

- صورة للسيد اللواء / مستشار رئيس الهيئة للأمن.

## Hazem Hassen

**From:** Abdelkhalek Ahmed <Abdelkhalek.Ahmed@systel.com.eg>  
**Sent:** Tuesday, December 20, 2022 12:33 PM  
**To:** Hazem Hassen; mahmedsca@gmail.com  
**Cc:** Tarek Gharieb; وليد عبدالباسط عبدالله  
**Subject:** RE: Ferry Boats CCTV system ( tender no. 109-528/3656)  
**Attachments:** NVX-with-SONY-FCB-EV7520-camera\_Datasheet-Marine standard.pdf; ExSite® Enhanced Explosionproof Camera System.pdf; C5051S-A.c\_ExSiteEnhanced2ExplosionProtectedFixed\_SpecSheet\_011222.pdf; Compact Camera System.pdf

Dear Eng. Hazem,

Would you please let us know if any of the attached cameras are approved for this tender or not as we didn't find any model match the tender booklet 100%.

Also we need to schedule meeting with the technical department and we will invite Pelco's team to this meeting.



**SYSTEL "Telecom"**  
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**From:** Hazem Hassen [mailto:hazem.hassan@suezcanal.gov.eg]  
**Sent:** Monday, December 19, 2022 10:30 AM  
**To:** mahmedsca@gmail.com  
**Cc:** Tarek Gharieb <tarek.gharieb@suezcanal.gov.eg>; وليد عبدالباسط عبدالله <walid.abdalla@suezcanal.gov.eg>  
**Subject:** Ferry Boats CCTV system ( tender no. 109-528/3656)

Dears,

Ref. to the A/M subject, and the site survey that you have carried out, Kindly send any technical remarks related to tender's technical specifications and any updates that appeared during the site survey.  
Waiting your remarks if exist till the next Monday 26/12/2022.

Best Regards.



**Hazem Hassen**  
**IT Procurement Engineer**  
Suez Canal Authority | Ismailia | Egypt

Suez Canal Authority  
El Irshad Building

# NVX with SONY FCB-EV7520 camera

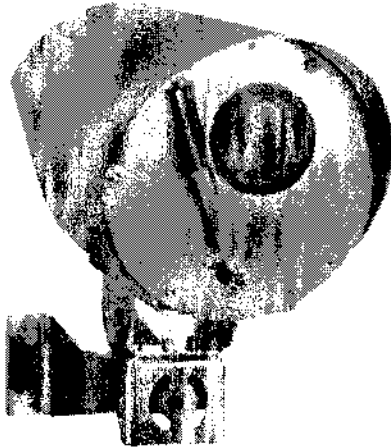
STAINLESS STEEL FULL HD CAMERA



IP66/IP67  
IP68/IP69

TYPE4X  
TYPE6P

IP



- Exceptional corrosion resistance
- Impenetrable optical image
- Anti-electromagnetic filter
- Quick connectors and modular integrated support

ONVIF SONY



## HIGH STRENGTH AND WIDE APPLICATION RANGE

The NVX camera is entirely made of AISI 316L stainless steel and stands out for its exceptional resistance to corrosion. NVX was designed to guarantee efficient video surveillance in offshore/onshore marine environments, but also in applications for the rail and transport sectors.

Thanks to its mechanical characteristics, the compact design and the light weight, its use is also indicated in industrial environments, in particular in foodstuff industry applications, with the possibility of mounting the polycarbonate window.

The high anti-corrosion properties of its AISI 316L stainless steel structure combined with the vast temperature range and the IP66/IP67/IP68 degrees of protection guarantee complete protection against bad weather and temporary immersion in water. In addition, the IP69 certification allows camera cleaning with high pressure water jets at high temperature.

Installation of NVX even in tight spaces is facilitated by the quick connectors and the practical, modular support supplied as standard for assembly on walls, ceilings or railings. NVX versions are available with integrated wiper or with a polycarbonate window.

This camera is certified Lloyd's Register Type Approval System Test Specification Number 1. It can therefore be used in marine applications for environmental categories that include boats, ships, open decks, enclosed spaces, technical premises subject to heat generated by other equipment or as a visual support for mooring manoeuvres (ENV1, ENV2, ENV3 and ENV5).

## HIGH QUALITY IMAGE

NVX with SONY FCB-EV7520 camera incorporates a 30x zoom lens and a 1/2.8" Exmor R™ CMOS type sensor with Full HD 1080/60p resolution capable of producing impeccable quality image even for objects in motion and more difficult lighting conditions. The powerful image stabilization algorithm means even the smallest camera vibrations are detected and any blur in the footage is dynamically corrected. This results in a sharp image of the scene being surveilled.

The advanced SONY technology brings Wide Dynamic Range and a configurable High Light Compensation that allows optimal management of contrasting light and dark conditions.

## 100% MADE IN VIDEO TEC

Videotec guarantees the extreme robustness and reliability of all its "all-in-one products" with hundreds of validation tests. Mechanics, electronics, positioning, networking, software and firmware are developed end-to-end by the internal Videotec team, with total know-how of all the network products offered.

At the heart of Videotec's product development is the concept of cyber-sustainability. To help customers protect their video surveillance systems and keep them secure, Videotec provides constant updates, training and support throughout the lifecycle of its products, regardless of how old the device is or whether it is still for sale.

Thanks to digitally signed firmware, password-restricted access, access control, centralised management of certificates and compliance with ONVIF Security Service specifications, Videotec guarantees that all its IP products will have the highest level of security during data transfer and device access.

NVX therefore offers the Videotec warranty of being a reliable platform, that is cyber-safe, future-proof and easily integrated with third party products. The new functions of Videotec video analysis, combined with the high technology and quality of the NVX imagery ensure maximum protection for people, assets and property.

## TECHNICAL DATA

### GENERAL

Simple installation thanks to quick connectors

Quick configuration and setup

### MECHANICAL

AISI 316L stainless steel construction

Slot for safety chain

Unit weight:

- 4.9kg (10.8lb) (fastening support included)
- 4kg (8.8lb) (fastening support not included)

### HOUSING'S WINDOW

Extra clear glass window

- Thick: 3mm (0.1in)

Polycarbonate window (available only for version without wiper)

- Thick: 3mm (0.1in)

### ELECTRICAL

Supply voltage/Current consumption:

- 24Vdc, 1.32A, 50/60Hz
- 24Vdc, 0.9A
- PoE+ (IEEE 802.3at)

Power consumption:

- 21W

### NETWORK

Ethernet connection: 100 Base-TX

Connector: RJ45

### CYBERSECURITY

Digitally signed firmware

Password restricted access (HTTP digest)

Support of various user access levels

Control of accesses IEEE 802.1X

HTTPS cryptography using TLS1.0, TLS1.1, TLS1.2 and TLS1.3

Centralised certificate management

Complies with ONVIF Security Service specifications

## VIDEO

### Video encoder

- Communication protocol: ONVIF, Profile Q, Profile S and Profile T
- Device configuration: TCP/IP v4-IPv6, UDP/IP v4-IPv6, HTTP, HTTPS, NTP, DHCP, WS-Discovery, DSCP, IGMP (Multicast), SOAP, DNS
- Streaming: RTSP, RTP, RTP/IPv4-IPv6, HTTP, Multicast
- Video compression: H.264/AVC, MJPEG, MPEG4, snapshot JPEG
- 3 independent video streams Full HD
- Image resolution: from 320x180pixel up to 1920x1080pixel in 8 steps
- Selectable frame rate from 1 to 60 images per second (fps)
- Web Server
- Motion Detection
- QoS: Differentiated DSCPs for streaming and device management
- SNMP and NTPCIP protocols

## CAMERAS

### SONY FCB-EV7520 Day/Night Full HD 30x

Resolution: Full HD 1080p (1920x1080)

Image Sensor: 1/2.8" Exmor™ R CMOS sensor

Effective Pixels: approx. 2.13 Megapixels

Minimum Illumination:

- Colour: 0.0013lx (50 IRE, High sensitivity on)
- B/W: 0.0008lx (30 IRE, High sensitivity on)

Focal length: from 4.3mm (wide) up to 129mm (tele)

Zoom:

- 30x
- 30x, with Stable Zoom enabled

Digital Zoom: 12x

Iris: from F1.6 up to F14 (Auto, Manual)

Horizontal Viewing Angle: from 63.7° (wide end) up to 2.3° (tele end)

Vertical Viewing Angle: from 38.5° (wide end) up to 1.3° (tele end)

Shutter speed: from 1/1s up to 1/10000s (Auto, Manual)

White balance: Auto, Auto Tracing, Indoor, Outdoor, Manual, Outdoor Auto, Sodium Lamp (Fix/Auto/Outdoor Auto)

Gain: from 0dB up to 50.0dB (Auto, Manual)

Wide Dynamic Range: 120dB

Focus System: Auto (PTZ trigger, Full Auto), Manual

Picture Effects: E-flip

Noise removal (2D, 3D): Off, On (from level 1 up to level 5)

Exposure Control: Auto, Manual, Priority (Shutter priority, Iris priority, Brightness priority)

De-fog: Off, Low, Mid, High

Privacy zones/masking: maximum 8 settable masks

Indoor Flicker Reduction

Gain Limit: from 10.7dB up to 50dB

High sensitivity: On/Off

Backlight Compensation: On/Off

Auto Slowshutter: On/Off

Exposure compensation: Off, On (from -10.5dB up to +10.5dB)

Sharpness: from level 0 up to level 15

High Light Compensation (HLC): Off, Low, Mid, High, Masking Level (Off, On, from level 1 up to level 15)

Digital image stabilization: On/Off

## I/O INTERFACE

I/O alarm board (version with wiper)

- Input for remote reset: 1
- Relay outputs: 1+1 (1 relay reserved for washer pump and one configurable, 1A, 30Vdc/60Vdc max)

## ENVIRONMENT

For indoors and outdoors installation

Operating temperature

- Version with 24Vdc or 24Vdc power supply: from -40°C (-40°F) up to +65°C (149°F)
- Version with PoE+ power supply: from -40°C (-40°F) up to +60°C (140°F)
- Temperature test complies with NEMA-TS 2-2003 (R2008) par. 2.1.5.1, test profile fig. 2-1 (from -34°C (-29.2°F) to +74°C (165.2°F))

Surge immunity: up to 1kV line to line, up to 2kV line to earth (Class 3)

Relative humidity: from 5% up to 95%

## CERTIFICATIONS

Electrical safety (CE): EN60950-1, IEC60950-1, EN62368-1, IEC62368-1

Electromagnetic compatibility (CE): EN61000-6-4, EN50130-4, EN55032 (Class A), FCC Part 15 (Class A), ICES003 (Class A)

Outdoor installation (CE): EN60950-22, IEC60950-22

IP protection degree (EN60529): IP66, IP67, IP68 (2h30min, 2m (6.56ft)), IP69

Vibration test: EN50130-5, EN60068-2-6

UL certification: cULus Listed, TYPE 4X, TYPE 6P

EAC certification

NDAA-compliant

## CERTIFICATIONS - RAILWAY APPLICATIONS

Compliance to railway application standard: EN50121-4 (only with 24Vdc or 24Vdc power supply)

## CERTIFICATIONS - MARINE APPLICATIONS

Lloyd's Register Marine Type Approval

- Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5)

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

Tested at 70°C (158°F) for 16 hours in compliance with EN60068-2-2

## ACCESSORIES

COMB100A	Communication box in polycarbonate, IN from 220Vac up to 230Vac, OUT 24Vac
COMB200A	Communication box in polycarbonate, IN 24Vac, OUT 24Vac
COMB300A	Communication box in polycarbonate, IN from 120Vac up to 127Vac, OUT 24Vac
IRHXXHXA	GEKO IRH illuminator, High Power
IRHXXLXA	GEKO IRH illuminator, Low Power
NVXTUB	Dust protection frontal shield
NVXRBBK7	Illuminator fastening bracket (GEKO IRH)
ONEPOWINI	Hi-PoE Power Injector, 1 channel, for indoor installations
WASPT0VSL5M00	Water tank SL (1.3gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac
WASPT0V23LSM00	Water tank 23L (6gal), pump with delivery up to 3m (10ft), IN 230Vac-24Vac-120Vac
WASPT0V23L11M00	Water tank 23L (6gal), pump with delivery up to 11m (36ft) with water floating, IN 230Vac-24Vac
WASPT1V23L30M00	Water tank 23L (6gal), pump with delivery up to 30m (98ft) with water floating, IN 230Vac
WASPT3V23L30M00	Water tank 23L (6gal), pump with delivery up to 30m (98ft) with water floating, IN 120Vac
WASNX1V10L20M00	Tank 10L (2.6gal) with integrated manual pump, controlled by solenoid valve, IN 230Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe
WASNX2V10L20M00	Tank 10L (2.6gal) with integrated manual pump, controlled by solenoid valve, IN 24Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe
WASNX3V10L20M00	Tank 10L (2.6gal) with integrated manual pump, controlled by solenoid valve, IN 120Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe

## BRACKETS AND ADAPTORS

IP4P	Pole adaptor in stainless steel AISI 316L
UCAC	Corner adaptor in stainless steel AISI 316L
UCAW	Counter-plate in stainless steel AISI 316L

## PACKAGE

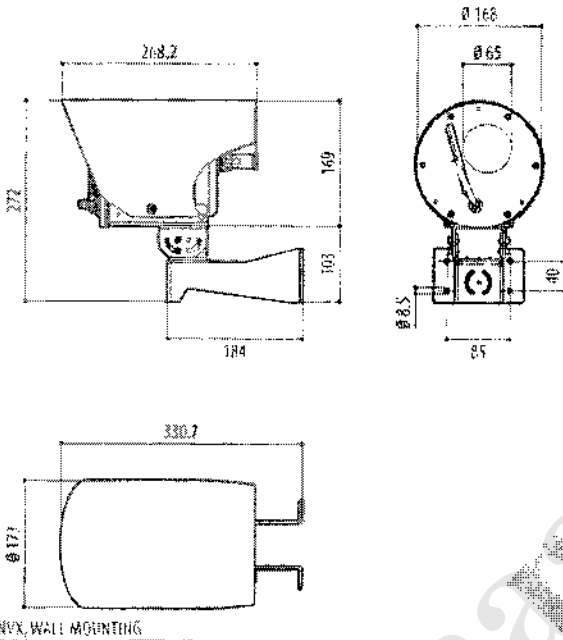
Model Number	Weight	Dimensions (WxHxD)	Master carton
HVX	6.2kg (13.7lb)	36x35x23cm (14x14x9in)	-

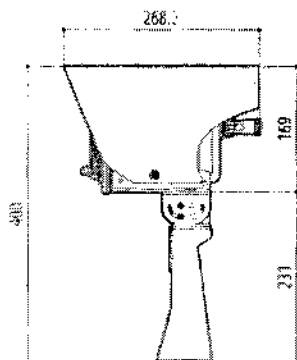
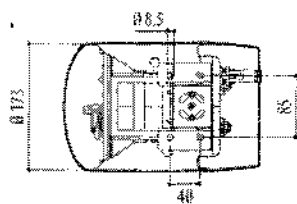
# NVX WITH SONY FCB-EV7520 CAMERA CONFIGURATION OPTIONS

	Voltage	Camera	Versions	Revision
NVX	2 24Vac/24Vdc/PoE+	Z0 SONY FCB-EV7520 camera, FULL HD 1080p, 30x	W With wiper/Glass window S Without wiper/Glass window P Without wiper/Polycarbonate window	00 Without integrated video analytics (without VIDEO-TEC ANALYTICS) A Complies with ONVIF, Profile Q, Profile S and Profile T

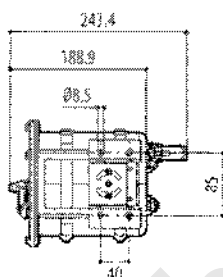
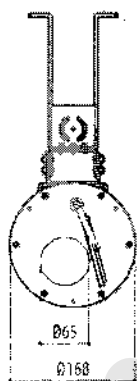
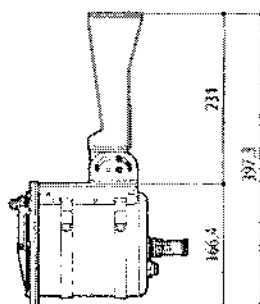
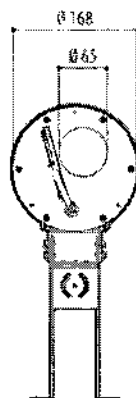
## TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.





NVX, PARAPET MOUNTING



NVX, CEILING MOUNTING

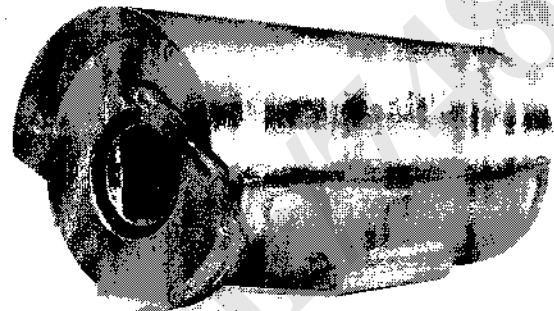


## ExSite® Enhanced Explosionproof Camera System

### HIGH RELIABILITY, FULL HD FIXED IP SYSTEMS

#### Product Features

- Up to 1920 x 1080p Resolution Wide Dynamic Range (WDR) 30x zoom lens, and Superb Low Light Performance
- Dual Stream H.264 IP Video with Smart Compression
- Rated to Operate from -60 to +60° C while in Compliance to T6 Surface Temperature (<85° C) Hazardous Location Regulations
- 316L Billet Stainless Steel Electro Polished Construction
- Standard IP Ethernet Connection and Integrated Transmission Options including Fiber, Ethernet over Coax, and UTP Extension
- Full Suite of Built-In Analytics including Adaptive Motion Detection, Abandoned Object, and More
- Electronic Image Stabilization
- ONVIF Profiles S, G, and Q Conformant
- Efficient Installation with a Safety Attach Point, and Simple Wire Termination Methods.
- Dual Entry Ports to Separate Data and Power Cables



EXSITE ENHANCED FIXED SERIES

- Certifications: FCC Part 15, CE, UL/cUL, ICES-003, RCM, S-Mark, KC
- Hazardous Location Certifications: IECEx, ATEX, INMETRO, EAC Ex, CCEx, UL/cUL
- Marine Certification: DNV

ExSite Enhanced Series camera systems are designed to meet demanding explosionproof requirements, providing high reliability, ease of installation, and best-in-class imaging and technology.

The ExSite Enhanced Series is designed for rugged environmental applications including oil and LNG facilities, refineries, on and offshore drilling rigs, and on-board marine applications. Featuring rugged 316L stainless steel construction that has been subjected to extensive vibration and environmental testing make it ideal for use in the most extreme conditions of temperature, moisture, ice, and dust. The system can operate from -60° to 60°C (-76° to 140°F) while maintaining compliance to the T6 (<85°C) surface temperature specifications.

ExSite Enhanced Series cameras are easy to install and adaptable to most operational needs. The camera has dual-entry ports, allowing for separate transmission and power cables, and it is adaptable to most transmission methods via SFP/FSFP modules. ExSite Enhanced cameras support a range of input power options with a new 48 VDC option that enables installation in DC-only facilities. ExSite Enhanced cameras also come standard with wipers and sun shrouds, capturing desired video regardless of the weather.

The ExSite Enhanced Series provides industry-leading image quality using a Full HD 1080p camera with 30x zoom producing up to 60 images per second. The ExSite Enhanced system has Surevision 3.0 technology, providing excellent picture quality in the challenging lighting conditions common to hazardous areas with 130db wide dynamic range (WDR), and low-light imaging performance down to .03 lux. The camera's image defog capability increases video quality in poor visibility conditions. And with anti-bloom, 3D noise filtering, and enhanced tone mapping, ExSite Enhanced with Surevision 3.0 technology offers the finest video quality in the explosionproof market.

# TECHNICAL SPECIFICATIONS

## Additional Features

- Integrated Wiper
- Sun Shroud, and Heater/Window Defroster
- Configurable On-Screen Displays
- 4 Alarm Inputs
- 2 Relay Outputs (1 is dedicated for the washer)
- Autotocus with Manual Override
- Auto Iris with Manual Override
- Dual cable entries for multiple data and power configurations
- Easily accessible internal microSD storage for local recording (ONVIF Profile G)
- 1000Base-T / 100Base-T ethernet and SFP/FSFP connection
- SFP/FSFP modules to support fiber, ethernet-over-coax (EoC), or UTP
- Compatible with Third Party Explosionproof Wash Systems
- Manual 360° Pan and 180° Tilt Adjustments with optional accessory mount
- Remote hard-reset capability allows for maintenance without physical access to the camera

## EXTRA ANALYTICS BEHAVIORS

ExSite Enhanced includes nine user-configurable behaviors, with up to three analytic behavior active at any one time.

- **Abandoned Object:** Detects objects placed within a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows.
- **Adaptive Motion Detection:** Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone.
- **Camera Sabotage:** Detects contrast changes in the field of view. This behavior triggers an alarm if the lens is obstructed by spray paint, a cloth, or lens cap or if there is any unauthorized repositioning of the camera.
- **Directional Motion:** Generates an alarm when a person or object moves in a specified direction over a user defined "trip wire" location. This behavior is often used where personnel or vehicles are supposed to enter or exit a scene going a specific direction, subjects coming from the disallowed direction will trigger the analytic alarm.
- **Loitering Detection:** Identifies when people or vehicles remain in a defined zone longer than the user-defined time allows. This behavior is effective in real-time notification of suspicious behavior in sensitive areas.
- **Object Counting:** Counts the number of objects that enter or pass through a user defined zone.
- **Object Removal:** Triggers an alarm if an object is removed from a user-defined zone.
- **Stopped Vehicle:** Detects vehicles stopped near a sensitive area longer than the user-defined time allows.

## SOFTWARE FEATURES

- Multilingual menus
- Password protection
- 32 window banks, configurable in size
- Pelco analytics including eight user-configurable behaviors
- Smart Compression, reducing bandwidth consumption while still providing high quality imaging

## CAMERA/OPTICS

Sensor Type	1/2.8-inch Type Exmor CMOS Sensor
Optical Zoom	30X
Digital Zoom	12X
Maximum Resolution	1920 x 1080
Aspect Ratio	16:9
Lens	f/1.6 - f/4.7, focal length: 4.3 mm (wide) - 129.0 mm (tele)
Horizontal Angle of View	63.7° wide - 2.3° tele
Light Sensitivity*	
Color (33 ms)	0.03 lux
Color (250 ms)	0.008 lux
Mono (33 ms)	0.004 lux
Mono (250 ms)	0.001 lux
Day/Night Capabilities	Yes
Shutter Range	1/1 - 1/10,000 sec
Signal-to-Noise Ratio	>50dB
IR Cut Filter	Yes
Wide Dynamic Range	130 db
Auto Iris	Auto Iris with manual override
Backlight Compensation	Yes
Automatic Gain Control	Yes
Active Noise Filtering	Yes; 3D Noise Filtering
Electronic Image	
Stabilization (EIS)	Yes

\*Sensitivity in lux for 90% reflectance, f/1.6 (wide angle), 50 dB gain at 30 IRE (30% of signal level) with Sensitivity Boost OFF; 4X improvement to sensitivity with Sensitivity Boost ON

# TECHNICAL SPECIFICATIONS

## VIDEO

Video Encoding	H.264 High, Main, or Base profiles and MJPEG
Video Streams	Up to 2 simultaneous streams, the second stream is variable based on the configuration of the primary stream
Frame Rate	Up to 60, 30, 25, 15, 12.5, 10, 8, 333, 7.5, 6, 5, 3, 2.5, 2, 1 (depending on the coding, resolution, and stream configuration)
Available Resolutions	

Resolution				H.264 High Profile (IP GOP structure)	
MPx	Width	Height	Aspect Ratio	Maximum IPS	Recommended Bit Rate (Mbps)
2.07	1920	1080	16:9	60	8.00
2.07	1920	1080	16:9	30	6.05
0.92	1280	720	16:9	30	3.00
0.36	800	448	16:9	30	2.00
0.23	640	352	16:9	30	1.80
0.23	1280	960	4:3	30	3.80
0.43	800	608	4:3	30	2.00
0.31	640	480	4:3	30	1.45
0.08	320	240	4:3	30	0.50

## NETWORK

Ethernet Interface	Ethernet (100Base-TX or 10Base-TX) Auto MDI/MDI-X Auto-negotiate/manual setting
Ethernet Cabling Type	Cat5e or better
FSF/FSFP Interface	Supports Pelco FSFP Series Transceivers (input models) and third-party MSA Compliant Transceivers
Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, CoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, and 802.1x (EAP)
Users	
Unicast	Up to 20 simultaneous users depending on resolution settings (2 guaranteed streams)
Multicast	Unlimited users H.264
Security Access	Password protected
Software Interface	Web browser view and setup
Pelco System Integration	Endura 2.0, Digital Sentry 7.3 and Pelco VideoXpert 1.9 (or later)
Open API	Pelco API or ONVIF Profile S, G, and O
Mobile Application	Integrated to Pelco Mobile App
Video Motion Detection	Simple motion detection and camera sabotage
Local Storage	SDXC, addressable to 2 TB Capture 1–5–10 second video clips on camera sabotage, motion detection, or alarm input; record video continuously in the case of network outage with option to overwrite; access video through FTP protocol and ONVIF Profile G

## OPERATING TEMPERATURE

Operating Humidity	10% to 100% RH (non-condensing)
Storage Humidity	10% to 100% RH (non-condensing)

Temperature		Power	
		48 VDC	100-240 V
Sustaining	Maximum	60°C (140°F)	60°C (140°F)
	Minimum	-60°C (-76°F)	-60°C (-76°F)
Ice-Free Windows		-35°C (-31°F)	-35°C (-31°F)
Cold Start*		-30°C (-22°F)	-30°C (-22°F)
Storage		-50°C to 60°C (-76°F to 140°F)	-60°C to 60°C (-76°F to 140°F)

\* Cold starts within 240 minutes at specified temperature

## GENERAL

Construction	316L billet electropolished stainless steel with robotic guided laser welding and 100% hydrostatic pressure testing
Window	High transmissivity glass
Sun Shield	316L stainless steel with laser etched logo (assisted for environmental protection)
Weight	EXF1230-4N: 66.4 lb (30.1 kg) EXF1230-7N: 68.4 lb (30.1 kg)
Effective Projected Area (EPA)	131 in <sup>2</sup>
Reset Capabilities	Internal reset button for serviceability; remote hard-wire reset; remote software restart

## ELECTRICAL

Alarm	
Unsupervised	Detects open or closed alarm state
Supervised	Detects open and short alarm state with external 1-kohm resistor to detect alarm tampering
Input	3.5 VDC maximum, 3.5 mA maximum
Relay Output	30 VDC, 500 mA maximum
Input Power Options	48 VDC, 2A or 100-240 VAC, 2A, @ 50/60 Hz
Input Voltage Range	±10%

Power Consumption (VA / W)\*

Model	Description	Min (VA / W)	With Heating (VA / W)		Max (VA / W)
			@ 55° C	@ -55° C	
EXF1230-4N	Fixed-48 VDC	17 / 17	40 / 40	62 / 62	74 / 74
EXF1230-7N	Fixed-100-240 V	29 / 18	50 / 42	74 / 66	85 / 77

## MECHANICAL

Cable Entry	Dual 1.91 cm (0.75-inch NPT) threaded openings
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## RELATED PRODUCTS

### RECOMMENDED MOUNTS

AXM200	Adjustable mount for ExSite Enhanced Fixed Models; enables manual pan/tilt adjustment
WXM200	Wall mount designed to mount the ExSite Series system directly to a load-bearing vertical surface <b>Note: Requires the use of AXM200 for all ExSite Enhanced Fixed models.</b>
PXM200	Pedestal mount designed to mount an ExSite Enhanced Series system directly to a horizontal surface in either an upright or inverted position <b>Note: Requires the use of AXM200 for all ExSite Enhanced Fixed models.</b>
CMXM200	Corner adapter for use with the WXM200 to mount an ExSite Series system to the corner of a structure
PAXM200	Pole adapter for use with the WXM200 to mount a system to a vertical pole or with a PXM200 to mount a system to a horizontal pole; recommended pole diameter is 10.16 to 22.86 cm (4 to 9 inches)

### GENERAL

Construction	Electropolished 316L stainless steel
Mounts	316L stainless steel
PAXM200 Mounting Straps	316L stainless steel

Unit Weight*	
WXM200	5.7 kg (12.6 lb)
CMXM200	3.71 kg (8.2 lb)
PAXM200	4.17 kg (9.2 lb)
PXM200	0.86 kg (1.9 lb)
AXM200	4.84 kg (10.7 lb)

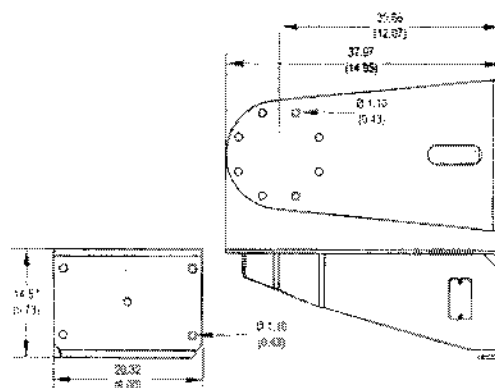
\*Maximum load for all mounts has been tested to be compliant with all Fixed ExSite cameras under above stated environmental conditions.

#### Shipping Weight (approximate)

WXM200	7.71 kg (17.0 lb)
CMXM200	5.89 kg (13.0 lb)
PAXM200	6.35 kg (14.0 lb)
PXM200	1.81 kg (4.0 lb)
AXM200	6.5 kg (14.3 lb)

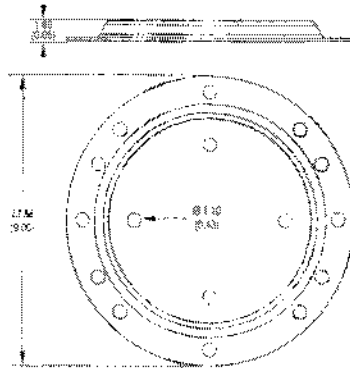
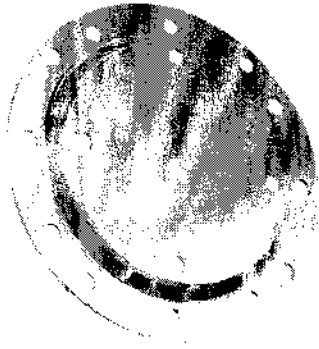
Mounting Method	Recommended Mounting Surface	Recommended Hardware
WXM200, CMXM200, and PXM200	Solid concrete with recommended strength of 3,600 psi or 25 Mpa	Five 3/8-16 x 1-9/16-inch long stainless steel drop-in anchors and five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers (not supplied) Five M10x1.5x20mm, stainless steel socket head bolts with lock washers are supplied with the CMXM200 and PAXM200 for use with the WXM200 wall mount or PXM200 pedestal mount.
	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)
PAXM200	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)
AXM200	Solid concrete with recommended strength of 3,600 psi or 25 Mpa	Industry standard 101.6 mm Bolt circle for use with M8 countersunk screws (not supplied).
	Steel I beam with a minimum of 1/8-inch wall	Four M10x1.5 x 16 mm thread strength, stainless steel socket cap head bolts and lock washers are supplied for use with WXM200 or PXM200

### WXM200 WALL MOUNT

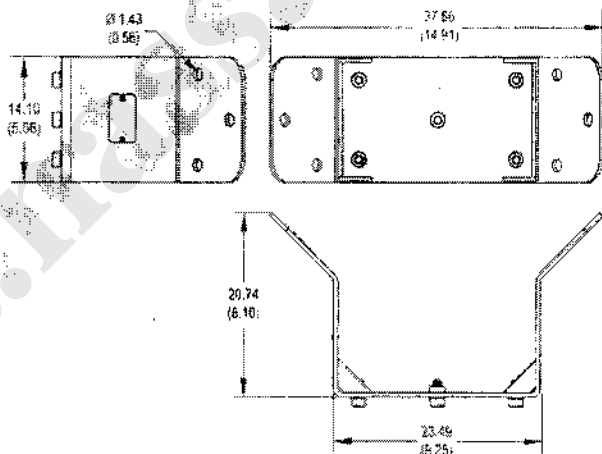
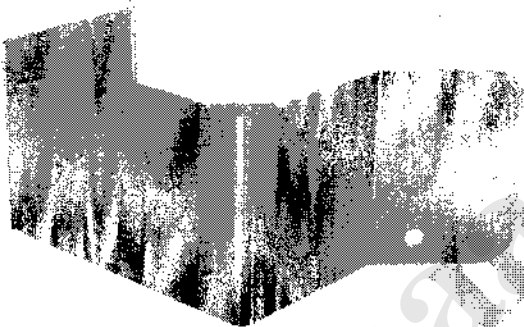


## RELATED PRODUCTS

PXM200 PEDESTAL MOUNT

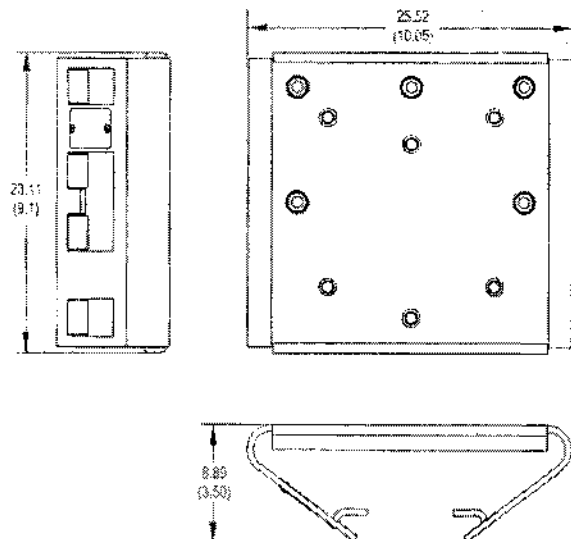


CMXM200 CORNER ADAPTER



*Note:* Designed for use with a WXM200 wall mount

PAXM200 POLE ADAPTER



*Note:* Designed for use with a WXM200 to mount a system to a vertical pole or a PXM200 to mount the system to a horizontal pole. Recommended pole diameter is 10.16 to 72.86 cm (4 to 9 inches)

## MODELS

Model Number	PTZ/Fixed	Camera / Lens	Power
EXP1230-4N	Fixed	1080p 30x	48 VDC, 2A
EXP1230-7N			100-240 VAC, 2A, 50/60 Hz

## OPTIONAL ACCESSORIES

ECPS-48VDC-5A Power supply for use with EXP1230-4N

## CERTIFICATIONS/RATINGS

- FCC Part 15
- CE
- UL/cUL Listed
- ICES-003
- RCM
- KC
- IP66, IP67, and IP68, and Type 4X, Type 6, and Type 6P
- S Mark for Argentina
- Vibration: IEC 60068-2-6 Test Fc

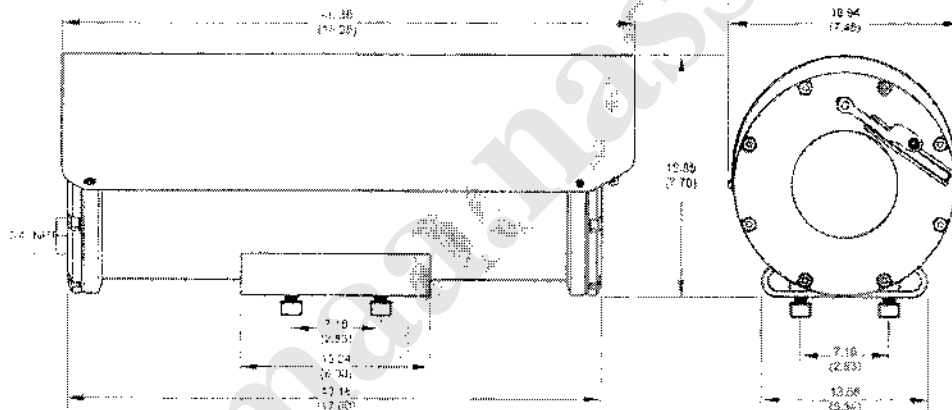
## HAZARDOUS CERTIFICATIONS

- Tamb -30°C to +60°C
- UL/UL Hazardous Locations (listed per NEC Division for dust and Zone for gas and dust)
  - CLASS I, DIVISION 2, GROUPS A, B, C, D, T6
  - CLASS II, GROUPS E, F, G, T6
  - CLASS I, ZONE 1, AEx db op pr IIC T6
  - AEx tb op pr IIC T85°C
- IECEx UL 17.0011X
  - Ex db op pr IIC T6 Gb X
  - Ex tb op pr IIC T85°C Db X
- CEMEX 17 ATEX 1834X
  - 0539 II 2 G Ex db op pr IIC T6 Gb
  - 0539 II 2 D Ex tb op pr IIC T85°C Db
- INMETRO
  - BR-Ex d IIC T6
- EAC Ex\*
- CCOE\*

\*At the time of this publication, certifications are pending. Consult the factory or [www.pelco.com](http://www.pelco.com) for the current status of certifications.

## MARINE CERTIFICATION

- DNV

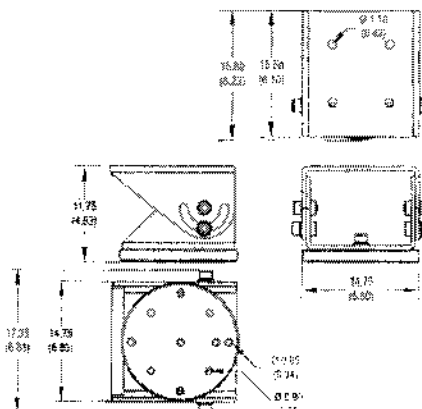


**Note:** Please contact Pelco for information on the dimensions of the thermoproof joints.



VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

## AXM200 ADJUSTABLE MOUNT



**Pelco**  
625 W. Alhambra, Fresno, California 93711 United States  
**USA & Canada** Tel: (800) 278-9100 Fax: (800) 278-9100  
**International** Tel: +1 (559) 292-1901 Fax: +1 (559) 346-1120  
[www.pelco.com](http://www.pelco.com)

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## ExSite® Enhanced 2 Explosionproof Fixed Camera System

### Product Features

- Up to 1920 x 1080p Resolution Wide Dynamic Range (WDR)
- Multi-Stream H.264 and H.265 IP Video with Smart Compression
- Rated to Operate from -50 °C to +60 °C (-58 °F to 140 °F), with ambient convection
- AISI 316L Stainless Steel Electro Polished Construction
- Standard IP Ethernet Connection
- Full Suite of Built-In Analytics
- Electronic Image Stabilization
- Onvif Profiles S, G, and T Conformant
- Certifications: FCC Part 15, CE, UL/cUL, ICES-003, RCM, BIS
- Hazardous Location Certifications: IECEx, ATEX, INMETRO, EAC Ex, UL/cUL



### Camera System

ExSite® Enhanced 2 Series is purpose-built to monitor operations and control processes in hazardous locations with risks of explosion due to the presence of flammable liquids, gases or dust. Rugged outdoor cameras available in fixed, fixed compact, and PTZ. It meets stringent explosion proof and dust-ignition proof requirements while complying with international standards (UL, CSA, ATEX, IECEx, EACEx).

It provides to operators crisp and clear evidence with 30X optical zoom, with true WDR, and low light capabilities for challenging lighting conditions common to hazardous areas. The ExSite® Enhanced 2 Series is built to survive in the harshest conditions, rated IP69 it protects from water, high wind, high and low temperatures with an operating range of -50° to +60°C. It is also resistant to corrosive elements.

ExSite® Enhanced 2 Series cameras are easy to install and adaptable to most operational needs.

ExSite® Enhanced 2 Series cameras support a range of input power options. ExSite® Enhanced 2 Series cameras also come standard with wipers and sun shrouds, capturing desired video regardless of the weather.

The ExSite® Enhanced 2 Series provides industry-leading image quality using a Full HD 1080p camera producing up to 60 images per second. The camera's image defog capability increases video quality in poor visibility conditions and 3D noise filtering is available.

### Video

ExSite® Enhanced 2 Series cameras provide flexible streaming options. The primary stream can be compressed with efficient H.265, H.264 High or Main profiles, or MJPEG formats. It can be configured to a variety of frame rates and variable bit rates to optimize image quality with bandwidth and storage



## ExSite® Enhanced 2 Explosionproof Fixed Camera System

### Product Specification, camera solutions

efficiency. Smart Compression is available on both H.264 and H.265, minimizing storage and bandwidth utilization.

### Open and Integrated

ExSite® Enhanced 2 Series cameras seamlessly connect to Pelco video management systems such as VideoXpert®. ExSite® Enhanced 2 Series cameras integrate with major third-party systems through the ONVIF Profile S, Profile G, and Profile T standards.

### Standard Web Interface

Pelco cameras use a standard Web browser interface for easy remote setup and administration. Controls are optimized for convenient one-step camera configuration for features including color, exposure, flicker control, backlight compensation, and streaming.

### Pelco Analytics

ExSite® Enhanced 2 Series cameras feature Pelco's most advanced analytics technology.

#### Basic Analytics

ExSite® Enhanced 2 Series cameras feature basic video analytics including Simple Motion Detection and Camera Sabotage.

**Simple Motion Detection:** These algorithms allow the camera to record or send an alarm when there is motion detected in a selected zone or with the entire scene.

**Camera Sabotage:** An alarm is triggered if the lens is obstructed or when the camera is repositioned.

#### Pelco Smart Analytics

Pelco Smart Analytics uses object detection AI technologies delivering improved accuracy in both perimeter protection and in crowded, indoor environments. Added processing power enables the tracking and classification of over 50 objects. Objects are classified even when they remain stationary. Pelco Smart Analytics go beyond people and vehicles to include car, truck, bus, motorcycle, and bicycle classification. Ten different object behaviors can be recognized to create events integrated with many VMS systems.

Objects Detected	Behavior Events	
People	Objects in Area	Objects Enter Area
Vehicles with Classification	Object Loitering	Objects Leave Area
	Objects Crossing Beam	Object Stops in Area
	Object Appears or Enters Area	Direction Violated
	Object Not Present in Area	

**Objects in Area:** The event is triggered when the selected object type moves into the region of interest.

**Object Loitering:** The event is triggered when the selected object type moves into the region of interest and then stays for an extended amount of time.



## ExSite® Enhanced 2

### Explosionproof Fixed Compact Camera System

#### Product Features

- Up to 3200 x 1800 Resolution Wide Dynamic Range (WDR)
- Multi-Stream H.264 and H.265 IP Video with Smart Compression
- Rated to Operate from -40 °C to +60 °C (-40 °F to 140 °F), with ambient convection
- AISI 316L Stainless Steel Electro Polished Construction
- Standard IP Ethernet Connection
- Full Suite of Built-In Analytics
- Onvif Profiles S, G, and T Conformant
- Certifications: FCC Part 15, CE, UL/cUL, ICES-003, RCM, BIS
- Hazardous Location Certifications: IECEx, ATEX, INMETRO, EAC Ex, UL/cUL



#### Camera System

ExSite® Enhanced 2 Series is purpose-built to monitor operations and control processes in hazardous locations with risks of explosion due to the presence of flammable liquids, gases or dust. Rugged outdoor cameras available in fixed, fixed compact, and PTZ, it meets stringent explosion proof and dust-ignition proof requirements while complying with international standards (UL, CSA, ATEX, IECEx, EACEx).

It provides to operators crisp and clear evidence with zoom, with true WDR, and low light capabilities for challenging lighting conditions common to hazardous areas. The ExSite® Enhanced 2 Series is built to survive in the harshest conditions, rated IP69 it protects from water, high wind, high and low temperatures with an operating range of -40° to +60°C. It is also resistant to corrosive elements.

ExSite® Enhanced 2 Series cameras are easy to install and adaptable to most operational needs. ExSite® Enhanced 2 Series cameras support a range of input power options. ExSite® Enhanced 2 Series cameras also come standard with wipers and sun shrouds, capturing desired video regardless of the weather.

The ExSite® Enhanced 2 Series provides industry-leading image quality using a Full HD 1080p camera producing up to 60 images per second. The camera's image defog capability increases video quality in poor visibility conditions and 3D noise filtering is available.

#### Video

ExSite® Enhanced 2 Series cameras provide flexible streaming options. The primary stream can be compressed with efficient H.265, H.264 High or Main profiles, or MJPEG formats. It can be configured to a variety of frame rates and variable bit rates to optimize image quality with bandwidth and storage

## ExSite® Enhanced 2 Explosionproof Fixed Compact Camera System

Product Specification: camera solutions

efficiency. Smart Compression is available on both H.264 and H.265, minimizing storage and bandwidth utilization.

### Open and Integrated

ExSite® Enhanced 2 Series cameras seamlessly connect to Pelco video management systems such as VideoXpert®, ExSite® Enhanced 2 Series cameras integrate with major third-party systems through the ONVIF Profile S, Profile G, and Profile T standards.

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	Object Loitering	Objects Leave Area
	Objects Crossing Beam	Object Stops in Area
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	Object Not Present in Area	

**Objects in Area:** The event is triggered when the selected object type moves into the region of interest.

**Object Loitering:** The event is triggered when the selected object type moves into the region of interest and then stays for an extended amount of time.

## Hazem Hassen

**From:** Mohamed Ghawas <mghawas@toptech.com.eg>  
**Sent:** Sunday, December 25, 2022 12:15 PM  
**To:** Hazem Hassen; mahmedsca@gmail.com  
**Cc:** Tarek Gharieb; وليد عبدالباسط عبدالله  
**Subject:** RE: Ferry Boats CCTV system ( tender no. 109-528/3656)

Dear All,  
Hope this mail finds you well,  
Regarding to our site survey, kindly find below our clarifications.

- 1- نظرا لضيق مساحة كابينة قياده اللانث نوصي بتغير مقاس الشاشة الى 24 بوصة
  - 2- استبدال المواسير الأسفالت ستيل بمواسير مطبق على الساخن
  - 3- تركيب ال Out door rack على سطح الكابينة
- وتفضلوا بقبول وافر الإحترام والتحيه..

BR,  
Mohamed El Ghawas | Sales Manager | TOPTECH Egypt S.A.E.  
a: Building 74, Banks Center St., 5<sup>th</sup> Settlement, New Cairo.  
m: +2 0100 0330 707  
f: +20 2 2754 2355  
<http://www.toptechegypt.com>

TOPTECH

**From:** Hazem Hassen <hazem.hassan@suezcanal.gov.eg>  
**Sent:** Monday, December 19, 2022 10:30 AM  
**To:** mahmedsca@gmail.com  
**Cc:** Tarek Gharieb <tarek.gharieb@suezcanal.gov.eg>; وليد عبدالباسط عبدالله <walid.abdalla@suezcanal.gov.eg>  
**Subject:** Ferry Boats CCTV system ( tender no. 109-528/3656)

Dears,

Ref. to the A/M subject , and the site survey that you have carried out , Kindly send any technical remarks related to tender's technical specifications and any updates that appeared during the site survey.  
Waiting your remarks if exist till the next Monday 26/12/2022.

Best Regards,



Hazem Hassan  
IT Procurement Engineer  
Suez Canal Authority | Ismailia | Egypt

Suez Canal Authority  
El Irshad Building  
El Ismailia, Egypt

ملاحظات وإستفسارات بخصوص المناقصة المحدوده رقم 3656/528-109  
لتوريد وتركيب كاميرات مراقبه للمعدييات التابعه لإدارة الكراكات بالإسماعيليه

الساده / إدارة التموين – هيئة قناة السويس.

تحية طيبه،،،

بعد دراسة الموصفات الفنية المطلوبة وعمل المعينات اللازمه للمناقصه موضوع الخطاب،  
نود الإستفسار وإبداء الملاحظات التاليه حتى نتمكن من تقديم أنسب الحلول المطابقه لتنفيذ  
المشروع على أكمل وجه.

أولاً : ملاحظات من المعايينه

- 1 – هل يوجد امكانية لمد الكابلات داخل فليكسبل مجلفن على مسار الكابلات الخاص بالمعديه وهو  
الانسب؟ أم ان إستخدام مواسير الاستانليستيل هو إلزامي طبقا للمواصفه في كل المسارات وهل  
يوجد كود محدد له أم مقصود **AMT** – برجاء التوضيح؟
- 2 – هل سنتمكن من التخريم واللحام لتثبيت المواسير والماسنات المطلوبه لانجاز العمل؟
- 3 – من المنوط بعملية اللحام ان تم التوافق عليها (ورش الهيئه) أم الشركه المنفذه ومن سيتحمل  
التكلفه؟
- 4- في حالة إضافة ماسنات للكاميرا – هل يمكن إستخدام مواسير مجلفنه ومرشوشه الكتروستاتيك –  
أم يلزم ماسنات من الإستانليستيل؟

5 – بعد المعاينة وجد ان حجم "43 بوصة للشاشة" غير مناسب نظراً لصغر حجم غرفة التحكم وكذلك ستعيق الرؤية بالنسبة لقائد المعديه وهو الامر المرفوض من قبل الهيئة – يفضل في هذه الحالة تقليل حجم الشاشة ومواصفاتها حيث ان جودة 4K لن تكون مناسبة في الأحجام الأقل فيرجاء الإفاده.

6 – بعد المعاينة لغرفة القيادة وجد انه لا يوجد مكان للراك داخل غرفة القيادة والتي تم تحديدها من قبل مهندسى الهيئة كما انه في حالة وضع الراك أعلى قمرة القيادة سيكون معرض لأشعة الشمس المباشره ولن يكون ذلك مناسباً للأجهزة والبطاريات داخل الراك مما يتطلب راك بمواصفه مختلفه, فيرجاء الإفاده.

#### ثانياً : ملاحظات من كراسة المواصفات المطروحة

Page 4:

Project Objectives contain the following:

- All System components should pass the tests as mentioned in the standard Certificates of these tests should be submitted.

مطلوب توضيح.

Page 5: contain the following:

1-

- All software and operating systems should be the latest versions taking into consideration that SCA has some software agreements and own some licenses that could affect the prices of the licenses.

مطلوب توضيح بخصوص الرخص المتاحه عند الهيئة للأخذ في الاعتبار بناء على طلب الهيئة في هذا البند.

2-

- All equipment should be able to operate in harsh environments and its components must withstand the ferry boat vibration.

البيد صريح بأنه مثلا ال NVR هنا يجب ان يكون مطابق لهذا يرجى التأكيد حيث ان مواصفة ال NVR لا تشمل ذلك.

Page 6:

#### Project items and specifications (NVR)

NVR	<ul style="list-style-type: none"> <li>• Up to 8 channels @8MP each.</li> <li>• 100 Mbps Recording bandwidth.</li> <li>• Supports H.265/H.264.</li> <li>• Max 2 HDDs (Max. 12TB).</li> <li>• HDMI video out support UHD (4K) resolution.</li> <li>• 8 PoE/PoE+ ports.</li> <li>• Support ONVIF for live stream and recording.</li> <li>• Sufficient storage size for all camera recordings for minimum period of <u>15 days</u> with additional 20% of free disk space recording full resolution at 25 fps.</li> <li>• ONVIF compatibility.</li> <li>• Mouse and keyboard.</li> <li>• All software needed and licenses for the operation must be included in the offer upon bidder design.</li> <li>• Any accessories or equipment needed to accomplish the job responsibility of the bidder.</li> </ul>
-----	--

6

- هل يمكن النزول في أي من مواصفات ال NVR لو ان الحسابات نتج عنها متطلبات اقل ؟
- عدد الكاميرات 4 والمطلوب جهاز 8 بورت ؟
- يرجى توضيح المقصود ب Max 2 HDDs Max 12TB :
- هل ال 12 تيرا للهار الواحد ام الإثنين — وهل هذا ملزم لو المنظومه لا تحتاج هذه المساحه لتسجيل 15 يوم بالدقه المطلوبه ؟
- هل المقصود كون الجهاز يدعم حتى هذا الرقم فقط ولكن يقدم المتطلبات طبقا للحسابات ؟
- هل مطلوب التسجيل على H.264 or H.265 video compression ؟

Page 10:

- The security solution should be approved by vendor.

يرجاء التوضيح ما هو شكل الاعتماد المطلوب ؟

Page 10:

- All outdoor cables should bear harsh environments, bending, salt water, high temperature and high humidity.

و جدول الكميات موضح الاتي

Outdoor Cable, S/FTP (shielded), LSZH, 23AWG Solid Copper, Smoke Zero	17 ROLL
Halogen or Flame, Conductor Material: Bare copper, UV resistant for outdoor	305M

يرجاء التوضيح الكايل المطلوب:

LSZH (this specs for indoor application)? Or UV resistant (this for outdoor applications)?

لذا نأمل التفضل بالنظر والتنبيه باللازم نحو موافقتنا بموعد انعقاد لجنة الإستفسارات الفنية قبل موعد لجنة قض المظاريف الفنية والمالية بوقت كاف حتي نتمكن من تقديم العروض الماليه والفنيه للمناقصه محل الفحص أو موافقتنا بالرد علي إستفساراتنا كتابتاً علي الإيميل الخاص بالشركه .

وتفضلوا بقبول فائق الاحترام ،،،

تحريراً في : 2022-12-1

## FERRY BOAT SURVEILLANCE PROJECT CLARIFICATIONS

- CCTV Remarks,

1. Please advise if galvanized conduits will be accepted instead of stainless-steel tubes or not.  
Noting: galvanized conduits were installed in other ferry boats
2. It was recommended during a site survey to propose a monitor of 24 inches or 32 inches instead of 43 inches. please confirm.
3. Please advise if acceptable to propose a normal NVR as an optional item.
4. Please advise if RIAD is required or not

- Network Remarks (Passive Components)

1. Please advise if the required UTP copper cable is CAT6 or CAT6A?
2. please confirm that the proposed copper cables will be U/UTP cables,
3. please confirm that the proposed patch panel will be for Four ports
4. It was mentioned in BOQ. that the quantity of Roll cable is 17 rolls, each roll is 305 meters therefore the total length of required cable is 5185 meters.  
**Based on the above,** please confirm that it will be accepted to propose 11 rolls, each roll is 500 meters in the case of CAT6A.
5. Please confirm that 9U rack will be accepted if 40% capacity free is achievable