

# Esprit Anti-Corrosion Bispectral



Compliant with NDA 2019  
Section 889

## Reveal hidden threats with a dual camera for corrosive applications

Securing rugged environments means accounting for intense snowfall, to harsh corrosion and challenging lighting conditions. The Esprit Anti-Corrosion Bispectral PTZ is a corrosion-resistant camera that combines visual and thermal imaging into a single device to enhance operational awareness. The thermal camera can accurately detect a target in most environmental conditions, while the visual camera achieves greater recognition and identification. Designed with heavy-duty stainless steel, the Esprit Anti-Corrosion Bispectral PTZ is made for rugged environments and offers maximum resistance against corrosion, making it an ideal choice for cargo ships, ports, roadways and other highly corrosive industries.

2 MP

QVGA

VGA



## Features

### VISUAL CAMERA

Get clear images in most weather and lighting conditions with 2 MP resolution, LowLight Technology and True Wide Dynamic Range. Get a complete picture with the smooth movement of the PTZ and see afar with long-range zoom.

### LLOYD'S REGISTER MARINE

Obtained Lloyd's Register Marine Type Approval for the maritime and shipping sector.

### READY FOR HARSH CONDITIONS

Safe within a wide temperature range, from -40°C to +65°C (-40°F to +149°F), plus IP66/67/68/69 weather rating for maximum durability in tough environments.

### PELCO SMART ANALYTICS

Powered by Motorola Solutions. Make quicker, decisive responses with enhanced object detection and classification and leverage your PTZ's full potential with auto-tracking.

### THERMAL CAMERA

Detect heat signatures from a long distance with various resolutions, including QVGA and VGA, and choose from a variety of field-of-view options to cover wide areas.

### SUPERIOR DETECTION

Never miss a single detail with a camera that provides a thermal and a visual vision for better decision-making and reduced false alarm rates.

### EASY INSTALLATION

Simplify installation and ensure cost-efficiency by installing only one camera instead of two. Take advantage of flexible mounting options to suit your facility's needs, particularly in remote and challenging sites.

### ONVIF® CONFORMANT

ONVIF Profile S, G, T and M conformance for easy integration with leading video management software to maximize existing investments.

**PELCO®**

# Specifications

## Thermal - Image Performance

### QVGA

### VGA

Image Sensor	320 x 256 Uncooled VOx Microbolometer	640 x 512 Uncooled VOx Microbolometer
Dynamic Range	-40°C to 225°C (-40°F to 437°F)[may vary based on operating temperature]	
Image Rate	Up to 30 fps (-1 models up to 8.6 fps)	
Aspect Ratio	5:4	
3D Noise Reduction Filter	Yes	
Pixel Pitch	12µm	
Spectral Range	8µm to 14µm	
Resolution Scaling	320 x 256, can be scaled up to 640 x 512	640 x 512, can be scaled down to 320 x 256
Sensitivity	NETD ≤50 mK (NETD ≤40 mK when the Frame Averager feature is enabled)	
Thermal Palettes	White Hot, Black Hot, Rainbow, RainHC, IronBow, Lava, Artic, GlowBow, GradedFire, Hottest	
Image Uniformity Optimization	Automatic Flat Field Correction (FFC) - Thermal and Temporal	

## Thermal - Lens

### QVGA

### VGA

Lens	6.3 mm	18 mm	8.7 mm	36 mm
Horizontal field of view	34°	12°	50°	12.2°
Vertical field of view	27.2°	9.6°	37.5°	9.8°
F-number	F/1.01	F/1.04	F/1.01	F/1.00
Person (detection / recognition / identification)	131m / 33m / 20m	381m / 95m / 59m	172m / 43m / 26m	761m / 190m / 117m
Car (detection / recognition / identification)	608m / 152m / 94m	1753m / 438m / 270m	867m / 217m / 133m	3506m / 876m / 539m

\*Person - Car detection according to "Johnson Criteria".

## Visible - Image Performance

### 2.0 MP

Image Sensor	1/2.8" progressive scan CMOS	
Active Pixels (H x V)	1937 (H) x 1097 (V)	
Imaging Area (H x V)	5.568 mm (H) x 3.132 mm (V); 0.219 " (H) x 0.123 " (V)	
Minimum Illumination	0.03 lux (F/1.6) in color mode; 0.02 lux (F/1.6) in monochrome	
Dynamic Range	120 dB	
Image Rate	Up to 60 fps	
Aspect Ratio (Resolution Scaling)	Down to (16:9) 384x216 or (5:4) 320x256	
Signal Noise (S/N) Ratio	More than 50 dB	
Lens	4.25 to 170 mm, F/1.6 – F/4.95, autofocus	
Angle of View	Horizontal	66.35° - 1.9°
	Vertical	39.99° - 1.11°
Zoom	Up to 40x	
Digital Zoom	12X	
3D Noise Reduction Filter	Yes	

## Visible - Image Control

## 2.0 MP

Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
Electronic Shutter Control	Automatic, Manual (1/1 to 1/10,000 sec)
Iris Control	Automatic, Open, Closed
Day/Night Control	Automatic, Manual
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	On/Off
Privacy Zones	3D, up to 64 zones
Electronic Image Stabilization	Yes
Digital Defog	Adjustable/Off

## Common - Image Control

Video Compression	H.264 and H.265 Pelco Smart Compression, Motion JPEG
Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
Presets	500 named presets
Tours	10 named tours

## Network

RJ-45 port	Network	10BASE-T/100BASE-T
SFP slot	Network	100BASE-FX
	Supply voltage	3.3V
	Standard	MSA compliant
	Safety requirements	Laser: Class 1, complies with EN60825-1. Certification: UL/IEC 60950-1 or UL/IEC 62368-1
ONVIF	ONVIF compliance Profile G, Profile M, Profile S and Profile T ( <a href="http://www.onvif.org">www.onvif.org</a> )	
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication. Signed and encrypted firmware.	
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv2, ICMP, DHCP, Zeroconf, HSTS, NTCIP	
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP, SRTP	
Device Management Protocols	SNMP v2c, SNMP v3	

## Peripherals

Audio Input/Output	None
External I/O Terminals	1 Alarm In, 1 Alarm Out, 1 Washer pump Out, 1 Remote reset In

## Peripherals

Onboard Storage	MicroSD/microSDHC/microSDXC slot – video speed class card required. Class V10 or better recommended.
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## Mechanical

Accuracy of preset positions	0.02°
Dynamic positioning control system	Yes
Dimensions (Ø×H)	460 mm x 240 mm x 480 mm; 18.1" x 9.5" x 18.9"
Weight	25.7 kg; 56.7 lb
Glass Window	5 mm thick (0.2")
Body	AISI 316L stainless steel
Mounting options	Pendant and pedestal mount
Finish	External surfaces micro-shot peened and electro-polished
Tilt	-90° to +90°, up to 100°/second
Pan	360°, endless, up to 100°/second

## Electrical

Power Consumption	120W max. 35W, P&T static, heating switched off
Power Source	220-230VAC±10%, 0.5Amax, 50/60Hz 120VAC±10%, 1Amax, 50/60Hz 24VAC±10%, 5Amax, 50/60Hz
RTC Battery Backup	None

## Cables

Cable	Unarmoured, multipolar, assembled, black	
Length	3m, 118"	
External Diameter	18.6mm (0.73in) ± 0.35mm (0.01in)	
Minimum Bending Radius	186mm (7.3in)	
Type of Laying	Fixed Installation	
Power cable	Number of Conductors	3
	Section	1.5mm <sup>2</sup> (15AWG)
Shielded I/O Cable	Number of Conductors	8
	Section	0.34mm <sup>2</sup> (22AWG)
Ethernet Cable	External Diameter	6.2mm (0.24in)
	Section	4x2x0.20mm <sup>2</sup> (24AWG)
	Category	5e

## Cables

	Shielding	SF/UTP
Operating Temperature		from -40°C (-40°F) up to +85°C (+185°F)
Compliance	Oil resistant	CNOMO E.03.40.150N, ASTM n.2, IRM 902, IEC60811-2-1
	UV Resistant	UL1581
	Resistance to flame spread	IEC/EN60332-1, IEC/EN 60079-14 (ATEX Ex II)

## Environmental

Operating Temperature		Continuous operation from -40°C to +65°C (-40°F to 149°F)
Storage Temperature		-40 °C to +70 °C (-40 °F to 158 °F)
Humidity		5% - 95% non-condensing
Housing Climate Control		Built-in heater and fan
Cold Start		Up to 135 minute startup delay at temperature lower than -10 °C (14 °F)

## Certifications

Certifications/Directives		UL (24 VAC only), cUL (24 VAC only), KC (220-230 VAC only), CE, UKCA, ROHS, LR, RCM
Safety		UL 62368-1, CSA 62368-1, IEC/EN 62368-1
Environmental and Performance		UL/CSA/IEC 62368-1, IEC 62262 IK10 Impact Rating (enclosure only), IEC 60529 IP66, IP67, IP68, IP69 Weather Rating, IEC 60068-2-1, IEC 60068-2-6, IEC 60068-2-30, IEC 60068-2-14, Type4X (24 VAC only)
Electromagnetic Emissions		FCC Part 15 Subpart B Class A, ICICES-003 Class A, EN 55032 Class A, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1
Electromagnetic Immunity		EN 55035, EN 50130-4
Warranty		3-year limited warranty. 5-year extended warranty is available.
Lloyd's Register Marine Type Approval certification		Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5) Electromagnetic compatibility: EN 60945 (24 VAC requires the accessory filter FM1010 or COMBxxx) Environmental: IEC 60068-2-78 Tested at 70°C (158°F) for 16 hours in compliance with EN60068-2-2

# Analytics Specifications

## Supported Analytics Events\*

Objects in Area	The event is triggered when the selected object type moves into the region of interest.
Object Loitering	The event is triggered when the selected object type moves into the region of interest, then stays for an extended amount of time.
Objects Crossing Beam	The event is triggered when the specified number of objects have crossed the directional beam that is configured over the camera's field of view. The beam can be unidirectional or bidirectional.
Object Appears or Enters Area	The event is triggered by each object that enters the region of interest and can also be used to count objects.
Object Not Present in Area	The event is triggered when no objects are present in the region of interest.
Objects Enter Area	The event is triggered when the specified number of objects have entered the region of interest.
Objects Leave Area	The event is triggered when the specified number of objects have left the region of interest.
Object Stops in Area	The event is triggered when an object moves into a region of interest and then stops moving for the specified threshold time.
Direction Violated	The event is triggered when an object moves in the prohibited direction of travel.
Sabotage Detection	The event is triggered when the scene unexpectedly changes.

\*Pelco Smart Analytics powered by Motorola Solutions.

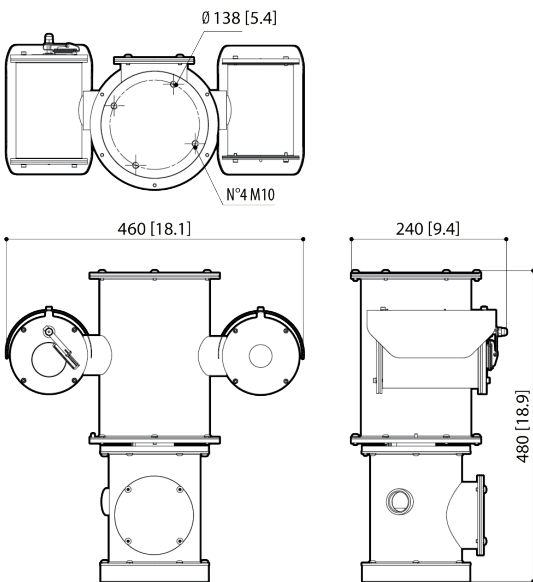
## Pelco Elevate Supported Features

Firmware Management	Schedule and deploy automatic firmware updates to multiple cameras, or update individual cameras on-demand.
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# Outline Dimensions

## Esprit Anti-Corrosion Bispectral Camera

[X.XX]	INCHES
X.X	MM



# Ordering Information

## PTZ CAMERAS

Resolution & Lens	Power	Fps	Part Number
Sensor VGA 640x512; Lens 50°-8.7mm.	220 - 230 Vac	9Hz	EABE1-2X40VF09-SPT0-M2-1
		30Hz	EABE1-2X40VF09-SPT0-M2
	120 Vac	9Hz	EABE1-2X40VF09-SPT0-M1-1
		30Hz	EABE1-2X40VF09-SPT0-M1
	24 Vac	9Hz	EABE1-2X40VF09-SPT0-AC-1
		30Hz	EABE1-2X40VF09-SPT0-AC
Sensor VGA 640x512; Lens 12°-36mm.	220 - 230 Vac	9Hz	EABE1-2X40VF36-SPT0-M2-1
		30Hz	EABE1-2X40VF36-SPT0-M2
	120 Vac	9Hz	EABE1-2X40VF36-SPT0-M1-1
		30Hz	EABE1-2X40VF36-SPT0-M1
	24 Vac	9Hz	EABE1-2X40VF36-SPT0-AC-1
		30Hz	EABE1-2X40VF36-SPT0-AC
Sensor QVGA 320x256; Lens 34°-6.3mm.	220 - 230 Vac	9Hz	EABE1-2X40QF06-SPT0-M2-1
		30Hz	EABE1-2X40QF06-SPT0-M2
	120 Vac	9Hz	EABE1-2X40QF06-SPT0-M1-1
		30Hz	EABE1-2X40QF06-SPT0-M1
	24 Vac	9Hz	EABE1-2X40QF06-SPT0-AC-1
		30Hz	EABE1-2X40QF06-SPT0-AC
Sensor QVGA 320x256; Lens 12°-18mm.	220 - 230 Vac	9Hz	EABE1-2X40QF18-SPT0-M2-1
		30Hz	EABE1-2X40QF18-SPT0-M2
	120 Vac	9Hz	EABE1-2X40QF18-SPT0-M1-1
		30Hz	EABE1-2X40QF18-SPT0-M1
	24 Vac	9Hz	EABE1-2X40QF18-SPT0-AC-1
		30Hz	EABE1-2X40QF18-SPT0-AC

## PTZ CAMERA ACCESSORIES

Accessory	Description
MPXWBA	Wall bracket
MPXWBTA	Parapet or ceiling mounting bracket
MPXCOL	Pole mount adaptor
MPCXW	Corner mount adaptor
WASPT0V5L5M00	Tank 5l IN 230 24 120Vac wash pump 5m
WASPT0V23L11M00	Tank 23l IN 230 24 120Vac wash 11m float
WASPT1V23L30M00	Tank 23l IN 230Vac wash pump 30m float
WASPT3V23L30M00	Tank 23l IN 120Vac wash pump 30m float
COMB100A	Comm box polycarbonate 220-230Vac

Accessory	Description
COMB200A	Comm box polycarbonate 24Vac
COMB300A	Comm box polycarbonate 120-127Vac
WASN1V10L20M00	Tank 10l solenoid 230Vac man pump 30m
WASN2V10L20M00	Tank 10l solenoid 24Vac man pump 30m
WASN3V10L20M00	Tank 10l solenoid 120Vac man pump 30m
FM1010	EMC Filter for Marine Certification
NXPTZSFP	Adaptor for connection of fiber optics.

# Support

Learn more and find additional documentation at [pelco.com](https://pelco.com) or email [support@pelco.com](mailto:support@pelco.com) for specific product support.