

# BE THE ONE

## Installation Guide

### MOBOTIX M ONE (FIX & VARIO)

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BeyondHumanVision

**MOBOTIX**

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## Before You Start

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## Support

### MOBOTIX Support

If you need technical support, please contact your MOBOTIX dealer. If your dealer cannot help you, he will contact the support channel to get an answer for you as quickly as possible.

If you have internet access, you can open the MOBOTIX help desk to find additional information and software updates.

Please visit [www.mobotix.com > Services > Help Desk](http://www.mobotix.com > Services > Help Desk).



### MOBOTIX eCampus

The MOBOTIX eCampus is a complete e-learning platform. It lets you decide when and where you want to view and process your training seminar content. Simply open the site in your browser and select the desired training seminar.

Please visit [www.mobotix.com/ecampus-mobotix](http://www.mobotix.com/ecampus-mobotix).



### MOBOTIX Community

The MOBOTIX community is another valuable source of information. MOBOTIX staff and other users are sharing their information, and so can you.

Please visit [community.mobotix.com](http://community.mobotix.com).



## Safety Notes

- This product must be installed by qualified personnel and the installation should conform to all local codes.
- This product must not be used in locations exposed to the dangers of explosion.
- Do not use this product in a dusty environment.

- Protect this product from moisture or water entering the housing.
- Install this product as outlined in this document. A faulty installation can damage the product!
- Do not replace batteries of the device. If a battery is replaced by an incorrect type, the battery can explode.
- External power supplies must comply with the Limited Power Source (LPS) requirements and share the same power specifications with the camera.
- To comply with the requirements of EN 50130-4 regarding the power supply of alarm systems for 24/7 operation, it is highly recommended to use an uninterruptible power supply (UPS) for backing up the power supply of this product.

## Legal Notes

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## Legal Aspects of Video and Sound Recording

You must comply with all data protection regulations for video and sound monitoring when using MOBOTIX AG products. Depending on national laws and the installation location of the cameras, the recording of video and sound data may be subject to special documentation or it may be prohibited. All users of MOBOTIX products are therefore required to familiarize themselves with all applicable regulations and to comply with these laws. MOBOTIX AG is not liable for any illegal use of its products.

## Declaration of Conformity

The products of MOBOTIX AG are certified according to the applicable regulations of the EC and other countries. You can find the declarations of conformity for the products of MOBOTIX AG on [www.mobotix.com](http://www.mobotix.com) under **Services > Download Center > Marketing & Documentation > Certificates & Declarations of Conformity**.

## RoHS Declaration

The products of MOBOTIX AG are in full compliance with European Unions Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive 2011/65/EU) as far as they are subject to these regulations (for the RoHS Declaration of MOBOTIX, please see [www.mobotix.com](http://www.mobotix.com), **Services > Download Center > Marketing & Documentation > Brochures & Guides > Certificates**).

## Disposal

Electrical and electronic products contain many valuable materials. For this reason, we recommend that you dispose of MOBOTIX products at the end of their service life in accordance with all legal requirements and regulations (or deposit these products at a municipal collection center). MOBOTIX products must not be disposed of in household waste! If the

product contains a battery, please dispose of the battery separately (the corresponding product manuals contain specific directions if the product contains a battery).

## Disclaimer

MOBOTIX AG does not assume any responsibility for damages, which are the result of improper use or failure to comply to the manuals or the applicable rules and regulations. Our General Terms and Conditions apply. You can download the current version of the **General Terms and Conditions** from our website at [www.mobotix.com](http://www.mobotix.com) by clicking on the corresponding link at the bottom of every page.

## FCC Disclaimer

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Notes on System Security

To protect the camera against cybersecurity threats, the following security measures are enabled by default:

- Password must be changed when camera software is accessed for the first time.
- Public access is disabled.
- Intrusion detection is enabled.
- Timeout for grouping accesses from the same client into a single log entry is set to 60 minutes.
- IP addresses of offending HTTP clients are blocked.

The following measures are recommended after the installation has been completed:

### Camera Web Interface

- **Admin Menu > Network Setup > Web Server:**
  - **Enable intrusion detection:** Enable notifications for repeated unsuccessful login attempts.
  - **Notification threshold:** Set the value as low as possible (for example, 5 minutes).



## MxManagementCenter

- Menu View > Components View > Secure System:
  - **Enable encrypted HTTPS:** Disable all services that require unencrypted HTTP (for example, IP notify messages). Router settings may need to be adjusted when using remote access.
  - **User Management** (for all users):
    - **Force Complex Password:** Enabled
    - **Log out on Inactivity:** 5 minutes

For more information on this new feature, please read the «Cyber Protection Guide» on [www.mobotix.com](http://www.mobotix.com) (under **Services > Download Center > Documentation > Brochures & Guides > Cyber Security**).

## Protective Measures

### WARNING!

When laying cables indoors and outdoors, the current regulations for cable laying, lightning and fire protection must always be observed.

MOBOTIX cameras and devices are protected against the effects of minor over voltages by a number of measures. However, these measures cannot prevent larger surge voltages from causing damage to the camera. When installing the cameras outdoors, special attention should therefore be paid to lightning protection and the associated dangers for the building and network infrastructure.

In general, you should only have MOBOTIX cameras and devices installed by certified specialist companies that are familiar with the installation and safe operation of network devices and the underlying regulations for lightning and fire protection as well as the current technology for preventing damage from surge voltages.

## Notes on Cabling

- **Data cable:** Only double-shielded CAT5 cable or better (S/STP) may be used as data cable for the Ethernet interface.

### NOTE!

For outdoor use, special requirements apply for the cables to be used and the lightning protection.

- **Cable length:** The individual cable sections must not exceed the maximum permissible lengths in order to ensure perfect data transmission.
- **Avoidance of induction:** Data cables may only be laid parallel to power or high-voltage lines if the prescribed minimum distances are observed.
- Only use MOBOTIX cables and connectors to ensure IP66 weather resistance.

## Fire Protection

When laying cables for the power supply, the relevant country-specific regulations (e.g. VDE in Germany) and the fire protection regulations valid at the installation site must be observed.

## Lightning and Surge Protection

Measures should always be taken to protect this device from electrical surge damage.

### **NOTE!**

Electrical surge protection available using the MX-Overvoltage-Protection-Box, which is available as an accessory.

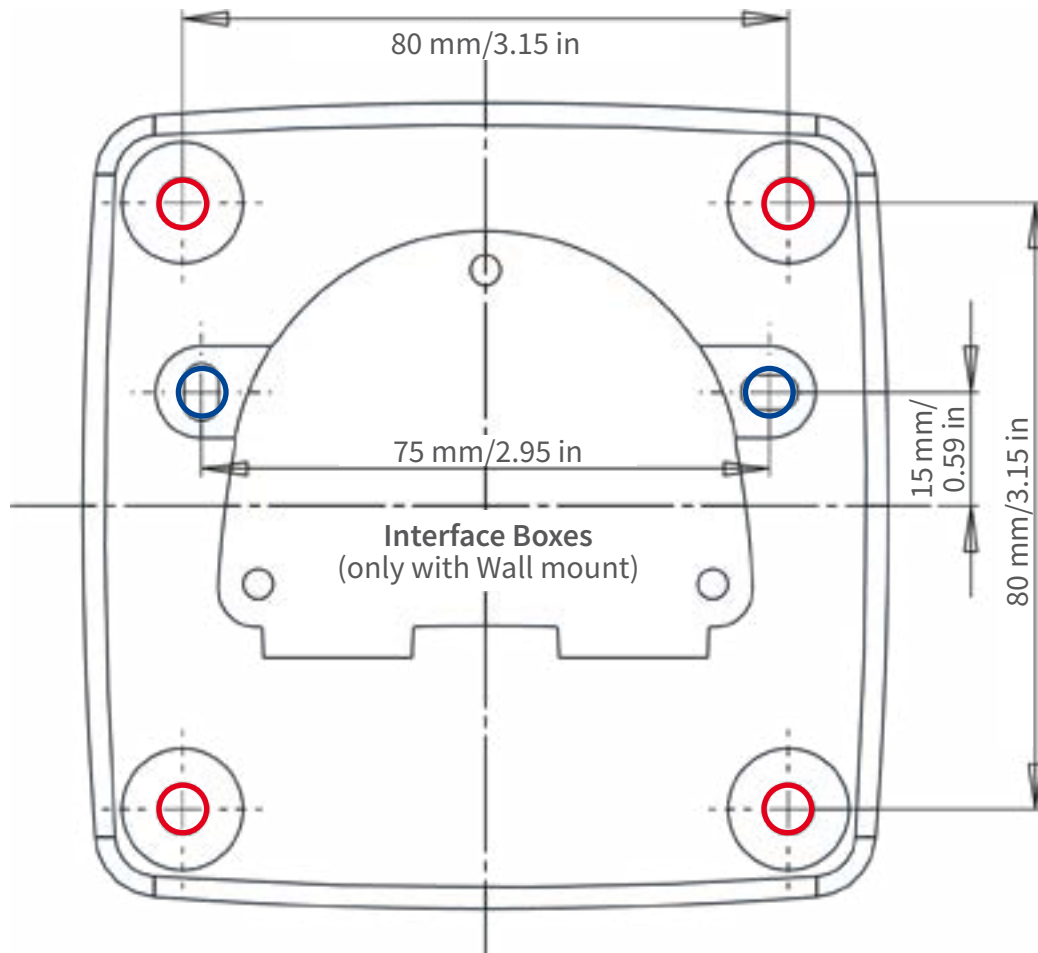
Further information on how to avoid damage caused by lightning and over voltage is available from manufacturers of lightning and over voltage protection devices.

## Drilling Template

Open this file in a PDF viewer (Adobe Reader or similar) and print the file **without scaling (original size)**.

**NOTE!**

Drilling template: [www.mobotix.com](http://www.mobotix.com) > [Services](#) > [Download Center](#) > [Marketing & Documentation](#) > [Drilling Templates](#).



- Bohrungen für Befestigungsschrauben Ø 5 mm
- Holes for mounting screws 5 mm diameter
- Trous pour les vis de montage de 5 mm diamètre



- Bohrungen für Interface Boxen (nur bei Wandmontage)
- Holes for Interface Boxes (only with Wall mount)
- Trous pour les boîtes d'interface (uniquement pour le montage mural)

Installation nur auf ebener Fläche! Unebenheiten dürfen 0,5 mm nicht überschreiten!

Installation only on level surface! Unevenness must not exceed 0.5 mm/0.02 in!

Montage uniquement sur une surface plane ! Les inégalités ne doivent pas dépasser 0,5 mm !



Nur in Originalgröße kopieren oder ausdrucken!

Always copy or print at 100% of original size!

Copier ou imprimer uniquement aux dimensions d'origine !

## Scope of Delivery

|                                                         |           |
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M ONE (FIX & VARIO): Scope of Delivery



Scope of delivery M ONE (FIX & VARIO) Body

| Item | Count | Description                                                                                                 |
|------|-------|-------------------------------------------------------------------------------------------------------------|
| 1.1  | 1     | M ONE (FIX & VARIO) with sensor module on Vario Flex Mount                                                  |
| 1.2  | 1     | MOBOTIX Ethernet patch cable, 50 cm/19.7 in (installed)                                                     |
| 1.3  | 1     | SD card 64 GB (installed)                                                                                   |
| 1.4  | 1     | Mounting supplies (see <a href="#">Scope of Delivery M ONE (FIX &amp; VARIO) Mounting Supplies, p. 15</a> ) |
| 1.5  | 1     | Important Safety Information                                                                                |
| 1.6  | 1     | Sticker with IP address of camera                                                                           |

## Mounting Supplies: Scope of Delivery



### Scope of Delivery M ONE (FIX & VARIO) Mounting Supplies

| Item | Count | Description                                  |
|------|-------|----------------------------------------------|
| M.1  | 1     | Module wrench *M1A-S FIX only                |
| M.2  | 1     | Sealing ring for VarioFlex and ceiling mount |
| M.3  | 5     | Screw caps plastic white                     |
| M.4  | 1     | 5mm Allen wrench                             |
| M.5  | 4     | Stainless steel washers Ø5.3 mm              |
| M.6  | 4     | Wood screw 4.5x60 mm                         |
| M.7  | 4     | Dowel S8                                     |
| M.8  | 1     | Tweezers for replacing the SD card           |





## Overview

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## Parts of the Camera

The MOBOTIX M ONE (FIX & VARIO) consists of the camera with VarioFlex mount.



- ① VarioFlex Mount
- ③ Housing
- ⑤ Ambient light sensor
- ⑦ IR LED light
- ⑨ Speaker

- ② Microphone
- ④ Status LED
- ⑥ Lens with cover
- ⑧ IR LED light

## Technical Specifications

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# Order Information

|             |                             |
|-------------|-----------------------------|
| Name        | MOBOTIX M ONE (FIX & VARIO) |
| Order Code: | Mx-ONE-M1A-S-8XXXXX         |

# Hardware

| Feature                                                            | Properties                                                                                                                                                                                                              |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image sensor (color or B&W sensor)                                 | Up to 4K UHD 3840x2160, 16:9, 1/1,8"                                                                                                                                                                                    |
| Available Lenses                                                   | Varifocal Wide (4.3-9.3mm; f/1.3; 112-47°),<br>Varifocal Tele (11-29mm; f/1.7; 42-15°),<br>Fixed lens (see <a href="#">Sensormodules Standard (4K Day &amp; Night), p. 23</a> )                                         |
| Optical zoom                                                       | Yes (for varifocal models)                                                                                                                                                                                              |
| Light sensitivity                                                  | ■ Color sensor (day): 0,1 lx @ 1/60s; 0,005 lx @ 1s<br>■ BW sensor (night): 0,02 lx @ 1/60s; 0,001 lx @ 1s                                                                                                              |
| Exposure control                                                   | Manual and automatic mode<br>1 s to 1/16,000 s                                                                                                                                                                          |
| IK protection class - Sensor Module                                | N/A                                                                                                                                                                                                                     |
| IK protection class - Body                                         | IK10                                                                                                                                                                                                                    |
| IP / NEMA protection class                                         | IP66 / NEMA 4X / NEMA 4X                                                                                                                                                                                                |
| Intended use                                                       | Not intended for use in hazardous areas (Ex areas)                                                                                                                                                                      |
| Operating temperature range                                        | -40 to 65 °C/-40 to 149 °F                                                                                                                                                                                              |
| Min. cold start temperature                                        | -30 °C/-22 °F                                                                                                                                                                                                           |
| Relative Humidity                                                  | 95 % non-condensing                                                                                                                                                                                                     |
| Internal DVR Storage                                               | Internal microSD card (SDHC/SDXC), 64 GB out-of-the-box, max. 2 TB.                                                                                                                                                     |
| Allowed cable dimensions for cables connected to the PCB terminals | <i>Conductor cross section</i><br>AWG 20 - 26<br>Rigid 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup><br>Flexible 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup><br>Flexible with ferrule 0.25mm <sup>2</sup> - 0.34mm <sup>2</sup> |

| Feature                                | Properties                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input                                  | <p>Contact Closure (no galvanic isolation necessary) or up to 30 Vrms AC / 50V DC</p> <p>Switching thresholds</p> <ul style="list-style-type: none"> <li>Input &gt;1.6V results in detected HIGH</li> <li>Input &lt;0.9V results in detected LOW (after a HIGH)</li> </ul> <p>Max. length for cables: 50m</p> |
| Output                                 | 2x dry contact, form A (max 30 Vrms / max, 50V DC/ 60 W/ 2A DC)                                                                                                                                                                                                                                               |
| Microphone/Speaker                     | <ul style="list-style-type: none"> <li>Embedded</li> <li>Microphone Sensitivity: -35 +/-4 dB (0 dB = 1 V/pa, 1 kHz)</li> <li>1 Embedded Speaker: 0.9 W at 8 Ohm</li> <li>1 External Speaker optional</li> </ul>                                                                                               |
| Integrated illumination                | 2 x embedded IR LEDs, 850nm, up to 30 m/100 ft (may be more depending on scene)                                                                                                                                                                                                                               |
| Tampering Detection                    | Integrated Shock Sensor                                                                                                                                                                                                                                                                                       |
| Max. power consumption                 | Max. 12.95 W/270 mA (average can be significantly lower)                                                                                                                                                                                                                                                      |
| Electrical surge protection            | Overvoltage Protection Box (not part of the scope of delivery)                                                                                                                                                                                                                                                |
| PoE standard                           | PoE (802.3af-2003) / Class 3                                                                                                                                                                                                                                                                                  |
| Interfaces                             | <ul style="list-style-type: none"> <li>Ethernet 1000BaseT (RJ45 according to EIA/TIA-568B)</li> <li>USB 2.0 via USB-C connector</li> <li>12-24VDC power supply</li> <li>Input / Output</li> <li>Ext. Speaker</li> </ul>                                                                                       |
| Status LED                             | multicolor (8 color)                                                                                                                                                                                                                                                                                          |
| Mounting Options                       | <p>Wall-mountable (default)</p> <p>Ceiling- or pole-mountable (with accessory, compatible with M26)</p>                                                                                                                                                                                                       |
| Dimensions<br>(height x width x depth) | 222 x 131 x 238 mm                                                                                                                                                                                                                                                                                            |
| Weight                                 | Approx. 0,973 kg/2,15 lbs                                                                                                                                                                                                                                                                                     |
| Housing                                | PBT-30GF                                                                                                                                                                                                                                                                                                      |
| Standard accessories                   |                                                                                                                                                                                                                                                                                                               |
| Tiltability of camera                  | <ul style="list-style-type: none"> <li>Wall &amp; pole mounted<br/>Horizontal: 180°<br/>Vertical: 110°</li> <li>Ceiling mounted<br/>Horizontal: 360°<br/>Vertical: 110°</li> </ul>                                                                                                                            |
| Detailed technical documentation       | <a href="http://www.mobotix.com">www.mobotix.com</a> > Services > Download Center > Marketing & Documentation                                                                                                                                                                                                 |
| MTBF                                   | 100,000 hours                                                                                                                                                                                                                                                                                                 |
| Certificates                           | EN 55032, EN 55035, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 62368-1, EN 63000, AS/NZS CISPR32, 47 CFR Part 15b, NRTL                                                                                                                                                                       |

## Technical Specifications

### Image and Video Properties

| Feature               | Properties                                                                                                                                                                                                                                  |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocols             | DHCP (client and server), DNS, ICMP, IGMP v3, IPv4, IPv6, HTTP, HTTPS, FTP, FTPS, NFS, NTP (client and server), MQTT, RTP, RTCP, RTSP, SFTP, SIP (client and server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, TCP, UDP, VLAN, VPN, Zeroconf/mDNS |
| Manufacturer warranty | 5 years                                                                                                                                                                                                                                     |

## Image and Video Properties

| Feature                   | Properties                                                                                      |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Available video codecs    | H.264, H.265, MxPEG+, MJPEG                                                                     |
| Image resolutions         | VGA 640x360, XGA 1024x576, HD 1280x720, FullHD 1920x1080, QHD 2560x1440, 4K UHD 3840x2160 (8MP) |
| Multi streaming           | H.264, H.265 with triple streaming                                                              |
| Multicast stream via RTSP | Yes                                                                                             |
| Max. frame rate           | MxPEG: 20@4K, H.264: 30@4K, H.265: 30@4K                                                        |

## General Software Features

| Feature           | Properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WDR               | Up to 120 dB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Software features | <ul style="list-style-type: none"><li>■ H.264, H.265 Multistreaming</li><li>■ Multicast stream via RTSP</li><li>■ Digital pan, tilt, zoom/vPTZ (up to 8x zoom)</li><li>■ Genetec protocol integration</li><li>■ Programmable exposure zones</li><li>■ Snapshot recording (pre/post-alarm images)</li><li>■ Continuous recording</li><li>■ Event recording</li><li>■ Time-controlled flexible event logic</li><li>■ Weekly schedules for recordings and actions</li><li>■ Event video and image transfer via FTP and email</li><li>■ Playback and QuadView via web browser</li><li>■ Animated logos on the image</li><li>■ Master/Slave functionality</li><li>■ Privacy zone scheduling</li><li>■ Remote alarm notification (network message)</li><li>■ Programming interface (HTTP API)</li><li>■ MxMessageSystem</li></ul> |

| Feature                      | Properties                                                                                                                                                                                                                                                                                                           |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONVIF compatibility          | Profile G, S, T, (M with later firmware release)                                                                                                                                                                                                                                                                     |
| Master/Slave functionality   | Yes                                                                                                                                                                                                                                                                                                                  |
| Remote alarm notification    | Email, network message (HTTP/HTTPS), SNMP, MxMessageSystem, MQTT                                                                                                                                                                                                                                                     |
| DVR/image storage management | <ul style="list-style-type: none"> <li>■ On internal microSD card</li> <li>■ On external USB and NAS devices</li> <li>■ Different streams for live image and recording</li> <li>■ MxPEG+ only</li> <li>■ MxFFS with buffered archive, pre- and post-alarm images, storage monitoring with error reporting</li> </ul> |
| Camera and data security     | User and group management, SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature                                                                                                                                                                                       |
| Firmware Tampering Detection | Digital Signature                                                                                                                                                                                                                                                                                                    |

## Video Analysis

| Feature                | Properties                                            |
|------------------------|-------------------------------------------------------|
| Video motion detection | Yes                                                   |
| MxActivitySensor       | Version 1.0, 2.1                                      |
| MxActivitySensorONE    | Motion and Loitering Detection of Person and Vehicles |

## Video Management Software

| Feature                | Properties                                                                                                                                                                                                     |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MOBOTIX HUB            | Yes<br><a href="http://www.mobotix.com &gt; Services &gt; Download Center &gt; Software Downloads">www.mobotix.com &gt; Services &gt; Download Center &gt; Software Downloads</a>                              |
| MxManagementCenter     | Yes (latest version recommended)<br><a href="http://www.mobotix.com &gt; Services &gt; Download Center &gt; Software Downloads">www.mobotix.com &gt; Services &gt; Download Center &gt; Software Downloads</a> |
| MOBOTIX LIVE App       | Yes (available in Google Play Store (Android) and Apple App Store (iOS)).                                                                                                                                      |
| 3rd Party VMS Software | See ONVIF Profile S, T and G specification                                                                                                                                                                     |

## Sensormodules Standard (4K Day & Night)

### NOTE!

Lenses or sensors are not part of the scope of delivery.

Technical Specifications

Dimensions

| Lens                    | Sensor                               | Order Code        |
|-------------------------|--------------------------------------|-------------------|
| Fixed lens 120° WIDE    | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN040 |
| Fixed lens 95° WIDE     | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN050 |
| Fixed lens 60° WIDE     | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN080 |
| Fixed lens 45° STANDARD | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN100 |
| Fixed lens 30° TELE     | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN150 |
| Fixed lens 15° TELE     | 4K Sensor as D/N IR Cut / Microphone | Mx-ONE-SMA-8DN280 |

Dimensions

**NOTE!**  
Drilling template: [www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Marketing & Documentation > Drilling Templates.

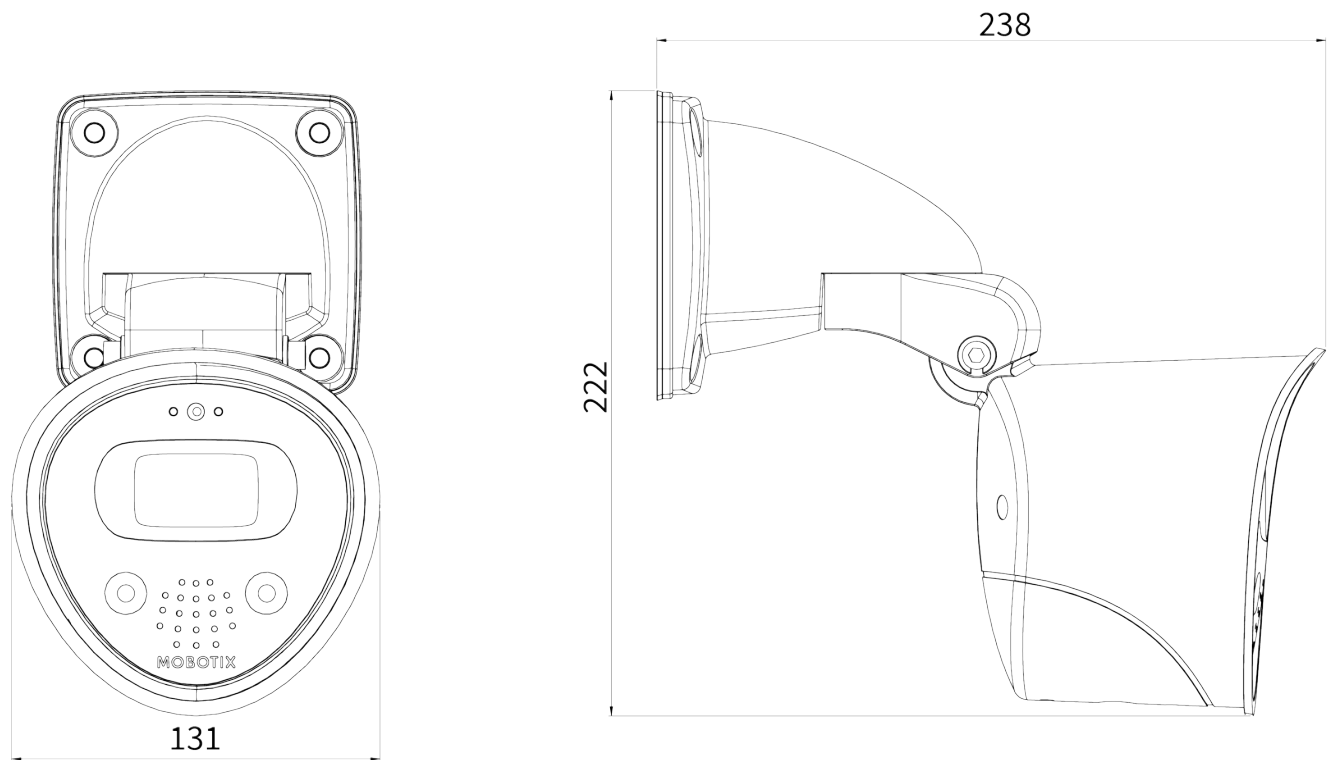


Fig. 1: MOBOTIX M ONE (FIX & VARIO): All measurements in mm



## Mounting

|                                         |           |
|-----------------------------------------|-----------|
| <b>Before Mounting the Camera .....</b> | <b>26</b> |
| <b>Opening the Camera Housing .....</b> | <b>28</b> |
| <b>Closing the Camera Housing .....</b> | <b>29</b> |
| <b>Connecting the Camera .....</b>      | <b>29</b> |
| <b>Mounting Options .....</b>           | <b>34</b> |
| <b>Adjusting the Camera .....</b>       | <b>44</b> |

## Before Mounting the Camera

### CAUTION!

You will need the camera's IP address to access the camera in the network (see [Camera Software in the Browser](#), p. 57).

Before mounting the camera make sure to copy the IP address ① inside the camera housing (see [Opening the Camera Housing](#), p. 28) or on the camera packaging.



The MOBOTIX M ONE (FIX & VARIO) has been designed for various mounting options:

- Wall mounting (see [Mounting the Camera](#), p. 35)
- Ceiling Mounting (see [Mounting to a Ceiling](#), p. 41)
- Pole mounting (see [Mounting to a Pole](#), p. 37)

### NOTE!

Drilling template: [www.mobotix.com](http://www.mobotix.com) > [Services](#) > [Download Center](#) > [Marketing & Documentation](#) > [Drilling Templates](#).

Before mounting the MOBOTIX M ONE (FIX & VARIO), the following questions should be answered:

- Where and how will the camera be mounted?
- How is the mounting surface level?
- Which other mounting options are available?
- Which accessories might be needed?
- How is the camera connected to the network and how is the power supplied?
- How are the connections furnished from the building?

- What cabling considerations are necessary?
- Do you want to use a larger SD card (see [Replacing the microSD Card](#), p. 62)?

The following sections will answer these questions. If you have further questions, please ask your MOBOTIX partner or contact the MOBOTIX support under [www.mobotix.com](http://www.mobotix.com) > **Services** > **Help Desk**.

## Protective Measures

### **WARNING!**

When laying cables indoors and outdoors, the current regulations for cable laying, lightning and fire protection must always be observed.

MOBOTIX cameras and devices are protected against the effects of minor over voltages by a number of measures. However, these measures cannot prevent larger surge voltages from causing damage to the camera. When installing the cameras outdoors, special attention should therefore be paid to lightning protection and the associated dangers for the building and network infrastructure.

In general, you should only have MOBOTIX cameras and devices installed by certified specialist companies that are familiar with the installation and safe operation of network devices and the underlying regulations for lightning and fire protection as well as the current technology for preventing damage from surge voltages.

## Notes on Cabling

- **Data cable:** Only double-shielded CAT5 cable or better (S/STP) may be used as data cable for the Ethernet interface.

### **NOTE!**

For outdoor use, special requirements apply for the cables to be used and the lightning protection.

- **Cable length:** The individual cable sections must not exceed the maximum permissible lengths in order to ensure perfect data transmission.
- **Avoidance of induction:** Data cables may only be laid parallel to power or high-voltage lines if the prescribed minimum distances are observed.
- Only use MOBOTIX cables and connectors to ensure IP66 weather resistance.

## Fire Protection

When laying cables for the power supply, the relevant country-specific regulations (e.g. VDE in Germany) and the fire protection regulations valid at the installation site must be observed.

## Lightning and Surge Protection

Measures should always be taken to protect this device from electrical surge damage.

### NOTE!

Electrical surge protection available using the MX-Overvoltage-Protection-Box, which is available as an accessory.

Further information on how to avoid damage caused by lightning and over voltage is available from manufacturers of lightning and over voltage protection devices.

## Opening the Camera Housing

The following tasks require opening the camera housing:

- [Replacing the microSD Card, p. 62.](#)
  - [Connecting I/O Devices, p. 31.](#)
  - [Connecting a USB-C Device, p. 30.](#)
  - Replacing the RJ45 network cable
1. Using the supplied 5 mm Allen wrench [M.4, p. 15](#), release the bolt at the bottom side of the housing cover. Leave the bolt and washer in the housing cover.
  2. Lift the housing cover off the camera housing.



## Removing the Cable Duct Cover

The following tasks require removing the cable duct cover:

- [Connecting I/O Devices, p. 31.](#)
- [Connecting a USB-C Device, p. 30.](#)
- Changing the RJ45 network cable.

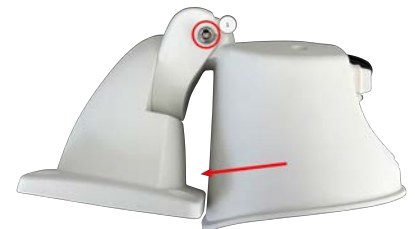
1. Using the supplied 5 mm Allen wrench [M.4, p. 15](#) to slightly loosen the screw in the joint of the wall and ceiling bracket and rotate the camera housing as far as possible towards the wall and ceiling mount
2. Slide out the cable duct cover with slight pressure.



## Closing the Camera Housing

1. Using the supplied 5 mm Allen wrench [M.4, p. 15](#) to slightly loosen the screw in the joint of the wall and ceiling bracket and rotate the camera housing as far as possible towards the wall and ceiling mount.
2. If removed press the cover of the cable duct in along the guide with light pressure until the joint of the wall and ceiling mount is completely covered.

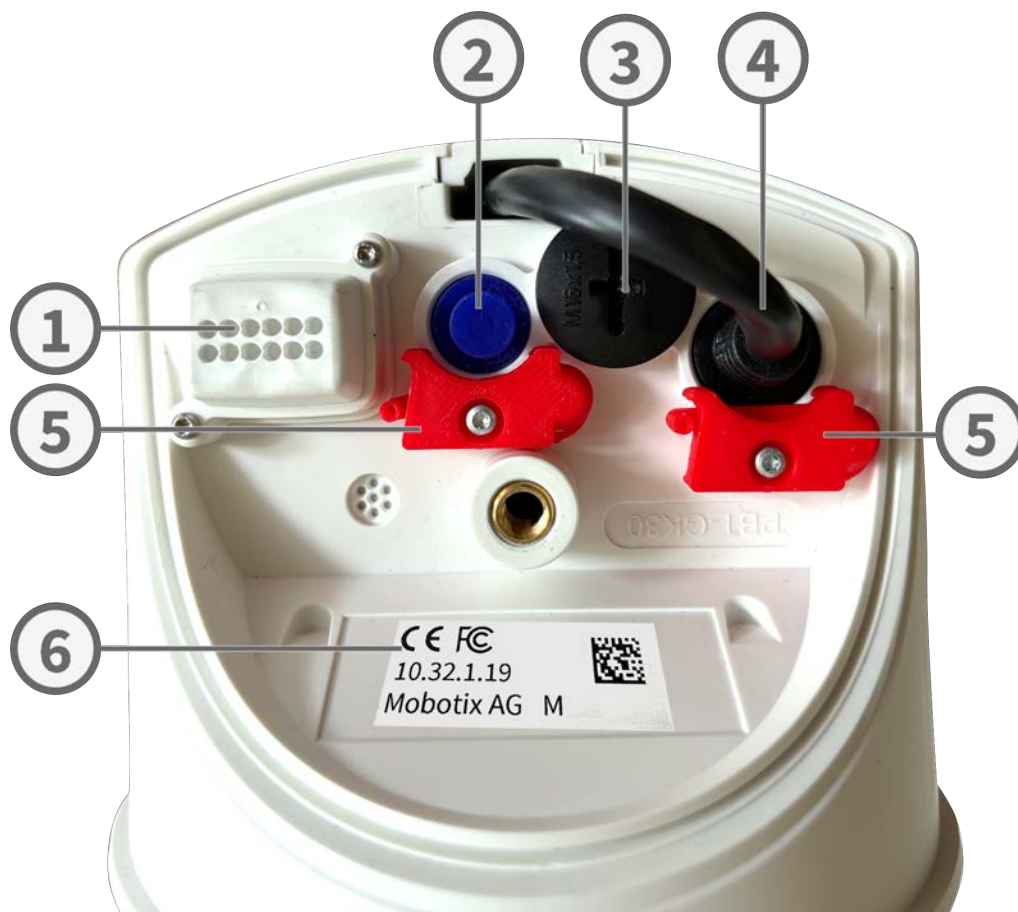
3. Attach the



housing cover and use the 5 mm Allen wrench [M.4, p. 15](#), to close the bolt at the back of the housing cover.

## Connecting the Camera

All connections to the camera (network, USB-C, inputs/outputs) can be made directly on the camera. No further accessories are required for this. A PoE switch provides the camera's power supply.



① IO sockets

② USB-C connector

③ microSD Slot and reset pin

④ RJ45 Network connector

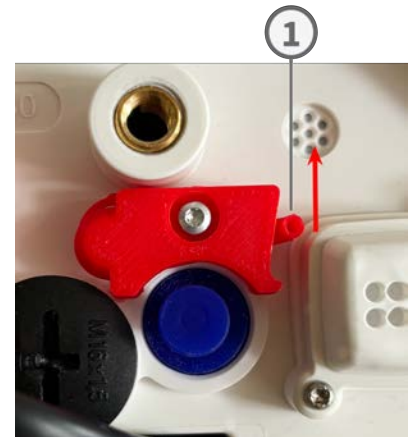
⑤ Plug Locks

⑥ IP-Adress label

## Connecting a USB-C Device

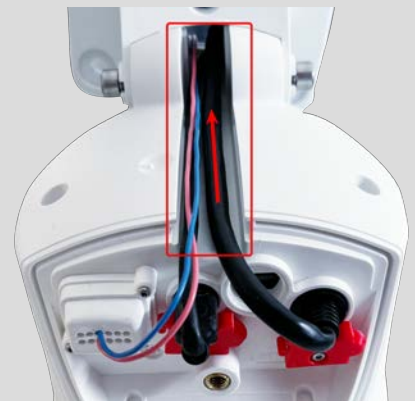
The camera has a USB-C port that allows connecting external storage media or extension boxes, for example.

1. To access the USB-C port, open the safety spring ① of the plug lock by pushing it away from the sealing plug, then remove the sealing plug.
2. Plug the USB-C connector into the port and press in firmly until the safety spring of the plug lock clicks into place.
3. Connect the USB-C device to the USB cable.



**NOTE!**

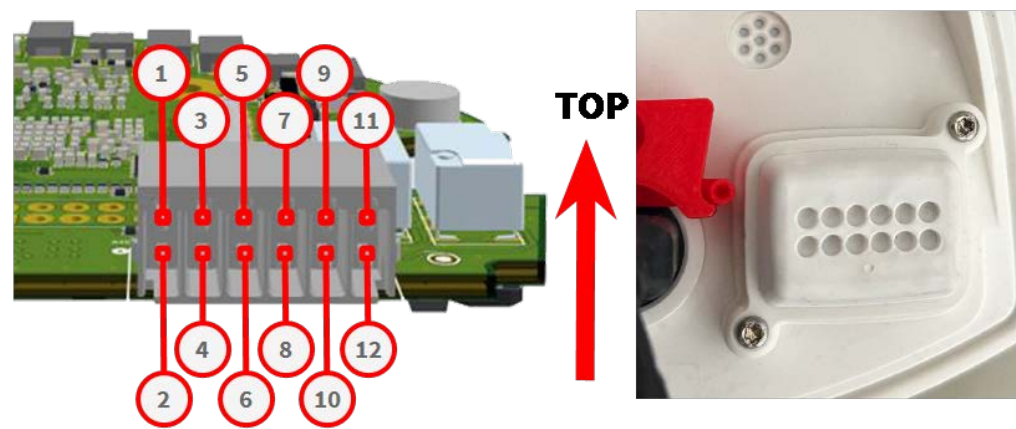
Before closing the camera housing, guide all connection cables correctly through the cable duct and the wall or ceiling mount.



## Connecting I/O Devices

The MOBOTIX M ONE (FIX & VARIO) has an I/O terminal that allows connecting multiple I/O devices.

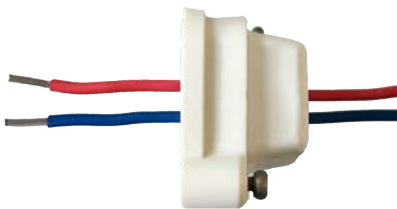
I/O Terminal Pin-Out



|          |          |          |          |
|----------|----------|----------|----------|
| ① DC +   | ② DC -   | ③ N/A    | ④ N/A    |
| ⑤ Spk +  | ⑥ Spk -  | ⑦ Out1 + | ⑧ Out1 - |
| ⑨ Out2 + | ⑩ Out2 - | ⑪ In +   | ⑫ In -   |

**CAUTION!**  
Before you proceed pay attention to the intended use or polarity of the slots. Ensure that the connections are assigned correctly as shown in the overview diagram above.

1. To access the I/O connectors, release the screws ① from the I/O cover, then remove it.
2. Strip 5 mm of insulation from the ends of the connection wires of the I/O devices and push the wires through the openings in the I/O cover corresponding to the appropriate I/O slots.



3. Plugging the connection wires of the respective units into the corresponding slots ② (see [I/O Terminal Pin-Out, p. 32](#)) of the connection terminal and check their tight fit.

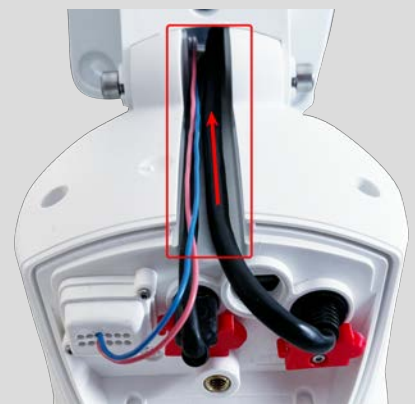


4. Attach the I/O cover and fasten the screws ③ .



**NOTE!**

Before closing the camera housing, guide all connection cables correctly through the cable duct and the wall or ceiling mount.



## Connecting the Camera to the Network

**CAUTION!**

- The PoE switch must provide Class 4 according to PoE (802.3af-2003) / Class 3 as well as the 100/1000 Mbps Ethernet interface of the camera.
- It is highly recommended to use an uninterruptible power supply (UPS) for the switch.
- The maximum length of the network cable for remotely supplying power is 100 m (300 ft).



1. Connect the supplied patch cable 1.2, p. 14 with the PoE network connection of the building.



#### NOTE!

It's recommended to connect the camera with the MX-Overvoltage-Protection-Box (RJ45 or LSA). This ensures a weatherproof (IP66) network and power connection network connector with surge protection of up to 4 kV (refer to the corresponding manual from the MOBOTIX website [www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Marketing & Documentation).

## Mounting Options

You can mount the MOBOTIX M ONE (FIX & VARIO) to any even surface on a wall, a ceiling or to poles with up to 180 mm/7.1" diameter using the stainless steel pole mount that is available as accessory. The concealed cabling improves security of the installation.

#### CAUTION!

- Install only on a flat surface! Unevenness must not exceed 0.5 mm/0.02 in!
- Only use genuine MOBOTIX patch cables to guarantee the weatherproofness!

The Vario Flex Mount has been dimensioned to fully cover conventional flush-mounted sockets (without frame) or cavity sockets.

**NOTE!**

Before mounting the camera

- Determine the optimal installation position and ensure that the field of view is not obstructed. After installation, you can fine-tune the image.
- Ensure that a PoE power supply compliant with PoE (802.3af-2003) / Class 3 is available at the installation location (see [Connecting the Camera to the Network](#), p. 33).

## Mounting the Camera

**NOTE!**

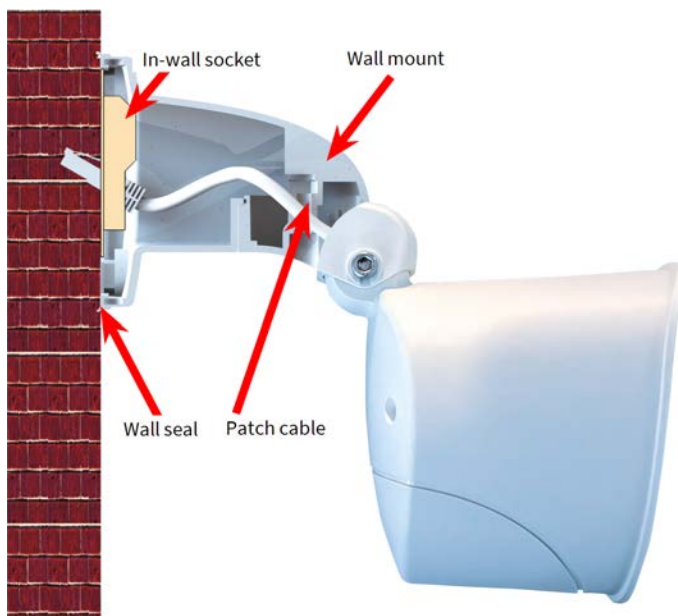
Drilling template: [www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Marketing & Documentation > Drilling Templates.

**NOTE!**

Do not use the dowels if the installation surface is wood. Only use the screws to fasten the mounting plate directly on the surface. In order to facilitate screwing in wood, the positions should first be pre-drilled using a 2 mm drill bit, for example (drilling depth just slightly less than screw length).

**NOTE!**

Even if water enters the wall mount, the camera is waterproof to the IP66 standard. If water does get into the camera housing, it can drain out of two drainage holes.



## Mounting

### Mounting Options

When installing on-wall cabling, breaking out one of the four possible openings in the base of the wall mount with a pliers will ensure that the cables can be fed neatly into the camera. The connection to the camera patch cable can be established using a suitable adapter within the wall mount.

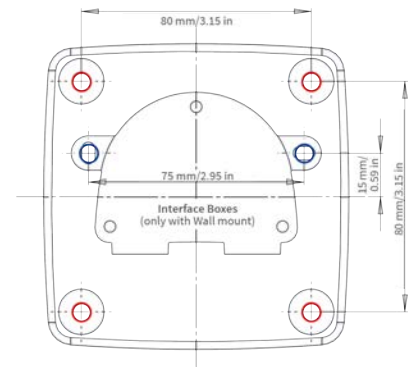


#### CAUTION!

If using the camera outdoors, only use the opening at the bottom of the mount to prevent water from entering the mount!

## Procedure

1. Mark the holes for drilling using the drilling template (see [Drilling Template, p. 11](#)).



2. Drill the holes for the supplied screw anchors.

#### NOTE!

Screw anchors do not have to be fitted if the surface is made of wood.

3. Fully push the dowels [M.7](#) into the holes you drilled.

4. Attach wall seal: Place the white rubber sealing ring with the groove on the edge of the wall mount.



5. Connect the on-site network cable to the camera patch cable using an adapter or insert the patch cable into the RJ45 outlet (also see [Connecting the Camera to the Network](#), p. 33).

**NOTE!**

When using a MOBOTIX Overvoltage Protection Box e.g. for waterproof installation, refer to the corresponding manual. All manuals can be downloaded from the MOBOTIX website ([www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Marketing & Documentation).

- Mount the camera using the four screws each with a washer [M.7](#).
6. **CAUTION!** Do not overtighten the screws as this may damage the plastic mount.
  7. Place the white plastic caps [M.3](#) on the screw heads.



## Mounting to a Pole

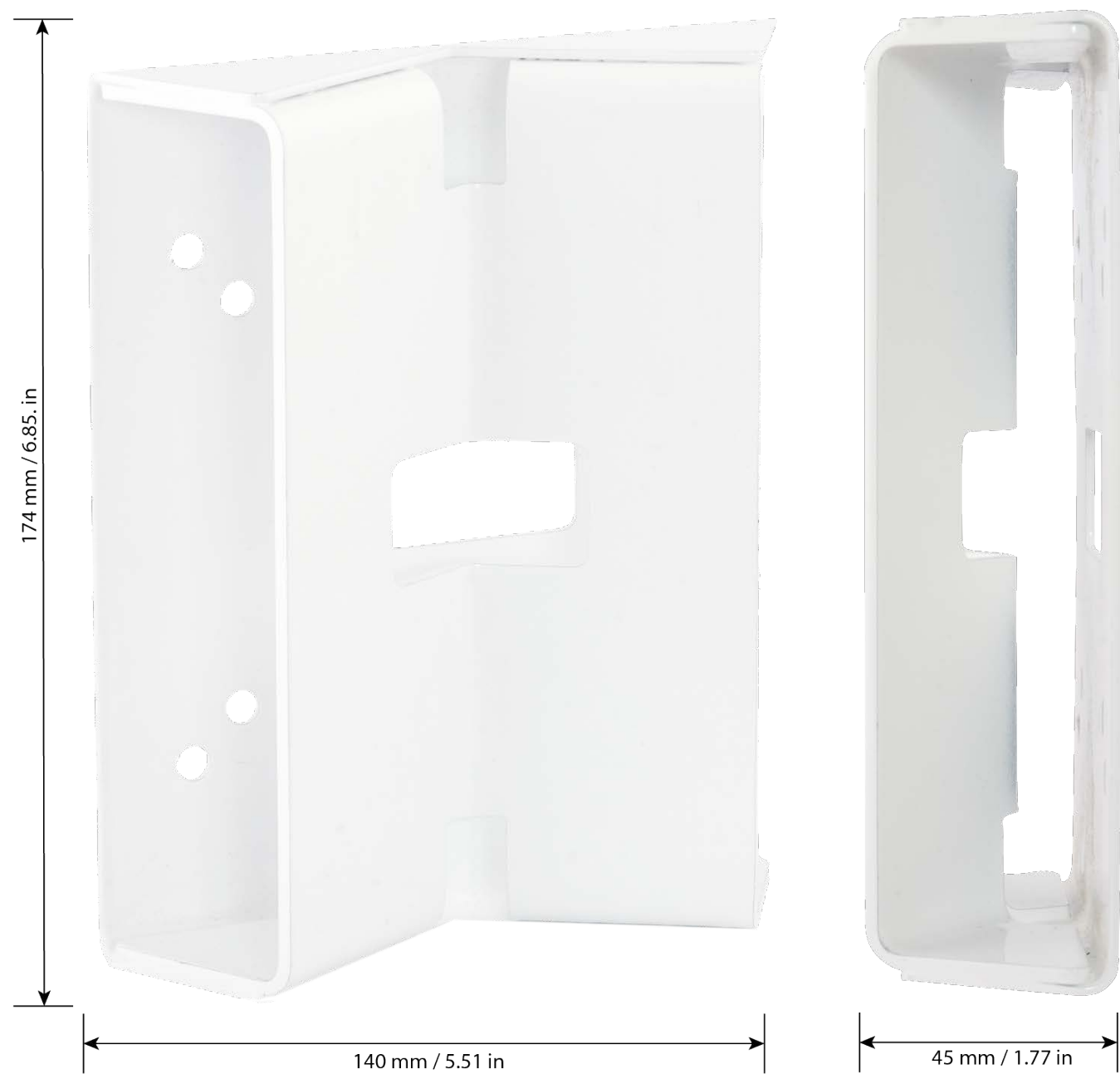
**CAUTION!**

The mounting pole should have a diameter between 60 and 180 mm.

**NOTE!**

Even if the opening in the pole mount allows water to enter the wall mount, the camera is waterproof to the IP66 standard. If water does get into the camera housing, it can drain out of two drainage holes.

Dimensions of the MOBOTIX M ONE (FIX & VARIO) pole mount



## Prepare the Pole Mount

1. Guide the on-site network cable from behind through the middle opening of the pole mount.



2. Guide the two stainless steel straps along the cutouts in the Pole Mount as shown in the figure.



## Mounting

### Mounting Options

---

3. Place the straps around the pole and tighten them with a screwdriver. If necessary, the ends of the straps can be cut off.



## Procedure

1. Place the white rubber wall seal with the groove on the edge of the wall mount.



2. Connect the on-site network cable to the camera patch cable using an adapter or insert the patch cable into the RJ45 outlet (also see [Connecting the Camera to the Network, p. 33](#)).

### NOTE!

When using a MOBOTIX Overvoltage Protection Box e.g. for waterproof installation, refer to the corresponding manual. All manuals can be downloaded from the MOBOTIX website ([www.mobotix.com](http://www.mobotix.com) > [Services](#) > [Download Center](#) > [Marketing & Documentation](#)).



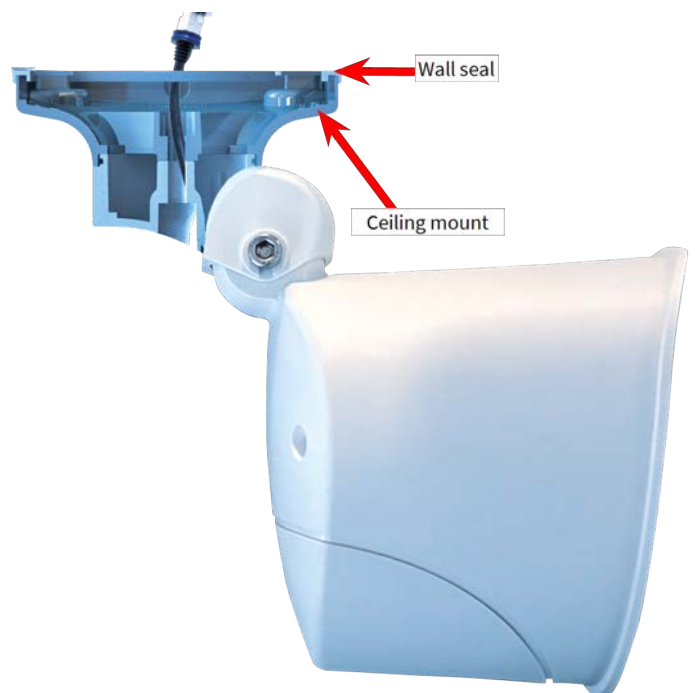
Mount the camera to the pole mount using the four screws each with a washer.

3. **CAUTION!** Do not overtighten the screws as this may damage the plastic mount.
4. Place the white plastic caps [M.3](#) on the screw heads.



## Mounting to a Ceiling

The camera is per default shipped together with the VarioFlex Wall Mount, but it can be converted to a ceiling mount in a few steps by using the VarioFlex Ceiling Mount.



### NOTE!

The VarioFlex Ceiling Mount is not part of the scope of delivery and needs to be ordered separately.

Before mounting the camera, make sure that a network connection with power supply according to the PoE (802.3af-2003) / Class 3 standard is available at the mounting position (see [Connecting the Camera to the Network](#)). Before mounting the camera, make sure that a network connection with power supply according to the PoE (802.3af-2003) / Class 3 standard is available at the mounting position (see [Connecting the Camera to the Network, p. 33](#)). Before mounting the camera, make sure that a network connection with power supply according to the PoE (802.3af-2003) / Class 3 standard is available at the mounting position (see [Connecting the Camera to the Network](#)).

## Mounting

### Mounting Options

---

#### NOTE!

Drilling template: [www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Marketing & Documentation > Drilling Templates.

#### NOTE!

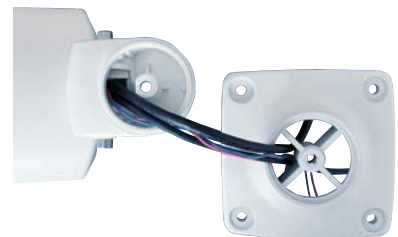
Do not use the dowels if the installation surface is wood. Only use the screws to fasten the mounting plate directly on the surface. In order to facilitate screwing in wood, the positions should first be pre-drilled using a 2 mm drill bit, for example (drilling depth just slightly less than screw length).

## Prepare the Camera

#### NOTE!

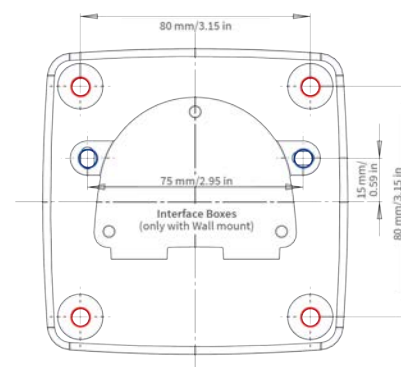
The best camera position for the selected lens must be found before installing the camera on a ceiling, an overhang or balcony. You can fine-tune its position once the camera has been installed on the ceiling.

1. **Convert to a ceiling mount:** Remove the lock screw on the central joint and exchange the wall mount for the supplied ceiling mount.
2. **Install and prepare the network connection:** Guide the pre-installed camera patch cable through one of the four openings in the ceiling mount.
3. Fasten the ceiling mount to the central joint (using the screw of the wall mount).



## Procedure

1. Mark the holes for drilling using the drilling template (see [Drilling Template, p. 11](#)).



2. Drill the holes for the supplied screw anchors.

### NOTE!

Dowels do not have to be fitted if the surface is made of wood.

3. Fully push the dowels [M.7](#) into the holes you drilled.
4. **Attach wall seal:** Place the white rubber sealing ring with the groove on the edge of the ceiling mount.



5. Connect the on-site network cable to the camera patch cable using an adapter or insert the patch cable into the RJ45 outlet (also see [Connecting the Camera to the Network, p. 33](#)).

### NOTE!

When using a MOBOTIX Overvoltage Protection Box e.g. for waterproof installation, refer to the corresponding manual. All manuals can be downloaded from the MOBOTIX website ([www.mobotix.com](http://www.mobotix.com) > [Services](#) > [Download Center](#) > [Marketing & Documentation](#)).

## Mounting

### Adjusting the Camera

---

Mount the camera using the four screws each with a washer.

6. **CAUTION!** Do not overtighten the screws as this may damage the plastic mount.
7. Place the white caps on the screw heads.



## Adjusting the Camera

Adjusting the camera at the mounting position will ensure that you will see the desired field of view later on.

To finish the installation of the MOBOTIX M ONE (FIX & VARIO), the connections of the camera are established and the camera is mounted onto its final position. The installation is finished by applying the remaining cover plugs to ensure the water-proofness of the housing.

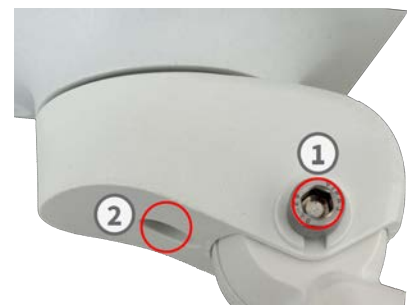
## Adjust the Camera Orientation

Adjusting the camera at the mounting position will ensure that you will see the desired field of view later on.

### CAUTION!

When adjusting the image focus or the field of view of the camera, always make sure that you can see the live image of the camera on your monitor.

1. Show the live image of the camera on the monitor (see [Getting Started, p. 48](#)).
2. Loosen the Allen screws ① on both sides of the center pivot so that you can easily tilt the module housing.
3. Loosen the screw ② that lock the center pivot so that you can easily turn the module housing.
4. Display the desired camera section on the computer monitor, then turn and tilt the camera until you have found the best position and sharpness.
5. Retighten the screws ① and ① to fixate the camera position.



## Adjust the Lens Focus

Once the camera has been installed, the lens should be checked for proper image sharpness and manually adjusted.

The focusing aid provides a visual aid when correcting the image sharpness (see "The Live Screen of the MOBOTIX Camera" in the camera's online help).

### NOTE!

When adjusting the image focus or the field of view of the camera, always make sure that you can see the live image of the camera on your monitor.

1. Show the live image of the camera on the monitor (see [Access the Camera in the Web Browser, p. 58](#)).
2. **Remove the lens protection glass:** Place the lens wrench on the notches of the lens protection glass and rotate it to the left until it slides off the lens.



### NOTE!

You may need to carefully leverage out the protective glass (e.g., with a small screwdriver).

## Mounting

### Adjusting the Camera

---

3. **Adjust the image sharpness:** Place lens wrench (**with the ring-shaped side**) on the lens and rotate it carefully to the right or left until the image on the monitor meets your requirements.



#### **CAUTION!**

Do not turn the lens too far or with force to avoid damaging the image sensor.

4. **Reinsert the protective glass:** Turn it with the lens wrench to the right as far as it will go.

## Operating the Camera

|                                         |           |
|-----------------------------------------|-----------|
| <b>Getting Started .....</b>            | <b>48</b> |
| <b>Boot Options of the Camera .....</b> | <b>49</b> |
| <b>Network Settings .....</b>           | <b>51</b> |

# Getting Started

You can use the MOBOTIX M ONE (FIX & VARIO) with any current browser – or with MxManagementCenter.

**NOTE!**  
You can download MxManagementCenter free-of-charge from [www.mobotix.com](http://www.mobotix.com) > [Services](#) > [Download Center](#) > [Software Downloads](#).

1. **Connect the camera to the network:** The network cable will also provide power to the camera (see [Connecting the Camera to the Network](#), p. 33).
2. **Establish a connection to the camera:** Follow the instructions on how to access the camera as outlined in [Initial Camera Setup](#), p. 51.
3. **Configure camera:** You can use the user interface of the camera in a browser or in MxManagementCenter.

## LED States

The camera LED on top of the camera body displays the following states by default:



| LED status            | Meaning                             |
|-----------------------|-------------------------------------|
| Green steady on       | Normal operation                    |
| Green steady flashing | Technical error or misconfiguration |



## Boot Options of the Camera

By default, the camera starts as DHCP client and automatically tries to get an IP address from a DHCP server. To start the camera in a mode different from the default mode, you can activate the boot menu of the camera.

### NOTE!

Pressing the key of the camera will let the camera announce the current IP address of the camera on the speaker.

### CAUTION!

When opening the camera, do not insert any objects into the housing. This could damage the camera!

1. Disconnect the camera's power supply.
2. Open the camera housing (see [Opening the Camera Housing, p. 28](#)).
3. Remove the screw cap ① from the microSD card housing with a screwdriver.



4. Take a suitable tool for operating the boot menu (e.g. the enclosed tweezers [Mounting Supplies: Scope of Delivery, p. 15](#)), **but do not use a paper clip or pointed objects!**
5. Reconnect the power supply of the camera.
6. **Activate the boot menu:** The LED at the top of the camera housing lights up 5 to 10 seconds after establishing the power supply and will stay on for 10 seconds. Press the reset key ② with the tool. The camera enters the boot menu, ready for selecting one of the boot options. The LED will flash once. The flash signal will be repeated every second.



### NOTE!

The number of flashes corresponds to the current boot option.

## Operating the Camera

### Boot Options of the Camera

7. **Switch the boot option:** Briefly press the reset button(< 1 sec). After the last boot option, the camera returns to the first boot option (LED flashes once).
8. **Select a boot option:** Press the key longer (> 2 sec). The camera confirms the selection by flashing the LED rapidly for 3 seconds. After 20 sec, the camera will play a sound according to the table below.

| LED Flashes | Boot Option             | Meaning                                                                                                                                                                                                       | Audio Confirmation |
|-------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1x          | •/•                     | This option is not supported on this camera model.                                                                                                                                                            | •/•                |
| 2x          | Factory Defaults        | Starts the camera with factory defaults (factory default IP address, users and passwords will not be reset).                                                                                                  | <b>Boing</b>       |
| 3x          | Automatic IP Address    | Starts the camera as DHCP client and tries to obtain an IP address from a DHCP server. If a DHCP server cannot be found or no IP address can be obtained, the camera starts with its factory default address. | <b>Boing-Boing</b> |
| 4x          | Backup Operating System | Starts the camera with the recovery system, e.g., in order to recover from a failed update of the camera software.                                                                                            | <b>Alarm Sound</b> |

9. Close the camera housing (see [Closing the Camera Housing](#), p. 29).

#### NOTE!

If you do not select a boot option, the camera will resume its normal boot process after a certain time.

#### CAUTION!

- Note that you can restore specific parts of the camera configuration afterwards by using "Restore" to re-apply the settings still stored in the camera.
- As opposed to resetting the camera using **Admin Menu > Reset configuration to factory defaults**, the user information will not be reset if the camera is booted using the factory defaults.
- When starting the camera with DHCP support (option 2), make sure that the network has a properly functioning DHCP server. If this is not the case, the camera cannot obtain a valid IP address and will fall back to its last IP address.
- You should also make sure that the cameras always get the same IP addresses by mapping the MAC addresses of the cameras to the desired IP addresses.

# Network Settings

## Initial Camera Setup

### Check the Preconditions

- Is the camera running (check camera power LED)?
- Is the camera accessible using my current network connection?
- Do I have the necessary information for successfully running the camera on the network?
  - IP address of NTP (*Network Time Protocol*) server.
  - IP address of network gateway (if required).

### Access the Camera

1. Start your web browser.
2. Access the camera using its zeroconf address:
  - Look for the factory IP address such as `10.x.y.z` on the sticker on the camera body or the packaging.
  - Enter this address in the address bar of your browser using the following syntax: `m×10-x-y-z.local`.

**EXAMPLE:**

Taking a factory IP address of `10.32.24.129` as an example, you would enter `m×10-32-24-129.local` in the address bar of your browser.

- Click on **Admin Menu** and enter the default access credentials (`admin/meinsm`).

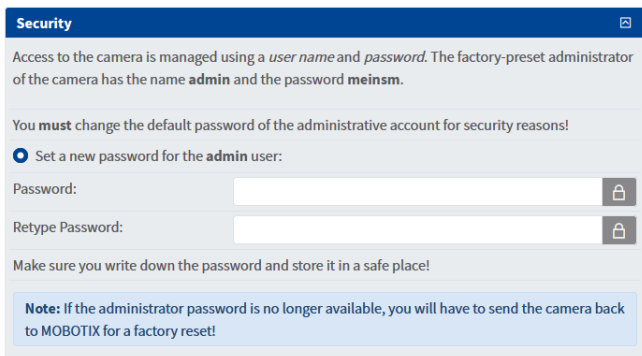
3. In the **Quick Installation** dialog, select your language, then click on .



The screenshot shows the 'MOBOTIX' Quick Installation dialog for language selection. The title bar reads 'S74 mx10-32-24-129 Quick Installation: Language'. The main content area has a blue header 'Language' and a message: 'This installation wizard is available in several languages.' Below this, there are instructions in multiple languages: 'Wählen Sie eine Sprache aus!', 'Please select your language!', 'Selezionare un idioma!', 'Veuillez choisir votre langue S.V.P.!', 'Selezionare la lingua!', '言語を選択してください', and 'Lütfen dilinizi seçiniz.' A dropdown menu is set to 'en'. At the bottom, there are 'Skip' and 'Close' buttons, a progress bar, and a blue 'Next' button.

4. Continue clicking on  and do not change any settings until you reach the **Security** dialog.

Set a password for the admin user of the camera. Make sure you keep the password in a safe place.



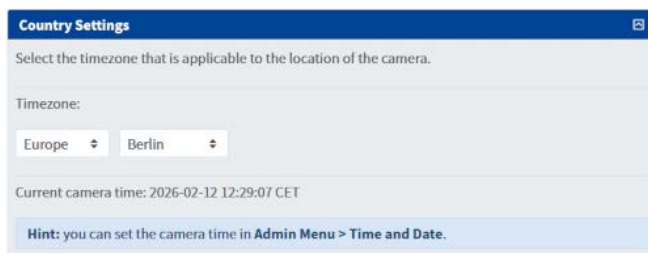
The screenshot shows the 'MOBOTIX' Security dialog. The title bar is 'Security'. The main text states: 'Access to the camera is managed using a *user name* and *password*. The factory-preset administrator of the camera has the name **admin** and the password **meinsm**. You **must** change the default password of the administrative account for security reasons!' Below this, there is a radio button selected for 'Set a new password for the **admin** user:'. There are two password input fields labeled 'Password:' and 'Retype Password:', each with a lock icon. A note at the bottom says: 'Note: If the administrator password is no longer available, you will have to send the camera back to MOBOTIX for a factory reset!'

#### NOTE!

Make sure to record the new password in the system documentation!

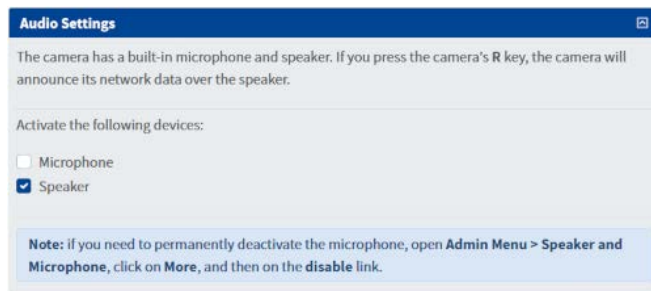
5. Continue clicking on  and do not change any settings until you reach the **Country Settings** dialog.

Check the time zone and adjust it, if necessary.



The screenshot shows the 'MOBOTIX' Country Settings dialog. The title bar is 'Country Settings'. The main text says: 'Select the timezone that is applicable to the location of the camera.' Below this, there is a 'Timezone:' label and two dropdown menus. The first dropdown is set to 'Europe' and the second to 'Berlin'. Below the dropdowns, it says 'Current camera time: 2026-02-12 12:29:07 CET'. At the bottom, there is a hint: 'Hint: you can set the camera time in Admin Menu > Time and Date.'

6. Click on  and in the **Audio Settings** dialog, activate the devices that are available for this camera.



**Audio Settings**

The camera has a built-in microphone and speaker. If you press the camera's **R** key, the camera will announce its network data over the speaker.

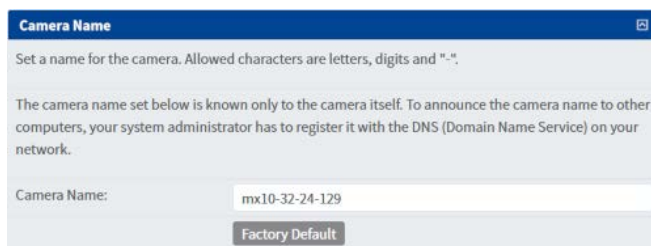
Activate the following devices:

☐ Microphone

☒ Speaker

**Note:** If you need to permanently deactivate the microphone, open **Admin Menu > Speaker and Microphone**, click on **More**, and then on the **disable** link.

7. Click on  and in the **Camera Name** dialog, enter a descriptive camera name.



**Camera Name**

Set a name for the camera. Allowed characters are letters, digits and "-".

The camera name set below is known only to the camera itself. To announce the camera name to other computers, your system administrator has to register it with the DNS (Domain Name Service) on your network.

Camera Name:

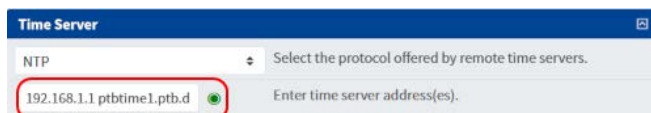
**Factory Default**

#### NOTE!

Make sure to record this camera name in the system documentation!

8. Continue clicking on  and do not change any settings until you reach the **Time Server** dialog.

Enter the IP address of your network time servers as provided by your network administrator (e.g. 192.168.1.1 ptbtime1.ptb.de; use spaces to separate multiple addresses).



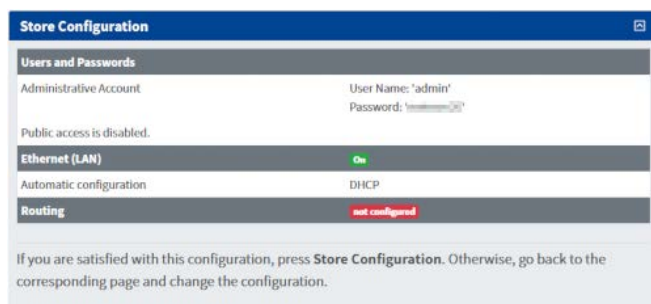
**Time Server**

NTP  Select the protocol offered by remote time servers.

 Enter time server address(es).

If the time server is working properly, the LED to the right of the field turns green. A red LED indicates that the server does not work properly.

9. Click on  and review the information in the **Store Configuration** dialog. If everything is correct, print the page and include it in the system documentation.



**Store Configuration**

**Users and Passwords**

Administrative Account User Name: 'admin'  
Password:

Public access is disabled.

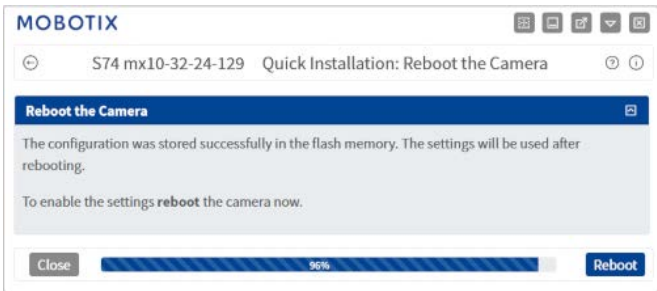
**Ethernet (LAN)** 

Automatic configuration DHCP

**Routing**  not configured

If you are satisfied with this configuration, press **Store Configuration**. Otherwise, go back to the corresponding page and change the configuration.

10. Click on **Store Configuration** and then on **Reboot**.



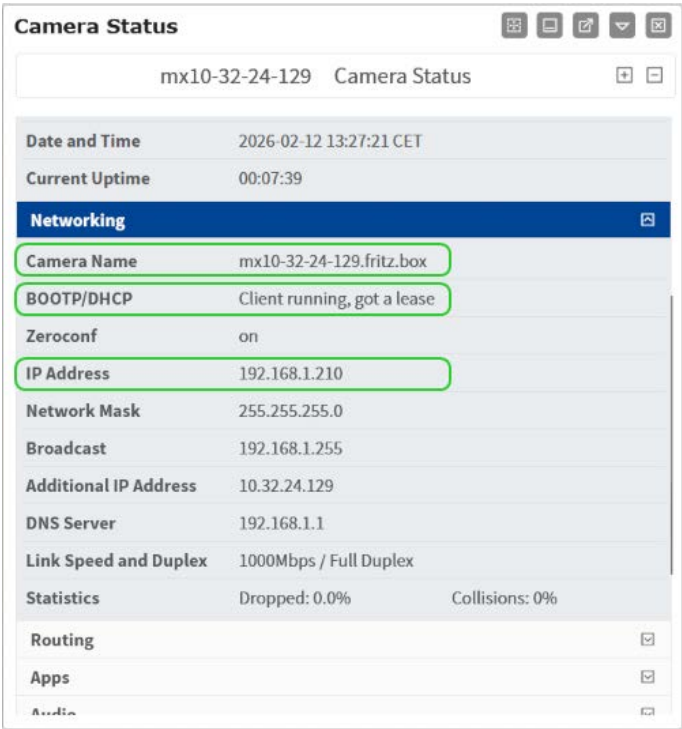
11. Enter the new password you entered in the **Security** dialog when prompted by the camera.

The camera will now reboot; once it is working again, you will see its live image.

Find the "Real" IP Address of the Camera

Since you are still using the `mx10-32-24-129.local` zeroconf address, you need to find out the actual IP address of the camera.

- 1. Click on the **Show Camera Status** icon .
- 2. In the **Camera Status** dialog, click on **Networking**.
  - The **Camera Name** entry shows the camera's current fully qualified domain name.
  - The **BOOTP/DHCP** status *Client running, got a lease* shows that the camera properly received an IP address.
  - The **IP Address** entry shows the camera's current address.
- 3. You can use either the **Camera Name** (e.g. `mx10-32-24-129.fritz.box`) or the IP address (e.g. `192.168.1.210`) to access the camera from now on.
- 4. Open a new browser tab and enter the address (e.g. `mx10-32-24-129.fritz.box` or `192.168.1.210`), then enter the access credentials (`admin/<your new password>`).



NOTE!

Make sure to record this address in the system documentation together with the camera name!

Automatic Setup using MxManagementCenter

This section describes how to use MxMC to connect the camera and configure its network settings.

MxManagementCenter is a video management software for setting up and using the entire video surveillance system that provides a range of functions for different tasks and user groups. You can download the newest release of MxManagementCenter from the MOBOTIX website ([www.mobotix.com](http://www.mobotix.com) > Services > Download Center > Software Downloads, MxManagementCenter section).

## Network Settings on the Camera in MxMC

When starting MxManagementCenter for the first time, the configuration wizard opens and automatically starts searching for MOBOTIX cameras. The number of detected cameras is shown next to the **Add Devices** icon.

1. Click on **Add Devices**. The cameras are displayed either in a list or as tiles. Use the List and Tile buttons to change the display mode.



The application automatically monitors and displays the operating status of all cameras using corresponding icons.



### EXAMPLE:

-  The camera is not in the same subnet as the computer.
-  The user name and password of the camera are not known.

### NOTE!

Using the Bonjour service ([en.wikipedia.org/wiki/Bonjour\\_\(software\)](http://en.wikipedia.org/wiki/Bonjour_(software))), the application finds not only MOBOTIX cameras on the same subnet, but also in other subnets. Normally, you would not be able to establish any connection to cameras in a different network or subnet.

### NOTE!

This is the case, for example, if you are integrating cameras into a network without DHCP server (i.e. with fixed IP addresses) and the IP address range is different from the 10.x.x.x range supported by the cameras in addition to DHCP. MxManagementCenter can automatically configure such a camera so that it is "integrated" into your existing network.

## Operating the Camera

### Network Settings

---

2. Select the camera you want to set up and click on **Edit Network Settings**  at the bottom of the program window. The **Change Network Settings for Selected Devices** dialog opens.
3. Enter the IP address and the subnet mask of the selected camera.



#### NOTE!

The IP addresses of the other cameras are automatically incremented by 1.

4. Click on **Apply** to apply the settings.

#### NOTE!

For more information on this feature, please read the MxManagementCenter online help or the Tutorial (see [www.-mobotix.com](http://www.mobotix.com) > Services > Download Center > Documentation > Brochures & Guides > Tutorials).

## Network Settings on the Camera in the Web Browser

1. Use a web browser to access the web interface of the MOBOTIX camera and enter the factory IP address (e.g. 10.16.0.99).

#### NOTE!

When you access the web interface for the first time, you will need to assign a new password for the admin user.

#### CAUTION!

If the administrator password is no longer available, the camera must be returned to MOBOTIX for a factory reset.

2. Click on the **Admin Menu** button in the user interface of the camera. The Quick Installation Wizard automatically starts after entering the access credentials of the admin user.

#### NOTE!

You can also run the Quick Installation Wizard later on (**Admin Menu > Network Configuration > Quick Installation**; see Reference Manual).

3. Enter the network parameters of the camera in the course of the quick installation.

#### NOTE!

You can also change the network parameters later on by running **Admin Menu > Network Configuration > Quick Installation**.

4. Reboot the camera to apply the network settings.



## Camera Software in the Browser

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| <b>Basic Settings .....</b>                       | <b>58</b> |

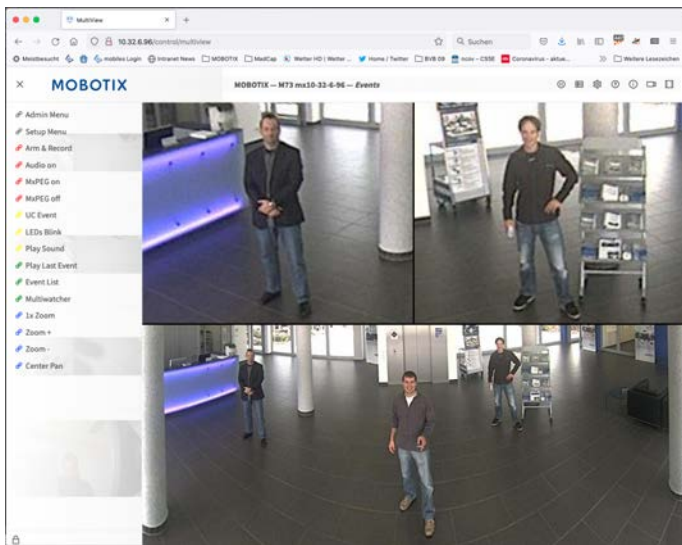
## Camera Software in the Browser

### Access the Camera in the Web Browser

The integrated software of the MOBOTIX M ONE (FIX & VARIO) features a multitude of functions, such as video motion detection, long-term recording, alarm messaging and video IP telephony. Especially remarkable are the AI-based analytics features and the possibility to install third-party apps on the camera. Thanks to the virtual PTZ features, you can continuously zoom into or out of the live image using either the mouse wheel or a joystick.

## Access the Camera in the Web Browser

Once the power and network connection of the MOBOTIX have been established, you can access the interface of the camera software in a web browser.



- Enter the camera's IP address in the address field of a web browser.

### NOTE!

You can find the IP address of the camera, for example, in the camera housing or on the sticker on the packaging.

## Basic Settings

### NOTE!

You must change the password when logging in for the first time.

### CAUTION!

Make sure that you store information on user names and passwords in a secure place.

If you lose the administrator password and cannot access the Administration menu, the password can only be reset at the factory. This service is subject to a service charge.

The Quick Installation Wizard will appear automatically when accessing the Administration Menu for the first time. It provides an easy method to adjust the basic camera settings to the current application scenario. For security reasons, it is highly recommended to change the default administrator password after the camera has been configured properly.

**Administering the camera:** You can modify the camera configuration in the Administration Menu or the Setup Menu:

- **Admin Menu:** This menu contains the basic configuration dialogs of the camera (e.g. passwords, interfaces, software update).
- **Setup Menu:** This menu contains the dialogs for configuring the image, event and recording parameters. Some of these settings can be changed using the corresponding Quick Controls in the Live screen.

**NOTE!**

For more information, consult the Reference Manual of the camera (see [www.mobotix.com](http://www.mobotix.com) > **Services** > **Download Center** > **Marketing & Documentation** > **User Manuals**).



## Maintenance

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## Replacing the microSD Card

### CAUTION!

Risk of equipment damage and data loss.

- Before removing the microSD card, disable recording and reboot the camera.
- Disconnect the camera from the power supply.
- Do not touch the circuit board while replacing the microSD card.
- Ensure that the microSD card is not write-protected.

1. **Deactivate storage:** If storage on microSD card is still activated, deactivate it in the camera's web interface: **Admin Menu > Storage on External File Server / Flash Device**, then reboot the camera.
2. Disconnect the camera's power supply.
3. **Open the housing:** (see [Opening the Camera Housing](#), p. 28).
4. **Open the screw cap:** Using a coin or wide screwdriver, release the screw cap ① and remove it.



5. **Remove the microSD card:** Gently push the microSD card downwards to release it from the push lock. Then pull it out with tweezers.



6. **Insert microSD card:** Carefully insert the new microSD card into the slot using tweezers and press it in lightly until it clicks into place.
7. **Close the screw cap:** Reinsert the screw cap and close it using a coin or a wide screwdriver.
8. **Close the housing:** (see [Closing the Camera Housing](#), p. 29).

**9. Activate storage:**

- Format a new microSD card as outlined in the camera's *Storage on External File Server / Flash Device* online help topic.
- If the microSD card already is formatted with MxFFS, you can activate storage in **Admin Menu > Storage on External File Server / Flash Device**. After rebooting the camera, recording will automatically resume.

**10. Reboot the camera.**

## Cleaning the Camera and Lenses

Clean the camera housing using a mild alcohol-free detergent without abrasive particles.

If lens are dirty from the installation process, clean them using a lint-free cotton cloth. Check the lens focus after cleaning and adjust if required.

To protect the lens protection glass, only use the supplied mounting supplies for disassembly.

### Cleaning the lens protection glass

- Use the wide end of the module wrench [M.1, p. 15](#) to remove/install the lens protection glass. The narrow side of the wrench is used to adjust the sharpness (focal length) of the tele lenses.
- You should clean the lens protection glasses and domes regularly using a clean, lint-free cotton cloth. If the dirt is more persistent, add a mild alcohol-free detergent without abrasive particles.
- Make sure you instruct cleaning personnel on how to clean the camera.



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