EHXM Series Explosionproof Camera System
CAMERA SYSTEM WITH IOP CAMERA AND OPTIONAL WIPER

Product Features

- Electropolished 316L Stainless Steel Construction
- Upright or Inverted Installation
- Manual 200° Pan and 180° Tilt Adjustments
- Receiver and Enclosure with Integrated Optics Package (IOP)
- For Use in a Variety of Harsh and/or Hazardous Environments, including Marine Environments
- Two Auto Focus, High-Resolution Integrated Camera/Optics Packages
  - 23XDay/Night, 80X Wide Dynamic Range, and Motion Detection
  - Color 22X EXview HAD™
  - Multilanguage On-Screen Menus
  - Password Protection
  - Auto Focus with Manual Override
  - Programmable Camera Settings
  - Auto Iris with Manual Override
- Integral Multiprotocol Receiver/Driver
- Meets NEMA Type 4X and IP66 Standards
- Designed for Minimal Maintenance
- Password Protection

- On-Board Connector for
  - Pelco VC-UTP Video Connector
  - Pelco TXB Series Translator Boards for Use with Hernis and Other Protocols
  - Pelco FS85011 and Third-Party Fiber Optic Transmitters

The **EHXM Series** explosionproof camera enclosures are designed to meet the rigorous requirements of explosionproof and dust-ignition-proof electrical equipment for installation and use in hazardous locations. The system can be installed in a standard or inverted position and features manually adjustable 200 degrees of pan and 180 degrees of tilt positioning.

All units feature an integrated camera and lens package with LowLight™ technology. The day/night model features a 23X lens, built-in motion detection and 80X wide dynamic range imager. The color camera has a 22X lens and EXview HAD™ imager for increased sensitivity.

The electropolished 316L stainless steel construction makes the **EHXM Series** ideal for either indoor or outdoor applications. The system has an absolute operating temperature range of -60°C to 60°C. Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -25°C.

The systems are available with an input voltage of 24 VAC or with a power source of 100-240 VAC.

The **EHXM Series** includes 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. The wiper design also allows for easy replacement of the wiper blade. A built-in heater, window defroster/defogger, sun shroud, and blower are standard features on the **EHXM Series** units. All units also include three auxiliary output relays that can be programmed for a variety of uses including third-party washer systems.

Also available are video conversion modules for applications using unshielded twisted pair (UTP) and fiber. See OPTIONAL ACCESSORIES for information.

IP66

PRODUCT FEATURES

- Integral Multi-Protocol Receiver/Driver
- Quick and Easy Installation

SOFTWARE/HARDWARE

- Multilanguage Menus (English, Spanish, Portuguese, Italian, French, and German)
- Alternate Language Files (includes Russian, Polish, Turkish) Available as Optional Software Upload
- Password Protection
- Programmable Locations of Labels and On-Screen Displays
- Auto-sensing 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

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

ELECTRICAL

Input Voltage	24 VAC or 100-240 VAC
Input Voltage Range	±10%
Power Consumption	Maximum 60 watts (120 VA)
Heater and Defroster	Microprocessor controlled
Electrical Connections	6-foot pigtail wire harness with connections for power, video, alarm inputs, and auxiliary outputs.

MECHANICAL

Cable Entry	One 0.75-inch (1.91 cm) NPT threaded opening; explosionproof sealable fitting (supplied)
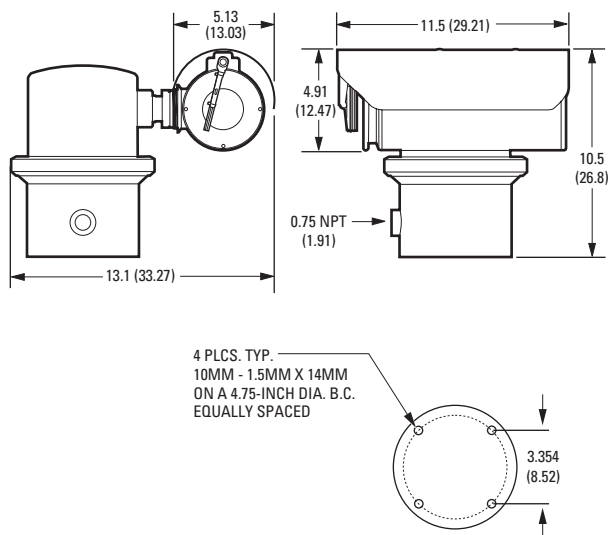
NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

GENERAL

Construction	316L stainless steel
Finish	Electropolish
Viewing Window	0.50-inch (12.7 mm) thick, soda-lime tempered glass
Operating Temperature	-60°C to 60°C
Unit Weight	34.7 lb (11.33 kg)
Shipping Weight	40 lb (18.14 kg) approximate
Effective Projected Area (EPA)	31.1 square inches

CERTIFICATIONS/RATINGS

- UL/cUL Listed
- UL/cUL Hazardous Locations Listed per NEC Division and Zone requirement
- UL Marine Listed
- Class 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
- BR-Ex d IIC, T5, IP66
- 04/UL – BRAE – 0027
- IECEx UL 04.0010, Ex d IIC, T5
- 04 ATEX 0413858
- $C\epsilon$ 0539 ⟨Ex⟩ ⟨D⟩ II 2 G Ex d IIC, T5
- ⟨Ex⟩ ⟨D⟩ II 2 D T105 C, IP66
- (Tamb -60°C to 60°C)
- Meets NEMA Type 4X standards
- Complies with Argentina compliance requirements under Res. 92/98
- NEPSI-China, Ex d IIC, T5, Cert No. GYJ05584
- Lloyd's Register Type Approval: Marine, offshore, and industrial installations for use in environmental categories ENV1, ENV2, and ENV5; Certificate No. 06/60001

At the time of this printing, all other certifications are pending. Please consult the factory, our web site (www.pelco.com), or the most recent B.O.S.S.® update for the current status of certifications.

CAMERA/OPTICS

	Day/Night (23X)	Color, LowLight™ (22X)
Signal Format	NTSC, PAL	NTSC, PAL
Scanning System	2:1 Interlace	2:1 Interlace
Image Sensor Effective pixels NTSC PAL	1/4-inch CCD 724 (H) x 494 (V) 724 (H) x 582 (V)	1/4-inch EXview HAD™ CCD 768 (H) x 494 (V) 752 (H) x 582 (V)
Horizontal Resolution NTSC PAL	 >470 TV lines >470 TV lines	 >470 TV lines >460 TV lines
Lens	F/1.6 (F = 3.6~82.8 mm optical)	F/1.6 (F = 4~88 mm optical)
Zoom	23X optical, 12X digital	22X optical, 12X digital
Zoom Speed	2.9/4.2/5.8 seconds	2.4/3.9/6.3 seconds
Horizontal Angle of View Focus	54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom Automatic with manual override	47° at 4.0 mm wide zoom; 2.2° at 88 mm telephoto zoom Automatic with manual override
Maximum Sensitivity @35 IRE NTSC PAL	 0.08 lux at 1/2 sec shutter **(color)** 0.3 lux at 1/60 sec shutter **(B-W)** 0.013 lux at 1/2 sec shutter **(B-W)** 0.08 lux at 1/1.5 sec shutter **(color)** 0.3 lux at 1/50 sec shutter **(B-W)** 0.013 lux at 1/1.5 sec shutter **(B-W)**	 0.02 lux at 1/2 sec shutter 0.02 lux at 1/1.5 sec shutter
Sync System	Internal/AC line lock, phase adjustable via remote control, V-Sync*	Internal/AC line lock, phase adjustable via remote control, V-Sync*
White Balance	Automatic with manual override*	Automatic with manual override*
Shutter Speed NTSC PAL	Automatic (electronic iris)/Manual 1/2~1/30,000* 1/1.5~1/30,000*	Automatic (electronic iris)/Manual 1/2~1/30,000* 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, CM8500, CM9500, CM9740, CM9760, CM9770, CM9780, KBD200A, KBD300A, and MPT9500 controllers, but not with CM7500, MPT9000 or KBD9000 controllers.

MOUNTING ACCESSORIES

MODELS

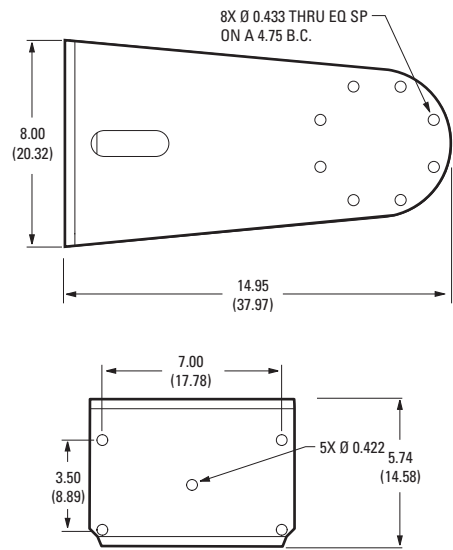|	
WXM100	Wall mount designed to mount the EHXM Series system directly to a load-bearing vertical surface
PXM100	Pedestal mount designed to mount an EHXM Series system directly to a horizontal surface in either an upright or inverted position
CMXM100	Corner adapter for use with the WXM100 to mount an EHXM 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 — Electro-polished 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.
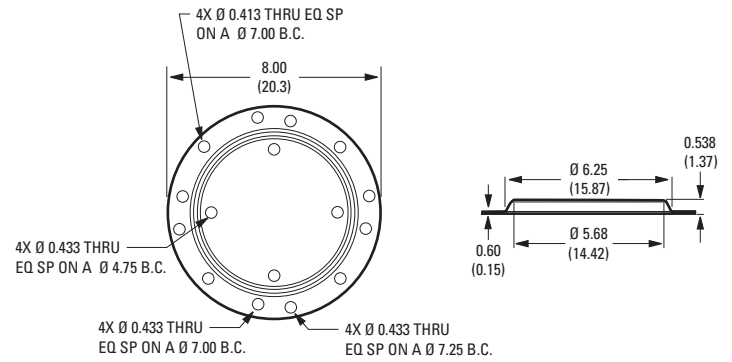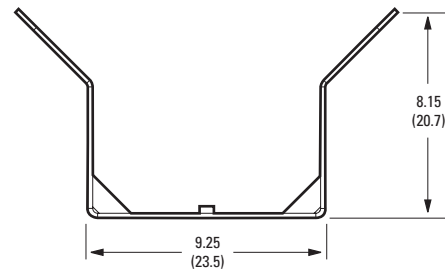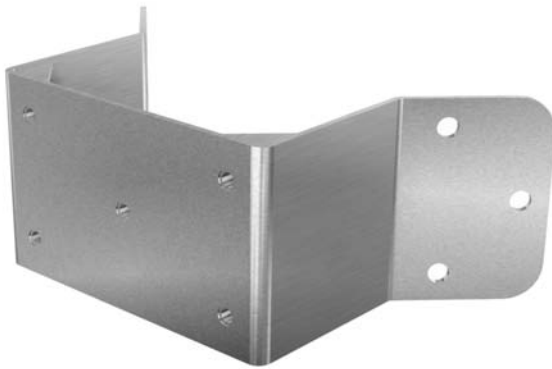
WXM100 WALL MOUNT

8X Ø 0.433 THRU EQ SP ON A 4.75 B.C.
8.00 (20.32)
14.95 (37.97)
7.00 (17.78)
3.50 (8.89)
5X Ø 0.422
5.74 (14.58)

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

PXM100 PEDESTAL MOUNT

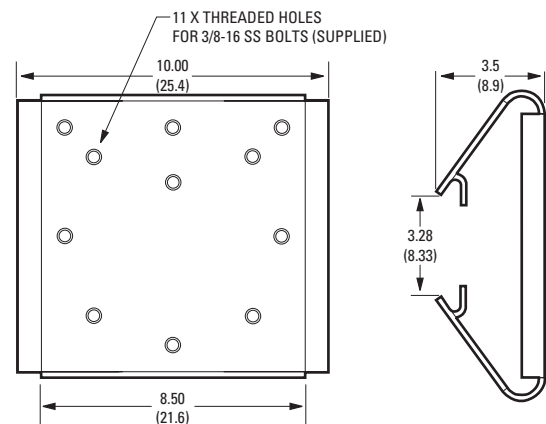4X Ø 0.413 THRU EQ SP ON A Ø 7.00 B.C.

8.00 (20.3)

0.538 (1.37)

Ø 6.25 (15.87)

Ø 5.68 (14.42)

0.60 (0.15)

4X Ø 0.433 THRU EQ SP ON A Ø 4.75 B.C.

4X Ø 0.433 THRU EQ SP ON A Ø 7.00 B.C.

4X Ø 0.433 THRU EQ SP ON A Ø 7.25 B.C.

CMXM100 CORNER ADAPTER

NOTE: *Designed to be used with a WXM100 wall mount.*

8.15 (20.7)

9.25 (23.5)

14.9 (37.8)

5.5 (14.1)

5X THREADED HOLES FOR 3/8-16 SS BOLTS (SUPPLIED)
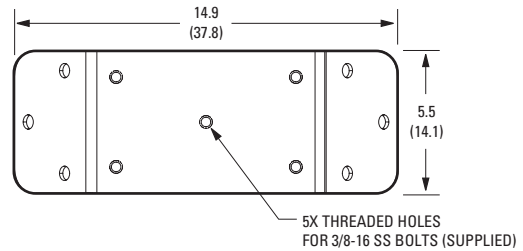
PAXM100 POLE ADAPTER

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).*

11 X THREADED HOLES FOR 3/8-16 SS BOLTS (SUPPLIED)

10.00 (25.4)

3.5 (8.9)

3.28 (8.33)

8.50 (21.6)

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

MODEL NUMBERS

MODELS

	Model	Format	24 VAC	100-240 VAC
22X Color	Standard	NTSC PAL	EHXM30C22-2 EHXM30C22-2X	EHXM30C22-7 EHXM30C22-7X
	With Wiper	NTSC PAL	EHXM31C22-2 EHXM31C22-2X	EHXM31C22-7 EHXM31C22-7X
23X Day/ Night	Standard	NTSC PAL	EHXM30CBW23-2 EHXM30CBW23-2X	EHXM30CBW23-7 EHXM30CBW23-7X
	With Wiper	NTSC PAL	EHXM31CBW23-2 EHXM31CBW23-2X	EHXM31CBW23-7 EHXM31CBW23-7X

COMPONENT MODEL NUMBERS

Power Module	Enclosure	Camera Module	
IPSXM-2 24 VAC IPSXM-7 100-240 VAC	EHXM30 No Wiper	IPSXM30C22 IPSXM30C22X IPSXM30CBW23 IPSXM30CBW23X	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
	EHXM31 With Wiper	IPSXM31C22 IPSXM31C22X IPSXM31CBW23 IPSXM31CBW23X	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, Hernis, Bosch (Philips, Burle), Sensormatic, and Vicon 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. (No code upload.)

VC-UTP — Converts video for use with unshielded twisted pair (UTP); cannot be used simultaneously with TXB translator boards

FS85011 Series* — Factory-installed fiber transmitter sends one undirectional composite video channel and one bidirectional data channel over one multimode or single-mode filber optic cable.

*If TXB or FS85011 boards are installed, remote upload of system software will not be possible.

RECOMMENDED CONTROLS

All Pelco multiplexer and matrix switchers:
CM6700, CM6800, CM9760, CM9770, CM9780, MPT9000, and MX4000 Series.

RECOMMENDED KEYBOARD CONTROLS

(For use in Direct Mode operation only)
KBD200A — Desktop keyboard, multi-speed PTZ control
KBD300A — Desktop keyboard, vari-speed PTZ control

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

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

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