

ExSite® Series Explosionproof Positioning System

PAN/TILT SYSTEM WITH IOP CAMERA AND OPTIONAL WIPER

Product Features

- Electropolished 316L Stainless Steel Construction
- Upright or Inverted Operation
- Receiver, Pan/Tilt, and Enclosure with an Integrated Optics Package (IOP)
- 2 Autofocus, High Resolution Integrated Optic Packages
 - 23X Day/Night, 80X Wide Dynamic Range, Motion Detection, and 540 TVL Horizontal Resolution
 - Color 22X EXview HAD™
- Multilingual On-Screen Menus
- Password Protection
- Programmable Camera Settings
- On-Screen Compass, Tilt, and Zoom Display
- Variable Speed Pan: 0.1° to 40°/second with Proportional Pan
- 360° Continuous Pan Rotation
- Tilt Range of +90° to -90° from Horizontal
- Preset Positioning, Patterns, Multiple Scan Modes
- Designed for Minimal Maintenance
- Built-in System Memory
- Software Update and Setup Through Remote Data Port (IPS-RDPE-2)
- Password Protection to Prevent Unauthorized Changes to the System



SHOWN WITH WXM100 WALL MOUNT
(NOT SUPPLIED)

- On-Board Connector for
 - Pelco VC-UTP Video Converter
 - Pelco TXB Series Translator Boards for Use with Hervis and Other Protocols
 - Pelco FS85011A and Third-Party Fiber Optic Transmitters

The **ExSite® Series** are innovative integrated positioning systems that meet stringent explosionproof requirements. The **ExSite Series** not only combine a receiver, pan/tilt, and enclosure in a single, easy-to-install system, but also includes an Integrated Optics Package (IOP). The Integrated Optics Package contains an autofocus camera and lens module with programmable features.

For a wide range of applications, the **ExSite Series** feature a choice of two different IOP cameras: a high resolution camera with LowLight™ color technology and 22X zoom lens (22X optical, 12X digital), and a high resolution day/night camera with a removable infrared cut filter and 23X zoom lens (23X 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 -76° to 140°F (-60° to 60°C). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -13°F (-25°C).

The **ExSite Series** include an optional window wiper. The wiper is completely integrated into the enclosure and does not interfere with the

viewing range of the system. The wiper can be programmed to delay between wipes and to automatically shut off after a specified period. A built-in heater, window defroster/defogger, sun shroud, and blower are standard features on the **ExSite Series**. All units also include three auxiliary output relays that can be programmed for a variety of uses.

The **ExSite Series** variable pan and tilt speeds range from 0.1 to 40 degrees per second in manual pan, tilt, and preset mode. The **ExSite Series** is capable of 360 degrees of continuous pan rotation. The tilt range allows for horizontal viewing of -90 to +90 degrees. There are 80 preset positions with a preset accuracy of ±0.1 degree.

The systems are available with an input voltage of 24 VAC or with a power source of 100 to 240 VAC. The **ExSite Series** also have a power-up recovery mode that allows the user to specify what operation the system will resume whenever the power is cycled.

ExSite Series feature built-in system memory in the power module to store camera and location-specific pan/tilt settings, including labels, presets, patterns, and zones. These settings are automatically downloaded if a new pan and tilt body is installed.



TECHNICAL SPECIFICATIONS

PRODUCT FEATURES

- Integral Multiprotocol Receiver/Driver
- 360° Continuous Pan Rotation, Tilt Range $\pm 90^\circ$
- Quick and Easy Installation
- Designed for Minimal Maintenance, No Gears to Adjust
- 2-Year Continuous-Duty Warranty
- Upright or Inverted Installation

SOFTWARE/HARDWARE

- Programmable Power-up Mode
- Programmable Park
- Sun Shroud, Heater/Window Defroster, and Blower All Standard
- 80 Presets with Custom Camera Settings and Labels
- $\pm 0.1^\circ$ Preset Accuracy
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- On-Screen Compass, Tilt, and Zoom Display
- Password Protection
- 8 Zones (programmable in size) Can Be Labeled with Up to 20 Characters Each or Set to Output Blank Video
- Programmable Locations of Labels and On-Screen Displays
- 7 Alarm Inputs
- 3 Relay Outputs
- Action on Alarm: Alarms can be individually programmed 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 programmed state after alarm acknowledgement or to its previous position before alarm
- Patterns: Up to 4, on-screen, user-defined programmable 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 programmable between 1° and $40^\circ/\text{sec}$
- Programmable Limit Stops for Auto/Random/Frame Scan Modes
- Autosensing Protocol (Coaxitron®, RS-422 P and D); Accepts Competitive Control Protocol with Optional Translator Card
- Built-in Menu System for Setup of Programmable Functions

ALL CAMERAS

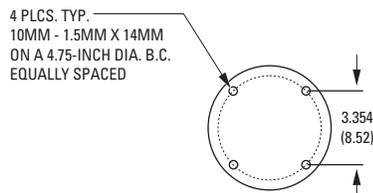
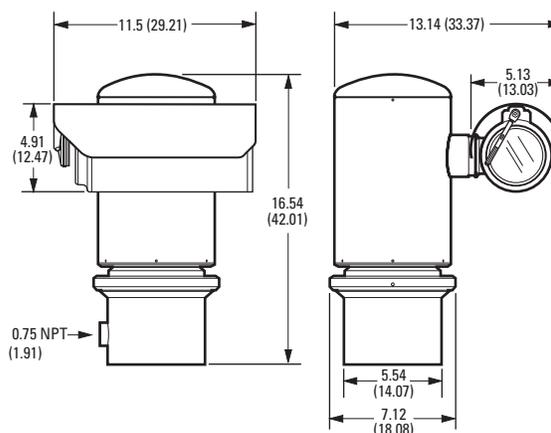
- Autofocus with Manual Override
- Auto Iris with Manual Override
- Programmable Settings
- AC Line Lock
- NTSC/PAL

ELECTRICAL

Input Voltage	24 VAC or 100 to 240 VAC
Input Voltage Range	$\pm 10\%$
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, video, data control, alarm inputs, and auxiliary outputs
Auxiliary Outputs	3 N/O or 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 0.75-inch (1.91 cm) NPT threaded opening; one explosionproof sealable fitting supplied
Pan Movement	360° Continuous pan rotation
Vertical Tilt	Unobstructed $+90^\circ$ to -90°
Variable Pan/Tilt Speed	
Pan	0.1° to $40^\circ/\text{sec}$ variable-speed operation
Tilt	0.1° to $40^\circ/\text{sec}$ variable-speed operation
Preset Speeds	
Pan	$40^\circ/\text{sec}$
Tilt	$40^\circ/\text{sec}$



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

TECHNICAL SPECIFICATIONS

GENERAL

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

CERTIFICATIONS/RATINGS

- UL/cUL Listed
- UL/cUL Hazardous Locations Listed per NEC Division and Zone requirement
Class I, Division I, Groups A, B, C, and D
Class II, Groups E, F, G, T5
Class I, Zone 1, AEx d IIC, Ex d IIC, T5
- S Mark for Argentina
- Meets NEMA Type 4X standards
- Lloyd's Register Type Approval: Marine, offshore, and industrial installations for use in environmental categories ENV1, ENV2, and ENV5; Certificate No. 06/60001
- IECEx UL 04.0010
Ex d IIC, T5
- 04 ATEX 0413858
-  0539   II 2 G Ex d IIC, T5
  II 2 D T105°C, IP66
- 04/UL-BRAE-0027
BR-Ex d IIC, T5, IP66
- Tamb -60°C to 60°C
- C-Tick
- GOST
- NEPSI-China, Ex d IIC, T5, Cert No. GYJ05584

CAMERA/OPTICS

	Day/Night (23X)	Color, LowLight™ (22X)
Signal Format	NTSC, PAL	NTSC, PAL
Scanning System	2:1 Interlace	2:1 Interlace
Image Sensor	1/4-inch Progressive Scan CCD	1/4-inch EXview HAD™ CCD
Effective pixels		
NTSC	768 (H) x 494 (V)	768 (H) x 494 (V)
PAL	752 (H) x 582 (V)	752 (H) x 582 (V)
Horizontal Resolution		
NTSC	540 TV lines	>470 TV lines
PAL	540 TV lines	>460 TV lines
Lens	f/1.6 (focal length, 3.6–82.8 mm optical)	f/1.6 (focal length, 4–88 mm optical)
Zoom	23X optical, 12X digital	22X optical, 12X digital
Programmable Zoom Speed (Optical Range)	2.9/4.2/5.8 seconds	2.4/3.9/6.3 seconds
Horizontal Angle of View	54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom	47° at 4.0 mm wide zoom; 2.2° at 88 mm telephoto zoom
Focus	Automatic with manual override	Automatic with manual override
Maximum Sensitivity @35 IRE		
NTSC	0.025 lux at 1/2 sec shutter (color) 0.1 lux at 1/60 sec shutter (B-W) 0.004 lux at 1/2 sec shutter (B-W)	0.02 lux at 1/2 sec shutter
PAL	0.025 lux at 1/1.5 sec shutter (color) 0.1 lux at 1/50 sec shutter (B-W) 0.004 lux at 1/1.5 sec shutter (B-W)	0.02 lux at 1/1.5 sec shutter
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync*	Internal/AC line lock, phase adjustable using remote control, V-Sync*
White Balance	Automatic with manual override*	Automatic with manual override*
Shutter Speed	Automatic (electronic iris)/Manual	Automatic (electronic iris)/Manual
NTSC	1/2–1/30,000*	1/2–1/30,000*
PAL	1/1.5–1/30,000*	1/1.5–1/30,000*
Iris Control	Automatic Iris Control with manual override*	Automatic Iris Control with manual override*
Gain Control	Automatic/OFF*	Automatic/OFF*
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms
Video Signal to Noise	>50 dB	>50 dB

*Manual control of camera setup functions can be done with CM6700, CM6800, CM9760, CM9770, CM9780, KBD200A, KBD300A, and MPT9500 controllers, but not with CM7500, MPT9000, or KBD9000 controllers.

MOUNTING ACCESSORIES

MODELS

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 4 to 9 inches (10.16 to 22.86 cm)

GENERAL

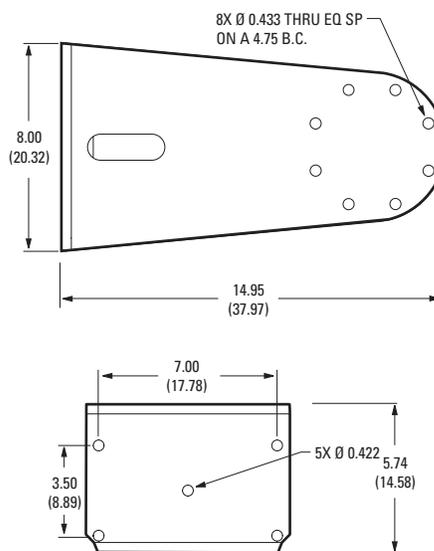
Construction	
Mounts	Electropolished 304 stainless steel
PAXM100 Mounting Straps	316 stainless steel
Maximum Load	
WXM100	73 lb (33 kg)
CMXM100	85 lb (38.50 kg)
PAXM100	88 lb (40 kg)
PXM100	79 lb (35.83 kg)
Unit Weight	
WXM100	12.4 lb (5.62 kg)
CMXM100	7.6 lb (3.45 kg)
PAXM100	9.2 lb (4.17 kg)
PXM100	1.3 lb (0.60 kg)
Shipping Weight (approximate)	
WXM100	17 lb (7.71 kg)
CMXM100	13 lb (5.89 kg)
PAXM100	14 lb (6.35 kg)
PXM100	4 lb (1.81 kg)

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 between 4 and 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.

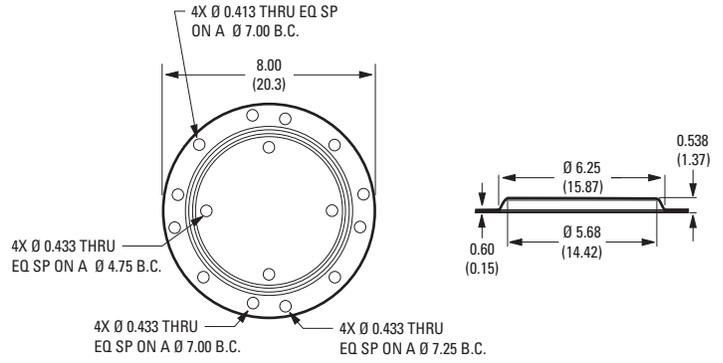
WXM100 WALL MOUNT



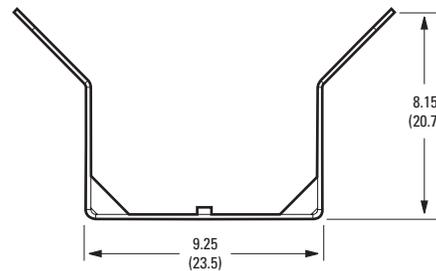
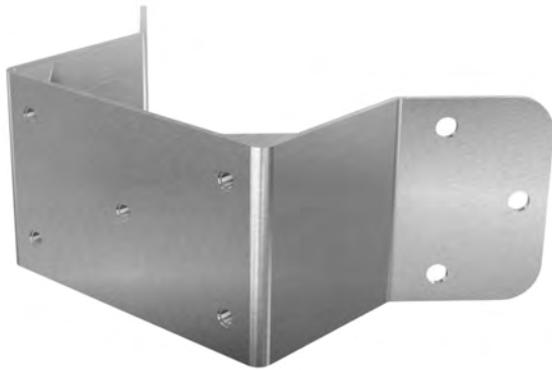
NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

MOUNTING ACCESSORIES

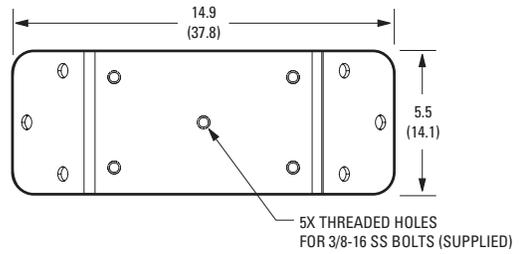
PXM100 PEDESTAL MOUNT



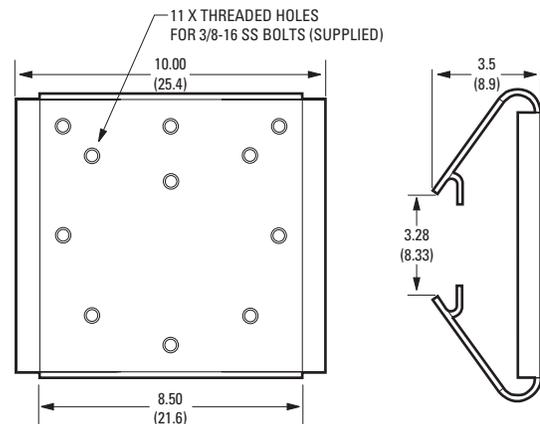
CMXM100 CORNER ADAPTER



Note: Designed to be used with a WXM100 wall mount.



PAXM100 POLE ADAPTER



Note: Designed to be used 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 4 to 9 inches (10.16 to 22.86 cm).

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MODEL NUMBERS

SYSTEM MODEL NUMBERS

Model		Format	24 VAC	100-240 VAC
22X Color	Standard	NTSC PAL	IPSM30C22-2 IPSM30C22-2X	IPSM30C22-7 IPSM30C22-7X
	With Wiper	NTSC PAL	IPSM31C22-2 IPSM31C22-2X	IPSM31C22-7 IPSM31C22-7X
23X Day/ Night	Standard	NTSC PAL	IPSM30CBW23-2 IPSM30CBW23-2X	IPSM30CBW23-7 IPSM30CBW23-7X
	With Wiper	NTSC PAL	IPSM31CBW23-2 IPSM31CBW23-2X	IPSM31CBW23-7 IPSM31CBW23-7X

COMPONENT MODEL NUMBERS

Power Module	PTZ	Camera Module
IPSM-2 24 VAC IPSM-7 100 to 240 VAC	IPSMPT30 No Wiper	IPSM30C22 IPSM30C22X IPSM30CBW23 IPSM30CBW23X Color (NTSC) camera (264X) no wiper Color (PAL) camera (264X) no wiper Day/Night (NTSC) camera (276X) no wiper Day/Night (PAL) camera (276X) no wiper
	IPSMPT31 With Wiper	IPSM31C22 IPSM31C22X IPSM31CBW23 IPSM31CBW23X Color (NTSC) camera (264X) with wiper Color (PAL) camera (264X) with wiper Day/Night (NTSC) camera (276X) with wiper Day/Night (PAL) camera (276X) with wiper

OPTIONAL ACCESSORIES

TXB Series*	Translator boards for AD Manchester, Hervis, Bosch® (Philips®, Burle), Sensomatic®, TASS, Vicon™, and NTCIP™ protocols.
IPS-RMK	Remote monitor kit. Includes TFT-LCD monitor, PDA handheld, cables, and carrying case. Allows viewing of camera video, local PTZ control, and system setup.
IPS-CABLE	Remote monitor cable and software kit.
IPS-RDPE-2*	Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/programming when used with the IPS-RMK.
VC-UTP	Converts video for use with unshielded twisted pair (UTP); cannot be used simultaneously with TXB translator boards.
FS85011A Series*	Factory-installed fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over on multimode or single-mode fiber optic cable.

*If TXB or FS85011A boards are installed, remote upload of system software will not be possible.

RECOMMENDED CONTROLS

All Pelco multiplexer and matrix switchers:
CM6700, CM6800, CM9700 Series, MPT9000, and MX4000 Series.

RECOMMENDED KEYBOARD CONTROLS

(For use in Direct Mode operation only)

KBD200A	Desktop keyboard, multispeed PTZ control.
KBD300A	Desktop keyboard, varispeed PTZ control.

Note: System keyboards require a remote keyboard wiring kit (KBDKIT) for direct mode operation; allows 2-wire control of up to 16 daisy-chained receivers. Keyboards output Pelco P protocol at 4800 baud.



ExSite system installed in an inverted position using a pedestal mount (PXM100) attached to a pole adapter (PAXM100).



ExSite system installed to a wall mount (WXM100) and pole adapter (PAXM100).



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