



# Technical Specifications

## MOBOTIX MOVE 4K (8MP) Vandal Bullet Analytics Camera

Performant 4K (8MP) resolution camera with integrated Video Analytics features, perfect for the daily security and surveillance needs. The camera performs fast and reliable auto focus and adapts to different indoor and outdoor scenes. The MOBOTIX MOVE 4K (8MP) Vandal Bullet Analytics Camera extends the existing range of MOVE IP Camera series with a performant 4K (8MP) resolution camera with DNN (Deep Neural Network) video analytics features. The camera performs fast and reliable auto focus and adapts to different indoor and outdoor scenes. The integrated MOBOTIX MxMessageSystem allows direct communication and interaction with MOBOTIX IoT cameras via the IP network. The MOBOTIX EverClear superhydrophilic and self-cleaning nano coating of the front glass ensures best image quality even in rain and reduces cleaning efforts and operational costs.

- 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
- MOBOTIX MxMessageSystem communication system
- Integrated Video Analytics (DNN ready)
- Integrated IR LEDs up to 40 m Distance
- ONVIF Profile S/G/T/M support
- Triple Power Support (PoE/12 VDC/24 VAC)
- Temperature Range -55 to 60 °C/-67 to 140 °F with activated heater
- IP67 and IK10



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## Product Information

Product Name	4K (8MP) Vandal Bullet Analytics Camera
Order Code	Mx-VB1A-8-IR-VA

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## 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 $\mu\text{m}$
Frame Rate (maximum)	H.265/H.264: 3864x2180@30 fps + 1920x1080@30 fps MJPEG: 1080p@30 fps

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.
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## 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)

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## Camera

Day/Night	Automatic mechanically switchable IR-cut filter
Shutter Time	<b>Manual Mode:</b> WDR: up to 1/67500 s Linear: up to 1/13500 s <b>Automatic Mode:</b> 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

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## 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

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## 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 k $\Omega$
Audio Output	Line Out: 1 Vrms Signal Out, Output Resistance: 200 $\Omega$

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## 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

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## 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.

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## System Integration

Base Video Analytics	<ul style="list-style-type: none"><li>▪ Motion detection</li><li>▪ Noise detection (ext. microphone required)</li></ul>
Enhanced Video Analytics (embedded)	<ul style="list-style-type: none"><li>▪ Abandoned objects</li><li>▪ Intrusion (object classification)</li><li>▪ Sabotage</li><li>▪ Wrong direction</li><li>▪ Loitering (object classification)</li><li>▪ Object counting (object classification)</li><li>▪ Object removal</li><li>▪ Stopped vehicle (object classification)</li></ul> <p>2 analytics functions can be activated simultaneously</p>
DNN (Deep Neural Network) based video analytics	<ul style="list-style-type: none"><li>▪ Face Recognition (incl. gender &amp; age estimation)</li><li>▪ Number Plate Recognition – supported countries: Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Moldova, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Taiwan, Turkey, Ukraine, United Kingdom, Uzbekistan, Vietnam</li></ul>
Event Triggers	<ul style="list-style-type: none"><li>▪ External input</li><li>▪ Analytics</li><li>▪ Network failure detection</li><li>▪ Periodical event</li><li>▪ Manual trigger</li></ul>
Event Actions	<ul style="list-style-type: none"><li>▪ External output activation</li><li>▪ Video and audio recording to edge storage</li><li>▪ File upload: FTP, network share and email</li><li>▪ Notification: HTTP, FTP, email</li></ul>

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#### General

Casing	Metal Back Housing, PC Front
Device Color	PC front cover: RAL9003 Sunshield: <ul style="list-style-type: none"><li>▪ Logo color: Pantone 286C and Pantone Gray 6 Cu</li><li>▪ Body color: RAL9003</li><li>▪ Back metal body: RAL9003</li></ul>
Power Requirements	PoE IEEE802.3af, class 0, max 12.95 W DC12V, max 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/131 ft 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

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MTBF 95,000 hours

Warranty 5 years

Dimensions ø 105x233.8 mm

Weight 1280 g

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**NOTE!** Observe the [MOBOTIX MOVE Installation Hints](#) document to ensure optimum performance of the camera features.

## Alarm Input/Output Current and Voltage

### Alarm In





3.3 V with 10 kΩ pull up, 50 mA

### Alarm Out

350 V DC/AC, 130 mA

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# 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

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## Dimensions

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

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

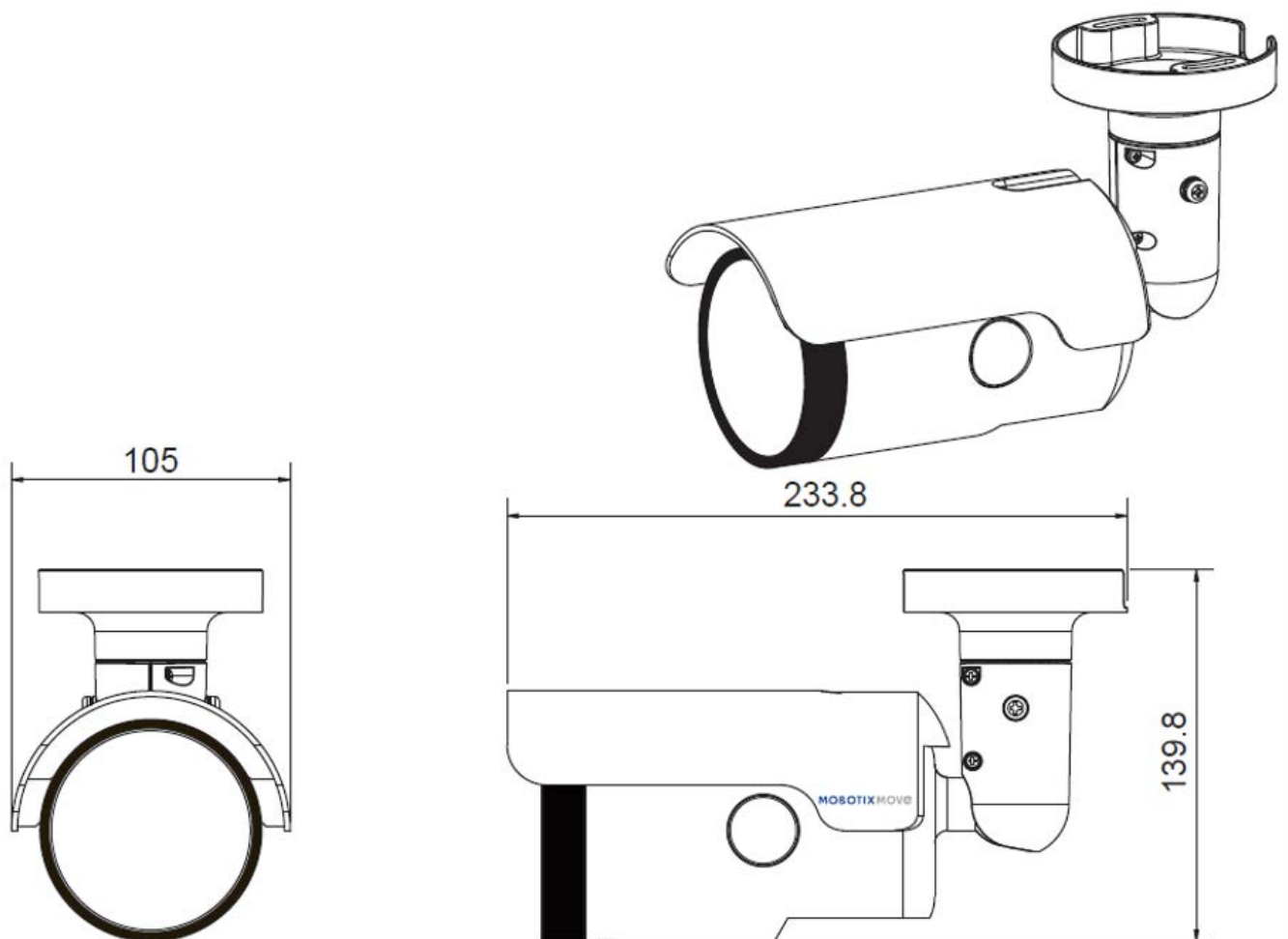


Fig. 1: 4K (8MP) Vandal Bullet Analytics Camera: All measurements in mm

## Further Reading

Manuals and Quick Installation documents



Technical Specifications



MOBOTIX MOVE Installation Hints



# MOBOTIX

BeyondHumanVision

[EN\\_11/22](#)

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