



# Technical Specifications

## MOBOTIX M73

### Flexible. Modular. Unique.

Weatherproof and robust, the latest generation of our successful M camera models features increased modularity as well as the latest MOBOTIX 7 system platform with intelligent Plug-In App concept. The result is a system completely unrivaled in terms of performance, functionality and design.

- Platform with the most flexible codec support: H.264, H.265, MxPEG+ and MJPEG
- ONVIF Profile S and T conformity guarantees utmost interoperability
- Increased modularity with flexible usage of a combination of up to three sensor or functional modules
- 2 x 4K UHD resolution
- Can optionally be used with an exchangeable CIF/VGA thermal sensor module
- Wide Dynamic Range (WDR) with up to 120 dB
- Easy Plug quick-mounting system
- Robust in any environment: -40 to 65 °C/-40 to 149 °F, IP66, and IK10



# Camera

## Hardware

Image sensor (color or B&W 4K UHD 3840x2160, 16:9, 1/1,8" sensor)

Light sensitivity

- Color sensor (day): 0,1 lx @ 1/60 s; 0,005 lx @ 1 s
- BW sensor (night): 0,02 lx @ 1/60 s; 0,001 lx @ 1 s

Exposure control

Manual and automatic mode  
1 s to 1/16,000 s

Video codecs

- H.264, H.265 with Triple Streaming
- MxPEG+
- MJPEG

IK protection class

IK10 (housing)

IP protection class

IP66

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, out of the box

MicroSD card (8 GB), MxPEG+ recording only

I/Os

see [Camera , p. 2](#)

Microphone/Speaker

Functional audio module, max. 4.5 Watt (see [Camera , p. 2](#))  
Microphone Sensitivity: -35 +-4 dB (0 dB = 1 V/pa, 1 kHz)  
Speaker: 0.9 W at 8 Ohm

Passive infra-red sensor (PIR)

Available with functional module, max. 4.5 Watt (see [Camera , p. 2](#))

Infra-red illumination

Three functional modules for wide-angle, standard, and tele lenses

Range of infra-red illumination

Up to 30 m/100 ft (may be more depending on scene)

Shock detector (tamper detection)

Yes

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Max. power consumption	25 W
Electrical surge protection	integrated with Connector Box LSA (not part of the scope of delivery)
PoE standard	PoE Plus (802.3at-2009)/Class 4
Interfaces	Ethernet 1000BaseT miniUSB / USB2.0 High-Speed ( $V_{out} = 5,1V$ , $I_{out} = 0,9A$ , $P_{out} = 4,5W$ )
Mounting Options	Wall- or pole-mountable (with Pole Mount accessory)
Dimensions (height x width x depth)	228 x 153 x 232 mm
Weight without sensor modules	Approx. 2.5 kg/5.5 lb
Housing	Aluminum, PBT-30GF

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## Technical Specifications

### MOBOTIX M73

Standard accessories	<ul style="list-style-type: none"><li>3 Transport plugs</li><li>1 blind module (must be installed when using only two sensor modules)</li><li>1 Mounting plate with wall sealing (installed), to standard plugs (installed), and inserted connector box</li><li>1 Ethernet patch cable, 50 cm/19.7 in with sealing (RJ45 variant only)</li><li>1 SD card 8 GB (installed)</li><li>1 Important Safety Information</li><li>1 Sticker with EAN number of camera</li><li>1 Sticker with IP address of camera</li><li>1 Connector box RJ45 or LSA black with rubber plug black, rubber plug single-wire white, USB plug blue (installed)</li><li>1 Protective cover for connector box polystyrene white (installed)</li><li>1 Rubber plug black (installed)</li><li>1 Rubber plug single-wire white (installed)</li><li>1 Rubber plug cable dia. 3.5 mm white (to replace C.5)</li><li>1 USB plug connector box blue (installed)</li><li>1 Module wrench (gray)</li><li>1 Lens wrench blue</li><li>3 housing plugs silicone white</li><li>3 Security clips plastic red</li><li>2 Cable tie black</li><li>1 Allen wrench 5 mm</li><li>1 Allen wrench 2.5 mm</li><li>1 TORX wrench TX20</li><li>1 TORX wrench TX10</li><li>1 Screw driver yellow</li><li>4 Washers dia. 6.4 mm plastic white</li><li>4 Wood screws 4.5 x 60 mm</li><li>4 Dowels S8</li><li>3 Oval head screws with shank 2.5x6.5 mm, stainless steel black</li><li>2 Covers for screw plastic white</li></ul>
Tiltability of camera	Horizontal: 2 x 180 degrees Vertical: 110 degrees
Detailed technical documentation	<a href="http://www.mobotix.com">www.mobotix.com</a> > <a href="#">Support</a> > <a href="#">Download Center</a> > <a href="#">Marketing &amp; Documentation</a>
MTBF	80,000 hours

Certificates	EN 50121-4:2015, EN 50581:2012, EN 55032:2012+AC:2013, EN 55035:2017, FprEN 61000-6-1:2015, EN 61000-6-2:2015, EN 61000-6-3:2007+A1:2011+AC:2012, EN 61000-6-4:2007+A1:2011, EN 62368-1:2014 + AC: 2015 + A11: 2017 + AC: 2017, IEC 60950-22:2016, AS/NZS CISPR32:2015, 47 CFR Part 15b
Protocols	DHCP (client and server), DNS, ICMP, IGMP v3, IPv4, IPv6, HTTP, HTTPS, FTP, FTPS, NFS, NTP (client and server), RTP, RTCP, RTSP, SIP (client and server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, UDP, VLAN, VPN, Zeroconf/mDNS
Manufacturer warranty	3 years

### Image Formats, Frame Rates, Image Storage

Available video codecs	MxPEG+/MJPEG/H.264/H.265
Image resolutions	VGA 640x360, XGA 1024x576, HD 1280x720, FullHD 1920x1080, QHD 2560x1440, 4K UHD 3840x2160
H.264 multi streaming	Triple Streaming
Multicast stream via RTSP	Yes
Max. image resolution	<ul style="list-style-type: none"> <li>■ One sensor: 4K UHD, 3840x2160 (8MP)</li> <li>■ Both sensors (dual image): 2x 4K UHD, 7680x2160 (16MP)</li> </ul>
Max. frame rate	MxPEG: 20@4K, H.264: 30@4K, H.265: 30@4K

## Technical Specifications

### MOBOTIX M73

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## General Features

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>▪ Custom 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>▪ MOBOTIX MessageSystem</li></ul>
ONVIF compatibility	Profile S, T
Master/Slave functionality	Yes
Remote alarm notification	email, network message (HTTP/HTTPS), SNMP, MxMessageSystem
DVR/storage management (MxPEG+ only)	Within the camera via microSD card, on external USB and NAS devices, different streams for live image and recording, MxFFS with buffered archive, pre and post-alarm images, storage monitoring with error reporting
Camera and data security	User and group management , SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature

## Video Analysis

Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1 and object-based MxAnalytics AI
ONVIF compatibility	Profile S, T

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MxAnalytics Heatmap, people counting & object-based counting

MOBOTIX App support Yes

## Video Management Software

MxManagementCenter Yes (MxMC 2.2 and higher)

[www.mobotix.com](http://www.mobotix.com) > Support > Download Center > Software Downloads

MxBell Yes

[www.mobotix.com](http://www.mobotix.com) > Support > Download Center > Software Downloads

## Sensor Modules

### Features Thermal Image Sensors

Thermal sensitivity Typ. 50 mK, IR range 7.5 to 13.5  $\mu\text{m}$

Temperature measurement range -40 to 550  $^{\circ}\text{C}$  / -40 to 1022  $^{\circ}\text{F}$

Thermal image sensor Uncooled microbolometer,  
CIF: 336 x 256 pixels / VGA: 640 x 480

Dimensions 336/640: 48,5x48,5x70 170g without front plate / 265g with front plate

Max. image size Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX sensor module

Max. frame rate 9fps (-FAST version 25/30fps on request)

Pixel pitch 17 $\mu\text{m}$

Field of view 336 xx 100: 45 $^{\circ}$  x 35 $^{\circ}$ ; 2.27mr, focal 7.5mm, f/1.25

336 xx 150: 25 $^{\circ}$  x 19 $^{\circ}$ ; 1.31mr, focal 13mm, f/1.25

336 xx 280: 17 $^{\circ}$  x 13 $^{\circ}$ ; 0.90mr, focal 19mm, f/1.25

640 xx 050: 90 $^{\circ}$  x 69 $^{\circ}$ ; 2.27mr, focal 7.5mm, f/1.4

640 xx 080: 69 $^{\circ}$  x 56 $^{\circ}$ ; 1.89mr, focal 9mm, f/1.4

640 xx 100: 45 $^{\circ}$  x 37 $^{\circ}$ ; 1.31mr, focal 13mm, f/1.25

640 xx 150: 32 $^{\circ}$  x 26 $^{\circ}$ ; 0.90mr, focal 19mm, f/1.25

## Technical Specifications

### MOBOTIX M73

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Operating temperature	-40° to +65°C / 40° to 149°F; 5% to 95% non-condensing
Power consumption	CIF: 1W VGA: 1.2W
IP rating	IP67
IK rating	IK04
Material	PBT-30GF (housing); Germanium (lens)
Software (included)	Video management software MxManagementCenter

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### Features ECO Thermal Image Sensor

Thermal sensitivity	Typ. 65 mK, IR range 7.8 to 14 µm
Temperature measurement range	-40 to 330°C/ -40 to 626 °F
Field of view	T040: 105 x 75°; 5,23mr, focal 2.2mm, f/1.05 T080: 56 x 42°; 3,00mr, focal 4.0mm, f/1.00
Thermal image sensor	Uncooled microbolometer, CIF: 320 x 240 pixels
Dimensions	58 x 42.5 mm (dia. 50 mm), 65g
Pixel pitch	12µm
Max. image size	Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX Sensor module
Max. frame rate	9 fps (when displaying an Mx Sensor module and a thermal sensor module, the overall frame rate of the camera is reduced to 9 fps)
Operating temperature	-40° to +65°C / 40° to 149°F; 5% to 95% non-condensing
Power consumption	600mW
IP rating	IP66
IK rating	IK04
Material	PBT-30GF (housing); Chalcogenide (lens)
Software (included)	Video management software MxManagementCenter

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## Supported Sensor Modules

Sensor Module	Order Code
Sensor module with standard 45° lens	Mx-O-M7SA-8DN100
	Mx-O-M7SA-8D100
	Mx-O-M7SA-8N100
	Mx-O-M7SA-4DN100
Sensor module with tele lens 30°	Mx-O-M7SA-8DN150
	Mx-O-M7SA-8D150
	Mx-O-M7SA-8N150
	Mx-O-M7SA-4DN150
Sensor module with tele lens 15°	Mx-O-M7SA-8DN280
	Mx-O-M7SA-8D280
	Mx-O-M7SA-8N280
	Mx-O-M7SA-4DN280
Sensor module with wide angle lens 60°	Mx-O-M7SA-8DN080
	Mx-O-M7SA-8D080
	Mx-O-M7SA-8N080
	Mx-O-M7SA-4DN080
Sensor module with super wide angle lens 95°	Mx-O-M7SA-8DN050
	Mx-O-M7SA-8D050
	Mx-O-M7SA-8N050
	Mx-O-M7SA-4DN050
Sensor module with ultra wide angle lens 120° 4K	Mx-O-M7SA-8DN040
	Mx-O-M7SA-8D040
	Mx-O-M7SA-8N040
	Mx-O-M7SA-4DN040

For a complete list of lenses for MOBOTIX cameras, please see the Lens Table document for MOBOTIX 7 models on [www.mobotix.com](http://www.mobotix.com) > **Support** > **Download Center** > **Marketing & Documentation** > **Lens Table**.

## Supported Thermal Sensor Modules (Pre-mounted on Thermal Front Plate)

Sensor Module	Order Code
CIF Thermal 45° x 35°	MX-O-M73TB-336T100
CIF Thermal 25° x 19°	Mx-O-M73TB-336T150
CIF Thermal 17° x 13°	Mx-O-M73TB-336T280
ECO CIF Thermal 105°x75°	Mx-O-M7SA-320T040
ECO CIF Thermal 56°x42°	Mx-O-M7SA-320T080
CIF Thermal Radiometry 45° x 35°	Mx-O-M73TB-336R100
CIF Thermal Radiometry 25° x 19°	Mx-O-M73TB-336R150
CIF Thermal Radiometry 17° x 13°	Mx-O-M73TB-336R280
VGA Thermal 90° x 69°	Mx-O-M73TB-640T050
VGA Thermal 69° x 56°	Mx-O-M73TB-640T080
VGA Thermal 45° x 37°	Mx-O-M73TB-640T100
VGA Thermal 30° x 26°	Mx-O-M73TB-640T150
VGA Thermal Radiometry 90° x 69°	Mx-O-M73TB-640R050
VGA Thermal Radiometry 69° x 56°	Mx-O-M73TB-640R080
VGA Thermal Radiometry 45° x 37°	Mx-O-M73TB-640R100
VGA Thermal Radiometry 30° x 26°	Mx-OM73TB-640R150

The **Thermal Radiometry** variants automatically alarm when the temperature exceeds or falls below defined limits. This is crucial for the detection of fire or heat sources. Up to 20 different temperature events can be configured simultaneously in so-called TR windows or over the complete sensor image over a temperature range of -40 to 550 °C/-40 to 1022 °F .

The **Thermal** variants only measure in the center of the image (2x2 pixel spotmeter).

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# Functional Modules

## Supported Functional Modules

Functional Module	Order Code/Remark
Audio module	via IO Interface Board
Audio module	Mx-F-AUDA: Audio module with microphone and speaker
MultiSense module	Mx-F-MSA: PIR sensor, temperature sensor, illumination sensor, microphone
IR Light Module	Mx-F-IRA-W: for Super Wide-Angle Lens Sensor Modules 95°
	Mx-F-IRA-S: for Standard & Wide-Angle Lens Sensor Modules 45° and 60°
	Mx-F-IRA-T: for Tele Lens Sensor Modules 15° and 30°
Power consumption IR Light Modules: 4,2 W at 100% brightness.	

# Connector Boxes

## Connector Box LSA / Connector Box RJ45

Interface	Properties	
Network	100/1000 Mbps	
Allowed cable dimensions for cables connected to the PCB terminals	<i>Conductor cross section</i>	
	AWG	20 - 26
	Rigid	0.14mm <sup>2</sup> - 0.5mm <sup>2</sup>
	Flexible	0.14mm <sup>2</sup> - 0.5mm <sup>2</sup>
	Flexible with ferrule	0.25mm <sup>2</sup> - 0.34mm <sup>2</sup>
Line In	Standard Line In: (0dB) Vrms=1V	

## Technical Specifications

### MOBOTIX M73

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#### Interface

Line Out

#### Properties

Headphones with 20mW @ 16 Ohm or 32 Ohm.

Audio inputs as a Line Out function to 10k Ohm impedance of receiver. Audio level while connected to 10k Ohm equals -10dbV

IN / OUT

#### INPUT

- Contact Closure (no galvanic isolation necessary) or up to 50V AC/DC
- max. length for cables: 50m

#### OUTPUT

- requires pull-up resistor and external power supply (10mA / max. 50V DC - no AC)
- Output may be loaded with max. 50mA
- max. length for cables: depends on loop impedance of the connected cable.

## M73 – Dimensions

**NOTE!** Download the drilling template from the section or on the MOBOTIX website: [www.mobotix.com](http://www.mobotix.com) > Support > Download Center > Marketing & Documentation > Drilling Templates.

**CAUTION!** Always print or copy the drilling template at 100% of the original size!

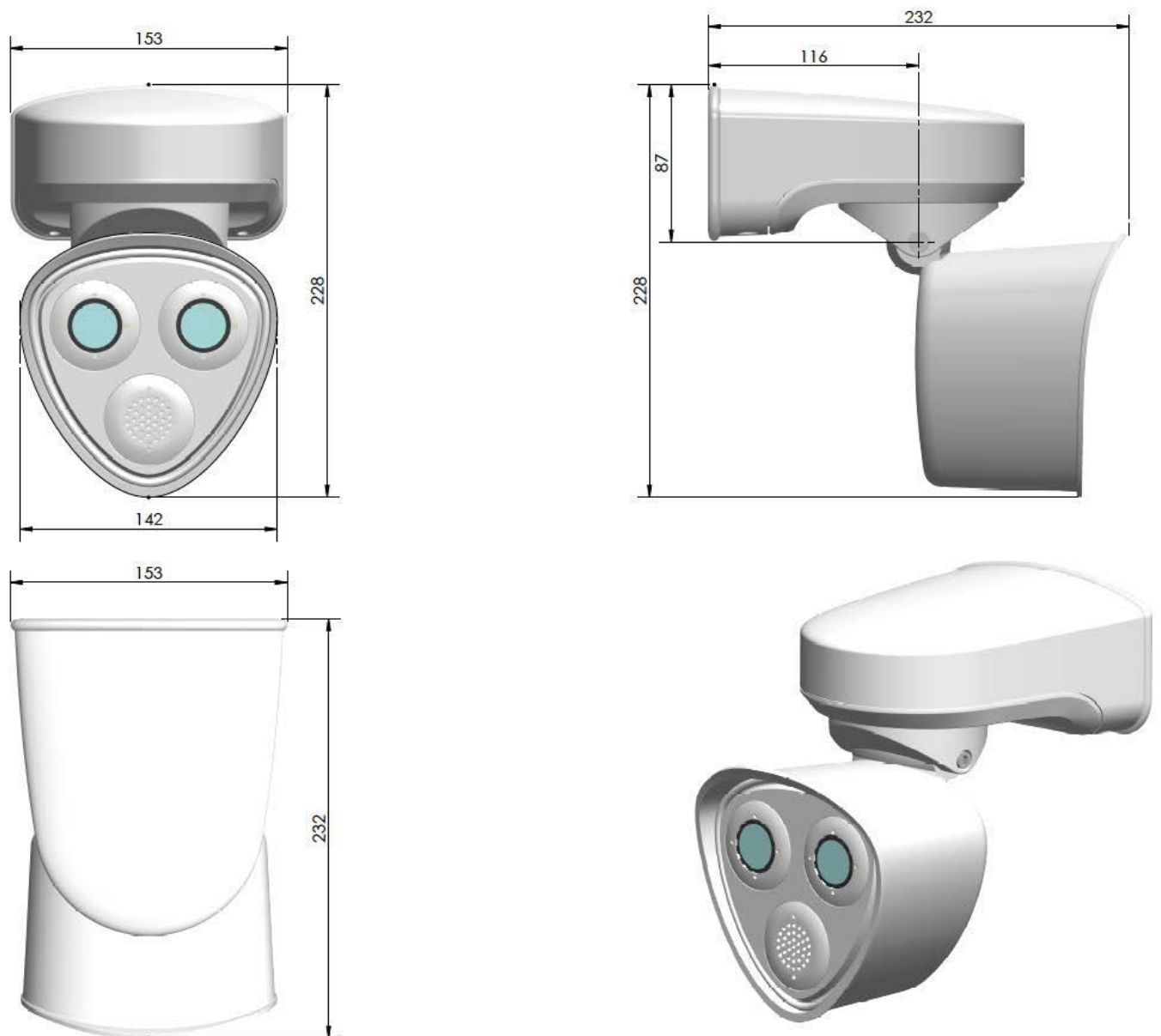


Fig. 1: M73: All measurements in mm

# MOBOTIX

BeyondHumanVision

[EN\\_05/22](#)

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