



Technical Specifications

MOBOTIX MOVE 5MP Vandal Fixed Dome Analytics Camera

Performant 5MP 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 EverClear superhydrophilic and self-cleaning nano coating of the dome ensures best image quality even in rain and reduces cleaning efforts and operational costs.

- EverClear coating of dome
- Motorized Vari-Focal Lens 2.7 to 12 mm, F1.6 to F2.9 with Zoom and One-Push Auto Focus
- Wide Dynamic Range (WDR) max. 130 dB
- MOBOTIX MxMessageSystem communication system
- Integrated Video Analytics
- Integrated IR LEDs up to 40 m/131 ft Distance
- ONVIF Profile S/G/T/M support
- Triple power support (IEEE802.3af/AC24V/DC12V)
- Temperature Range -55 to 60 °C/-67 to 140 °F
- IP66 and IK10
- Quick Connection Mount








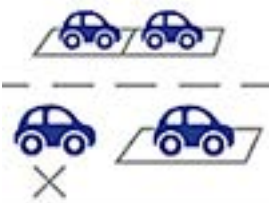


Beyond Human Vision

MOBOTIX MOVE

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High-Quality Edge Video Analytics

| | | | |
|---|---|--|---|
| Counting | Intrusion | Removed Objects | Sabotage |
|  |  |  |  |
| Abandoned Objects | Stopped Vehicle | Wrong Direction | Loitering |
|  |  |  |  |

The latest computer vision technology makes the video processing engine efficient at the edge. This integrated engine provides high accuracy, and 8 video analytics functions. Moreover, it allows simultaneous detection on multiple objects.

MOBOTIX EverClear Nano Coating

The new, groundbreaking MOBOTIX EverClear coating uses a special nano technology that transforms water droplets into an ultra-thin water film immediately upon impact. This ensures the highest image quality in rain and difficult environmental conditions and reduces maintenance costs due to its “self-cleaning” effect.



Product Information

| | |
|--------------|--|
| Product Name | 5MP Vandal Fixed Dome Analytics Camera |
| Order Code | Mx-VD2A-5-IR-VA |

Image Quality

| | |
|-------------------------|----------------------------|
| Image Sensor | 5MP, 1/2" Progressive CMOS |
| Effective (Used) Pixels | H x V = 2720x1976 (5MP) |
| Pixel Size | 2.0 μm |

| | |
|----------------------|---|
| Frame Rate (maximum) | <p>WDR on:</p> <p>H.265/H.264: 2688x1944@30 fps + 1024x768@30 fps</p> <p>H.265/H.264: 2592x1944@30 fps + 1280x720@30 fps</p> <p>H.265/H.264: 2688x1512@30 fps + 1280x1024@30 fps</p> <p>H.265/H.264: 1920x1080@30 fps + 1920x1080@30 fps</p> <p>MJPEG: 1080p@30 fps</p> <p>WDR off:</p> <p>H.265/H.264: 2688x1944@30 fps + 1024x768@30 fps</p> <p>H.265/H.264: 2592x1944@30 fps + 1280x720@30 fps</p> <p>H.265/H.264: 2688x1512@30 fps + 1280x1024@30 fps</p> <p>H.265/H.264: 1920x1080@60 fps + 1280x1024@44 fps</p> <p>H.265/H.264: 1920x1080@60 fps + 1280x720@60 fps</p> <p>Stream 1 (main stream) with resolutions below 1920x1080 can support 2 streams@60 fps</p> <p>MJPEG: 1080p@60 fps</p> |
|----------------------|---|

| | |
|--------------|---|
| Dome 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 dome, further reducing maintenance efforts. Coating endurance up to 3 years depending on environmental conditions and cleaning treatment. |
|--------------|---|

Lens

| | |
|----------------------|--|
| Minimum Illumination | Color: 0.08 lux B/W: 0.008 lux |
| Lens Characteristics | Motorized Lens: Zoom, Focus, P-IRIS Focal Length: 2.7 to 12 mm Aperture: F1.6 to F2.9 Horizontal Field of View: 102.1° (Wide), 31.5° (Tele) Vertical Field of View: 70.3° (Wide), 22.7° (Tele) |
| Lens Mechanics | 3-Axis adjustment |

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Camera

| | |
|----------------|--|
| Day/Night | Automatic mechanically switchable IR-cut filter |
| Shutter Time | Manual Mode: WDR: up to 1/17550 s Linear: up to 1/37440 s Automatic Mode: Up to 1/10000 s |
| WDR | Up to 130 dB Multi Exposure WDR & HDR Engine support |
| Zoom | Optical: 4.4x, 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 (including “forced” password change during initial setup) |
| IP address filtering | Yes (to restrict unauthorized access based on IP addresses) |
| IEEE 802.1X network access control | Yes (for advanced network security and authentication) |
| Digest authentication | Yes (for secure user authentication) |
| AES encryption for password protection | Yes (to ensure strong encryption for password storage) |
| HTTPS/SSL (using TLS) | Yes (TLS 1.2 default, TLS 1.0/1.1 optional selectable) |
| User and Group Management | Yes (for fine-grained access control) |
| VPN | Yes (to establish secure network connections) |
| Digitally signed firmware | Yes (to prevent firmware file tampering) |
| RSA encryption | Yes (to support stronger ciphers; supported: RSA (2048 bits), AES-128, AES-256, SHA-256, SHA-384) |

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 (e.g. Microsoft Edge, Firefox, Google Chrome, Opera, etc.) are supported. |

System Integration

| | |
|--------------------------|--|
| Base Video Analytics | <ul style="list-style-type: none">■ Motion detection■ Audio detection |
| Enhanced Video Analytics | <ul style="list-style-type: none">■ Abandoned objects■ Intrusion■ Sabotage■ Wrong direction■ Loitering■ Object counting■ Object removal■ Stopped vehicle |
| Event Triggers | <ul style="list-style-type: none">■ External input■ Analytics■ Network failure detection■ Periodical event■ Manual trigger■ MxMessageSystem messages |
| Event Actions | <ul style="list-style-type: none">■ External output activation■ Video and audio recording to edge storage■ File upload: FTP, network share and email■ Notification: HTTP, FTP, email■ MxMessageSystem messages |

General

| | |
|--------------------------|--|
| Casing | Metal Housing |
| Camera Module Adjustment | 3-Axis Gimbal (Pan/Tilt/Rotate) |
| Device Color | Metal body housing: RAL 9003 Logo color: Pantone 286C and Pantone Gray 6 Cu |

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|--------------------------------|---|
| Power Requirements | PoE IEEE802.3af, class 0, max 12.95 W DC12V, max 14.88 W AC24V, max 15.25 W, max 26.16 VA Zero-Down-Time Power Source Switching |
| PoE Modes Supported | Mode A or Mode B |
| Connectors | RJ45, Alarm in x2, Alarm out x1, Audio in, Audio out terminal block, DC12V/AC24V terminal block, CVBS Connector COAX (75 Ohm) (CVBS output available with max. 2 activated streams, requires optional adapter 2-pin COAX cable) |
| 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 HUB, MOBOTIX MOVE NVR |
| Environmental Protection Class | IP66 and IK10 |
| Operating Temperature | -55 to 60 °C/-67 to 140 °F |
| 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: IP66, IK10 |
| MTBF | 95,000 hours |
| Warranty | 5 years |
| Dimensions | ø 133.8 x 117.4 mm |
| Weight | 760 g |

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

Alarm Input/Output Current and Voltage

| Alarm In | Alarm Out |
|---|---------------------|
| 3.3 V with 10 k Ω pull up, 50 mA | 350 V DC/AC, 130 mA |







DORI Specifications

In the video surveillance context, “DORI” stands for Detection, Observation, Recognition and Identification and is based on IEC EN62676-4: 2015. These levels define the minimum pixels that a face of a person must have to provide proper identification, for example.

- **Detection:** Up to this distance, you can reliably determine if a person or vehicle is present.
- **Observation:** Up to this distance, you can see characteristic details of an individual, such as distinctive clothing.
- **Recognition:** Up to this distance, you can determine with a high degree of certainty whether an individual is the same as someone that has been seen before.
- **Identification:** Up to this distance, you can determine the identity of an individual beyond reasonable doubt.

| DORI Level | Detection | | Observation | | Recognition | | Identification | |
|-----------------|-----------------|------------------|----------------|-----------------|----------------|-----------------|----------------|----------------|
| Camera | Wide | Tele | Wide | Tele | Wide | Tele | Wide | Tele |
| Mx-VD2A-5-IR-VA | 60 m/ 197 ft | 196 m/ 643 ft | 24 m/ 79 ft | 78 m/ 256 ft | 12 m/ 39 ft | 39 m/ 128 ft | 6 m/ 20 ft | 20 m/ 66 ft |

Accessories

| Picture | Order Code | Description |
|---|---------------------|--|
|  | Mx-M-VD-W | Wall Mount set (2 pieces) for MOBOTIX MOVE Vandal Dome cameras |
|  | Mx-M-VD-P | Pole Mount (junction mount) for MOBOTIX MOVE Vandal Dome cameras |
|  | Mx-M-VD-C | Corner Mount for MOBOTIX MOVE Vandal Dome cameras |
|  | Mx-M-VD-IC | Ceiling Flush Mount for MOBOTIX MOVE Vandal Dome 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!

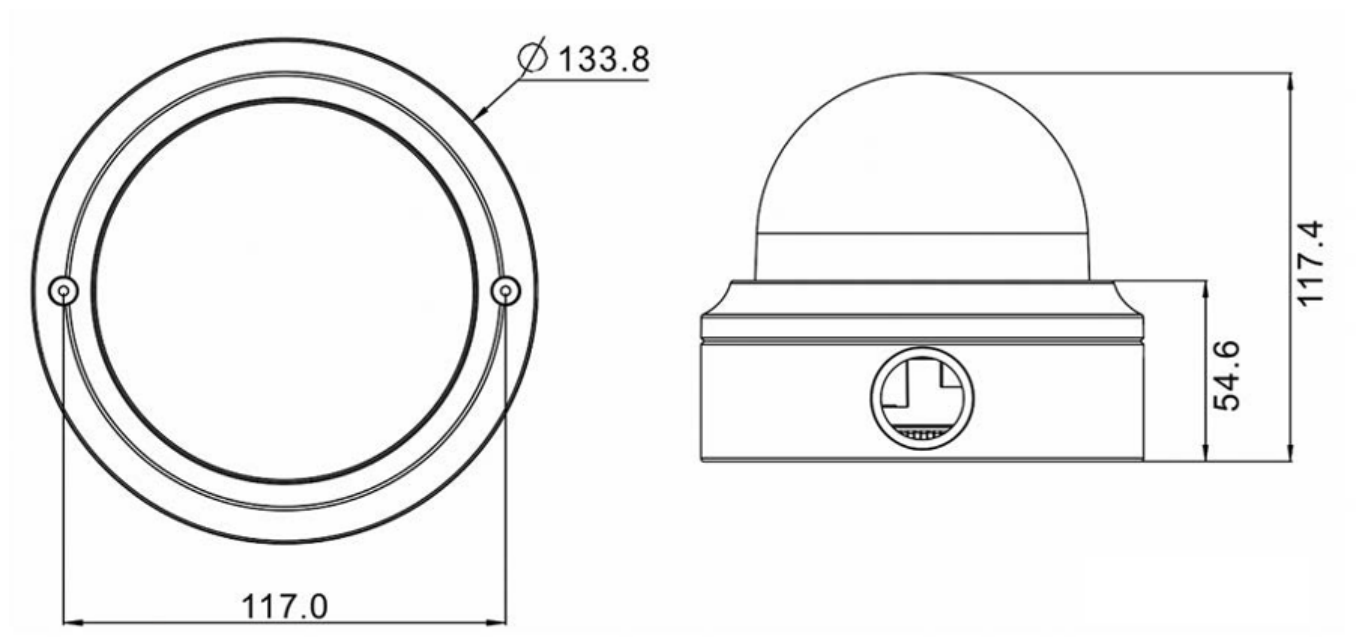



Fig. 1: 5MP Vandal Fixed Dome Analytics Camera: All measurements in mm

Further Reading


[Manuals and Quick Installation documents](#)



[Video Analytics Manual](#)



[Technical Specifications](#)



[MOBOTIX MOVE Installation Hints](#)



