

ExSite® Enhanced 2 Explosionproof PTZ Camera System

Product Features

- Up to 1920 x 1080p Resolution Wide Dynamic Range (WDR)
- Multi-Stream H.264 and H.265 IP Video with Smart Compression
- Rated to Operate from -40 °C to +60 °C (-40 °F to 140 °F), with ambient convection
- AISI 316L Stainless Steel Electro Polished Construction
- Reliable Pan/Tilt
- Standard IP Ethernet Connection
- Full Suite of Built-In Analytics
- Electronic Image Stabilization
- Onvif Profiles S, G, and T Conformant
- Certifications: FCC Part 15, CE, UL/cUL, ICES-003, RCM, BIS
- Hazardous Location Certifications: IECEx, ATEX, INMETRO, EAC Ex, UL/cUL



Camera System

ExSite® Enhanced 2 Series is purpose-built to monitor operations and control processes in hazardous locations with risks of explosion due to the presence of flammable liquids, gases or dust. Rugged outdoor cameras available in fixed, fixed compact, and PTZ, it meets stringent explosion proof and dust-ignition proof requirements while complying with international standards (UL, CSA, ATEX, IECEx, EACEx).

It provides to operators crisp and clear evidence with 30X optical zoom, with true WDR, and low light capabilities for challenging lighting conditions common to hazardous areas. The ExSite® Enhanced 2 Series is built to survive in the harshest conditions, rated IP69 it protects from water, high wind, high and low temperatures with an operating range of -40° to +60°C. It is also resistant to corrosive elements.

ExSite® Enhanced 2 Series cameras are easy to install and adaptable to most operational needs. ExSite® Enhanced 2 Series cameras support a range of input power options. ExSite® Enhanced 2 Series cameras also come standard with wipers and sun shrouds, capturing desired video regardless of the weather.

The ExSite® Enhanced 2 Series provides industry-leading image quality using a Full HD 1080p camera producing up to 60 images per second. The camera's image defog capability increases video quality in poor visibility conditions and 3D noise filtering is available.

Video

ExSite® Enhanced 2 Series cameras provide flexible streaming options. The primary stream can be compressed with efficient H.265, H.264 High or Main profiles, or MJPEG formats. It can be configured to a variety of frame rates and variable bit rates to optimize image quality with bandwidth and storage efficiency. Smart Compression is available on both H.264 and H.265, minimizing storage and bandwidth utilization.

Open and Integrated

ExSite® Enhanced 2 Series cameras seamlessly connect to Pelco video management systems such as VideoXpert®. ExSite® Enhanced 2 Series cameras integrate with major third-party systems through the ONVIF Profile S, Profile G, and Profile T standards.

Standard Web Interface

Pelco cameras use a standard Web browser interface for easy remote setup and administration. Controls are optimized for convenient one-step camera configuration for features including color, exposure, flicker control, backlight compensation, and streaming.

Pelco Analytics

ExSite® Enhanced 2 Series cameras feature Pelco's most advanced analytics technology.

Basic Analytics

ExSite® Enhanced 2 Series cameras feature basic video analytics including Simple Motion Detection and Camera Sabotage.

Simple Motion Detection: These algorithms allow the camera to record or send an alarm when there is motion detected in a selected zone or with the entire scene.

Camera Sabotage: An alarm is triggered if the lens is obstructed or when the camera is repositioned.

Pelco Smart Analytics

Pelco Smart Analytics uses object detection AI technologies delivering improved accuracy in both perimeter protection and in crowded, indoor environments. Added processing power enables the tracking and classification of over 50 objects. Objects are classified even when they remain stationary. Pelco Smart Analytics go beyond people and vehicles to include car, truck, bus, motorcycle, and bicycle classification. Ten different object behaviors can be recognized to create events integrated with many VMS systems.

| Objects Detected | Behavior Events | |
|------------------------------|-------------------------------|----------------------|
| People | Objects in Area | Objects Enter Area |
| Vehicles with Classification | Object Loitering | Objects Leave Area |
| | Objects Crossing Beam | Object Stops in Area |
| | Object Appears or Enters Area | Direction Violated |
| | Object Not Present in Area | |

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 and 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. This event can 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.

Pelco's Smart Compression Technology

Pelco's Smart Compression Technology lowers bandwidth and storage requirements by up to 70%, while reducing storage requirements. Our technology allows the user to make informed optimization between storage savings and image quality.

Pelco's Smart Compression Technology dynamically analyzes motion occurring within live video in real-time, to intelligently compress the information you don't need, while retaining details with clear quality in the areas that are important in the scene. By enabling Dynamic GOP, an added feature of Smart Compression, the number of I-frames are automatically reduced in scenes with low motion. Based on the complexity of scenes and motion occurring, such as a store room that has limited entry and exit, up to 70% bandwidth savings can be achieved.

Technical Specifications

Camera/Optics

| Item | Description |
|---|------------------------------|
| Resolution | 2.0 MP |
| Sensor Type | 1/2.8" progressive scan CMOS |
| Maximum Resolution (H x V) and Aspect Ratio | (16:9) 1920 × 1080 |
| Dynamic Range | |
| WDR Off | 83 dB |
| WDR On | Up to 120 dB |
| Active Noise Filtering | 3D Noise Filtering |

| Item | Description |
|--------------------------|---|
| Lens | F1.6, 4.3-129 mm (30x zoom) remote focus and zoom |
| Horizontal Angle of View | (16:9) 3.1°-64° |
| Vertical Angle of View | (16:9) 1.7°-38° |
| Light Sensitivity | Color (33 ms); 0.1 lux Mono (33 ms); 0.03 lux |
| Iris Control | P-Iris, Automatic, Open, Closed |
| Shutter Range | Automatic, Manual (1/1 to 1/30,000 sec) |
| Day/Night Capabilities | Mechanical IR cut filter. Automatic, Manual |
| Flicker Correction | 60 Hz, 50 Hz |
| White Balance | Automatic, Manual |
| Backlight Compensation | On/Off |

Video

| Item | Description |
|----------------|---|
| Frame Rate | 60 fps |
| Video Encoding | H.264, H.265 Pelco Smart Compression, Motion JPEG |
| Video Streams | Multi-stream H.264, Multi-stream H.265, Motion JPEG |

Software Features

| Item | Description |
|------------------------------|--|
| Smart Compression Technology | Yes, lowers bandwidth and storage requirements by up to 70%. |
| On Screen Displays | Yes |
| Privacy Zones | 3D, up to 64 zones |
| Presets | 500 named presets |
| Tours | 10 named tours |
| Digital Defog | Adjustable/Off |

Network

| Item | Description |
|---------------------|--|
| Open API | ONVIF compliance version 1.02, 2.00, Profile S, Profile G, and Profile T (www.onvif.org) |
| Security | Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication |
| Supported Protocols | IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, SNMP v2c, SNMP v3 |

Mechanical

| Item | Description |
|------------------------|---|
| Dimensions (LxWxH) | 313 mm × 232 mm × 398 mm; 12.3" × 9.13" × 15.7" |
| Weight | 26.5 kg; 58.4 lbs. |
| Construction | AISI 316L stainless steel |
| Finish | Electro-polished surface |
| Pan Movement | 360° continuous, max 100°/s |
| Vertical Tilt | -90° to 90° |
| Maximum Pan/Tilt Speed | 100°/s |
| Wiper | Yes |
| Cable Entry | 2 × 3/4" NPT |

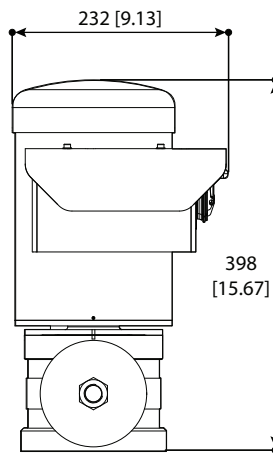
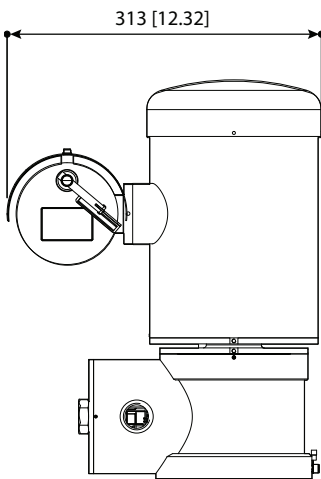
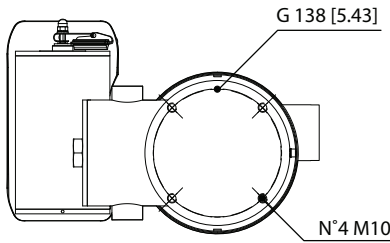
Electrical


| Item | Description |
|------------------------|--|
| Local Storage | Optional factory installed 128GB, Micro SDXC Card. |
| Ports | 10BASE-T/100BASE-TX, RJ45 Connector (CAT5E cabling) and SFP slot |
| Power Consumption | 120 W |
| Input Voltage (Power) | Ordering options: 230 VAC, 0.5 A, 50/60 Hz 24 VAC, 5 A, 50/60 Hz 120 VAC, 1 A, 50/60 Hz |
| Input for Remote Reset | 1 |
| Alarm Inputs | 1 |
| Relay Outputs | 1+1 (one relay reserved for washer pump and one configurable, 1A, 30 VAC/60 VDC max) |

Environmental

| Item | Description |
|-----------------------|---|
| Operating Temperature | - 40 °C to +55 °C (-40 °F to 131 °F), in enclosed space - 40 °C to +60 °C (-40 °F to 140 °F), with ambient convection |
| Storage Temperature | -40 °C to +55 °C (-40 °F to 131 °F) |
| Humidity | 10% - 95% non-condensing |
| Cold Start | Up to 1 hour startup delay at temperature lower than -10 °C (14 °F) |
| Wind Resistance | Pan and tilt operational at a maximum of 210 km/h wind (130.5 mph) |

Dimensions



 **Note:** Values in parentheses are inches; all others are millimeters.

System Model Numbers

| System Resolution | Model # | Description |
|-------------------|--------------|---|
| 2 MP 30X | EXP2230-62 | ExSite® Enhanced 2 PTZ, 2 MP x 30, 24 VAC |
| 2 MP 30X | EXP2230-65 | ExSite® Enhanced 2 PTZ, 2 MP x 30, 120 VAC |
| 2 MP 30X | EXP2230-67 | ExSite® Enhanced 2 PTZ, 2 MP x 30, 230 VAC |
| 2 MP 30X | EXP2230-62-G | ExSite® Enhanced 2 PTZ, 2 MP x 30, T6, 24 VAC, with ONVIF G remote storage |
| 2 MP 30X | EXP2230-65-G | ExSite® Enhanced 2 PTZ, 2 MP x 30, T6, 120 VAC, with ONVIF G remote storage |
| 2 MP 30X | EXP2230-67-G | ExSite® Enhanced 2 PTZ, 2 MP x 30, T6, 230 VAC, with ONVIF G remote storage |

Mounting Accessories

PEX-MPXWBA



Wall bracket for use with EXP2230 cameras. AISI 316L stainless steel.

PEX-MPXCOL



Pole mount adapter for use with EXP2230 cameras or explosion protected washers. For pole diameters from 110 mm (4.3") to 150 mm (5.9"). Max load 50 kg (110 lb.). AISI 316L steel.

PEX-MPXCW



Corner mount adapter for use with PEX-MBXMP or EXP2230 cameras. Max load 50 kg (110 lb.). AISI 316L stainless steel.

PEX-MPXWBTA



Parapet or ceiling mount bracket for use with EXP2230 cameras. AISI 316L stainless steel.

Cabling

| Item | Description |
|----------------|--|
| PEX-MPX2CABL4 | Cabling, 4m (13.1 ft), unarmored cable, barrier cable gland |
| PEX-MPX2CABL10 | Cabling, 10m (32.8 ft), unarmored cable, barrier cable gland |

| Item | Description |
|-----------------|--|
| PEX-MPX2CABARM4 | Cabling, 4m (13.1 ft), armored cable, barrier cable gland |
| PEX-MPX2CAARM10 | Cabling, 10m (32.8 ft), armored cable, barrier cable gland |

Cable Glands

| Type | IECEX / ATEX / EACEx | Operating Temp. | Cable | Part Number | External Cable Diameter |
|--------------------------------|----------------------|--------------------|-----------|-----------------|-------------------------|
| Barrier Cable Gland | IECEX / ATEX / EACEx | -60 °C to +135 °C | Unarmored | PEX-OCTEXB3/4P | 17.8 mm – 20.0 mm |
| | | | Armored | PEX-OCTEXBA3/4P | 16.8 mm – 23.9 mm |
| Plug EX 3/4" NPT | IECEX / ATEX / EACEx | -100 °C to +400 °C | N/A | PEX-OEXPLUG3/4P | N/A |
| Plug EX 1/2" NPT | IECEX / ATEX / EACEx | -100 °C to +400 °C | N/A | PEX-OEXPLUG1/2P | N/A |
| Reduction 3/4" NPT to 1/2" NPT | IECEX / ATEX / EACEx | -100 °C to +400 °C | N/A | PEX-OCEX1/2-3/4 | N/A |

Explosion-Proof Communication Box

Communication boxes include a 3-port RJ45 and 1 SFP port Ethernet switch and 24 VAC output for powering up to:

- 2x EXF2230 fixed cameras with 2x washer pump
- 1x EXP2230 PTZ camera with 1x washer pump

PEX-MBA1S5A



Aluminum housing, 230 VAC input.

PEX-MBA2S5A

Aluminum housing, 24 VAC input.

PEX-MBA3S5A

Aluminum housing, 120 VAC input.

PEX-MBX1MAA



AISI 316L stainless steel housing, 230 VAC input.

PEX-MBX2MAA

AISI 316L stainless steel housing, 24 VAC input.

PEX-MBX3MAA

AISI 316L stainless steel housing, 120 VAC input.

PEX-MBXMP



Adapter plate for communication box to PEX-MPXCOL or PEX-MPXCW mounts. AISI 316L stainless steel housing.

PEX-MBXWRE



Wrench for opening communication boxes, PEX-MBX.

PEX-MPXCOL



Pole mount adapter for use with PEX-MBXMP or EXP2230 PTZ cameras. For pole diameters from 110 mm (4.3") to 150 mm (5.9").

Max load 50 kg (110 lb.).

AISI 316L stainless steel.

PEX-MPXCW



Corner mount adapter for use with PEX-MBXMP or EXP2230 PTZ cameras. Max load 50 kg (110 lb.).

AISI 316L stainless steel.

Explosion-Proof Washer

A 10L (2.6 gal) tank with integrated manual pump and delivery up to 20m (66 ft), 24 VAC/VDC input.

PEX-WASEX2T4AT

PEX-WASEX2T4IN

PEX-WASEX2T4KC

PEX-WASEX2T4GOR



ATEX certified solenoid valve.

INMETRO certified solenoid valve.

KCS certified solenoid valve.

EAC Ex certified solenoid valve.

PEX-NXCOL



Pole mount adapter for use with EXF2230 cameras or explosion protected washers. For pole diameters from 110 mm (4.3") to 150 mm (5.9").

Max load 50 kg (110 lb.).

AISI 316L stainless steel.

PEX-NXCW



Corner mount adapter for use with EXF2230 cameras or explosion protected washers. Max load 50 kg (110 lb.).

AISI 316L stainless steel.



Certifications

Safety and Environmental Certifications

- FCC Part 15
- CE
- UL/cUL Listed
- ICES-003
- RCM

- IP66, IP67, IP68, and IP69 and Type 4X and Type 6P
- BIS certification: IS 13252(PART 1):2010 / IEC 60950-1:2005 (certification only valid for the codes: EXP2230-67 and EXP2230-62)
- Salt Spray: IEC 60068-2-52
- Camera certified by Videotec S.P.A.: model MPX

Hazardous Certifications

- Tamb -40°C to +55°C or +70°C
- UL/cUL Hazardous Locations Listed
 - CLASS I, DIVISION 2, GROUPS A, B, C and D, T6...T5
 - CLASS II, DIVISION 2, GROUPS F and G, T6...T5
 - CLASS I, ZONE 1, AEx db IIC T6...T5 Gb
 - Zone 21 AEx tb IIIC T85°C... T100°C Db
 - Ex db IIC T6 Gb X
 - Ex tb IIIC T85°C Db X
- IECEx ULD 11.0005X
 - Ex db IIC T6...T5 Gb
 - Ex tb IIIC T85°C...T100°C Db
- DEMKO 12 ATEX 1031198X
 -  II 2 G Ex db IIC T6...T5 Gb
 -  II 2 D Ex tb IIIC T85°C... T100°C Db
- INMETRO UL-BR 13.0063X
 - Ex db IIC T6...T5 Gb
 - Ex tb IIIC T85°C...T100°C Db
- EAC Ex
 - Ex db IIC T6...T5 Gb X
 - Ex tb IIIC T85°C...T100°C Db X

Models and Certifications Matrix

| Model | ATEX | IECEX | EAC Ex | INMETRO | KCs | UL (US & CAN) |
|------------|------|-------|--------|---------|-----|------------------|
| EXP2230-62 | Yes | Yes | Yes | Yes | Yes | Yes |
| EXP2230-65 | Yes | Yes | Yes | Yes | Yes | Yes |

| Model | ATEX | IECEX | EAC Ex | INMETRO | KCs | UL (US & CAN) |
|--------------|------|-------|--------|---------|-----|------------------|
| EXP2230-67 | Yes | Yes | Yes | Yes | Yes | Yes |
| EXP2230-62-G | Yes | Yes | Yes | Yes | Yes | Yes |
| EXP2230-65-G | Yes | Yes | Yes | Yes | Yes | Yes |
| EXP2230-67-G | Yes | Yes | Yes | Yes | Yes | Yes |

Marine Certification

- Lloyd's Register*

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



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