ExSite® Enhanced Explosionproof Camera System

HIGH RELIABILITY, FULL HD FIXED IP SYSTEMS

Product Features

- Up to 1920 x 1080p Resolution Wide Dynamic Range (WDR), 30x zoom lens, and Superb Low light Performance
- Dual Stream H.264 IP Video with Smart Compression
- Rated to Operate from -60 to +60° C while in Compliance to T6 Surface Temperature (<85° C) Hazardous Location Regulations
- 316L Billet Stainless Steel Electro Polished Construction
- Standard IP Ethernet Connection and Integrated Transmission Options including Fiber, Ethernet over Coax, and UTP Extension
- Full Suite of Built-In Analytics including Adaptive Motion Detection, Abandoned Object, and More
- Electronic Image Stabilization
- ONVIF Profiles S, G, and Q Conformant
- Efficient Installation with a Safety Attach Point, and Simple Wire Termination Methods.
- Dual Entry Ports to Separate Data and Power Cables



EXSITE ENHANCED FIXED SERIES

- Certifications: FCC Part 15, CE, UL/cUL, ICES-003, RCM, S-Mark, KC
- Hazardous Location Certifications: IECEx, ATEX, INMETRO, EAC Ex, CCOE, UL/cUL
- Marine Certification: DNV

ExSite Enhanced Series camera systems are designed to meet demanding explosionproof requirements, providing high reliability, ease of installation, and best-in-class imaging and technology.

The ExSite Enhanced Series is designed for rugged environmental applications including oil and LNG facilities, refineries, on and offshore drilling rigs, and on-board marine applications. Featuring rugged 316L stainless steel construction that has been subjected to extensive vibration and environmental testing make it ideal for use in the most extreme conditions of temperature, moisture, ice, and dust. The system can operate from –60° to 60°C (–76° to 140°F) while maintaining compliance to the T6 (<85°C) surface temperature specifications.

ExSite Enhanced Series cameras are easy to install and adaptable to most operational needs. The camera has dual-entry ports, allowing for separate transmission and power cables, and it is adaptable to most transmission methods via SFP/FSFP modules. ExSite Enhanced cameras support a range of input power options with a new 48 VDC option that enables installation in DC-only facilities. ExSite Enhanced cameras also come standard with wipers and sun shrouds, capturing desired video regardless of the weather.

The ExSite Enhanced Series provides industry-leading image quality using a Full HD 1080p camera with 30x zoom producing up to 60 images per second. The ExSite Enhanced system has Surevision 3.0 technology, providing excellent picture quality in the challenging lighting conditions common to hazardous areas with 130db wide dynamic range (WDR), and low-light imaging performance down to .03 lux. The camera's image defog capability increases video quality in poor visibility conditions. And with anti-bloom, 3D noise filtering, and enhanced tone mapping, ExSite Enhanced with Surevision 3.0 technology offers the finest video quality in the explosionproof market.

TECHNICAL SPECIFICATIONS

Additional Features

- Integrated Wiper
- Sun Shroud, and Heater/Window Defroster
- Configurable On-Screen Displays
- 4 Alarm Inputs
- 2 Relay Outputs (1 is dedicated for the washer)
- Autofocus with Manual Override
- Auto Iris with Manual Override
- Dual cable entries for multiple data and power configurations
- Easily accessible internal microSD storage for local recording (ONVIF Profile G)
- 1000Base-T / 100Base-T ethernet and SFP/FSFP connection
- SFP/FSFP modules to support fiber, ethernet-over-coax (EoC), or UTP
- Compatible with Third Party Explosionproof Wash Systems
- Manual 360° Pan and 180° Tilt Adjustments with optional accessory mount
- Remote hard-reset capability allows for maintenance without physical access to the camera

PELCO ANALYTICS BEHAVIORS

ExSite Enhanced includes nine user-configurable behaviors, with up to three analytics behavior active at any one time.

- **Abandoned Object:** Detects objects placed within a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows.
- **Adaptive Motion Detection:** Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone.
- **Camera Sabotage:** Detects contrast changes in the field of view. This behavior triggers an alarm if the lens is obstructed by spray paint, a cloth, or lens cap or if there is any unauthorized repositioning of the camera.
- **Directional Motion:** Generates an alarm when a person or object moves in a specified direction over a user defined "trip wire" location. This behavior is often used where personnel or vehicles are supposed to enter or exit a scene going a specific direction; subjects coming from the disallowed direction will trigger the analytic alarm.
- **Loitering Detection:** Identifies when people or vehicles remain in a defined zone longer than the user-defined time allows. This behavior is effective in real-time notification of suspicious behavior in sensitive areas.
- **Object Counting:** Counts the number of objects that enter or pass through a user defined zone.
- **Object Removal:** Triggers an alarm if an object is removed from a user-defined zone.
- **Stopped Vehicle:** Detects vehicles stopped near a sensitive area longer than the user-defined time allows.

SOFTWARE FEATURES

- Multilingual menus
- Password protection
- 32 window blanks, configurable in size
- Pelco analytics including eight user-configurable behaviors
- Smart Compression, reducing bandwidth consumption while still providing high quality imaging

CAMERA/OPTICS

Sensor Type	1/2.8-inch Type Exmor CMOS Sensor
Optical Zoom	30X
Digital Zoom	12X
Maximum Resolution	1920 x 1080
Aspect Ratio	16:9
Lens	f/1.6 ~ f/4.7, focal length 4.3 mm (wide) ~ 129.0 mm (tele)
Horizontal Angle of View	63.7° wide - 2.3° tele
Light Sensitivity*	
Color (33 ms)	0.03 lux
Color (250 ms)	0.008 lux
Mono (33 ms)	0.004 lux
Mono (250 ms)	0.001 lux
Day/Night Capabilities	Yes
Shutter Range	1/1 ~ 1/10,000 sec
Signal-to-Noise Ratio	>50dB
IR Cut Filter	Yes
Wide Dynamic Range	130 db
Iris Control	Auto iris with manual override
Backlight Compensation	Yes
Automatic Gain Control	Yes
Active Noise Filtering	Yes; 3D Noise Filtering
Electronic Image Stabilization (EIS)	Yes

*Sensitivity in lux for 90% reflectance, f/1.6 (wide angle), 50 dB gain at 30 IRE (30% of signal level) with Sensitivity Boost OFF; 4X improvement to sensitivity with Sensitivity Boost ON

TECHNICAL SPECIFICATIONS

VIDEO

Video Encoding	H.264 High, Main, or Base profiles and MJPEG
Video Streams	Up to 2 simultaneous streams; the second stream is variable based on the configuration of the primary stream
Frame Rate	Up to 60, 30, 25, 15, 12.5, 10, 8.333, 7.5, 6, 5, 3, 2.5, 2, 1 (depending on the coding, resolution, and stream configuration)

Available Resolutions

Resolution				H.264 High Profile (IP GOP structure)	
MPx	**Width**	**Height**	**Aspect Ratio**	**Maximum IPS**	**Recommended Bit Rate (Mbps)**
2.07	1920	1080	16:9	60	8.00
2.07	1920	1080	16:9	30	6.05
0.92	1280	720	16:9	30	3.00
0.36	800	448	16:9	30	2.00
0.23	640	352	16:9	30	1.80
1.23	1280	960	4:3	30	3.80
0.49	800	608	4:3	30	2.00
0.31	640	480	4:3	30	1.45
0.08	320	240	4:3	30	0.50

NETWORK

Ethernet Interface	Ethernet (1000Base-TX or100Base-TX) Auto MDI/MDI-X Auto-negotiate/manual setting
Ethernet Cabling Type	Cat5e or better
FSP/FSFP Interface	Supports Pelco FSFP Series Transceivers (input models) and third-party MSA Compliant Tranceivers
Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, and 802.1x (EAP)
Users	
Unicast	Up to 20 simultaneous users depending on resolution settings (2 guaranteed streams)
Multicast	Unlimited users H.264
Security Access	Password protected
Software Interface	Web browser view and setup
Pelco System Integration	Endura 2.0, Digital Sentry 7.3 and Pelco VideoXpert 1.9 (or later)
Open API	Pelco API or ONVIF Profile S, G, and Q
Mobile Application	Integrated to Pelco Mobile App
Video Motion Detection	Simple motion detection and camera sabotage
Local Storage	SDXC, addressable to 2TB Capture 1–5–10 second video clips on camera sabotage, motion detection, or alarm input; record video continuously in the case of network outage with option to overwrite; access video through FTP protocol and ONVIF Profile G

OPERATING TEMPERATURE*

Operating Humidity	10% to 100% RH (condensing)
Storage Humidity	10% to 100% RH (non-condensing)

Temperature		Power	
		48 VDC	**100-240 V**
Sustaining	Maximum	60°C (140°F)	60°C (140°F)
	Minimum	–60°C (–76°F)	–60°C (–76°F)
Ice Free Windows		–35°C (–31°F)	–35°C (–31°F)
Cold Start*		–30°C (–22°F)	–30°C (–22°F)
Storage		–60°C to 60°C (–76°F to 140°F)	–60°C to 60°C (–76°F to 140°F)

*Cold starts within 240 minutes at specified temperature

GENERAL

Construction	316L billet electropolished stainless steel with robotic guided laser welding and 100% hydrostatic pressure testing
Window	High transmissivity glass
Sun Shroud	316L stainless steel with laser etched logo (passivated for environmental protection)
Weight	EXF1230-4N: 38.0 lb (17.2 kg) EXF1230-7N: 38.0 lb (17.2 kg)
Effective Projected Area (EPA)	191 in^2
Reset Capabilities	Internal reset button for servicability; remote hard-wire reset; remote software restart

ELECTRICAL

Alarm	
Unsupervised	Detects open or closed alarm state
Supervised	Detects open and short alarm state with external 1-kohm resistor to detect alarm tampering
Input	3.5 VDC maximum, 3.5 mA maximum
Relay Output	30 VDC, 500 mA maximum
Input Power Options	48 VDC, 2A or 100-240 VAC, 2A, @ 50/60 Hz
Input Voltage Range	±10%

Power Consumption (VA / W)*

Model	Description	Min (VA / W)	With Heating (VA / W)		Max (VA / W)
			@5° C	@-55° C	
EXF1230-4N	Fixed–48 VDC	17 / 17	40 / 40	62 / 62	74 / 74
EXF1230-7N	Fixed–100-240 V	29 / 18	50 / 42	74 / 66	85 / 77

MECHANICAL

Cable Entry	Dual 1.91 cm (0.75-inch NPT) threaded openings

RELATED PRODUCTS

RECOMMENDED MOUNTS

WXM200	Wall mount designed to mount the ExSite Series system directly to a load-bearing vertical surface
PXM200	Pedestal mount designed to mount an ExSite Enhanced Series system directly to a horizontal surface in either an upright or inverted position
CMXM200	Corner adapter for use with the WXM200 to mount an ExSite Series system to the corner of a structure
PAXM200	Pole adapter for use with the WXM200 to mount a system to a vertical pole or with a PXM200 to mount a system to a horizontal pole; recommended pole diameter is 10.16 to 22.86 cm (4 to 9 inches)
AXM200	Adjustable mount for ExSite Enhanced Fixed Models; enables manual pan/tilt adjustment

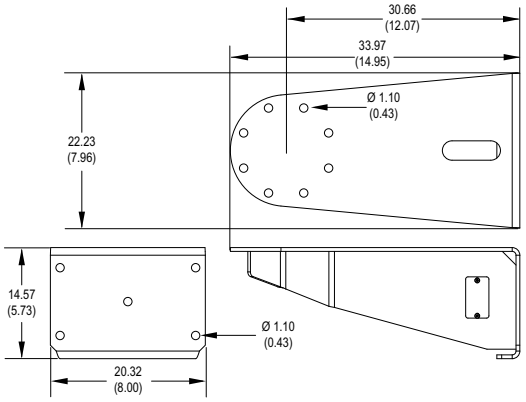
GENERAL

Construction	
Mounts	Electropolished 316L stainless steel
PAXM200 Mounting Straps	316L stainless steel
Maximum Load	
WXM200	40.8 kg (90 lb)
CMXM200	40.8 kg (90 lb)
PAXM200	40.8 kg (90 lb)
PXM200	40.8 kg (90 lb)
AXM200	19.5 kg (43 lb)
Unit Weight	
WXM200	5.7 kg (12.6 lb)
CMXM200	3.71 kg (8.2 lb)
PAXM200	4.17 kg (9.2 lb)
PXM200	0.86 kg (1.9 lb)
AXM200	4.84 kg (10.7 lb)
Shipping Weight (approximate)	
WXM200	7.71 kg (17.0 lb)
CMXM200	5.89 kg (13.0 lb)
PAXM200	6.35 kg (14.0 lb)
PXM200	1.81 kg (4.0 lb)
AXM200	6.5 kg (14.3 lb)

Mounting Method	Recommended Mounting Surface	Recommended Hardware
WXM200, CMXM200, and PXM200	Solid concrete with recommended strength of 3,600 psi or 25 Mpa	Five 3/8-16 x 1-9/16-inch long stainless steel drop-in anchors and five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers (not supplied) Five M10x1.5x20mm, stainless steel socket head bolts with lock washers are supplied with the CMXM200 and PAXM200 for use with the WXM200 wall mount or PXM200 pedestal mount.
	Steel I beam with a minimum of 1/8-inch wall	Five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers and 3/8-16 stainless steel nuts (not supplied)
PAXM200	Steel pole with a diameter of 4 to 9 inches (10.16 to 22.86 cm)	Four 5/8-inch wide x 40-inch (101.6 cm) long stainless steel straps to attach the adapter to a pole (supplied)
AXM200	Solid concrete with recommended strength of 3,600 psi or 25 Mpa	Industry standard 101.6 mm Bolt circle for use with M8 countersunk screws (not supplied).
	Steel I beam with a minimum of 1/8-inch wall	Four M10x1.5 x 16 mm thread strength, stainless steel socket cap head bolts and lock washers are supplied for use with WXM200 or PXM200.

WXM200 WALL MOUNT

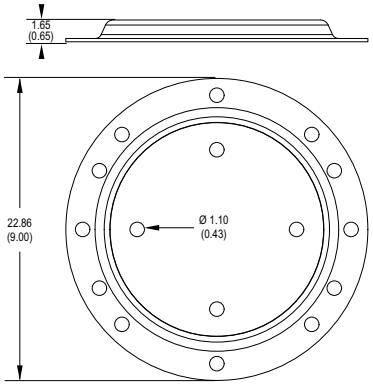




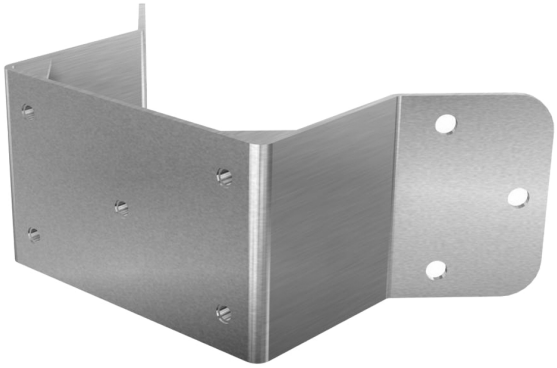
RELATED PRODUCTS

PXM200 PEDESTAL MOUNT

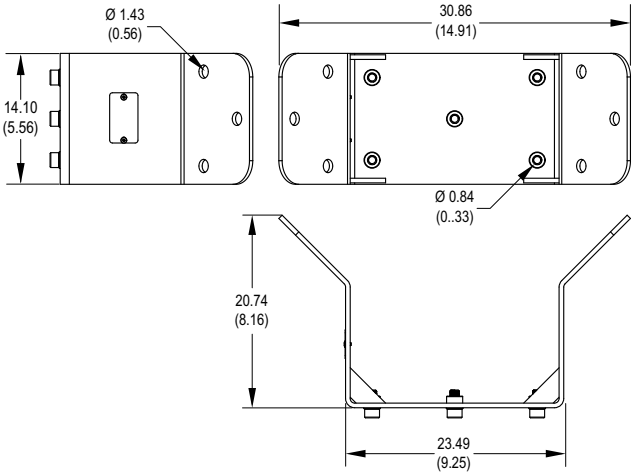




CMXM200 CORNER ADAPTER



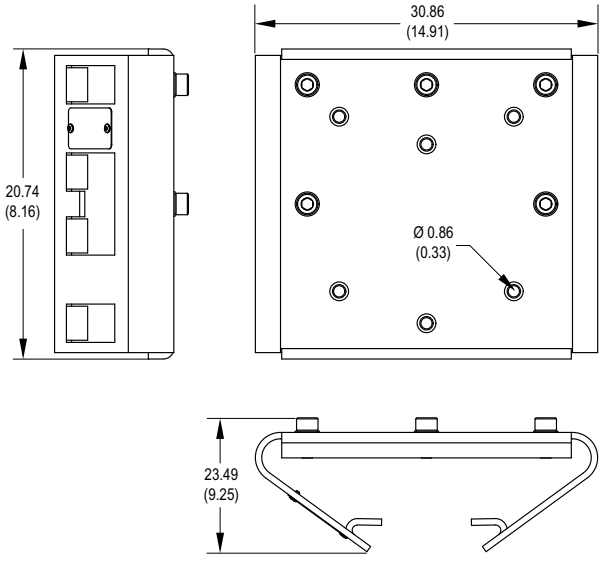
Note: *Designed for use with a WXM200 wall mount.*



PAXM200 POLE ADAPTER



Note: *Designed for use with a WXM200 to mount a system to a vertical pole or a PXM200 to mount the system to a horizontal pole. Recommended pole diameter is 10.16 to 22.86 cm (4 to 9 inches).*



RELATED PRODUCTS

MODELS

Model Number	PTZ/Fixed	Camera / Lens	Power
EXF1230-4N	Fixed	1080p 30x	48 VDC, 2A
EXF1230-7N			100-240 VAC, 2A, 50/60 Hz

OPTIONAL ACCESSORIES

ECPS-48VDC-5A Power supply for use with EXF1230-4N

CERTIFICATIONS/RATINGS

- FCC Part 15
- CE
- UL/cUL Listed
- ICES-003
- RCM
- KC
- IP66, IP67, and IP68, and Type 4X, Type 6, and Type 6P
- S Mark for Argentina*
- Vibration: IEC 60068-2-6 Test Fc

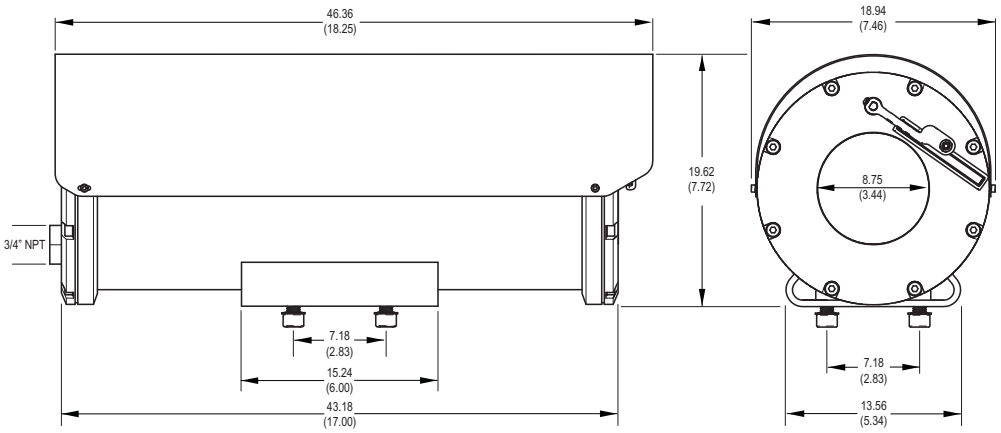
HAZARDOUS CERTIFICATIONS

- Tamb -60° C to +60° C
- UL/cUL Hazardous Locations Listed per NEC Division for dust and Zone for gas and dust
  - CLASS II, GROUPS E, F, G, T6
  - CLASS I, ZONE 1, AEx db op pr IIC T6
  - AEx tb op pr IIIC T85°C
- IECEx UL 17.0011X
  - Ex db op pr IIC T6 Gb X
  - Ex tb op pr IIIC T85°C Db X
- DEMKO 17 ATEX 1834X
  - CE 0539 II 2 G Ex db op pr IIC T6 Gb
  - Ex II 2 D Ex tb op pr IIIC T85°C Db
- INMETRO*
  BR-Ex d IIC T6
- EAC Ex*
- CCOE*

*At the time of this publication, certifications are pending. Consult the factory or www.pelco.com for the current status of certifications.

MARINE CERTIFICATION

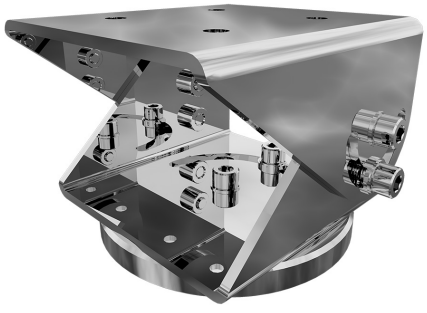
- DNV

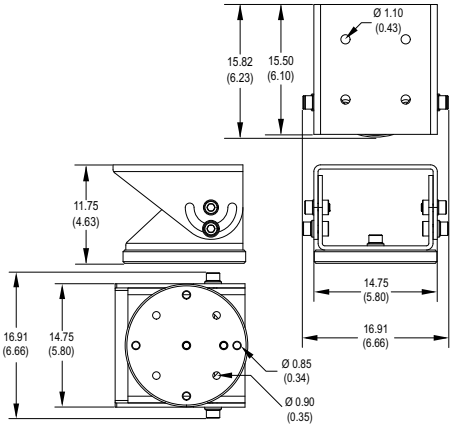


Note: *Please contact Pelco for information on the dimensions of the flameproof joints.*

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

AXM200 ADJUSTABLE MOUNT





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