



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 integrated heater ON
- 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

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)
User and Group Management	Yes (for fine-grained access control)

Technical Specifications

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Advanced Security	Yes (Active/Passive: Active protection controls the enabling and disabling of various network communications. Passive protection limits the number of operations and the duration of the ban. If the limit is reached, the user will be banned)
RTSP Authentication	Yes (for restricting unauthorized access to RTSP streams)
SFTP	Yes (network protocol that securely transfers files between a client and a server using SSH)

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/TLS, UDP, UPnP, 802.1X, Bonjour, DDNS, PPPoE
ONVIF conformance	Supports profiles S/G/T/M
Supported Browsers	Microsoft Edge, Firefox, Google Chrome

System Integration

Event Actions	<ul style="list-style-type: none">▪ 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)
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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	<ul style="list-style-type: none">▪ RJ45▪ 1 x DC 12V Jack Socket▪ 1 x Reset / Default Button
Environmental Protection Class	IP67/IK10
Operating Temperature	-30°C to 60°C/-22°F to 140 °F with integrated heater ON
Relative Humidity	95 % non-condensing
Storage Conditions	-40 to 60 °C/-4 to 158 °F
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!

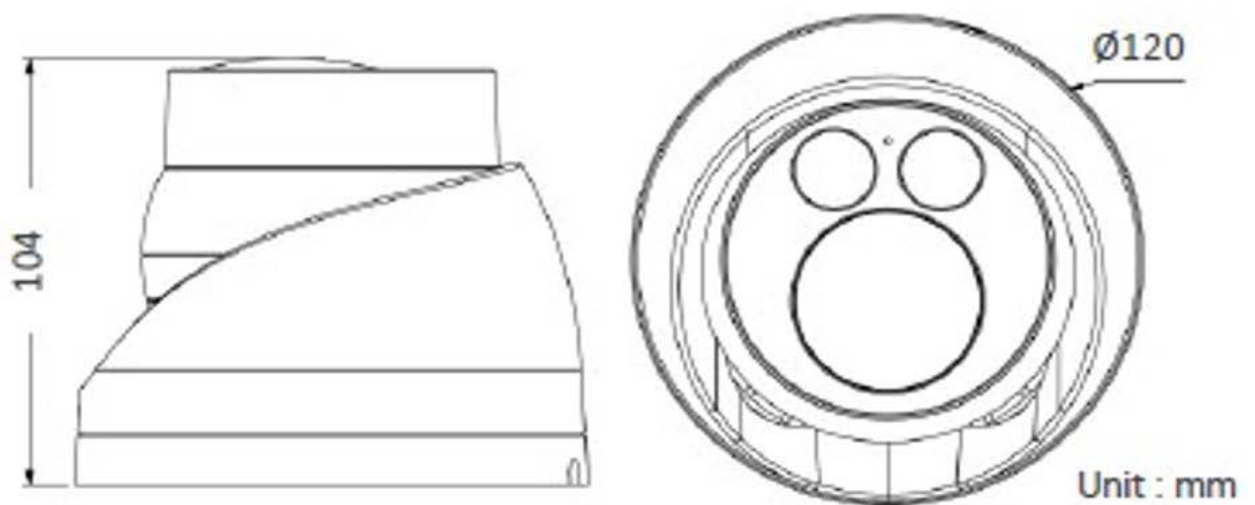




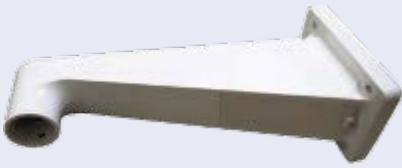


Fig. 1: Mx-VT1A-203-IR: All measurements in mm

Accessories for Vandal Turret Cameras



Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 <p data-bbox="245 969 384 996">Mx-M-SD-C</p>	<p>Weatherproof corner mount for MOVE Speed Dome/Vandal Turret cameras.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras. Requires Mx-M-SD-W or Mx-M-SD-WL.</p> <p>CAUTION! Cannot be used with MX-M-SD-WM!</p>	<p>SPCC steel, hammer-blow painted RAL9003</p>	<p>2.17 kg</p>
 <p data-bbox="245 1619 384 1646">Mx-M-SD-P</p>	<p>Weatherproof pole mount for MOVE Speed Dome/Vandal Turret cameras.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras. Requires Mx-M-SD-W or Mx-M-SD-WL.</p> <p>CAUTION! Cannot be used with MX-M-SD-WM!</p>	<p>Zinc-galvanized SECC steel, powder-coated RAL9003</p>	<p>1.58 kg</p>

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	<p>Weatherproof pole mount for MOVE Speed Dome/Vandal Turret cameras for extreme conditions.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras. Requires Mx-M-SD-W or Mx-M-SD-WL.</p>	<p>Stainless steel 3 mm, white</p>	<p>1.23 kg</p>
<p>MX-MH-SecureFlex-ESWS</p>		<p>CAUTION! Cannot be used with MX-M-SD-WM!</p>		
	<p>Weatherproof wall mount for MOVE Speed Dome/Vandal Turret cameras.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras. Can be combined with Mx-M-SD-C or Mx-M-SD-P.</p>	<p>Die-cast ADC12 aluminium alloy, hammer-blow painted RAL9003</p>	<p>0.84 kg</p>
<p>Mx-M-SD-W</p>				
	<p>Extended weatherproof wall mount for MOVE Speed Dome/Vandal Turret cameras.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras. Can be combined with Mx-M-SD-C or Mx-M-SD-P.</p>	<p>Die-cast ADC12 aluminium alloy, hammer-blow painted RAL9003</p>	<p>1.5 kg</p>
<p>Mx-M-SD-WL</p>				

Technical Specifications


MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight		
	<p>Weatherproof wall mount for MOVE Speed Dome/Vandal Turret cameras. Can also be mounted on top of wall mount junction box MX-M-SD-WMJB.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras.</p>	<p>Die-cast ADC12 aluminium alloy, RAL9003</p>	<p>1.3 kg</p>		
<p>MX-M-SD-WM</p>	<p>NOTE! Can be combined with MX-M-SD-WMJB (wall mount is mounted on top of junction box).</p>		<p>Weatherproof wall mount junction box (IP67) for MOVE Speed Dome/Vandal Turret cameras. Allows for comfortable cabling and installation of additional HW equipment such as PoE Injectors, lightning protection, etc.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras.</p>	<p>Bracket: Steel, powder-coated RAL9003 Junction box: Die-cast ADC12 aluminium alloy, RAL9003</p>	<p>4.8 kg</p>
<p>MX-M-SD-WMJB</p>	<p>CAUTION! Only to be used as base for Mx-M-SD-WM (wall mount is mounted on top of junction box).</p>					

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	Pendant mount kit incl. base mount, 25 cm/10 in pendant pipe, installation materials and safety wires 50 cm/20 in & 1 m/39 in.	All MOVE Speed Dome/Vandal Turret cameras.	Die-cast ADC10 aluminium alloy, powder-coated RAL9003	1.58 kg



MX-M-SD-PM

	Extension pipe 25 cm/10 in for MX-M-SD-PM.	Extends MX-M-SD-PM; max. extended total length is 1 m/39 in (3 extensions).	Die-cast ADC10 aluminium alloy, powder-coated RAL9003	0.8 kg
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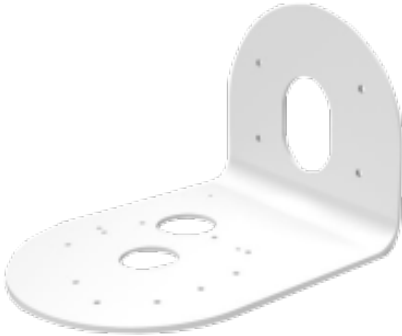

MX-M-SD-PMEXT

Technical Specifications

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	<p>Weatherproof parapet mount (goose neck; IP67) with integrated junction box for MOVE Speed Dome/Vandal Turret cameras.</p> <p>Integrated junction box allows for comfortable cabling and installation of additional hardware equipment such as PoE Injectors, lightning protection, etc.</p>	<p>All MOVE Speed Dome/Vandal Turret cameras.</p>	<p>Bracket and goose neck: Steel, powder-coated RAL9003</p> <p>Junction box: Die-cast ADC12 aluminium alloy, RAL9003</p>	<p>14.8 kg</p>
<p>MX-M-SD-GN</p>				
	<p>Adapter mounting plate for MOVE Vandal Turret cameras.</p>	<p>All MOVE Vandal Turret (VT) cameras.</p>	<p>Bracket: Die-cast ADC12 aluminium alloy, stove-enamel finish RAL9003</p> <p>Mounting plate: A1050P aluminium alloy, stove-enamel finish RAL9003</p>	<p>0.3 kg</p>
<p>Mx-M-VT-AP</p>				

MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

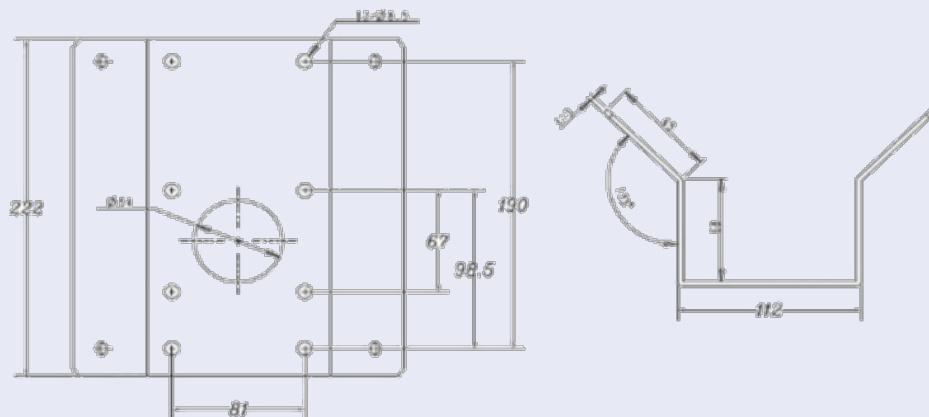
Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	<p>Wall mount for MOVE Vandal Turret cameras.</p>	<p>All MOVE Vandal Turret (VT) cameras.</p>	<p>A1050P aluminium alloy, stove-enamel finish RAL9003</p>	<p>0.3 kg</p>
<p>Mx-M-VT-WM</p>	<div data-bbox="188 815 592 1088">  </div>			
<p>Mx-M-VT-JB</p>	<p>Junction box for MOVE Vandal Turret cameras.</p>	<p>All MOVE Vandal Turret (VT) cameras.</p>	<p>Top/bottom covers: Die-cast ADC12 aluminium alloy, stove-enamel finish RAL9003</p>	<p>0.85 kg</p>

Dimensions

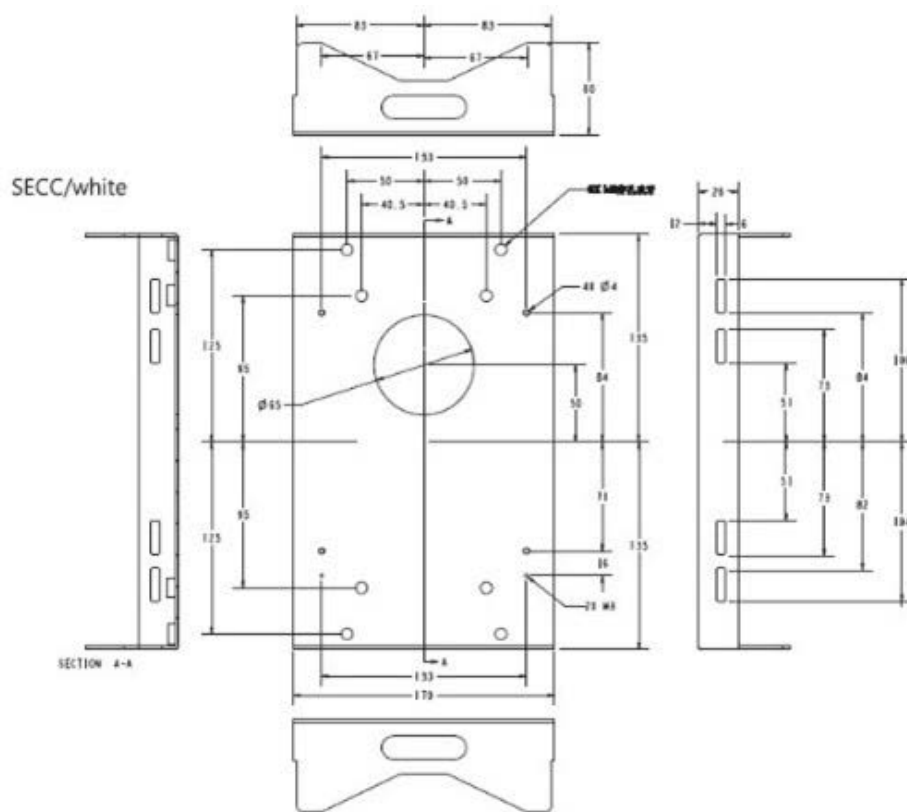
Order Code

Dimensions

Mx-M-SD-C



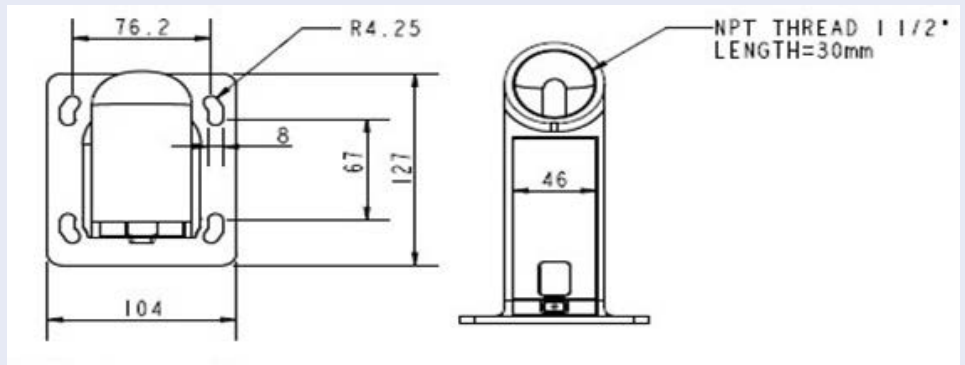
Mx-M-SD-P



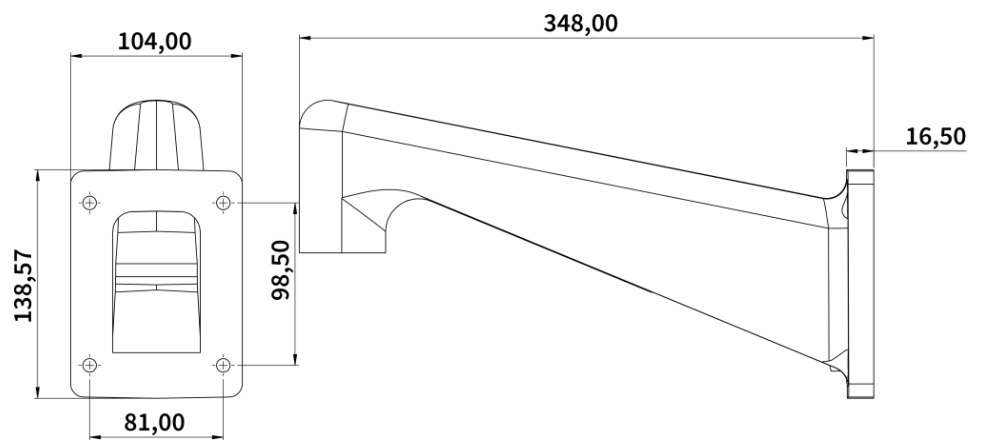
Order Code

Dimensions

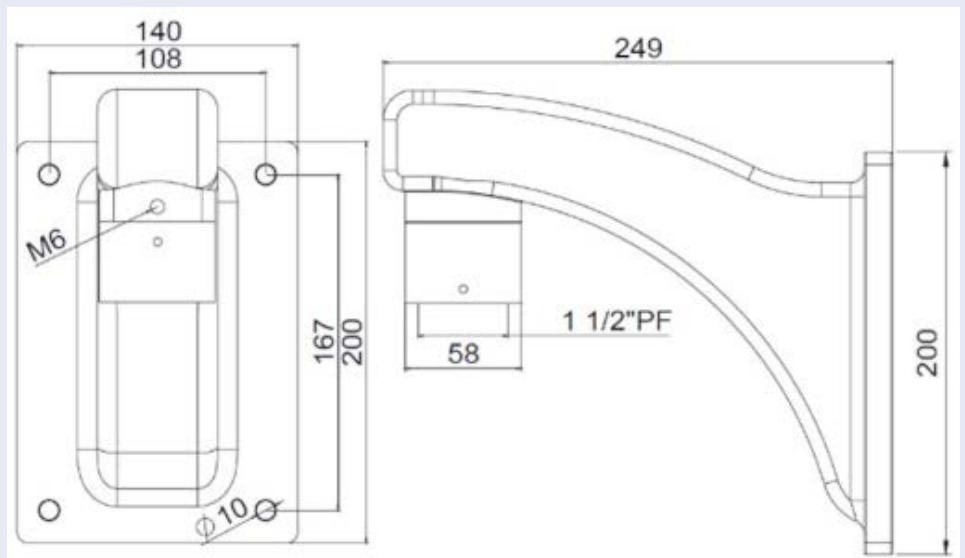
Mx-M-SD-W



Mx-M-SD-WL



MX-M-SD-WM



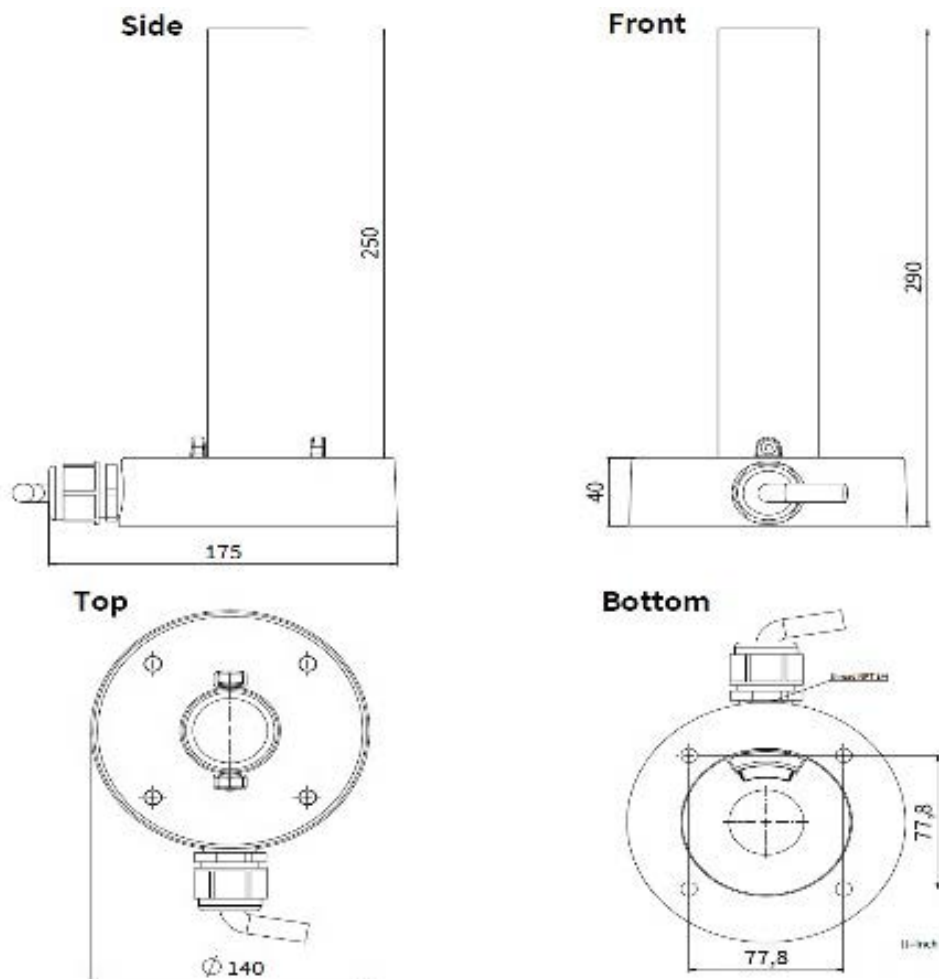
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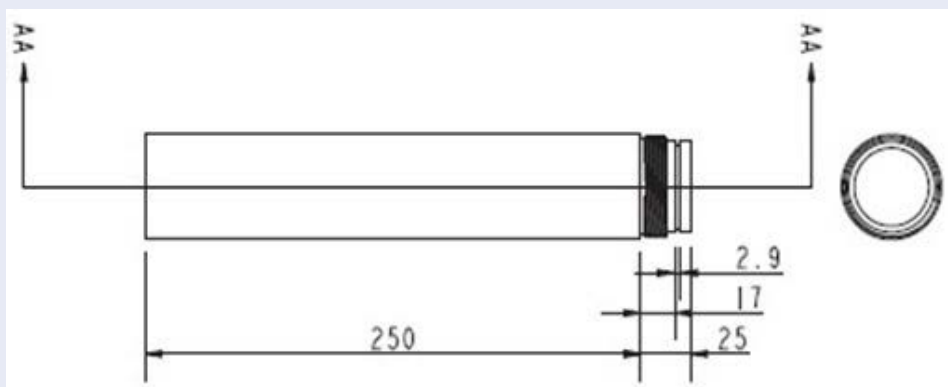
Order Code

MX-M-SD-PM

Dimensions



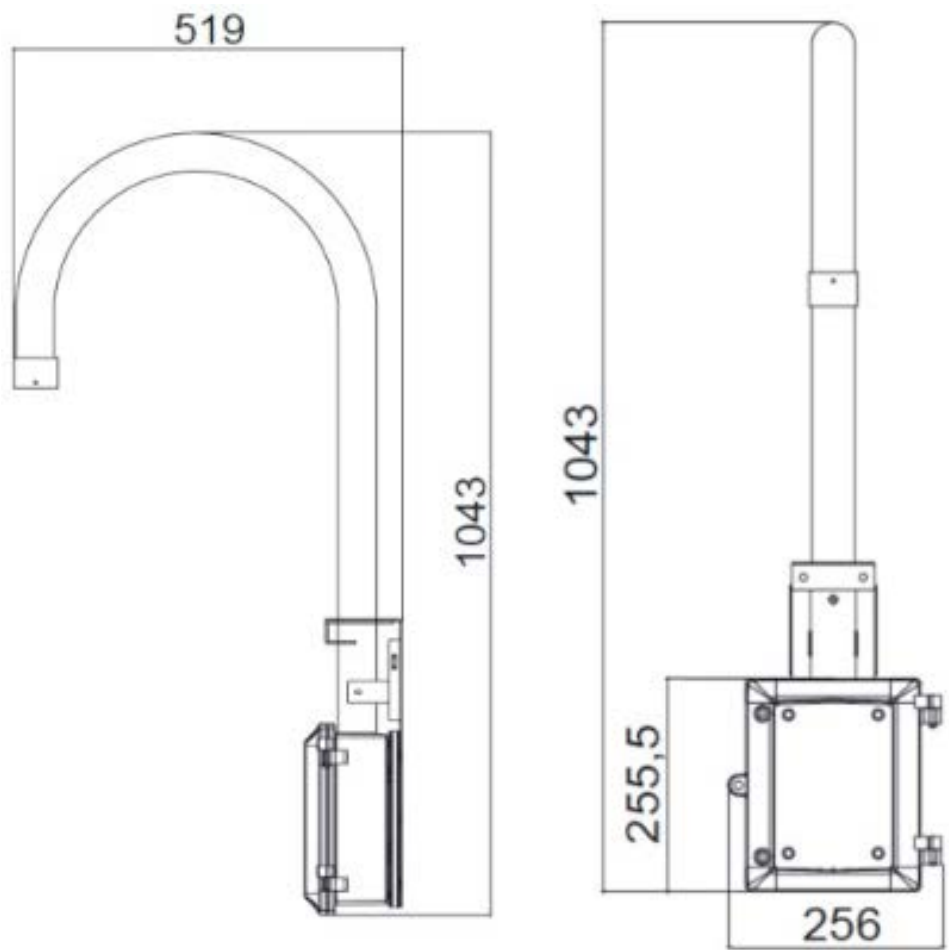
MX-M-SD-PMEXT



Order Code

MX-M-SD-GN

Dimensions



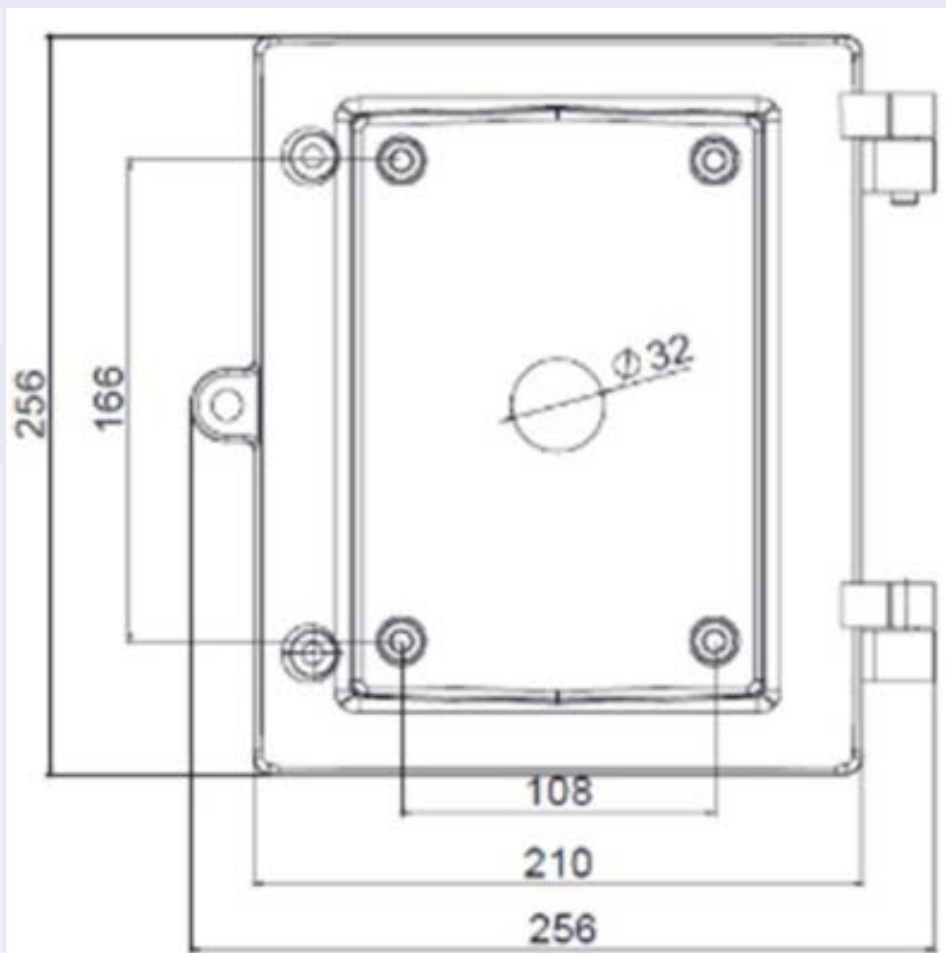
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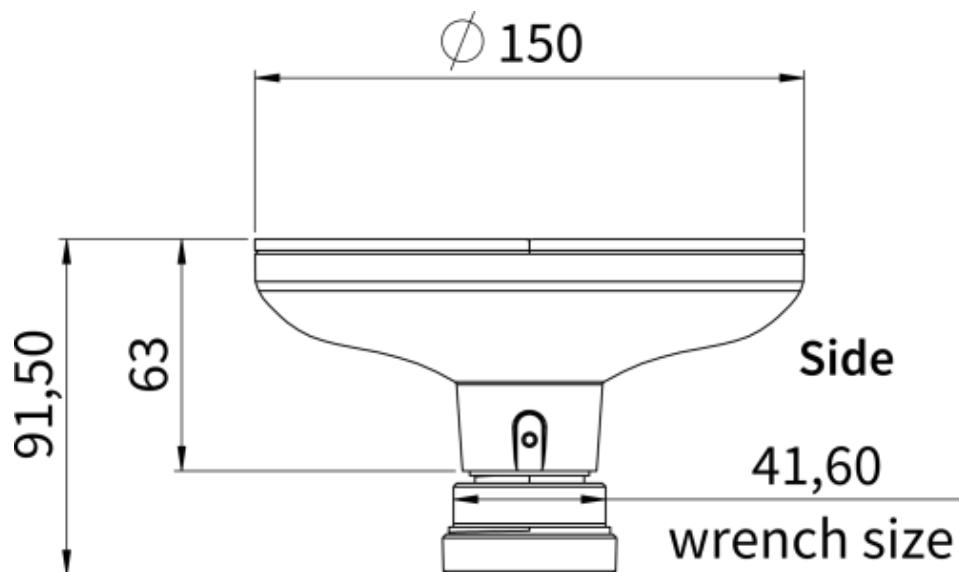
Order Code

MX-M-SD-WMJB

Dimensions



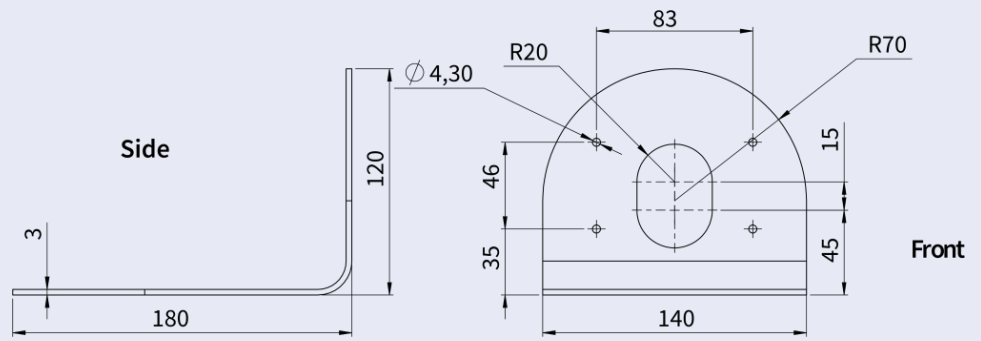
Mx-M-VT-AP



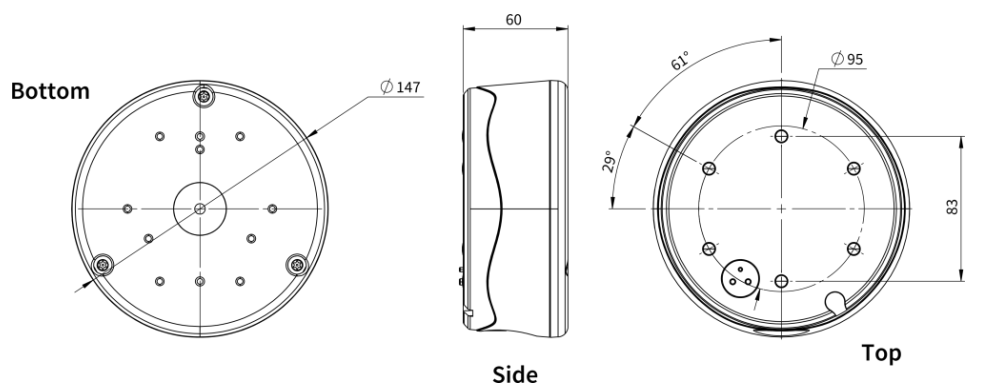
Order Code

Dimensions

Mx-M-VT-WM



Mx-M-VT-JB



Accessories for All Cameras

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 <p data-bbox="169 1070 440 1097">MX-NPA-UPOE1A-60W</p>	<p data-bbox="533 517 911 1283">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 hous- ing, black	0.45 kg
 <p data-bbox="169 1731 440 1758">Mx-A-ETP1A-2601-SET</p>	<p data-bbox="533 1328 911 1948">Media converter set Ethernet (PoE+) – Twisted-Pair. Complete set consisting of two two-wire transmit/receive units for establishing an Ethernet transmission path via twisted-pair cables. • 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</p>	All cameras. Requires Mx-A-ETP1A-2601-POW.	Plastic hous- ing, black	0.368 kg


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Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	<p>600 m/656 yd for data only, 300 m/328 yd for PoE depend- ing on the quality of the twis- ted-pair link • 128 bit AES network data encryption • Power supply 2-wire trans- mitter (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 Over- voltage protection (IEC 61000- 4-5 4kV(1.2 / 50us), 2kA(8 / 20us)) • Power Supply: TX: T- Linx or DC12V~57V, RX: PoE Switch or DC48V~57V • Oper- ational 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>			

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MOBOTIX MOVE 2MP Varifocal IR Vandal Turret

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 <p data-bbox="161 813 448 840">Mx-A-ETP1A-2601-POW</p>	<p data-bbox="533 360 874 439">Plug-type power supply for Mx-A-ETP1A-2601-SET.</p> <p data-bbox="533 461 906 629">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>	<p data-bbox="930 360 1090 439">Mx-A-ETP1A-2601-SET</p>	<p data-bbox="1150 360 1278 439">Plastic housing, black</p>	<p data-bbox="1321 360 1409 387">0.49 kg</p>
 <p data-bbox="169 1211 440 1238">Mx-A-KBD1A-PTZ-JOG</p>	<p data-bbox="533 875 898 954">MOBOTIX USB Keyboard with PTZ Joystick & Jog-Shuttle.</p> <p data-bbox="533 976 914 1872">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 data-bbox="930 875 1082 902">All cameras.</p> <p data-bbox="930 925 1126 1133">Requires Windows or macOS computer with USB 2.0 or better.</p>	<p data-bbox="1150 875 1278 954">Plastic housing, black</p>	<p data-bbox="1321 875 1401 902">1.9 kg</p>

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	<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>
<p>MX-SWITCH1</p>				

Further Reading

[Manuals and Quick Installation documents](#)



[Technical Specifications](#)



[MOBOTIX MOVE Installation Hints](#)



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