

ExSite® IP Series Explosionproof Camera System

NETWORK FIXED AND PAN/TILT SYSTEMS WITH IOP CAMERA AND OPTIONAL WIPER

Product Features

- For Use in a Variety of Harsh and/or Hazardous Environments, including Marine Environments
- Ability to Control and Monitor Video Over IPv4 and IPv6 Networks
- Electropolished 316L Stainless Steel Construction
- Upright or Inverted Operation
- Both Fixed and Pan/Tilt Options
- Autofocus, High Resolution Integrated Optics Package (IOP) with 36X Day/Night, Motion Detection, and 540 TVL Horizontal Resolution
- Multilingual On-Screen Menus
- Password Protection
- Web Interface for Camera Configuration
- H.264, MPEG-4, and MJPEG Compression
- Supported Protocols: TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, SNMP, QoS, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, mDNS (Bonjour®), and 802.1x (EAP)
- Up to 2 Simultaneous Video Streams

ExSite IP Series is an explosionproof camera system with a built-in 100Base-TX network interface for live streaming to any network application. **ExSite® IP Series** has all of the features and functions of the original ExSite Series, while allowing you to control and monitor video over an IP network from virtually anywhere in the world.

ExSite IP Series supports two simultaneous video streams. The two streams can be compressed in MJPEG, MPEG-4, and H.264 formats across several resolution configurations. The streams can be configured in a variety of frame rates, bit rates, and group of pictures (GOP) structures for additional bandwidth administration. The H.264 compression video files are up to 20 times smaller than MJPEG, making network video storage more affordable.

ExSite IP Series includes a day/night camera with a removable infrared cut filter and 36X zoom lens (36X optical, 12X digital).

The electropolished 316L stainless steel construction makes the **ExSite Series** ideal for all kinds of environmental conditions including marine applications. The system has an absolute operating temperature range of -60° to 60°C (-76° to 140°F). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -25°C (-13°F).



EXSITE IP PAN/TILT SERIES SHOWN WITH
WXM100 WALL MOUNT (NOT SUPPLIED)

- Web Viewing, up to 16 Cameras Simultaneously

Web Interface

ExSite IP Series uses a standard Web browser for powerful remote setup and administration. Up to 16 cameras can be viewed on the same network.

Network protocols such as Secure Sockets Layer (SSL) configuration for security certificates, Secure Shell (SSH) for remote logon, and Quality of Service (QoS) for priority or guaranteed data flow can be managed using a Web browser.

Systemization

ExSite IP Series easily connects to Pelco IP systems such as Endura® version 1.5 (or later), MPEG-4; Endura version 2.0 (or later), H.264; Digital Sentry® version 7.3 (or later); DX8100 version 2.0 (or later); DX4700/DX4800 version 1.1 (or later); DX4700HD/DX4800HD version 2.0 (or later); and DVR5100 version 1.5.4 (or later). The camera also features open architecture connectivity to third-party software. Pelco offers an application programming interface (API) and software developer's kit (SDK) for interfacing with Pelco's IP cameras.

TECHNICAL SPECIFICATIONS

PRODUCT FEATURES

All Models

- Sun Shroud, Heater/Window Defroster, and Blower Included
- Configurable Locations of Labels and On-Screen Displays
- 7 Alarm Inputs
- 3 Relay Outputs
- Built-in Menu System for Setup of Configurable Functions
- Autofocus with Manual Override
- Auto Iris with Manual Override
- NTSC/PAL
- Reliable, Maintenance-Free Brushless DC Stepper Motor and Timing Belt Transmissions for Smooth and Accurate Positioning

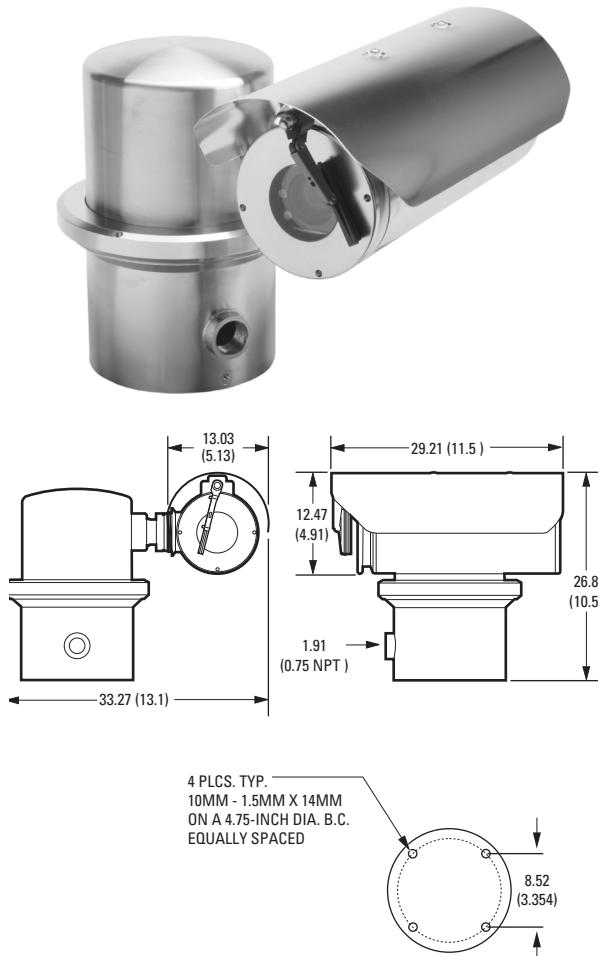
Fixed Models

- Manual 200° Pan and 180° Tilt Adjustments



VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

FIXED

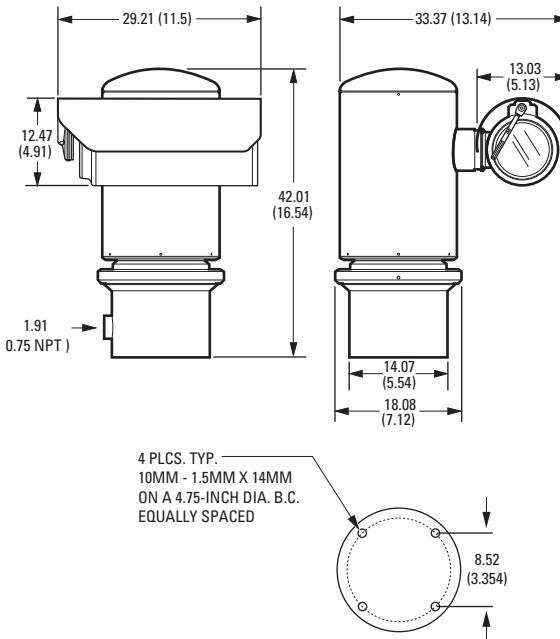


Pan/Tilt Models

- Variable Speed Pan: 0.1° to 40°/Second with Proportional Pan
- 360° Continuous Pan Rotation
- Tilt Range of +90° to -90° from Horizontal
- $\pm 0.1^\circ$ Preset Accuracy
- Preset Positioning, Patterns, Multiple Scan Modes
- Configurable Power-up Mode
- Configurable Park
- 80 Presets with Custom Camera Settings and Labels
- 8 Zones (configurable in size) Can Be Labeled with Up to 20 Characters Each or Set to Output Blank Video
- Action on Alarm: Alarms can be individually configured for 3 priority levels, to initiate a stored pattern, or to go to an associated preset when received
- Resume After Alarm: Allows the pan/tilt to return to a previously configured state after alarm acknowledgment or to its previous position before alarm
- Patterns: Up to 4, on-screen, user-defined configurable patterns; includes pan, tilt, zoom, and preset functions
- Proportional Pan/Tilt: Continually decreases pan and tilt speeds in proportion to depth of zoom
- Variable Scan Speed: Scan speed can be configurable between 1° and 40°/sec
- Configurable Limit Stops for Auto/Random/Frame Scan Modes

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

PAN/TILT



TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

	Day/Night (36X)
Signal Format	NTSC, PAL
Scanning System	2:1 interlace
Image Sensor	1/4-inch progressive scan CCD
Effective Pixels	
NTSC	768 (H) x 494 (V)
PAL	752 (H) x 582 (V)
Horizontal Resolution	
NTSC	540 TV lines
PAL	540 TV lines
Lens	f/1.4 (focal length, 3.3 ~ 119 mm optical)
Zoom	36X optical, 12X digital
Configurable Zoom Speed (Optical Range)	2.9/4.2/5.8 seconds
Horizontal Angle of View	57.2° at 3.3 mm wide zoom; 2.5° at 82.8 mm telephoto zoom
Focus	Automatic with manual override
Maximum Sensitivity	
NTSC*	0.55 lux at 1/60 sec shutter (color); 0.018 lux at 1/2 sec shutter (color); 0.055 lux at 1/60 sec shutter (B-W); 0.0018 lux at 1/2 sec shutter (B-W)
PAL*	0.45 lux at 1/50 sec shutter (color); 0.015 lux at 1/1.5 sec shutter (color); 0.045 lux at 1/50 sec shutter (B-W); 0.0015 lux at 1/1.5 sec shutter (B-W)
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync
White Balance	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/manual
NTSC	1/2 ~ 1/30,000
PAL	1/1.5 ~ 1/30,000
Iris Control	Automatic Iris Control with manual override
Gain Control	Automatic/OFF
Video Output	1 Vp-p, 75 ohms
Video Signal-to-Noise Ratio	>50 dB

*All values measured at 27 dB gain.

TECHNICAL SPECIFICATIONS

GENERAL

Construction	316L stainless steel
Finish	Electropolish
Viewing Window	12.7 mm (0.50-inch) thick, soda-lime tempered glass
Operating Temperature	–60° to 60°C (–76° to 140°F)
Pan/Tilt	
Unit Weight	25 kg (55 lb)
Shipping Weight	33 kg (73 lb)
Effective Projected Area (EPA)	40.8 square inches
Fixed	
Unit Weight	11.33 kg (24.9 lb)
Shipping Weight	18.14 kg (40 lb)
Effective Projected Area (EPA)	31.1 square inches

ELECTRICAL

Input Voltage	24 VAC or 100 to 240 VAC, 50/60 Hz
Input Voltage Range	±10%
Power Consumption	Maximum 60 W (120 VA) per system
Heater and Defroster	Microprocessor controlled
Electrical Connections	6-foot pigtail wire harness with connections for power, network, alarm inputs, and auxiliary outputs
Auxiliary Outputs	3 normally open (N.O.) or normally closed (N.C.) relays, 32 VDC, 0.5 A; relay 3 is allocated specifically for an external washer (not supplied by Pelco)
Alarm Inputs	7

MECHANICAL

Cable Entry	One 1.91 cm (0.75-inch NPT) threaded opening; one explosionproof sealable fitting supplied
Pan Movement*	360° Continuous pan rotation
Vertical Tilt*	Unobstructed +90° to –90°
Variable Pan/Tilt Speed*	
Pan	0.1° to 40°/sec variable-speed operation
Tilt	0.1° to 40°/sec variable-speed operation
Preset Speeds*	
Pan	40°/sec
Tilt	40°/sec

*Only applicable for pan/tilt models.

CERTIFICATIONS/RATINGS

- FCC
- UL/cUL Listed
- UL/cUL Hazardous Locations Listed per NEC Division and Zone requirement
 - Class I, Groups A, B, C, and D
 - Class II, Groups E, F, G, T6
 - Class I, Zone 1, AEx d IIC
 - AEx tb IIC T85°C IP66
 - BR-Ex d IIC, T6, IP66
 - UL-BR 13.0060X
 - IECEx UL 11.0007X
 - Ex d IIC T6 Gb
 - Ex tb IIC T85°C Db IP66
 - DEMKO 04 ATEX 0413858X
 - CE 0539 Ex II 2 G Ex d IIC, T6 Gb
 - Ex II 2 D Ex tb IIIC T85°C Db IP66
 - Tamb –60°C to 60°C
 - NEPSI-China, Ex d IIC, T5, Cert No. GYJ05584
 - C-Tick
 - S Mark for Argentina
 - Cisco® Medianet (MSP) compatible
 - ONVIF 1.02
 - Meets NEMA Type 4X standards

TECHNICAL SPECIFICATIONS

VIDEO

Video Encoding	H.264 base profile, MPEG-4, and MJPEG																																																				
Video Streams	Up to 2 simultaneous streams; the second stream is variable based on the setup of the primary stream																																																				
Frame Rate	Up to 30, 25, 24, 15, 12.5, 12, 10, 8, 7.5, 6, 5, 4, 3, 2, 1 (dependent upon coding, resolution, and stream configuration)																																																				
Available Resolutions	<table border="1"> <thead> <tr> <th colspan="3">Resolution</th> <th colspan="2">MJPEG</th> <th colspan="2">H.264 Base Profile</th> <th colspan="2">MPEG-4</th> </tr> <tr> <th>Width</th> <th>Height</th> <th>Format</th> <th>Maximum IPS</th> <th>Recommended Bit Rate</th> <th>Maximum IPS</th> <th>Recommended Bit Rate</th> <th>Maximum IPS</th> <th>Recommended Bit Rate</th> </tr> </thead> <tbody> <tr> <td>704</td> <td>480</td> <td>NTSC</td> <td>30 ips</td> <td>5.4 Mbps</td> <td>30 ips</td> <td>1.9 Mbps</td> <td>30 ips</td> <td>2.0 Mbps</td> </tr> <tr> <td>352</td> <td>240</td> <td>NTSC</td> <td>30 ips</td> <td>1.3 Mbps</td> <td>30 ips</td> <td>0.5 Mbps</td> <td>30 ips</td> <td>0.6 Mbps</td> </tr> <tr> <td>704</td> <td>576</td> <td>PAL</td> <td>25 ips</td> <td>5.4 Mbps</td> <td>25 ips</td> <td>1.9 Mbps</td> <td>25 ips</td> <td>2.0 Mbps</td> </tr> </tbody> </table>								Resolution			MJPEG		H.264 Base Profile		MPEG-4		Width	Height	Format	Maximum IPS	Recommended Bit Rate	Maximum IPS	Recommended Bit Rate	Maximum IPS	Recommended Bit Rate	704	480	NTSC	30 ips	5.4 Mbps	30 ips	1.9 Mbps	30 ips	2.0 Mbps	352	240	NTSC	30 ips	1.3 Mbps	30 ips	0.5 Mbps	30 ips	0.6 Mbps	704	576	PAL	25 ips	5.4 Mbps	25 ips	1.9 Mbps	25 ips	2.0 Mbps
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Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6*, SNMP, QoS, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, mDNS (Bonjour®), and 802.1x (EAP)																																																				
Users																																																					
Unicast	Up to 20 simultaneous users depending on resolution settings (2 guaranteed streams)																																																				
Multicast	Unlimited users H.264 or MPEG-4																																																				
Security Access	Password protected																																																				
Software Interface	Web browser view and setup, up to 16 cameras																																																				
Pelco System Integration	Endura 1.5 or later (MPEG-4) or Endura 2.0 or later (H.264); Digital Sentry 7.3 IP bundle 3 or later; DX8100 Series 2.0 or later; DX4700/DX4800 1.1 or later; DX4700HD/DX4800HD 2.0 or later; and DVR5100 version 1.5.4 or later																																																				
Open API	Pelco API or ONVIF v1.02																																																				
Minimum System Requirements																																																					
Processor	Intel® Pentium® 4 microprocessor, 1.6 GHz																																																				
Operating System	Microsoft® Windows® XP, Windows Vista®, Windows 7, or Mac® OS X 10.4 (or later)																																																				
Memory	512 MB RAM																																																				
Network Interface Card	100 megabits (or greater)																																																				
Monitor	Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution																																																				
Web Browser	Internet Explorer® 7.0 (or later) or Mozilla® Firefox® 3.0 (or later)																																																				
Media Player [†]	Pelco Media Player or QuickTime® 7.6.5 for Windows XP, Windows Vista, or QuickTime 7.6.4 for Mac OS X 10.4																																																				

*Supports mixed IPv4 and IPv6 installations, but not IPv6-only deployments.

[†]This product is not compatible with QuickTime version 7.6.4 for Windows XP or Windows Vista. If you have this version installed on your PC, you will need to upgrade to QuickTime version 7.6.5.

RELATED PRODUCTS

RECOMMENDED MOUNTS

WXM100	Wall mount designed to mount the ExSite Series system directly to a load-bearing vertical surface
PXM100	Pedestal mount designed to mount an ExSite Series system directly to a horizontal surface in either an upright or inverted position
CMXM100	Corner adapter for use with the WXM100 to mount an ExSite Series system to the corner of a structure
PAXM100	Pole adapter for use with the WXM100 to mount a system to a vertical pole or with a PXM100 to mount a system to a horizontal pole; recommended pole diameter is 10.16 to 22.86 cm (4 to 9 inches)

GENERAL

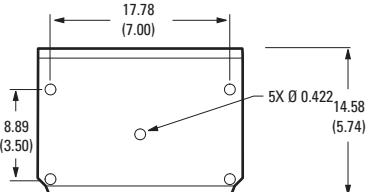
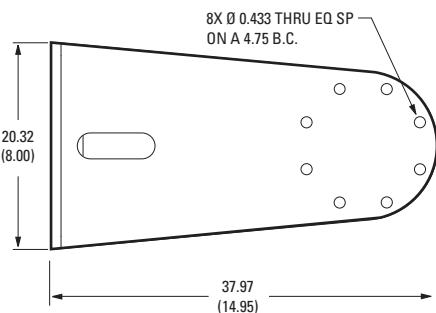
Construction	
Mounts	Electropolished 304 stainless steel
PAXM100 Mounting Straps	316 stainless steel
Maximum Load	
WXM100	33.00 kg (72.8 lb)
CMXM100	38.50 kg (84.9 lb)
PAXM100	40.00 kg (88.2 lb)
PXM100	35.83 kg (79.0 lb)
Unit Weight	
WXM100	5.62 kg (12.4 lb)
CMXM100	3.45 kg (7.6 lb)
PAXM100	4.17 kg (9.2 lb)
PXM100	0.60 kg (1.3 lb)
Shipping Weight (approximate)	
WXM100	7.71 kg (17.0 lb)
CMXM100	5.89 kg (13.0 lb)
PAXM100	6.35 kg (14.0 lb)
PXM100	1.81 kg (4.0 lb)

MECHANICAL

Mounting Method	Recommended Mounting Surface	Recommended Hardware
WXM100, CMXM100*, and PXM100	Solid concrete with the 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)
	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)
PAXM100*	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)

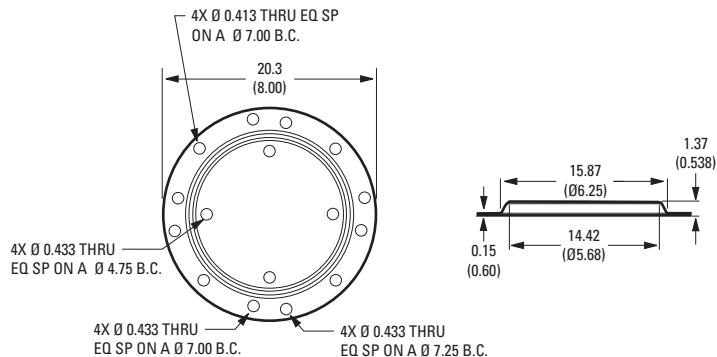
* Five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with lock washers are supplied with the CMXM100 and PAXM100 to be used with the WXM100 wall mount or PXM100 pedestal mount.

WXM100 WALL MOUNT

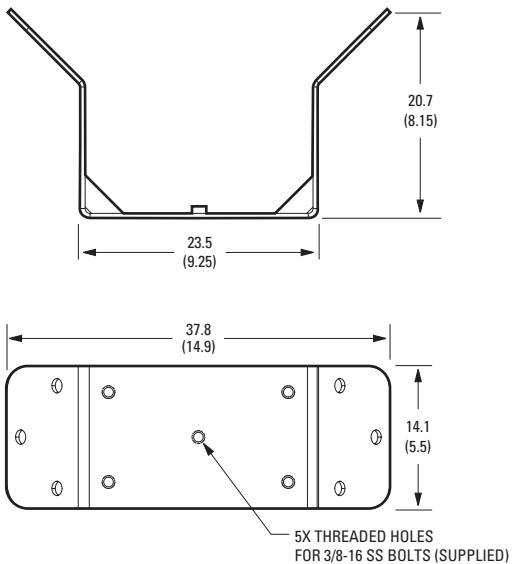
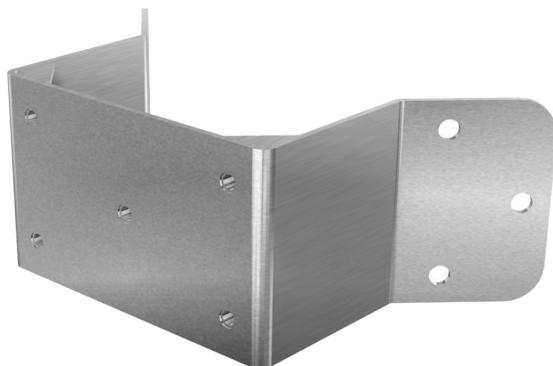


RELATED PRODUCTS

PXM100 PEDESTAL MOUNT

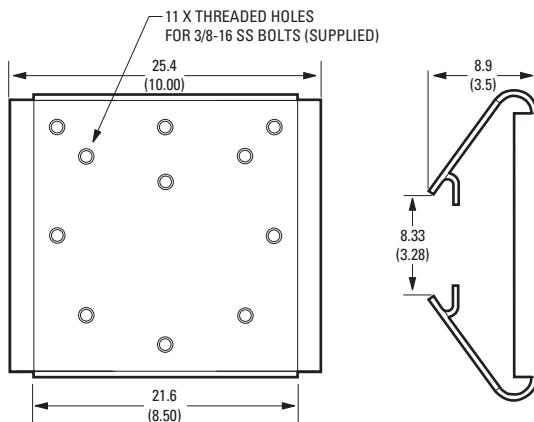


CMXM100 CORNER ADAPTER



Note: Designed for use with a WXM100 wall mount.

PAXM100 POLE ADAPTER



Note: Designed for use with a WXM100 to mount a system to a vertical pole or a PXM100 to mount the system to a horizontal pole. Recommended pole diameter is 10.16 to 22.86 cm (4 to 9 inches).

MODEL NUMBERS

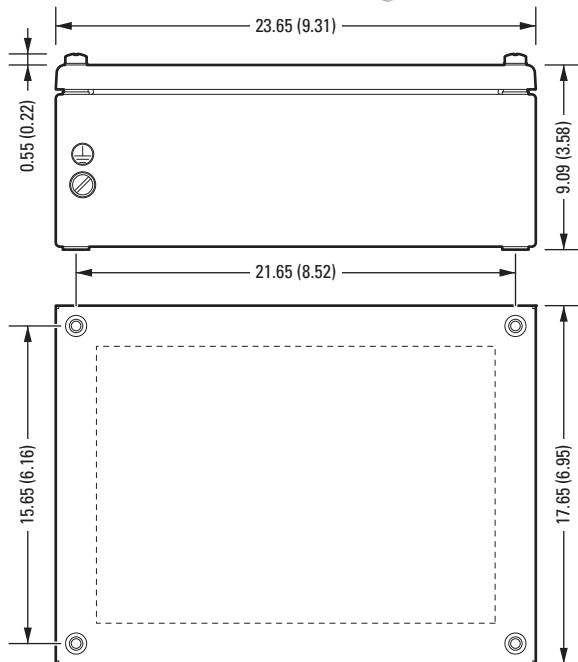
SYSTEM MODEL NUMBERS

Model		Format	24 VAC	100-240 VAC
Pan/Tilt	Standard	NTSC PAL	IPSXME036-2 IPSXME036-2X	IPSXME036-7 IPSXME036-7X
	With Wiper*	NTSC PAL	IPSXME136-2 IPSXME136-2X	IPSXME136-7 IPSXME1367X
Fixed	Standard	NTSC PAL	EHXME036-2 EHXME036-2X	EHXME036-7 EHXME036-7X
	With Wiper*	NTSC PAL	EHXME136-2 EHXME136-2X	EHXME136-7 EHXME136-7X

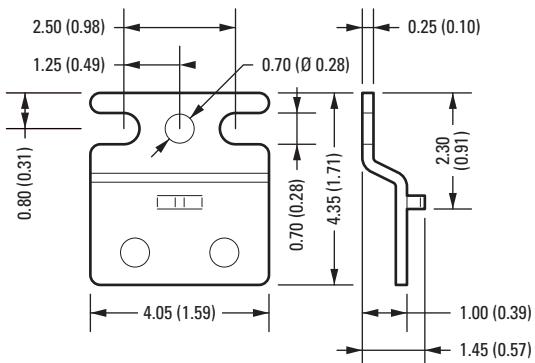


VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

EXAC JUNCTION BOX



EXAC MOUNTING BRACKET



COMPONENT MODEL NUMBERS

Power Module	PTZ or Enclosure	Day/Night 420X Camera Module
IPSXME-2 24 VAC IPSXME-7 100 to 240 VAC	IPSXMP30 PTZ No Wiper	IPSM3036 NTSC, no wiper IPSM3036X PAL, no wiper
	IPSXMP31 PTZ With Wiper*	
	EHXM30 Fixed No Wiper	IPSM3136 NTSC, with wiper* IPSM3136X PAL, with wiper*
	EHXM31 Fixed With Wiper*	

*When cameras with wipers are in full wide zoom or 1X zoom, the wiper is visible in the upper-right corner of the video.

OPTIONAL ACCESSORIES

EXAC

Factory-installed 1.5 m (5 ft) increased safety (Ex e) potted cable interface and junction box with flexible armored conduit and screw-down terminal for quick connection and easy installation.

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