

Technical Specifications

MOBOTIX MOVE 4K (8MP) Vandal Bullet Analytics Camera with VAXTOR ALPR Support

Performant 4K (8MP) resolution camera with integrated high-performance ALPR powered by Vaxtor OCR engine, perfect for the daily security and surveillance needs. The MOBOTIX MOVE Mx-VB1A-8-IR-VAX-ALPR camera extends the existing range of MOVE IP Camera series with a performant 4K (8MP) resolution camera with advanced license plate recognition features and vehicle make, model, and color classification. The front glass is protected by MOBOTIX EverClear supe-rhydrophilic nano coating for best image quality even in rain; its self-cleaning capabilities reduce cleaning efforts and operational costs.

- Vaxtor ALPR license included and activated
- 64 GB SD card pre-installed
- EverClear coating of front glass
- Motorized Vari-Focal Lens 3.6 to 11 mm, F1.5 to F2.0 with Zoom and One-Push Auto Focus
- Wide Dynamic Range (WDR) max. 130 dB
- Integrated IR LEDs up to 40 m Distance
- ONVIF Profile S/G/T/M support
- Triple Power Support (PoE/12 VDC/24 VAC)
- Extended Temperature Range: –55 to 60 °C/-67 to 140 °F with activated heater
- IP67 and IK10

HEVCAdvance™ MOBOTIX EverClear VAXTOR

BeyondHumanVision

MOBOTIX MOVE

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Product Information

Product Name	4K (8MP) Vandal Bullet Analytics Camera with VAXTOR ALPR Support
Order Code	Mx-VB1A-8-IR-VAX-ALPR

Image Quality

Image Sensor	SONY 4K (8MP), 1/1.8“ Progressive CMOS
Effective (Used) Pixels	H x V = 3864x2180 (4K/8MP)
Pixel Size	2.0 µm
Frame Rate (maximum)	H.265/H.264: 3864x2180@30 fps + 1920x1080@30fps MJPEG: 1080p@30fps
Front Glass Coating	Superhydrophilic MOBOTIX EverClear nano coating transforms water droplets into an ultra-thin water film upon impact. The coating ensures best image quality in rain and difficult external conditions and it reduces reflections and noise in low-light scenarios. EverClear is dirt-repellent and increases the stability as well as the scratch-resistance of the front glass, further reducing maintenance efforts. Coating endurance up to 3 years depending on environmental conditions and cleaning treatment.

Lens

Minimum Illumination	Color: 0.04 lux B/W: 0.002 lux
Lens Characteristics	Motorized Lens: Zoom, Focus, P-IRIS Focal Length: 3.6 to 11 mm Aperture: F1.5 to F2.0 Horizontal Field of View: 115.0° (Wide), 47.5° (Tele) Vertical Field of View: 61.2° (Wide), 27.0° (Tele)

Camera

Day/Night	Automatic mechanically switchable IR-cut filter
Shutter Time	**Manual Mode:** WDR: up to 1/67500 s Linear: up to 1/67500 s **Automatic Mode:** Up to 1/10000 s
WDR	Up to 130 dB Multi Exposure WDR & HDR Engine support
EIS (Electronic Image Stabilizer)	No
Zoom	Optical: 3.1x, Digital 10x
Image settings	Color, Brightness, Sharpness, Contrast, White Balance, Exposure Control, 2DNR, 3DNR, NR by Motion, Masking, Text Overlay
Corridor Mode	90°, 180°, 270° Rotation

Video Codec

Compression/Encoding	H.265/H.264/MJPEG
Streaming	Up to 4 individually configurable streams in H.264/H.265/MJPEG Configurable resolution/frame rate/bandwidth LBR/VBR/CBR in H.265/H.264

Audio Codec

Compression/Encoding	G.711/G.726/AAC/LPCM
Streaming	2-Way, bidirectional
Audio Input	Line In: Max 6.2 Vpp Signal In, Input Impedance: 33 kΩ
Audio Output	Line Out: 1 Vrms Signal Out, Output Resistance: 200 Ω

Cyber Security Features

Password Protection	Yes
IP address filtering	Yes
IEEE 802.1X network access control	Yes
Digest authentication	Yes
AES encryption for password protection	Yes
SNMP, TLS, HTTP, HTTPS	Yes
User and Group Management	Yes
SSL connections	Yes
VPN	Yes
Digital image signature	Yes
RSA encryption (2048 bits)	Yes

Network

Interface	10/100 Mbps Ethernet
Supported Protocols	ARP, PPPoE, IPv4/v6, ICMP, IGMP, QoS, TCP, UDP, DHCP, UPnP, SNMP, SMTP, RTP, RTSP, HTTP, HTTPS, FTP, NTP, DDNS, SMBv2
ONVIF conformance	Supports profiles S/G/T/M
Supported Browsers	All current browsers are supported.

License Plate Recognition Analytics

Operational Range	■ Monitors 1 or 2 lanes ■ Reading distance up to 13 m/43 ft using 2MP resolution ■ Effective IR distance up to 20 m/66 ft ■ Suitable for most ALPR environments: parking, access control, urban traffic, etc. ■ Operates under extreme conditions such as low lighting, shadows, overexposed/damaged/dirty plates ■ Operates in bad weather and with extreme angles while maintaining high-accuracy readings
Vaxtor ALPR Vaxtor Machine/Deep Learning Engine	■ Full support over a hundred countries (full list available upon request) ■ Support of Latin, Arabic and Thai alphabets, GCC members and enhanced North America state recognition ■ Min. to max. characters height: 13 to 70 pixels (recommended 25 to 30) ■ Max. rotation X (pitch) vertical angle ± 60° (max 25° for optimal performance) ■ Max. rotation Y (yaw) horizontal angle ± 65° (max 25° for optimal performance) ■ Max. rotation Z (roll) ± 35° (max 10° for optimal performance) ■ Vehicle category, make, model, and color classification ■ Direction of travel reporting/filtering ■ Achieves >99% accuracy (several third-party independent assessments)

Results Integration	■ Both push and pull modes supported (API available) ■ Generic HTTP XML/JSON ■ TCP/IP proprietary protocol (open) ■ UTMC ■ BOF-2 ■ Branded SW/VMS integration: **MOBOTIX HUB**, Genetec Security Center, Milestone XProtect, Axis Camera Station, Helix, Network Optix, among others
Additional Features	■ Failover capabilities for transmission of results ■ Embedded whitelist/blacklist management ■ Customizable local relay triggering ■ Free-flow or signaled modes ■ 64 GB SD card pre-installed

General

Casing	Metal Back Housing, PC Front
Device Color	PC front cover: RAL9003 Sunshield: ■ Logo color: Pantone 286C and Pantone Gray 6 Cu ■ Body color: RAL9003 ■ Back metal body: RAL9003
Power Requirements	PoE IEEE802.3af, class 0, max 12.95 W DC12V, 15.59 W AC24V, max 13.31 W, max 25.08 VA
PoE Modes Supported	Mode A or Mode B

Connectors	RJ45, Alarm in x2, Alarm out x1, 12 VDC Terminal Block, 24 VAC Terminal Block, Audio in 3.5 mm Jack, Audio out 3.5 mm Jack, CVBS Connector COAX (75 Ohm) (CVBS output available with max. 2 activated streams)
IR Illumination	Up to 40 m distance depending on scenery reflection
Video Storage	Micro SD/SDHC/SDXC card support up to 1 TB, Support for recording to NAS, MOBOTIX MOVE NVR
Environmental Protection Class	IP67/IK10
Operating Temperature	–55 to 60 °C/-67 to 140 °F with activated heater
Cold Start Temperature	–30 °C/–22 °F
Relative Humidity	10 to 90 % non-condensing
Storage Conditions	–20 to 70 °C/–4 to 158 °F
Approvals	EMC: CE/FCC Safety: LVD Environmental: IP67, IK10
Dimensions	ø 105x233.8 mm
Weight	1280 g

NOTE! Observe the MOBOTIX MOVE Installation Hints document to ensure optimum performance of the camera features.

Accessories

Picture	Order Code	Description
	Mx-M-BC-P	Pole Mount (junction mount) for MOBOTIX MOVE Bullet Cameras
	Mx-M-BC-W	Wall Mount (junction mount) for MOBOTIX MOVE Bullet Cameras
	Mx-NPA-UPOE1A-60W	UPoE Network Power Injector 60 W
	Mx-A-ETP1A-2601-SET	Media Converter Set Ethernet (PoE+) – Twisted-Pair

Dimensions

NOTE! Download the drilling template from the section or on the MOBOTIX website: **www.mobotix.com > Support > Download Center > Marketing & Documentation > Drilling Templates**.

CAUTION! Always print or copy the drilling template at 100% of the original size!

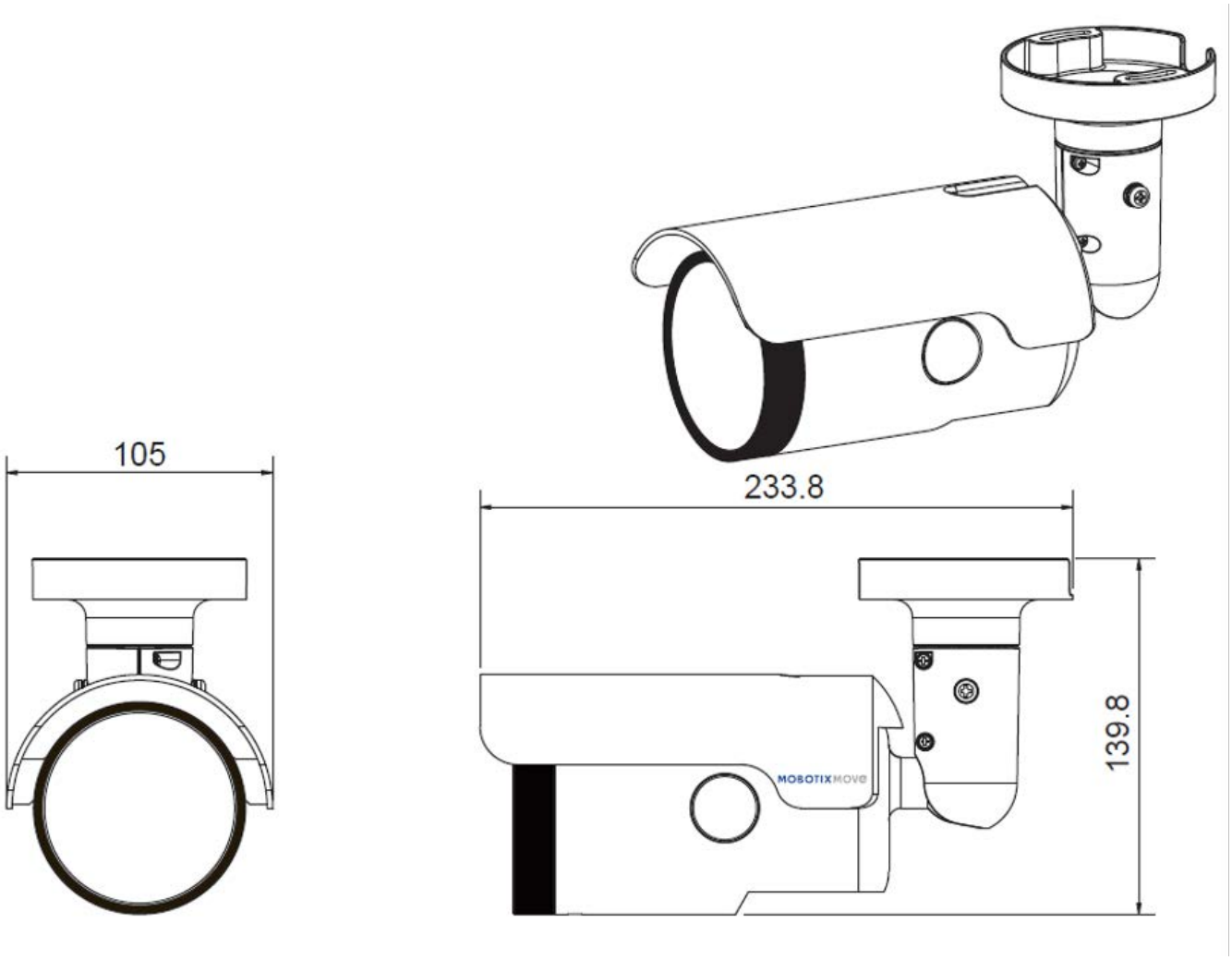


Fig. 1: 4K (8MP) Vandal Bullet Analytics Camera with VAXTOR ALPR Support: All measurements in mm

Further Reading

Manuals and Quick Installation documents	
Technical Specifications	
MOBOTIX MOVE Installation Hints	

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