



Technical Specifications

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

The MOBOTIX MOVE 2MP Varifocal IR Vandal Turret is designed to bring clarity and vigilance to your surveillance needs. This state-of-the-art turret camera with DNN-based video analytics combines advanced features with a compact and sleek design, making it an ideal choice for various indoor and outdoor applications. The Vari-Focal Turret Camera allows you to easily remote adjust the field of view and focus by a motorized lens, ensuring optimal positioning and alignment to meet the specific requirements of your surveillance scenario. The camera's weather-resistant design IP67 and IK10 ensures reliable operation even in challenging environmental conditions. Its compact turret form factor, combined with easy installation options, makes it a hassle-free choice.

- High Low-Light sensitivity
- 1/2.8" Progressive CMOS
- Motorized Vari-Focal Lens 2.7mm to 13.5mm
- WDR up to 120 dB
- Integrated adaptive IR Illumination, working distance up to 30 m/98 ft
- Triple Streaming H.264/H.265/MJPEG
- 2D & 3D Motion Compensated Noise Reduction (MCTF)
- ONVIF Profile S/G/T/M support
- Micro SD Card supports up to 512 GB.
- Integrated Microphone
- NDAA compliant
- DNN-based object detection with filtering (people/vehicles, etc.)
- Dual power Supply IEEE802.3af Class 3 / DC 12 V
- Temp. Range -30°C to 60°C/-22°F to 140 °F with heater
- Protection Rate IP67 / IK10
- Intelligent Encoding, Smart Low Bitrate Control is same as Smart compression offering optimally useable bandwidth and storage.



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Product Information

Product Name	2MP Varifocal IR Vandal Turret
Order Code	Mx-VT1A-203-IR

Hardware Design

Processor	Novatec NT98560 (Single-core ARM® Cortex®-A9, 960 MHz)
Memory	RAM: 512 MBytes FLASH: 256 MBytes
Image Sensor	2MP, 1/2.8" Progressive CMOS
Effective (Used) Pixels	1920x1080 (2MP)

Lens

Minimum Illumination	Color: 0.03 lux B/W: 0.01 lux, (0 lux, IR on) F1.6, AGC=on, 30 IRE, 1/1 s
Lens Characteristics	Vari-Focal Lens Focal Length: 2.7mm to 13.5mm Aperture: F1.4-2.8 H x V FOV: 111°-34°(H) 61°-19°(V)

Camera

Day/Night	Automatically switchable IR-cut filter
Shutter Speed	Auto / Manual / WDR: 1 to 1/10000 s
Shutter Priority Mode	Up to 1/7.5 s
Frame Rate (maximum)	WDR on/off: H.265/H.264: 2MP@30 fps MJPEG: 2MP@30 fps
Auto Gain	Min. gain: 0 dB, max. gain: 36 dB, step size: 3
WDR	Up to 120 dB

Zoom	Motorized optical: 2.67x
Image Settings	Color, Brightness, Sharpness, Contrast, White Balance, Gain Control, 2DNR, 3DNR, BLC, EV, Gamma corection, Saturation, Hue
Image Rotation	90°, 180°, 270°
Camera Body Adjust	Pan/Tilt/Rotation

Video Codec

Compression/Encoding	H.265/H.264/MJPEG
Streaming	Up to 3 individually configurable streams in H.264/H.265/MJPEG. Configurable resolution, frame rate, bandwidth CVBR/CBR/istream in H.265/H.264

Audio Codec

Compression/Encoding	G.711a/u
Streaming	One-way
Audio Input	Integrated Microphone

Network

Interface	10/100 Mbps Ethernet
Supported Protocols	ARP, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IGMP, IPv4/6, NTP, RTSP/RTCP/RTP, RTMP, QoS, SMTP, SNMP v1/2c/3, TCP, TLS/TTLS, UDP, UPnP, 802.1X, Bonjour, DDNS, PPPoE
ONVIF conformance	Supports profiles S/G/T/M
Supported Browsers	Microsoft Edge, Firefox, Google Chrome

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System Integration

Event Actions

- Schedule Recording (JPG/MP4)
- DNN-based video analytics (line counting, border line, object classification/filtering for people, vehicles, etc.)
- Video and audio recording to edge storage
- File upload: FTP and email
- Notification: Email (JPG)
- OSD indication
- SD Card recording (*JPG/MP4)

General

Housing Material

Metal

Housing Color

RAL 9003

Adaptive IR Illumination

850 nm; up to 30 m/98 ft distance depending on reflection of scenery

Video Storage

Micro SD card support up to 512 GB.

Support for recording to MOVE NVR, MOBOTIX Cloud (via MOBOTIX Bridge), MOBOTIX HUB, MxMC (via MOBOTIX NAS)

Remotely Upgradable

Yes

Power Requirements

IEEE802.3af, class 3, max 10 watt

DC12V, max 10 watt

Connectors

- RJ45
- 1 x DC 12V Jack Socket
- 1 x Reset / Default Button

Environmental Protection

IP67/IK10

Class

Operating Temperature

-30°C to 60°C/-22°F to 140 °F with heater

Relative Humidity

95 % non-condensing

Storage Conditions

-40 to 60 °C/-4 to 158 °F

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Approvals	EMC: CE/FCC/BIS Safety: LVD
Warranty	5 years; mechanically wearable parts (motor, gears, belts, etc.) excluded
Dimensions	ø 120 x 104 mm (overall)
Weight	715 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 Order Code	Focal Length	Detection	Observation	Recognition	Identification
Mx-VT1A-203-IR	2.7 mm (Wide)	19.9 m/ 65.46 ft	11.5 m/ 37.83 ft	7.2 m/ 23.68 ft	3.2 m/ 10.53 ft
	13.5 mm (Tele)	51 m/ 167.76 ft	26.1 m/ 85.86 ft	15.9 m/ 52.3 ft	6.9 m/ 22.7 ft

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!

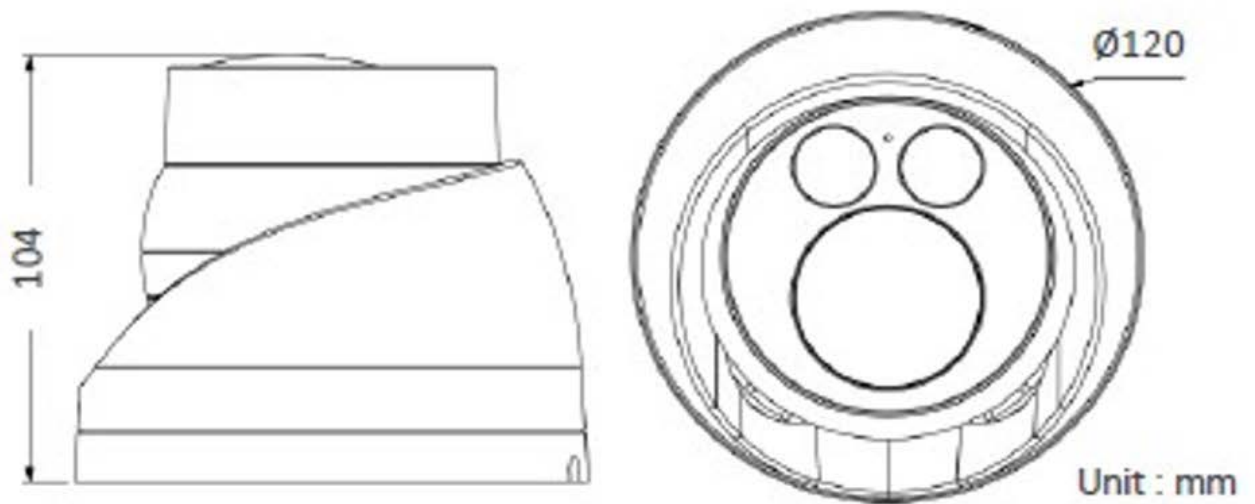


Fig. 1: Mx-VT1A-203-IR: All measurements in mm

Accessories for Vandal Turret Cameras

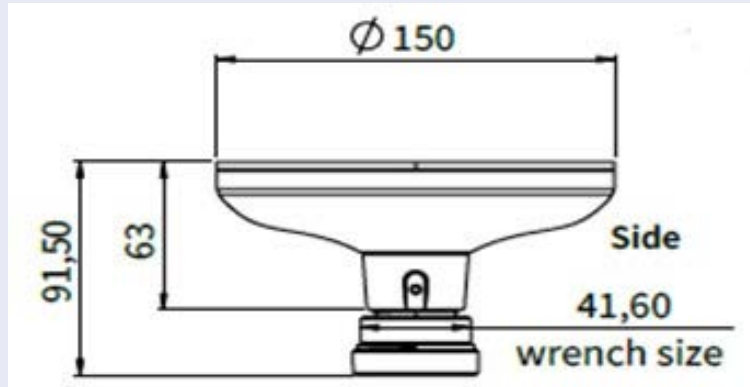
Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-M-VT-AP 	Adapter mounting plate for MOVE Vandal Turret cameras.	MOVE Vandal Turret (VT) cameras.	Aluminum, RAL9003	0.3 kg
Mx-M-VT-JB 	Junction box for MOVE Vandal Turret cameras.	MOVE Vandal Turret (VT) cameras.	Aluminum, RAL9003	0.85 kg
Mx-M-VT-WM 	Wall mount for MOVE Vandal Turret cameras.	MOVE Vandal Turret (VT) cameras.	Aluminum, RAL9003	0.3 kg

Dimensions

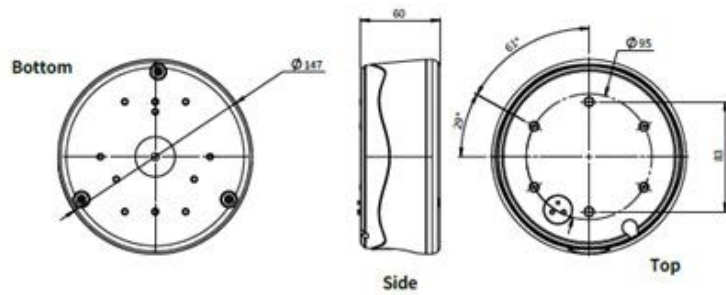
Order Code

Mx-M-VT-AP

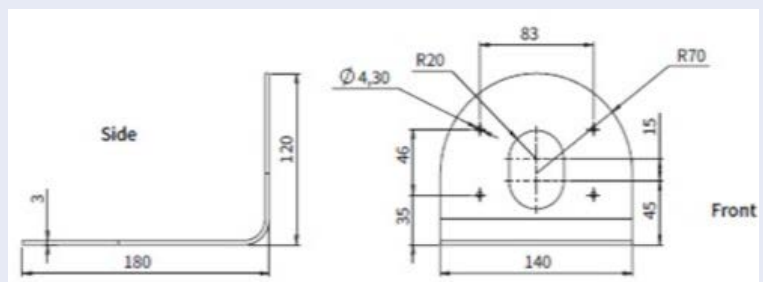
Dimensions



Mx-M-VT-JB



Mx-M-VT-WM



Accessories for All Cameras

Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
MX-NPA-UPOE1A-60W 	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.	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">• Transmission of Ethernet and PoE+ power supply via two-wire line according to IEEE1901.• Simple connection of 10/100 Mbps Ethernet end devices• 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• 128 bit AES network data encryption• 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!)• Connected end devices are supplied via PoE switch IEEE802.3af(PoE), IEEE802.3at (PoE+), UPoE up to 60W (requires ext. power supply unit).• Status LEDs (data, power supply, data link, PoE)• Integrated Overvoltage protection (IEC 61000-4-5 4kV (1.2 / 50us), 2kA(8 / 20us))• Power Supply: TX: T-Linx or DC12V~57V, RX: PoE Switch or	<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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Order Code/ Picture	Description	Compatible Products	Material/ Color	Weight
Mx-A-KBD1A-PTZ-JOG 	<p>MOBOTIX USB Keyboard with PTZ Joystick & 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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