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
- 2 Auto Focus, High Resolution Integrated Camera/Optics 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
  - Autofocus 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 FS85011A and Third-Party Fiber Optic Transmitters

The **EHXM Series** explosionproof camera enclosures are designed to meet the rigorous requirements of explosionproof and dust-ignitionproof 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 -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 systems are available with an input voltage of 24 VAC or with a power source of 100 to 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. Refer to OPTIONAL ACCESSORIES for information.

PRODUCT FEATURES

- Integral Multiprotocol Receiver/Driver
- Quick and Easy Installation

SOFTWARE/HARDWARE

- Multilingual 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
- 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
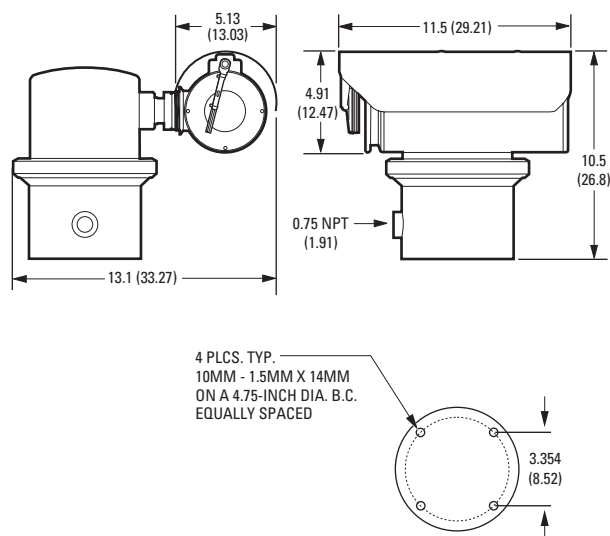
ALL CAMERAS

- 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, 50/60 Hz
Input Voltage Range	±10%
Power Consumption	Maximum 60 W (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)

5.13 (13.03)
11.5 (29.21)
4.91 (12.47)
10.5 (26.8)
0.75 NPT (1.91)
13.1 (33.27)

4 PLCS. TYP.
10MM - 1.5MM X 14MM
ON A 4.75-INCH DIA. B.C.
EQUALLY SPACED

3.354 (8.52)

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	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
  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
- 04/UL-BRAE-0027
  BR-Ex d IIC, T5, IP66
- IECEx UL 04.0010X
  Ex d IIC, T5
- DEMKO 04 ATEX 0413858
  C€ 0539 〈Ex〉 II 2 G Ex d IIC, T5
  〈Ex〉 II 2 D Ex tD A21 IP66 T105°C
- Tamb -60°C to 60°C
- NEPSI-China, Ex d IIC, T5, Cert No. GYJ05584
- C-Tick
- 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

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 progressive scan CCD 768 (H) x 494 (V) 752 (H) x 582 (V)	1/4-inch EXview HAD™ CCD 768 (H) x 494 (V) 752 (H) x 582 (V)
Horizontal Resolution NTSC PAL	540 TV lines 540 TV lines	>470 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
Zoom Speed	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 at 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 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. Manual control of cameras cannot be done with CM7500, MPT9000 or KBD9000 controllers.

MOUNTING ACCESSORIES

MODELS

WXM100	Wall mount designed to mount the EHXM Series system 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	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 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.
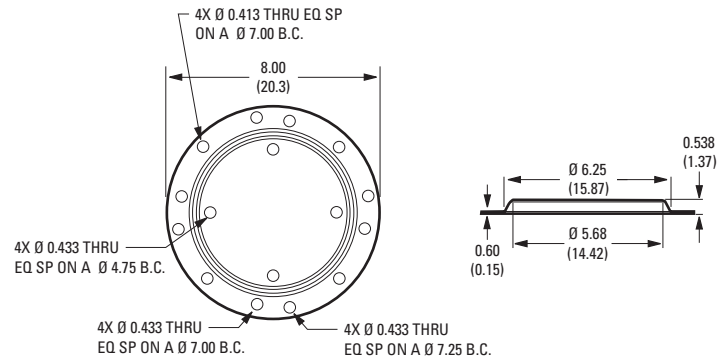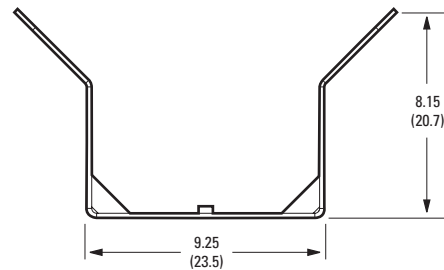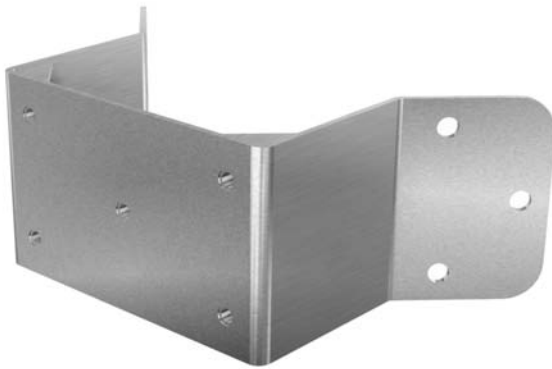
WXM100 WALL MOUNT
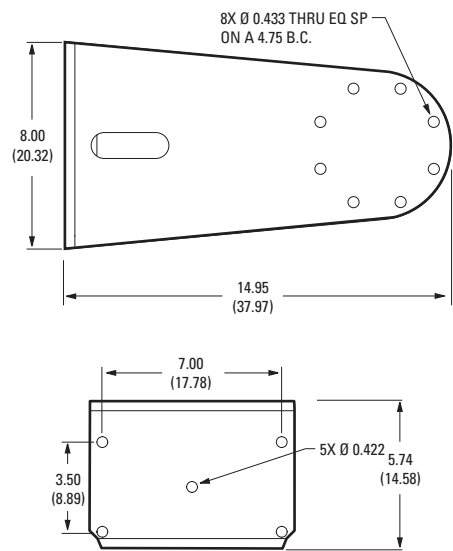
8X Ø 0.433 THRU EQ SP ON A 4.75 B.C.

8.00 (20.32)

14.95 (37.97)

7.00 (17.78)

3.50 (8.89)

5X Ø 0.422

5.74 (14.58)

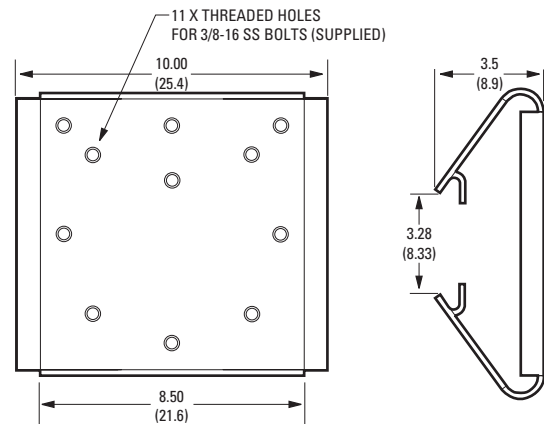NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

PXM100 PEDESTAL MOUNT

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

8.00 (20.3)

Ø 6.25 (15.87)

0.538 (1.37)

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 for use 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

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: 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 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	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®, 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 (no code upload).
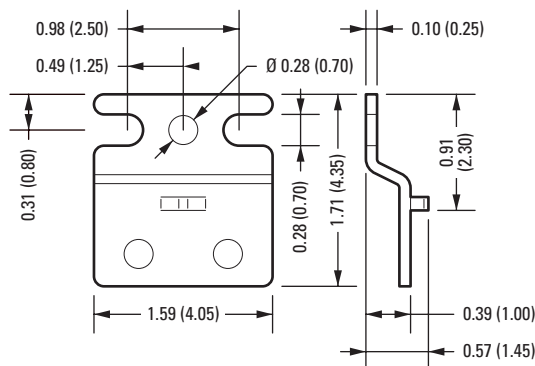
VC-UTP Converts video for use with unshielded twisted pair (UTP); cannot be used simultaneously with TXB translator boards.

FS85011A Series* Factory-installed fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over one multimode or single-mode fiber optic cable.

EXAC Factory-installed increased safety (Ex e) potted cable interface and junction box with screw-down terminal for quick connection and easy installation.

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

EXAC JUNCTION BOX
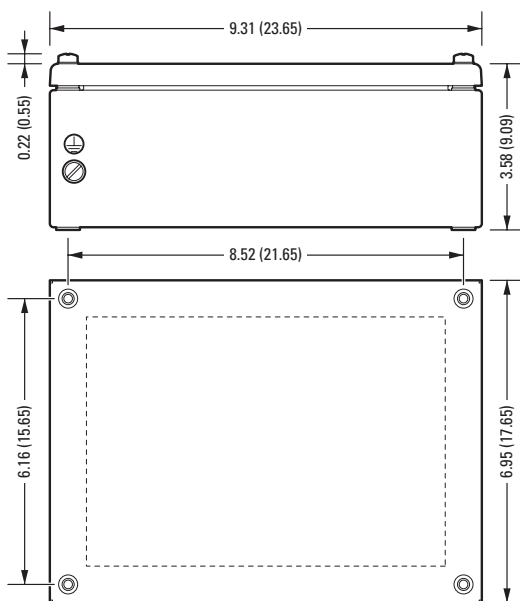
EXAC MOUNTING BRACKET

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