MOOG

EXO™
Fixed HD Camera
High Definition Camera Systems
For Harsh Environments

The EXO Fixed vandal resistant and pressurized High Definition (HD) Network Camera System is the surveillance professional's choice for capturing high definition video. The vandal resistant model is great for urban areas, prisons, and other high risk applications. The pressurized model is prefect for marine, coastal areas, traffic monitoring, and other areas of high contamination. Pressurized models include a schraeder valve to fill the camera with nitrogen or another clean stable gas, and a 5-7 psi pressure relief valve so that the unit cannot be over pressurized. This product is built with hardened components to withstand extreme temperature ranges, power surges and heavy impacts.

EXO's 3 year warranty includes protection against surges. * The EXO systems use a layered approach in surge protection. Because of this design, third party surge protection is not needed.

* Warranty does not include direct lightning strikes.

Available Features

- HD 720P models 0.25lx min. illumination (B&W)
- 12x optical zoom with auto focus
- Easy camera setup, no mechanical focus or focal length adjustment needed
- Day / Night with auto IR-cut filter, Wide Dynamic Range
- ONVIF, PSIA (Milestone, ONSSI), and GENETEC API, supported
- H.264 High Profile, MJPEG compression
- Optional IK10 Vandal Resistant model

- Optional pressurized models for the harshest environments
- Temperature range: -58°F to 140°F (-50°C TO 60°C), up to 165°F (74°C), Per NEMA TS2
- Proprietary surge protection (Ethernet & power), with warranty
- Meets NEMA 4 and NEMA TS2 standards (most models)
- Multiple mounting options
- PoE IEEE802.3at or 24vac power
- Video motion detection

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EXO
SERIES

EXO™ Fixed Series Camera

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Models:

EXVF5C-1
12x optical zoom, Vandal resistant with wall / pole mount

EXPF5C2-1
12x optical zoom, Pressurized with wall / pole mount

Optional Accessories:

CM900
Aluminum ceiling mount bracket

MA-900
Aluminum mast arm mounting bracket

FMPFH2
Flat mounting plate

FMPFH1
"U" bracket

*The **above** are compatible with **3rd Party** 109mm "U" Brackets*

Camera Specifications	
12x	
Image Sensor:	1/4-type Exmor CMOS
Lens / Digital Zoom:	12x Optical Zoom, f=3.7mm (wide) to 44.4mm (tele), F1.6 to F2.5; 12x (144x with optical zoom)
Minimum Illumination:	Color: 1.0Lux (F1.6 50IRE); B&W: 0.25Lux (F1.6 50IRE)
Shutter Speed:	Automatic or user selectable Automatic or user selectable
Selectable Shutter Speeds:	1/1 to 1/10,000s, 22 steps
Horizontal Viewing Angle:	55.9° (wide) to 2.9° (tele end)
Maximum Lens Aperture:	Minimum of f/1.6 (wide) to f/3.5 (tele)

Video Specifications	
Video Compression:	H.264 High, Main and Baseline profiles Motion JPEG
Resolutions:	H.264: 1280x720, 640x360, H.264 or Motion JPEG: 640x360, 4CIF, VGA, 2CIF, CIF
Frame Rate:	Up to HD 720p @ 60fps
Video Streaming:	User selectable (1) H.264 and (1) H.264 or MJPEG
Image Settings:	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy masks, image freeze on PTZ
Data Rate:	Variable Bit Rate, Motion adaptive variable bit rate and Constant Bit Rate modes. 64 kbps – 6 Mbps per channel (requires less than 1 Mbps @ 4CIF/30fps)

Electrical Specifications	
Alarm Inputs / Output:	1 Alarm input
Power Input / Input Voltage:	PoE Plus IEEE802.3at or 24Vac, 35W
Surge Protection:	Proprietary two (2) stage surge protection (3 year warranty)
Audio Streaming:	Two-way: Uncompressed PCM High-fidelity AAC-LC G.71
Audio Input / Output:	Single analog audio input; Single analog audio output (External Microphone and Speaker required)
Connectors:	RJ45 for 10BASE-T/100BASE-TX, Pheonix style connectors for AC/DC power, 4 configurable alarm inputs / outputs, mic in, line mono input, line mono output to active speaker

System Integration Specifications	
Application Programming Interface:	GENETEC API, PSIA (Milestone, ONSSI), ONVIF
Event Triggers:	Video motion detection, memory card full
Event Actions:	Video recording to edge storage

Protocols Specifications	
Networking:	IPv4/v6, UDP, TCP, IGMP, ICMP, ARP, DHCP, DNS
Streaming:	RTP, HTTP
Management:	RTSP, HTTP, HTTPS, Bonjour, NTP, Telnet, SNMP
Security:	Password protection, HTTPS encryption, digest authentication, user access log
System Administration:	Web GUI interface (HTTP or HTTPS)
Access Control:	SSL, Basic and Digest Authentication
Audio / Video Buffering:	Recorded ASF files to micro-SD medium
Long Term System Configuration Memory:	System configuration stored on internal flash
Software Update:	Fault-tolerant, remote accessible
Alarm Events:	Triggered by external input
Network:	Standard 10/100 Base-T Ethernet port
Edge Recording:	One (1) micro-SD / SDHC / SDXC interface (2-32GB Sold Seperatly, class 6 or above micro SD card)

Environmental Specifications	
Humidity:	0-100% N.C per MIL-E-5400T, paragraphs 3.2.24.4
Impact Rating:	IK-10
Ingress Protection Rating:	IP67
Maximum Windload:	150mph (240kph)
Operating Temperature:	-58°F to 140°F (-50°C to 60°C), up to 165°F (74°C) for short periods of time Per NEMA TS2
Vibration:	Conforms to NEMA TS2, para 2.1.9

General Specifications	
Housing:	Aluminum and Stainless steel hardware
Window:	Vandal: Polycarbonate, Pressurized: Glass
Mounting Style:	Includes: Wall / Pole, Optional: Mast Arm or Flat Plate
Schraeder Valve (Pressurized):	Nitrogen input
Pressure Relief Valve (Pressurized):	5-7 psi
Net Weight:	10 lb (4.5 Kg)
Dimensions:	8.25" x 11.75" x 19.5" (209 x 298 x 495mm)
Warranty:	3 years, including surge protection

Regulatory and Certifications

ONVIF — ONVIF

CE — CE

REACH — REACH

NEMA — NEMA Rating

RoHS COMPLIANT — RoHS

UL LISTED — UL Listed

WEEE — WEEE

MOOG

Sensor and Surveillance Systems

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