

EX270 HD IP

Complete PTZ dome camera station (Ex)



Overview

Eaton's EX series are highly advanced process and surveillance camera stations that are certified to meet worldwide specifications for use in hazardous areas and harsh environmental conditions. The customized dome is hard-coated for Electro-Magnetic Compatibility (EMC).

Features

- Scratch resistant coating (EMC)
- EX certified for zone 1 (gas group IIB+H2)
- Full HD 1080p resolution
- H264 video compression
- Flexible powering (30VAC, 24VDC or PoE)
- Endless panoramic rotation
- Automatic image flip
- Scratch proof, tempered glass
- Auto focus with manual override on motorised zoom lenses
- Auto iris with manual override on motorised zoom lenses
- Built-in heating
- Designed to accept future software upgrades remotely

The EX270 HD IP dome is delivered in accordance with international standards. Already effective is Ex certification by DNV to ATEX Directive 94/9/EC and IECEx, certified as: EX II 2 G Ex d IIB+H2 T6. Ex certification is also made valid for Russia (TR CU) and Brazil (INMETRO). The EX270 HD IP dome is also designed and tested to meet the DNV requirements for Type Approval Certification. Through its carefully engineered design this station is able to endure vibration and other physical forces so devastating to PTZ camera stations. Rated to IP 66 the camera station certifies protection from high-pressure water from any direction, including green sea, guaranteeing no harmful effects.

The dome offers endless panoramic rotation and 180 degrees tilt with vertical image flip. Speed; 116 degrees per second. Envision the dome being ceiling mounted in a hallway. You want to follow an object moving towards the camera, then moving past it. Without the image flip the object would appear upside down after having passed the camera. Eaton's HERNIS dome will however automatically flip the image for you once the object has passed for a natural viewing angle. The design optimises position accuracy and in poor light conditions the camera will automatically turn to black and white for optimal image quality. Autofocus further increases the user experience.

Internal heating eliminates any risk of icing or malfunction in low temperatures, whereas its high quality 316L stainless steel exterior provides maximum resilience to environmental exposure and direct sunlight, avoiding heat absorption. The smooth surface is practically maintenance free.

A single CAT5/6 cable is sufficient to transmit data and power (PoE), routed directly to a data switch or control cabinet, eliminating the need for additional junction box equipment. If PoE is not going to be used, the EX270 HD IP can be supplied with 30 VAC or 24VDC.

The EX270 HD IP may be used with any Eaton FLEX CCTV control system and can be mounted standing or hanging depending on the viewport required.

The fact that Eaton is a complete systems supplier ensures that our camera stations have long design life and lifetime factory support. The EX270 HD IP is designed to accept future software upgrade and diagnostics remotely.

Eaton products' long life cycle and low maintenance contributes to a minimal environmental impact so vital in today's global awareness.

Certifications

ATEX certificate No:	PRESAFE 16 ATEX 8737X
IECEX certificate No.:	IECEX PRE 16.0063X
DNV Type Approval:	DNV GL Certificate No: TAA00000C8
TR CU	
INMETRO	
Ex certification code:	
For configuration 137/466JB	Ex II 2 G, Ex db IIB+H2 T6 Gb
For configuration 117/466 & 117/466FL	Ex II 2 G, Ex db IIB+H2 T5 Gb

Specifications

Physical dimensions

Weight	13,9kg for config 117/466, 16,7kg for config 117/466FL (including cable) 15,2kg for config 117/466JB
Dimensions (H x Ø)	262 x 260mm (400mm including junction box)
Mounting	Ceiling (bolts:M10, not included)
Material & finish	Stainless steel AISI 316L, electro polished Polycarbonate dome cupola, electro-static dissipative coating

Operating conditions

IP protection rate	IP66 (NEMA 4x)
Humidity	Up to 100%
Vibration	3 - 100Hz (1mm or 0.7gr)
Enclosure	Salt mist tested
EMI/EMC	All locations including open deck (according to DNV GL)

Operating temperature range

For configuration 137/466JB	-20°C to +60°C (heating element inside housing)
For configuration 117/466 & 117/466FL	-20°C to +70°C (heating element inside housing)

Camera

Image sensor	1/2.8" Progressive Scan CMOS
Sync system	Internal
S/N ratio	> 50 dB / WDR
Frame rate	50 HZ: 25 fps (1920 x 1080) , 25 fps (1280 x 720) 60 HZ: 30 fps (1920 x 1080), 30 fps (1280 x 720)
Min. illumination	Color: 0.05Lux @(F1.6, AGC ON) B/W: 0.01Lux @(F1.6, AGC ON)

Lens

Focal length	4.7 - 94mm, 20 x optical
Aperture range	F1.6 - F3.5
Angle of view	61.4 - 2.9° (wide-tele)
Min working distance	10mm-1500mm (wide-tele)
Zoom speed	Approx. 2.7s (optical, wide-tele)
Day & night	IR cut filter auto switch

Specifications IP

Protocol	IPv4/IPv6, TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP/SNMP, FTP, 802.1x, QoS, HTTPS, IPv6 (SIP, SRTP optional)
Compression	Main stream: H.264 Sub stream: H.264, MJPEG
H.264 compression profile	Main profile, High profile
Dual-streaming	Supported
Video bit rate	256 Kbps - 13 Mbps
Ethernet port	1 RJ45 10M/100M Ethernet interface
Electrical data	CAT6 Cable AWG23

Attributes

Power supply	30VAC (+10% -30%, 50/60Hz) / 24VDC (+/-10%) / PoE (IEEE802.3at) Dome can be powered with 30VAC or 24VDC For PoE operation a different DIP switch setting is necessary The power setting of each EX270 is configured according to the project requirements
Power consumption/heat dissipation	12W (20W max. when heater is on)
Rotating angle/variable speed	Pan: Continuous 360°/Speed 1.8°/sec. - 110°/sec Tilt: 180°/ Speed 1.8°/sec. - 110°/sec
Preset/home positions	100 preset + 1 home positions, accuracy ≤ 0.1°

Accessories

Optional	Safety kit with 2 meter wire, compound gland for configuration 117/466
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Ordering requirements

The following code is designed to help in selection of the correct unit.
All configurations may be deliverable with the section: 30VAC, 24VDC or PoE

HERNIS™ part no:	097165-1xx/466y
117/466	Exd, gland entry blinded (no cable or gland)
117/466FL	Exd, flying lead, 10 meters 025223
137/466JB	Exd, dome with Exe junction box

General arrangement drawing (all dimensions in mm)

