



# Technical Specifications

## **MOBOTIX MOVE 2MP Vandal Dome Camera**

A performant 2MP, Full HD/1080p resolution camera for the daily security and surveillance needs. The camera easily adapts to different indoor and outdoor scenes.

- 2.8 to 12 mm Manual Vari-Focal Lens
- Wide Dynamic Range (WDR) max. 130 dB
- Light Sensitivity: Color 0.08 lux, B/W 0.008 lux
- PoE power support (IEEE802.3af)
- Integrated IR LEDs up to 40 m/131 ft distance
- Outdoor suitable (IP66) and vandal proof design (IK10)
- ONVIF Profile S/G/T/M support
- Temperature Range -55 to 60 °C/-67 to 140 °F



BeyondHumanVision

**MOBOTIX** MOVE

## Technical Specifications

### MOBOTIX MOVE 2MP Vandal Dome Camera

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## Product Information

Product Name	2MP Vandal Dome Camera
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Order Code	Mx-VD2A-2-IR
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## Hardware Design

Processor	Ambarella S6L22m (Quad-core ARM® Cortex®-A53, 600 MHz)
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Memory	RAM: 512 MBytes FLASH: 256 MBytes
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Image Sensor	5MP, 1/2.7" Progressive CMOS OS05A20 (OmniVision)
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Effective (Used) Pixels	1920x1080 (2MP)
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## Lens

Minimum Illumination	Color: 0.08 lux B/W: 0.008 lux
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Lens Characteristics	Manual Vari-Focal Lens Focal Length: 2.8 to 12 mm Aperture: F1.4 to F2.8 Horizontal Field of View: 96.76° (Wide), 34.13° (Tele) Vertical Field of View: 52.21° (Wide), 19.24° (Tele)
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Lens Mechanics	3-Axis adjustment
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## Camera

Day/Night	Automatic mechanically switchable IR-cut filter
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Shutter Speed	<b>Manual mode:</b> WDR: 1/17550 s Linear: 30 fps, 1/37440 s <b>Automatic Mode:</b> 1 to 1/10000 s
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Frame Rate (maximum)	<b>WDR on:</b> H.265/H.264: 1920x1080@30fps + 720x480@30fps MJPEG: 1080p@30fps <b>WDR off:</b> H.265/H.264: 1920x1080@30fps + 720x480@30fps MJPEG: 1080p@30fps
Auto Gain	Min. gain: 3 dB, max. gain: 48 dB, step size: 3
WDR	Up to 130 dB Multi Exposure WDR & HDR Engine support
Zoom	Optical: 4.29x, 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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## 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)
Secure Boot	Yes (support of fixed IP setting and automatic DHCP IP configuration according to individual MAC address)
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)

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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 are supported.

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## System Integration

Base Video Analytics	<ul style="list-style-type: none"><li>▪ Motion Detection</li><li>▪ Tampering</li></ul>
Event Triggers	<ul style="list-style-type: none"><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>▪ Video recording to edge storage</li><li>▪ File upload: FTP, network share and email</li><li>▪ Notification: HTTP, FTP, email</li></ul>

## General

Housing Material	Metal
Housing Color	RAL 9003
Power Requirements	PoE IEEE802.3af, class 0, max. 7.5 W

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PoE Modes Supported	Mode A or Mode B
Connectors	RJ45
IR Illumination	850 nm; up to 40 m/131 ft distance depending on reflection of scenery
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/IK10
Operating Temperature	-55 to 60 °C/-67 to 140 °F
Cold Start Temperature	-20 °C/-4 °F
Relative Humidity	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.

# 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	
	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele
Mx-VD2A-2-IR	37 m/ 121 ft	101 m/ 331 ft	15 m/ 49 ft	40 m/ 131 ft	7 m/ 23 ft	20 m/ 66 ft	4 m/ 13 ft	10 m/ 33 ft

# 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!

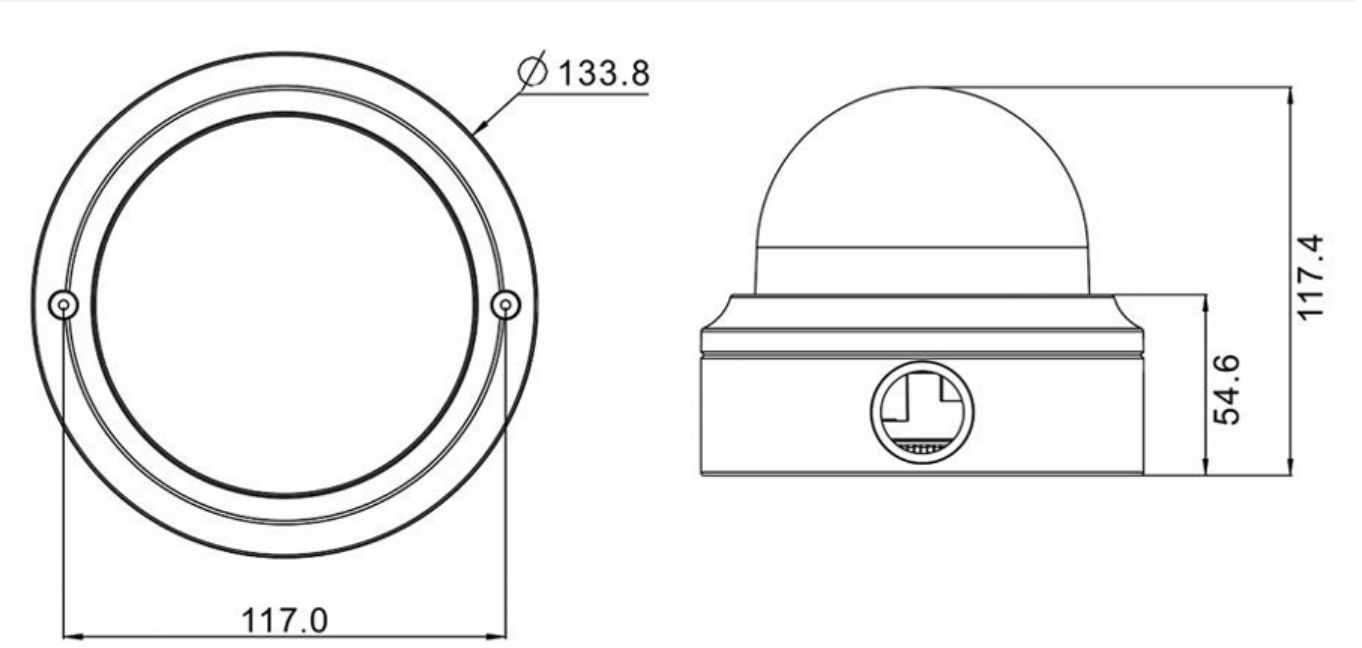




Fig. 1: Mx-VD2A-2-IR: All measurements in mm

## Accessories for Vandal Dome Cameras

Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-M-VD-C 	Weatherproof corner mount for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.  Requires use of Mx-M-VD-W.	Steel, RAL9003	2.0 kg
Mx-M-VD-P 	Weatherproof pole mount for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.  Requires use of Mx-M-VD-W.	Steel zinc-coated, RAL9003	0.7 kg



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Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-M-VD-W 	Weatherproof wall mount for MOVE Vandal Dome cameras (2-piece set of wall mount and pendant cap).	All MOVE Vandal Dome (VD) cameras. Can be combined with Mx-M-VD-C or Mx-M-VD-P.	Aluminum (wall mount) and polycarbonate (pendant cap), RAL9003	1.4 kg
Mx-M-VD-IC 	Indoor in-ceiling mount for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.	Steel zinc-coated, RAL9003	0.8 kg
Mx-A-VD-DCS 	Clear replacement dome for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.	Polycarbonate, clear	0.21 kg

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Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-A-VD-DCT 	Tinted replacement dome for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.	Polycarbonate, tinted	0.25 kg
Mx-A-VD-DBC-EC 	Clear <b>EverClear-coated</b> replacement dome for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.	Polycarbonate, clear	0.21 kg
Mx-A-VD-DBT-EC 	Tinted <b>EverClear-coated</b> replacement dome for MOVE Vandal Dome cameras.	All MOVE Vandal Dome (VD) cameras.	Polycarbonate, tinted	0.25 kg

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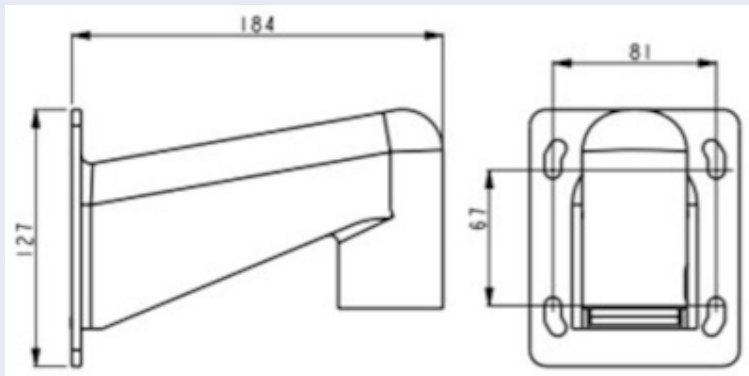
## Dimensions



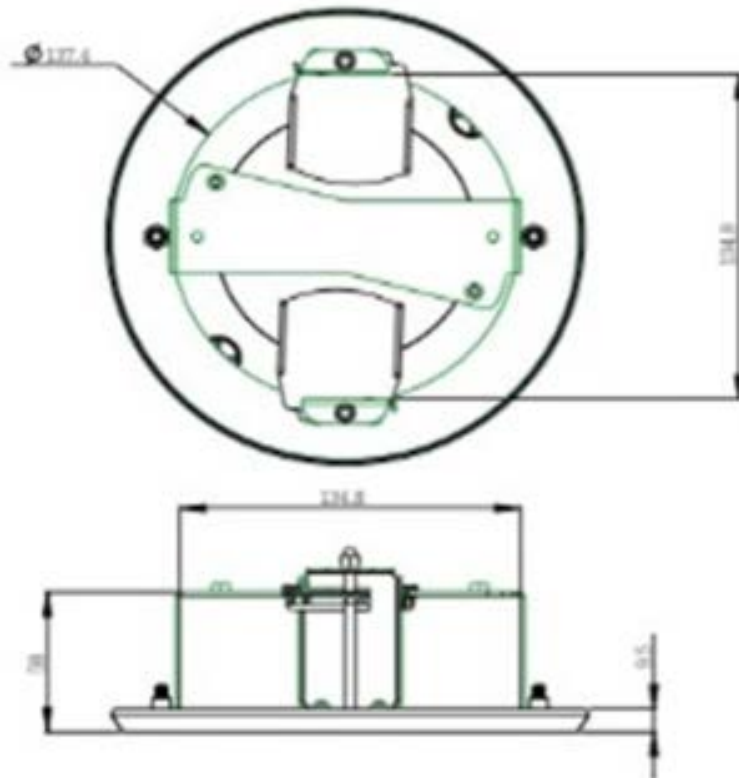
**Order Code**

**Dimensions**

Mx-M-VD-W



Mx-M-VD-IC



## Accessories for All Cameras

Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
MX-NPA-UPOE1A-60W 	<p>UPoE Power Injector 60W. PoE++ 60W Network Power injector • AC Input Voltage: 100 to 240 VAC (50 to 60Hz) • AC Input Current: 1.5A @100-240 VAC • Operating Ambient Temperature: • -10° to 40°C @60W • -10° to 50°C, humidity 10 to 90% @30W • IEEE 802.3bt compliant • Output power of 60W over 4-pairs • Supports 10/100/1000Base-T applications • Plug-and-play installation • Full Protection OVP, OCP• Supports 10/100/1000Base-T applications.</p>	All cameras.	Plastic housing, black	0.45 kg

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Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-A-ETP1A-2601-SET 	<p>Media converter set Ethernet (PoE+) – Twisted-Pair.</p> <p>Complete set consisting of two two-wire transmit/receive units for establishing an Ethernet transmission path via twisted-pair cables.</p> <ul style="list-style-type: none"><li>• Transmission of Ethernet and PoE+ power supply via two-wire line according to IEEE1901.</li><li>• Simple connection of 10/100 Mbps Ethernet end devices</li><li>• Max. 95 Mbps transmission bandwidth, range up to 600 m/656 yd for data only, 300 m/328 yd for PoE depending on the quality of the twisted-pair link</li><li>• 128 bit AES network data encryption</li><li>• Power supply 2-wire transmitter (Tx) and receiver (Rx) as well as end device via PoE+ network switch or external power supply 56VDC / 1.2A (not included!)</li><li>• Connected end devices are supplied via PoE switch IEEE802.3af(PoE), IEEE802.3at (PoE+), UPoE up to 60W (requires ext. power supply unit).</li><li>• Status LEDs (data, power supply, data link, PoE)</li><li>• Integrated Overvoltage protection (IEC 61000-4-5 4kV (1.2 / 50us), 2kA(8 / 20us))</li><li>• Power Supply: TX: T-Linx or DC12V~57V, RX: PoE Switch or</li></ul>	<p>All cameras.</p> <p>Requires Mx-A-ETP1A-2601-POW.</p>	<p>Plastic housing, black</p>	0.368 kg

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Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-A-ETP1A-2601-POW	<p>DC48V~57V • Operational temperature: -20 to 60°C • Dimensions: 80.4(L) x 61.6(W) x 24 (H)mm • Weight: RX/TX: 102g • Warranty: 2 years</p>	Mx-A-ETP1A-2601-SET	Plastic housing, black	0.49 kg
	<p>Plug-type power supply for Mx-A-ETP1A-2601-SET.</p> <p>Output: 57V DC +/-3% / 1.2 A • Input: 90-260V AC (47-63Hz) • 68,4 Watt • Operating Temperature: 0-40°C/32-122°F</p>			

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### MOBOTIX MOVE 2MP Vandal Dome Camera

Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-A-KBD1A-PTZ-JOG 	<p>MOBOTIX USB Keyboard with PTZ Joystick &amp; Jog-Shuttle. USB control panel for operating MOBOTIX MxMC 2.6 and higher and MOBOTIX HUB incl. Control of software PTZ and motorized PTZ cameras and pan/tilt devices • Integrated 3-axis joystick • Integrated jog shuttle • 38 control keys with backlight predefined for MxMC functions or freely definable for MOBOTIX HUB • Integrated alarm buzzer • Suitable for operation as HID device on MOBOTIX VMS with Windows and MAC based operating systems via USB 2.0 • Suitable for right- and left-handed users • Power supply: USB, max. 350 mA • Operating temperature: 0°–45°C/32–113 °F.</p>	<p>All cameras. Requires Windows or macOS computer with USB 2.0 or better.</p>	<p>Plastic housing, black</p>	<p>1.9 kg</p>
MX-SWITCH1 	<p>MOBOTIX network switch for DIN (top-hat) rail mounting. 5x RJ45 port with 100 MBit/s (1x uplink, 4x PoE+ with max. 75 W). Supply: 48 V DC, max. 75 W. Simplified cabling for door stations due to available connectivity for anti-theft protection, door opener and MxBus. MxBus, anti-theft protection, door and lock contact can be connected via separate wires of Ethernet cable.</p>	<p>All cameras.</p>	<p>Plastic housing, gray</p>	<p>0.31 kg</p>

## Further Reading

[Manuals and Quick Installation documents](#)



[Technical Specifications](#)



[MOBOTIX MOVE Installation Hints](#)



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