IR Illumination Fixed Lens Models</b>	<b>FD1-IRV Series IR Illumination Varifocal Lens Models</b>
Image Sensor	Sony 1/3-Inch SuperHAD CCD II™ 960H	Sony 1/3-Inch SuperHAD CCD II 960H	Sony 1/3-Inch SuperHAD CCD II 960H
Signal Processing	NextChip DSP	NextChip DSP	NextChip DSP
Effective Pixels NTSC PAL	768 (H) x 494 (V) 752 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)
Scanning Area	5.59 (H) mm x 4.68 (V) mm (0.22 x 0.18 inch)	5.59 (H) mm x 4.68 (V) mm (0.22 x 0.18 inch)	5.59 (H) mm x 4.68 (V) mm (0.22 x 0.18 inch)
Scanning System NTSC PAL	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace
Scanning Frequency NTSC PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal	Internal	Internal
Horizontal Resolution	540 TVL	540 TVL	540 TVL
Minimum Illumination	f/2.0; 2,850°K; 30 IRE Color 0.2 lux	f/2.0; 2,850°K; 30 IRE Color 0.2 lux Mono (with IR) 0.0 lux	f/1.2; 2,850°K; 30 IRE Color 0.13 lux Mono (with IR) 0.0 lux
IR Cut Filter	Fixed	Dual band OLPF	Dual band OLPF
IR Illumination Distance	—	15 m	20 m
IR Sensitivity	—	>40% at 850 nm, peak response	>40% at 850 nm, peak response
Low Light Technology	—	LEDs	LEDs
Shutter NTSC PAL	Auto 1/60 ~ 1/10,000 sec Auto 1/50 ~ 1/10,000 sec	Auto 1/60 ~ 1/10,000 sec Auto 1/50 ~ 1/10,000 sec	Auto 1/60 ~ 1/10,000 sec Auto 1/50 ~ 1/10,000 sec
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto	Auto	Auto
Signal to Noise Ratio	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Lens	Fixed	Fixed	Varifocal
F-Number	f/2.0	f/2.0	f/1.2
Focal Length	3.6 mm	3.6 mm	3.0 to 9.0 mm, DC AI
Focus Range	∞ to 1.2 m (3.9 ft)	∞ to 1.2 m (3.9 ft)	∞ to 0.5 m (1.6 ft)
Horizontal Angle of View	72° at 3.6 mm	72°	85.3° at 3.0 mm wide zoom; 31.5° at 9.0 mm telephoto zoom
Vertical Angle of View	52° at 3.6 mm	52°	63.8° at 3.0 mm wide zoom; 23.7° at 9.0 mm telephoto zoom
Adjusting Angle Panning	±180°	±180°	±180°
Range Tilting Range	+80° to 0°	+55° to 0°	+55° to 0°
Rotation Range	0°	±180°	±180°
Noise Reduction	2D	2D	2D

## FD2 Series mini domes with IR options




The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall mount or ceiling mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

FD2 Series					
					
	<b>FD2-F Series Fixed Lens Models</b>	<b>FD2-V Series Varifocal Lens Models</b>	<b>FD2-DV Series True Day/Night Varifocal Lens Models</b>	<b>FD2-IRV Series IR Illumination Varifocal Lens Models</b>	<b>FD2-DWV Series True Day/Night, WDR, DSS Varifocal Lens Models</b>
Image Sensor	Sony® 1/3-Inch EXview HAD CCD II™ 960H	Sony 1/3-Inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H
Signal Processing	Sony DSP, Effio-E™	Sony DSP, Effio-E	Sony DSP, Effio-E	Sony DSP, Effio-E	Sony DSP, Effio-P
Effective Pixels NTSC PAL	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)
Scanning Area	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)"	6.0 (H) mm x 5.0 (V) mm (0.24 x 0.20 inch)
Scanning System NTSC PAL	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace
Scanning Frequency NTSC PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal	Internal	Internal	Internal	Internal
Horizontal Resolution	650 TVL	650 TVL	650 TVL	650 TVL	650 TVL
Minimum Illumination	f/2.0; 2,850°K; 30 IRE Color 0.2 lux	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono 0.05 lux	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono 0.04 lux	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono (with IR) 0.0 lux	f/1.2; 2,850°K; 30 IRE Color (20 ms for PAL or 17 ms for NTSC) 0.13 lux Color (500 ms) 0.03 lux Mono (20 ms for PAL or 17 ms for NTSC) 0.05 lux Mono (500 ms) 0.00004 lux
IR Cut Filter	Fixed	Fixed	Yes, D/N switch	Yes, D/N switch	Yes, D/N switch
Dynamic Range	Gamma selectable (ATR)	Gamma selectable (ATR)	Gamma selectable (ATR)	Gamma selectable (ATR)	120 dB Dual-scan WDR
IR Illumination Distance	—	—	—	25 m	—
IR Sensitivity	—	—	—	>40% at 850 nm, peak response	—
Low Light Technology	Digital day/night	Digital day/night	ICR, digital day/night	ICR and LEDs, digital day/night	ICR, DSS
Shutter	Auto/Manual 1/60 ~ 1/10,000 sec Auto/Manual 1/50 ~ 1/10,000 sec	Auto/Manual 1/60 ~ 1/10,000 sec Auto/Manual 1/50 ~ 1/10,000 sec	Auto/Manual 1/60 ~ 1/10,000 sec Auto/Manual /50 ~ 1/10,000 sec	Auto/Manual 1/60 ~ 1/10,000 sec Auto/Manual 1/50 ~ 1/10,000 sec	Auto/Manual 1/2 ~ 1/10,000 sec Auto 1/1.5 ~ 1/10,000 sec Manual 1/2 ~ 1/10,000 sec
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	ATW/Manual/Push/Push Lock/User1/User2/Anti CR	ATW/Manual/Push/Push Lock/User1/User2/Anti CR	ATW/Manual/Push/Push Lock/User1/User2/Anti CR	ATW/Manual/Push/Push Lock/User1/User2/Anti CR	ATW/Manual/Push/Push Lock/User1/User2/Anti CR
Signal to Noise Ratio	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Lens	Fixed	Varifocal	Varifocal	Varifocal	Varifocal
F-Number	f/2.0	f/1.2	f/1.2	f/1.2	f/1.2
Focal Length	2.8 mm (FD2-F3 Series) 3.6 mm (FD2-F4 Series)	2.8 to 10.5 mm	2.8 to 10.5 mm	2.8 to 10.5 mm	2.8 to 10.5 mm
Focus Range	∞ to 1.2 m (3.9 ft)	∞ to 0.3 m (1 ft)	∞ to 0.3 m (1 ft)	∞ to 0.3 m (1 ft)	∞ to 0.3 m (1 ft)
Horizontal Angle of View	90° at 2.8 mm (FD2-F3 Series) 72° at 3.6 mm (FD2-F4 Series)	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom
Vertical Angle of View	80° at 2.8 mm (FD2-F3 Series) 52° at 3.6 mm (FD2-F4 Series)	73.2° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom	73.7° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom	73.7° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom	73.7° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom
Adjusting Angle Panning Range Tilting Range Rotation Range	±180° +90° to 0° ±180°	±180° +90° to 0° ±180°	±180° +90° to 0° ±180°	±180° +55° to 0° ±180°	±180° +90° to 0° ±180°
Noise Reduction	2D	Included (4 areas)	2D	2D	3D
Motion Detection	Included (4 areas)	Included (8 areas)	Included (4 areas)	Included (4 areas)	Included (4 areas)
Privacy Zones	Included (8 areas)	—	Included (8 areas)	Included (8 areas)	Included (15 sizeable windows)
Digital Zoom	—	—	—	—	Included, 255X
Image Stabilization	—	—	Included	Included	Included
Camera Titles	—	—	Included	Included	Included
Scene Learning/ Analytics	—	—	—	—	Included
Remote Access	—	—	—	—	Coaxitron™ and RS-485
Alarm Out	—	—	1	1	1





## FD5 Series mini domes with IR options



The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall mount or ceiling mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

FD5 Series			
			
	<b>FD5-V Series Varifocal Lens Models*</b>	<b>FD5-DV Series True Day/Night Varifocal Lens Models</b>	<b>FD5-IRV Series IR Illumination Varifocal Lens Models</b>
Image Sensor	Sony 1/3-Inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H	Sony 1/3-Inch EXview HAD CCD II 960H
Signal Processing	Sony DSP, Effio-E™	Sony DSP, Effio-E	Sony DSP, Effio-E
Effective Pixels NTSC PAL	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)	976 (H) x 494 (V) 976 (H) x 582 (V)
Scanning Area	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)	5.58 (H) mm x 4.67 (V) mm (0.22 x 0.18 inch)
Scanning System NTSC PAL	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace	525 lines, 2:1 interlace 625 lines, 2:1 interlace
Scanning Frequency NTSC PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal	Internal	Internal
Horizontal Resolution	650 TVL	650 TVL	650 TVL
Minimum Illumination	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono 0.05 lux	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono 0.04 lux	f/1.2; 2,850°K; 30 IRE Color 0.1 lux Mono 0.0 lux
IR Cut Filter	Fixed	Yes, D/N switch	Yes, D/N switch
Dynamic Range	Gamma selectable (ATR)	Gamma selectable (ATR)	Gamma selectable (ATR)
IR Illumination Distance	—	—	25 m
IR Sensitivity	—	—	>40% at 850 nm, peak response
Low Light Technology	—	ICR	ICR and LEDs
Shutter	1/50 ~ 1/10,000 sec	1/50 ~ 1/10,000 sec	1/50 ~ 1/10,000 sec
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	ATW/Manual/Push/Push Lock/User1/User2/Anti CR	ATW/Manual/Push/Push Lock/User1/User3/Anti CR	ATW/Manual/Push/Push Lock/User1/User4/Anti CR
Signal to Noise Ratio	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)	48 dB (>52 dB by parameter adjustment)
Lens	Varifocal	Varifocal	Varifocal
F-Number	f/1.2	f/1.2	f/1.2
Focal Length	3.0 to 9.0 mm	2.8 to 10.5 mm	2.8 to 10.5 mm
Focus Range	∞ to 0.5 m (1.6 ft)	∞ to 0.3 m (1 ft)	∞ to 0.3 m (1 ft)
Horizontal Angle of View	85.3° at 3.0 mm wide zoom; 31.5° at 9.0 mm telephoto zoom	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom	101.8° at 2.8 mm wide zoom; 27.4° at 10.5 mm telephoto zoom
Vertical Angle of View	63.8° at 3.0 mm wide zoom; 23.7° at 9.0 mm telephoto zoom	73.7° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom	73.7° at 2.8 mm wide zoom; 20.6° at 10.5 mm telephoto zoom
Adjusting Angle Panning Range Tilting Range Rotation Range	±180° +90° to 0° ±180°	±180° +90° to 0° ±180°	±180° +55° to 0° ±180°
Noise Reduction	2D	2D	2D
Motion Detection	Included (4 areas)	Included (4 areas)	Included (4 areas)
Privacy Zones	Included (8 zones)	Included (8 zones)	Included (8 zones)
Camera Titles	—	Included	Included
Alarm Out	—	1	1

## LCD monitors

Pelco offers a complete array of viewing solutions to deliver the best image in the industry. Backed by a three-year warranty, Pelco viewing solutions offer rigorous construction and optimized thermal management, to ensure the reliability and long-life operation that video security professionals demand.

	300 Series desktop	400 Series desktop
	<div></div> <p>PMCL317B and PMCL319BL</p>	<div></div> <p>PMCL417HB and PMCL419HB</p>
GENERAL		
Native Resolution	1280x1024	1280x1024
Brightness	300 nit	450 nit
Contrast Ratio	1000:1	1000:4
Response Time	5 ms	5 ms
Panel Life	50K Hours	50K Hours
Viewing Angle	160/160	160/160
Aspect Ratio	5:4	5:4
ELECTRICAL		
Power Consumption	<50 W	<50 W
Input Voltage	100 to 240 VAC, 50/60 Hz	100 to 240 VAC, 50/60 Hz
Video Input	1 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI	2 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI
ENVIRONMENTAL		
Operating Temperature	0 – 40 °C	0 – 40 °C
Operating Humidity	20% - 80% Non Condensing	20% - 80% Non Condensing
PHYSICAL		
Unit Weight	10.8 lbs (17"), 12.6 lbs (19")	10.8 lbs (17"), 12.6 lbs (19")
Shipping Weight	16 lbs (17"), 18 lbs (19")	16 lbs (17") 18 lbs (19")
RECOMMENDED MOUNTS		
Wall Mount	PMCL-WM, PMCL-WMT, PMCL-WM1A,	PMCL-WM, PMCL-WMT, PMCL-WM1A,
Ceiling Mount	PMCL-CM, PMCL-CMP	PMCL-CM, PMCL-CMP
Rack Mount	PMCL-17ARM, PMCL-19ARM	PMCL-17ARM, PMCL-19ARM
Certifications	CE, Class B, FCC, Class B, UL/cUL Listed, C-Tick, S-Mark, CCC	CE, Class B, FCC, Class B, UL/cUL Listed, C-Tick, S-Mark, CCC
Warranty	3 Years	3 Years

500 Series desktop		500 Series large format	
<div></div> <div>PMCL524FL and PMCL532F</div>		<div></div> <div>PMCL42NB, PMCL46NB and PMCL55NB</div>	
GENERAL			
Native Resolution	1920x1080	1920x1080	
Brightness	250 nit (24") and 450 nit (32")	700 nit	
Contrast Ratio	1000:1 (24") and 5000:1 (32")	3500:1 (42"), 3000:1 (47"), 5000:1 (52")	
Response Time	5 ms (24") and 8 ms (32")	8 ms (42"), 8 ms (47"), 8 ms (52")	
Panel Life	50K Hours	50K Hours	
Viewing Angle	160/160 (24") and 178/178 (32")	178/178	
Aspect Ratio	16:9	16:9	
ELECTRICAL			
Power Consumption	<33 W (24"), <100 W (32")	<261 W (42"), <251 W (47"), <356 W (52")	
Input Voltage	100 to 240 VAC, 50/60 Hz	100 to 240 VAC, 50/60 Hz	
Video Input	1 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI: 1 HDMI	2 HDMI , 1 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI: 1 Component	
ENVIRONMENTAL			
Operating Temperature	0 – 40 °C	0 – 40 °C	
Operating Humidity	20% - 80% Non Condensing	20% - 80% Non Condensing	
PHYSICAL			
Unit Weight	18.7 lbs. (24"), 37.5 lbs. (32")	59 lbs (42"), 64 lbs (47"), 99 lbs (52")	
Shipping Weight	26 lbs (24"), 45 lbs (32")	68 lbs (42"), 84 lbs (47"), 123 lbs (52")	
RECOMMENDED MOUNTS			
Wall Mount	PMCL-WM, PMCL-WMT, PMCL-WM1A	PMCL-WMTF (Tilt), PMCL-WMF (Fixed)	
Ceiling Mount	PMCL-CM, PMCL-CMP	PMCL-CM, PMCL-CMP	
Rack Mount	NA	NA	
Certifications	CE, Class B, FCC, Class B, UL/cUL Listed, C-Tick, S-Mark, CCC, GOST-R, NOM, Energy Star Level 5 Compliant	CE, Class A, FCC, Class A, UL/cUL Listed, C-Tick, CCC	
Warranty	3 Years	3 Years	

## Digital video recorders

DX Series DVRs are the ideal choice for affordable, efficient entry into full-featured video storage management. With support for four to 16 analog cameras, 120 to 480 IPS, and storage from 250 GB to 8 TB, these systems are designed for easy use out of the box. Customers can connect Pelco DVRs and HVRs by using DS Control Point or the new DX Series client.

	DX4100	DX4700	DX4800
			
<b>GENERAL</b>			
Analog Camera Inputs	4	8, 16	8, 16
Looping	Yes	Yes	Yes
IP Camera Inputs	None	2 Megapixel	2 Megapixel
Maximum Record Rate CIF	120 ips NTSC, 100 ips PAL	480 ips NTSC, 400 ips PAL	480 ips NTSC, 400 ips PAL
Maximum Record Rate 2CIF	60 ips NTSC, 50 ips PAL	240 ips NTSC, 200 ips PAL	480 ips NTSC, 400 ips PAL
Maximum Record Rate D1/4CIF	30 ips NTSC, 25 ips PAL (4CIF)	120 ips NTSC, 96 ips PAL (4CIF)	480 ips NTSC, 400 ips PAL (4CIF)
Compression Technology	H.264	H.264	H.264
Operating System	Embedded Linux	Embedded Linux	Embedded Linux
Hard Drive Options, Internal	250 GB - 2 TB, 1TB with ODD	250 GB - 8 TB	250 GB - 8 TB
Storage Optimization	Yes (Partitioning)	Yes (Partitioning)	Yes (Partitioning)
Hard Drive Options, External	No	No	No
External Storage Options	No	Yes - USB for backup	Yes - USB for backup
Optical Disk Drive	None	DVDRW	DVDRW
RAID Storage	No	No	No
Alarm Inputs/Relay Outputs	4/1	8 or 16/4	8 or 16/4
Audio Inputs/Outputs	4/1	2 or 4/2	4/2
Audio Listen Capabilities	None	Bidirectional	Bidirectional
PTZ Control	RS-422	Coaxitron, RS-422	Coaxitron, RS-422
Third Party Dome Protocols	Yes	Yes	Yes
Front Panel Controls	Yes	Yes	Yes
Keyboard / Mouse Included	No / Yes	No / Yes	No / Yes
IR Remote Control	Yes	Yes	Yes
Optional Analog KBD Support	No	Yes	Yes
Multicasting	No	No	No
Multilingual Support	Yes	Yes	Yes
System Compatibility	DX Series Client, DS ControlPoint	DX Series Client, DS ControlPoint	DX Series Client, DS ControlPoint
Certification Required	No	No	No
<b>DISPLAY OPTIONS</b>			
Monitor Outputs	1 Main - VGA or BNC switch-selectable; 1 Spot BNC, Single channel view	1 Main - VGA or BNC; Composite	1 Main - VGA or BNC; Composite
Camera Display	1, 4	1, 4, 6, 8, 9, 16	1, 4, 6, 8, 9, 16
Digital Zoom Live / Playback	No / No	No / Yes	No / Yes
<b>FUNCTION</b>			
Alarm, Motion, Continuous, Scheduled Recording Modes	Yes	Yes	Yes
Increased Record Rate on Alarm/Motion ("Bump on Alarm")	Yes	Yes	Yes
Pre Alarm / Post Alarm	Off, 5, 10, 20, 30, 40, 50, 60 Sec / 10, 20, 30, 40, 50 Sec, 1, 2, 3, 5, 10 Min	1 Minute / 10 Minutes	1 Minute / 10 Minutes
Optional ATM/POS Support	Via API Integration	Via RS232 connect and text overlays; or via API Integration	Via RS232 connect and text overlays; or via API Integration
<b>REMOTE</b>			
PC Remote Client	Yes	Yes	Yes
View Live	Yes	Yes	Yes
Playback	Yes	Yes	Yes
E mail on Alarm	Yes	Yes	Yes
PTZ Control	Yes	Yes	Yes
Remote Administration	Yes	Yes	Yes
Emergency Agent	Yes	Yes	Yes
Web Browser	Live View	Live View	Live View
Windows Support	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)

## Hybrid video recorders

DX hybrid video recorders meet the demands of customers migrating to IP video while leveraging their existing analog video surveillance infrastructure. With support for eight to 32 analog cameras, plus eight IP megapixel cameras (DX4700HD/DX4800HD), and storage from 250 GB to 8 TB, these easy-to-use systems are ready to record out of the box.



### GENERAL

Analog Camera Inputs	4	8, 16	8, 16
Looping	Yes	Yes	Yes
IP Camera Inputs	None	2 Megapixel	2 Megapixel
Maximum Record Rate CIF	120 ips NTSC, 100 ips PAL	480 ips NTSC, 400 ips PAL	480 ips NTSC, 400 ips PAL
Maximum Record Rate 2CIF	60 ips NTSC, 50 ips PAL	240 ips NTSC, 200 ips PAL	480 ips NTSC, 400 ips PAL
Maximum Record Rate D1/4CIF	30 ips NTSC, 25 ips PAL (4CIF)	120 ips NTSC, 96 ips PAL (4CIF)	480 ips NTSC, 400 ips PAL (4CIF)
Compression Technology	H.264	H.264	H.264
Operating System	Embedded Linux	Embedded Linux	Embedded Linux
Hard Drive Options, Internal	250 GB - 2 TB, 1TB with ODD	250 GB - 8 TB	250 GB - 8 TB
Storage Optimization	Yes (Partitioning)	Yes (Partitioning)	Yes (Partitioning)
Hard Drive Options, External	No	No	No
External Storage Options	No	Yes - USB for backup	Yes - USB for backup
Optical Disk Drive	None	DVDRW	DVDRW
RAID Storage	No	No	No
Alarm Inputs/Relay Outputs	4/1	8 or 16/4	8 or 16/4
Audio Inputs/Outputs	4/1	2 or 4/2	4/2
Audio Listen Capabilities	None	Bidirectional	Bidirectional
PTZ Control	RS-422	Coaxitron, RS-422	Coaxitron, RS-422
Third Party Dome Protocols	Yes	Yes	Yes
Front Panel Controls	Yes	Yes	Yes
Keyboard / Mouse Included	No / Yes	No / Yes	No / Yes
IR Remote Control	Yes	Yes	Yes
Optional Analog KBD Support	No	Yes	Yes
Multicasting	No	No	No
Multilingual Support	Yes	Yes	Yes
System Compatibility	DX Series Client, DS ControlPoint	DX Series Client, DS ControlPoint	DX Series Client, DS ControlPoint
Certification Required	No	No	No

### DISPLAY OPTIONS

Monitor Outputs	1 Main - VGA or BNC switch-selectable; 1 Spot BNC, Single channel view	1 Main - VGA or BNC; Composite	1 Main - VGA or BNC; Composite
Camera Display	1, 4	1, 4, 6, 8, 9, 16	1, 4, 6, 8, 9, 16
Digital Zoom Live / Playback	No / No	No / Yes	No / Yes

### FUNCTION

Alarm, Motion, Continuous, Scheduled Recording Modes	Yes	Yes	Yes
Increased Record Rate on Alarm/Motion ("Bump on Alarm")	Yes	Yes	Yes
Pre Alarm / Post Alarm	Off, 5, 10, 20, 30, 40, 50, 60 Sec / 10, 20, 30, 40, 50 Sec, 1, 2, 3, 5, 10 Min	1 Minute / 10 Minutes	1 Minute / 10 Minutes
Optional ATM/POS Support	Via API Integration	Via RS232 connect and text overlays; or via API Integration	Via RS232 connect and text overlays; or via API Integration

### REMOTE

PC Remote Client	Yes	Yes	Yes
View Live	Yes	Yes	Yes
Playback	Yes	Yes	Yes
E mail on Alarm	Yes	Yes	Yes
PTZ Control	Yes	Yes	Yes
Remote Administration	Yes	Yes	Yes
Emergency Agent	Yes	Yes	Yes
Web Browser	Live View	Live View	Live View
Windows Support	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)	Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client)





From standalone DVRs with a few cameras for small installations to large matrix systems with thousands of cameras, Pelco video security systems protect people and property in a million places around the world.



## IP video management solutions

With full-featured DSNVs video management software, a robust DSSRV network video recorder (NVR), analog camera support via optional direct-attached or network video encoders, multi-site monitoring, and support for third-party IP cameras, Digital Sentry is a flexible VMS for mainstream security applications.

### DSSRV



#### GENERAL

Analog Camera Inputs	18 BNC connections per each optional ENC5416. Max 64 per DSSRV system
Looping	16 auto terminating per ENC5416
IP Video Inputs	Up to 128 *
Maximum Inputs	128
Number of included IP licenses	8 Included. Additional license fee may apply
Megapixel Support	Up to 10 Mpx
Maximum Record Rate CIF	D1 480 NTS/400 IPS PAL
Maximum Record Rate 2CIF	D1 480 NTS/400 IPS PAL
Maximum Record Rate D1/4CIF	D1 480 NTS/400 IPS PAL
Compression Technology	H.264 Main Profile
Operating System	Windows 7 Ultimate
Processor	i7 2nd Generation, Quad-Core
Graphics	Intel® embedded HD graphics
Memory	8 GB
Hard Drive Options, Internal	500 GB, 3, 6, 9, 12, 15, 18 TB (to 12 TB with ODD)
Storage Optimization	Archive Utility
Hard Drive Options, External	DX8100HDDI SCSI, USB, or NAS
Third Party External Storage	USB or NAS
Optical Disk Drive	DVD+/-RW with DSSRV-DVD models
RAID Storage	Optional with RAID5 Controller add-on or RAID5 model
Alarm Inputs / Relay Outputs	Pelco Analytics for IP Alarm Inputs; see ENC5416 for analog alarms in/relays out
Audio Inputs / Outputs	Supports Sarix IP Audio; See ENC5416 for analog audio recording
PTZ Control	IP and Analog supported
Third Party Dome Protocols	IP and Analog supported
Front Panel Display	Digital Sentry System Information (DSSI) LEDs
Keyboard / Mouse Included	Yes / Yes
Optional Analog KBD Support	Yes (KBD5000)
Multicasting	No
Multilingual Support	Yes
System Compatibility	DS ControlPoint to DS and DX Systems
Certification Required	No

#### DISPLAY OPTIONS

Monitor Outputs	Any 2 outputs of 2 DVI-D or 1 VGA
Camera Views	22 Layouts, from 1 to 36 cameras
Digital Zoom Live / Playback	Yes

#### FUNCTION

Alarm, Motion, Continuous, Scheduled Recording Modes	Yes
Increased Record Rate on Alarm/Motion ("Bump on Alarm")	Yes
Pre Alarm / Post Alarm	5 Minutes / 16 Minutes
Optional ATM/POS Support	Through API integration
Video Analytics	Pelco Analytics with DS NVs < 7.3.54

#### EMOTE CLIENT

PC Remote Client	Yes
View Live	Yes
Playback	Yes
E mail on Alarm	Yes
PTZ Control	Yes
Remote Administration	Yes
Mobile Client	Yes
Emergency Agent	No
Web Browser	No
Windows Support	Windows 7, Windows Vista, Windows Server® 2003/2008

\* Dependent on camera settings

## Software-only VMS solution

This software-only solution is ideal when the preference is for corporate hardware, maximizing existing purchase, and support agreements. Support for ONVIF and a wide range of third-party IP cameras and encoders make Digital Sentry a flexible VMS solution for mainstream security applications.

### DSNVs



#### GENERAL

Maximum IP Video Inputs	Up to 128 *
3rd Party Camera Supported	IP Drivers and ONVIF **
Camera License Fees Apply	4 Included. Additional license fee applies
Base License Fee Applies	None
Annual Maintenance Fees	None
Megapixel Support	Up to 10 Mpx
Maximum # of Clients	No hard specifications. Dependent on system resources and bandwidth availability.
H.264 Support	✓
MPEG 4 Support	✓
MJPEG Support	✓
Quick Setup	✓
Export Formats	H.264, MPEG-4, MPEG, JPEG, AVI, Native DB
Multiple Viewing Panes via Monitor Tear Off Tabs	✓
Alarm pop up notifications	✓
Search Tools	Date/Time/Events/Motion/Scrub Bar/ Pelco Analytic Alarms, Thumbnail
Analytics Support	Pelco Analytics with DS NVs 7.3.54 and above
Archive Video Recording	Via Archive Utility
3rd Party Integrations	Via Pelco API
Certification Required	No
Compatibility via ControlPoint	DS systems including legacy DVX Master Control Series, Pelco DX 4100, 45/4600, 47/4800, DX8000/8100
Operating Systems	Windows 7, Windows Vista, Windows XP, Server 2003, 2008

\* 128 is the database limitation. Actual number is dependent on hardware specifications and camera settings

\*\* See Document C1024RN-x "DS Compatibility Release Notes" on [www.pelco.com](http://www.pelco.com)

### DSSRV Options






ENC5416 analog encoder

#### GENERAL

Video Resolutions	D1 4CIF, 2CIF, CIF, QCIF
Frame Rate	D1 480 NTSC / 400 PAL, scalable
Alarm Inputs	16 per ENC5416, 64 maximum per DSSRV
Relay Outputs	4 per ENC5416, 16 maximum per DSSRV
Audio Inputs	16 per ENC5416, 64 maximum per DSSRV
Compression Format 5416	H.264 Main Profile
Analog Output	4 BNC connectors for Spot monitor
PTZ Control Interface	2 RS-422, RS-485
PTZ Protocols	Pelco D and third-party
Rackmount	2 mounting brackets included

## Systems and controllers

Pelco CM6700 and CM6800 Series matrix switchers offer an ideal analog matrix switching solution for 16 to 96 cameras, bringing large-matrix performance in reach of smaller installations.

Matrix switcher/controller			
			
CM6700 Series		CM6800 Series	
		CM6800E Series	
GENERAL			
Video Inputs	16	32	40
Video Outputs	4	6	8
Switching Time	16 ms	16 ms	16 ms
Keyboard Capacity	8	10	18
Receiver/Dome Control	Coaxitron and RS-422	Coaxitron and RS-422	Coaxitron and RS-422
Alarm Inputs	18, programmable	8, programmable; 128, via Alarm Interface Units, Providing a total of 136 possible	[CM6800E-48X8] 8, programmable; [96 x 16 System External] 16 total (8, programmable, 4 via Alarm Interface Units)
Alarm Relay Outputs	One, DPST	One, SPDT	
Rating	0.5 amp at 125 VAC	0.5 amp at 125 VAC, 1 amp at 30 VDC, 60 milliohms contact resistance	2; 0.5 amp at 125 VAC, 1 amp at 30 VDC, 60 milliohms contact resistance;
Open Collector Outputs	2, TTL; 32 VDC max, 25 mA max	1; 15 VDC max, 25 mA max	1; 15 VDC max, 25 mA max
General Purpose Outputs	None	2 Relay Interface Units	4 Relay Interface Units
Communication Ports	Two	6 total (5 data, 1 PTZ control, 1 data powered for keyboards)	10 total (8 data, 2 PTZ control; 2 data powered for keyboards)
Ambient Operating Temperature	20 to 120 °F (-7 to 49 °C)	20 to 120 °F (-7 to 49 °C)	20 to 120 °F (-7 to 49 °C)
Multi-Language Menus	Yes	Yes	Yes
Windows Based Manager Software	Yes	Yes	Yes
ELECTRICAL			
Power Source	120 V or 230 V, 50/60 Hz	120 VAC or 230 VAC, 50/60 Hz, auto-ranging	120 VAC or 230 VAC, 50/60 Hz, auto-ranging
Power Consumption	10 W	25 W	[CM6800E-48X8] 25 W; [96 x 16 System] 50 W
VIDEO			
Bandwidth	15 MHz	15 MHz	16 MHz
Signal to Noise Ratio	-60 dB (peak-to-peak vs. RMS noise)	-44.26 dB (peak-to-peak vs. RMS noise)	-44.26 dB (peak-to-peak vs. RMS noise)
Adjacent Channel Crosstalk	-49.6 dB at 3.58 MHz	-56.47 dB at 3.58 MHz	-56.47 dB at 3.58 MHz
Differential Gain / Phase	1.03% / 1.02°	0.11% / 0.06°	0.11% / 0.06°
Differential Phase	N/A	N/A	N/A
Line Tilt / Field Tilt	0.6% / 1.2%	0.2% / 0.56%	0.2% / 0.56%
MECHANICAL			
Dimensions			
Switcher / Matrix Bay	3.5" H x 17" W x 10.5" D (8.89 x 43.18 x 26.67 cm)	12.25" D x 17.40" W x 5.25" H (31.12 x 44.20 x 13.34 cm)	12.25" D x 17.40" W x 5.25" H (31.12 x 44.20 x 13.34 cm)
Rack Mountable	Yes (2 RU)	Yes (3 RU)	Yes (3 RU)
CERTIFICATIONS/RATINGS			
	CE compliant; UL/cUL Listed; FCC, Class A; Meets NEMA Type 1 standards	CE, Class B; UL/cUL Listed; FCC, Class B	CE, Class B; CE, Class A; FCC, Class B; FCC, Class A; UL/cUL Listed

## Systems and controllers

Pelco matrix switchers offer unmatched analog switching performance for the largest installations, with support for thousands of cameras and hundreds of monitors. Expanded monitor capacity in the matrix bay allows implementation of larger systems with a smaller footprint (less hardware) than other matrix systems.

Matrix system		
		
CM9765 Series	CM9770 Series	CM9780 Series

### CENTRAL PROCESSING UNIT

ELECTRIC			
Input Voltage	120 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging	120 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging	121 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging
Power Consumption	57 W	57 W	57 W
Diagnostic Monitor Output	1 VGA	1 VGA	1 VGA
I/O Port	16 RS-422 ports (expandable to 120); 2 RS-232 ports	16 RS-422 ports (expandable to 32); total system capability is 120 ports / 2 RS-232 ports / 1 parallel printer port / 1 VGA output port / 2 PC-AT compatible keyboard ports	16 RS-422 ports (expandable to 32); total system capability is 120 ports / 2 RS-232 ports / 1 parallel printer port / 1 VGA output port / 2 PC-AT compatible keyboard ports

GENERAL			
Operating Temperature	32 to 120 °F (0 to 49 °C)	32 to 120 °F (0 to 49 °C)	32 to 120 °F (0 to 49 °C)
Rack Mountable	Yes	Yes	Yes

CERTIFICATIONS			
	CE, Class A; FCC, Class A; UL/cUL Listed	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick

### SWITCHER / MATRIX SWITCHING BAY

GENERAL			
Video Inputs	2,048 (up to 256 inputs per bay)	2,048 (up to 256 inputs per bay)	4,096 (up to 512 inputs per bay)
Video Outputs	512 (up to 16 outputs per bay)	512 (up to 32 outputs per bay)	512 (up to 32 outputs per bay)
Switching Time	16 ms	16 ms	16 ms
Ambient Operating Temperature	32 to 122 °F (0 to 50 °C), Non Condensing	32 to 122 °F (0 to 50 °C), Non Condensing	32 to 122 °F (0 to 50 °C), Non Condensing
Multi-Language Menus	Yes	Yes	Yes
Windows Based Manager Software	Yes	Yes	Yes
Macro Programming	Yes	Yes	Yes
Video Loss Detection Included	Yes	Yes	Yes

ELECTRICAL			
Power Source	100 to 240 VAC, 50/60 Hz, autoranging	100 to 240 VAC, 50/60 Hz, autoranging	100 to 240 VAC, 50/60 Hz, autoranging
Power Consumption	60 W maximum (fully populated)	60 W maximum (fully populated)	60 W maximum (fully populated)




VIDEO			
Bandwidth	15 MHz	15 MHz	15 MHz
Signal to Noise Ratio	-70.5 dB	-70.5 dB	-70.5 dB
Adjacent Channel Crosstalk	-60.9 dB at 3.58 MHz	-60.9 dB at 3.58 MHz	-60.9 dB at 3.58 MHz
Differential Gain / Phase	0.51%	0.51%	0.51%
Differential Phase	0.38°	0.38°	0.38°
Line Tilt / Field Tilt	0.40% / 0.59%	0.40% / 0.59%	0.40% / 0.59%

MECHANICAL			
Dimensions			
Switcher / Matrix Bay	21.70" D x 19.00" W x 10.50" H (55.10 x 48.26 x 26.67 cm)	21.70" D x 19.00" W x 10.50" H (55.10 x 48.26 x 26.67 cm)	21.70" D x 19.00" W x 10.50" H (55.10 x 48.26 x 26.67 cm)
Mounting Baffle	24.00" D x 19.00" W x 1.75" H (60.96 x 48.26 x 4.45 cm)	24.00" D x 19.00" W x 1.75" H (60.96 x 48.26 x 4.45 cm)	24.00" D x 19.00" W x 1.75" H (60.96 x 48.26 x 4.45 cm)
CM9700 VPP	N/A	N/A	6.00" D x 19.00" W x 1.07" H (15.24 x 48.26 x 2.72 cm)
CM9700 VPP RK	N/A	N/A	14.12" D x 19.00" W x 13.96" H (35.86 x 48.26 x 35.46 cm)
Rack Mountable	Yes (matrix bay: 6 RUs; mounting baffle: 1RU)	Yes (matrix bay: 6 RUs; mounting baffle: 1RU)	Yes (matrix bay: 6 RUs; mounting baffle: 1RU)

CERTIFICATIONS/RATINGS			
	CE, Class A; FCC, Class A; UL/cUL Listed	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick

## Video transmission solutions

Today's security professionals are challenged by an ever increasing number of installations beyond the reach of standard coaxial transmission capabilities. PelcoFiber technology meets these demands by utilizing the best transmission quality available over extended distances to provide a full line of video, data, and audio communications.

	Data	Video	Video and data
			
	<b>FTD1/FRD1 Series; FTD4/FRD4 Series</b>	<b>FTV10 Series; FRV20 Series; FTV40/FRV40 Series; FTV80/FRV80 Series; FTV160/FRV160 Series; FTV320/FRV320 Series</b>	<b>FTV40D2/FRV40D2 Series; FTV80D2/FRV80D2 Series</b>
<b>DATA</b>			
Number of Channels	1, 4	None	2
Data Communication	Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase	None	Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase
<b>VIDEO</b>			
Number of Channels	None	1, 2, 4, 8, 16, or 32	4, 8
Video Encoding	None	10-bit	10-bit
Video Input / Output	None	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM / >1.5 Vp-p	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM / >1.5 Vp-p
Bandwidth	None	5 to 10 MHz (1, 2, 4, and 8 CH); 10 to 6.5 MHz per CH (16 and 32 CH)	10 to 6.5 MHz per CH (4 CH)
Differential Gain / Phase / Tilt	None	<2% / <0.7° / <1%	<2% / <0.7° / <1%
Signal to Noise Ratio	None	>67 dB typical at maximum optical loss	>67 dB typical at maximum optical loss
<b>AUDIO</b>			
Number of Channels	None	None	None
Audio Input / Output	None	None	None
Bandwidth	None	None	None
Total Harmonic Distortion	None	None	None
Signal to Noise Ratio	None	None	None
<b>CONTACT CLOSURE</b>			
Number of Channels	None	None	1 (Bidirectional)
CC Input / Output	None	None	Dry / SPST relay, 0.5 contact rating
<b>GENERAL</b>			
Operating Temperature	-40 to 75 °C (-40 to 167 °F)	-40 to 75 °C (-40 to 167 °F)	-40 to 75 °C (-40 to 167 °F)
Power	8 to 15 VDC @ 2W (1 CH); 8 to 15 VDC @ 4W (4 CH);	8 to 15 VDC @ 2W (1 CH); 8 to 15 VDC @ 4W (2 CH, 8 CH); 8 to 15 VDC @ 3W (4 CH); 90 to 264 VAC @ 70 W max (16 and 32 CH)	8 to 15 VDC @ 4W (4 CH)
LED Indicators	Yes, for all critical operating parameters	Yes, for all critical operating parameters	Yes, for all critical operating parameters
Optical Emitter	Laser Diode	Laser Diode	Laser Diode
Wavelength	1310 nm/1550 nm	1310 nm / 1310 nm	1310 nm / 1310 nm
Optical Power Budget (MM / SM)	16 dB / 23 dB	12 dB / 26 dB (1 CH); 16 dB / 23 dB (2 CH, 4 CH); 16 dB / 16dB (8 CH); 18 dB (16 and 32 CH)	16 dB / 23 dB
Multimode Fiber Support Distances	4 km (1 CH); 3 km (4 CH)	4 km (1 CH); 3 km (2 CH, 8 CH); 2 km (4 CH)	2 km
Single Mode Fiber Support Distances	69 km	54 km (1 CH); 48 km (2 CH, 8 CH); 69 km (4 CH); 54 km (16 and 32 CH)	69 km
Standalone / Rack Mountable	Yes / Yes	Yes / Yes (not applicable for 16 and 32 CH)	Yes / Yes
Number of Fibers	1	1, 2 (2 CH Rx only)	1
Number of Rack Slots	1 slot (1 CH); 2 slots (4 CH)	1 slot (1 CH, 4 CH); 2 slots (2 CH, 8 CH)	2 slot (4 CH); 3 slot (8 CH)
<b>CONNECTORS</b>			
Optical	1 slot (1 CH); 2 slots (4 CH)	ST (MM and SM), FC (SM)	ST (MM and SM), FC (SM)
Video	None	BNC (gold-plated center pin)	BNC (gold-plated center pin)
Power	Terminal block	Terminal block	Terminal block
Data	Terminal block	None	Terminal block
Contact Closure / Alarm	None	None	Terminal block
Audio	None	None	None
<b>CERTIFICATIONS</b>			
	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick; Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards*	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick; Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick; Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards*

\* Conformal coating is required for operation in environments with relative humidity above 95% (condensing).

## Video transmission solutions

### Video, data and audio



FTV10D1A2/FRV10D1A2 Series

#### DATA

Number of Channels	1
Data Communication	Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase

#### VIDEO

Number of Channels	1
Video Encoding	10-bit
Video Input / Output	1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM / >1.5 Vp-p
Bandwidth	10 to 6.5 MHz per CH (4 CH)
Differential Gain / Phase / Tilt	<2% / <0.7° / <1%
Signal to Noise Ratio	>67 dB typical at maximum optical loss

#### AUDIO

Number of Channels	2 (Bidirectional)
Audio Input / Output	Max. 4.4 Vp-p (+6 dBm)
Bandwidth	20 Hz to 18 kHz
Total Harmonic Distortion	0.02%
Signal to Noise Ratio	85 dB (typical)

#### CONTACT CLOSURE

Number of Channels	1 (Bidirectional)
CC Input / Output	Dry / SPST relay, 0.5 contact rating

#### GENERAL

Operating Temperature	-40 to 75 °C (-40 to 167 °F)
Power	8 to 15 VDC @ 4W (4 CH)
LED Indicators	Yes, for all critical operating parameters
Optical Emitter	Laser Diode
Wavelength	1310 nm / 1550 nm
Optical Power Budget (MM / SM)	16 dB / 16 dB
Multimode Fiber Support Distances	4 km
Single Mode Fiber Support Distances	48 km
Standalone / Rack Mountable	Yes / Yes
Number of Fibers	1
Number of Rack Slots	2

#### CONNECTORS

Optical	ST (MM and SM), FC (SM)
Video	BNC (gold-plated center pin)
Power	Terminal block
Data	Terminal block
Contact Closure / Alarm	Terminal block
Audio	Terminal block

#### CERTIFICATIONS

	CE, Class A; FCC, Class A; UL/cUL Listed; C-Tick; Designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards*
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\* Conformal coating is required for operation in environments with relative humidity above 95% (condensing).

## Network video encoders

This family of H.264 network video encoders provide high performance, single- to multi-channel video encoding, integrating analog cameras and positioning systems into an IP video surveillance system.

### NET5400 encoder



NET5401, NET5402, NET5404

Video Resolutions	4CIF, 2CIF, CIF, QCIF
Frame Rate	25/30fps at 4CIF maximum, scalable
Motion Detection	Yes
Image Stabilization	Analytic
Warranty	3 Years
Alarm Inputs	3
Relay Outputs	1
Onboard Memory	User Supplied Micro SD
Operating Temperature Range	Minimum of 32°F (0 °C), Maximum 122°F (50 °C)
Compression Formats	MPEG-4, M-JPEG, H.264
Data Rate	20 Kbps - 6 Mbps (2 Mbps per stream X 3)
Video Streams	3
Audio	Two-way, full or half duplex
Analog Data Formats	No
Analog Output	Looping on single and dual channel
Network Protocols	TCP/IP, UDP/IP (Unicast, multicast IGMP), UPnP, DNS, DHCP, RTP, NTP
Encryption	Yes
Latency	117 ms - MPEG-4
Web Browser Access	Pelco Device Utility -Requires JRE
Open Architecture	Yes - API Available
Users	10 Simultaneous, unlimited using multicast
POE	IEEE 802.3af class 3 on single channel
Power	18-30 VAC, 24 VAC nominal; 0.75 A, 50/60 Hz nominal
Pelco System Compatibility	DVR5100, DX8100, Endura, DS
Model Numbers	NET5401, NET5402, NET5404



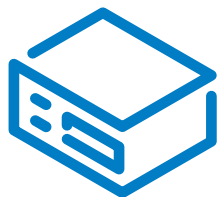
# End-to-end video security

To complete your solution, Pelco by Schneider Electric produces the industry's broadest and most respected offering of IP and analog video security systems. From megapixel and integrated positioning systems to video management and software-only solutions, Pelco is committed to providing complete, end-to-end solutions backed by the most comprehensive customer support in the video security industry.

Coming together as one, Pelco and Schneider Electric offer a unique ability to provide customers with an unmatched combination of integrated security and overall building management solutions that let you control your entire security landscape across enterprises, from a single user interface.



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Manage.



Display.



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For more information, please visit [www.pelco.com](http://www.pelco.com) or call (800) 289-9100 (United States and Canada) or +1 (559) 292-1981 (international). For pricing information or to purchase Pelco products, please contact your manufacturer's representative or the Pelco office in your area.

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