



Technical Specifications

MOBOTIX M73 EN54

EN 54-10 certified MOBOTIX thermal technology

When it comes to building security, the EN 54-10 certified MOBOTIX Thermal TR cameras are the first choice. As standalone detectors or integrated into fire alarm systems, the certified systems meet the building safety regulations in accordance with the EU Construction Products Regulation.

- Complies with the EU Construction Products Regulation
- Early fire detection, even before flames arise
- Universally applicable, even outdoors
- Connection to control center/fire alarm systems
- Use of additional optical sensor possible
- Highly flexible: up to 20 measuring windows simultaneously



BeyondHumanVision

MOBOTIX

Table of Contents

Order Information	2
Hardware	3
Average Power Consumption	6
Image Formats, Frame Rates, Image Storage	8
General Features	9
Video Analysis	10
Video Management Software	10
Sensor Modules	11
Dimensions of Sensor Modules	11
Weight of Sensor Modules	11
Supported Image Sensor Modules	12
Supported Thermal Sensor Modules (Pre-mounted on Thermal Front Plate)	13
Features Thermal Image Sensors	13
Supported Functional Modules (Pre-mounted on Front Plate)	15
Connector Box RJ45	15
Dimensions	16

Order Information

	Order Code:	Camera Type / Bundle
20.102.712- 01	Mx-M73TA-B336R100-EN54	M73A TR Camera (B) CIF (45°)
20.102.713- 01	Mx-M73TA-B336R150-EN54	M73A TR Camera (B) CIF (25°)
20.102.714- 01	Mx-M73TA-B336R280-EN54	M73A TR Camera (B) CIF (17°)
20.102.715- 01	Mx-M73TA-B640R050-EN54	M73A TR Camera (B) VGA (90°)
20.102.716- 01	Mx-M73TA-B640R080-EN54	M73A TR Camera (B) VGA (69°)
20.102.717- 01	Mx-M73TA-B640R100-EN54	M73A TR Camera (B) VGA (45°)
20.102.718- 01	Mx-M73TA-B640R150-EN54	M73A TR Camera (B) VGA (32°)

Hardware

Feature	Properties
Image sensor (color or B&W sensor)	up to 4K UHD 3840x2160, 16:9, 1/1,8"
Light sensitivity	<ul style="list-style-type: none"> ▪ Color sensor (day): 0,1 lx @ 1/60s; 0,005 lx @ 1s ▪ BW sensor (night): 0,02 lx @ 1/60s; 0,001 lx @ 1s
Exposure control	Manual and automatic mode 1 s to 1/16,000 s
IK protection class	IK10 (housing)
IP / NEMA protection class	IP66 / NEMA 4X
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 Connector Box RJ45, p. 15
Microphone/Speaker	<ul style="list-style-type: none"> ▪ Functional audio module, max. 4.5 Watt (see Functional Modules) ▪ 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 Functional Modules)
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
Max. power consumption	max. 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

Technical Specifications

MOBOTIX M73 EN54

Feature	Properties
Interfaces	<ul style="list-style-type: none">▪ 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

Feature	Properties
Standard accessories	<ul style="list-style-type: none"> 1 blind module (pre-installed, must be installed when using only two sensor modules) 1 Thermal mounting plate with wall sealing (pre-installed), two standard plugs (pre-installed) 1 connector box (pre-installed) 1 Ethernet patch cable, 50 cm/19.7 in with sealing (RJ45 variant only) 1 SD card 8 GB (installed) 1 Important Safety Information 1 Sticker with EAN number of camera 1 Sticker with IP address of camera 1 Connector box RJ45 with rubber plug black, rubber plug single-wire white, USB plug blue (installed) 1 Protective cover for connector box polystyrene white (installed) 1 Rubber plug black (installed) 1 Rubber plug single-wire white (installed) 1 Rubber plug cable dia. 3.5 mm white (to replace C.5) 1 USB plug connector box blue (installed) 1 Module wrench (gray) 1 Lens wrench blue 3 housing plugs silicone white 3 Security clips plastic red 2 Cable tie black 1 Allen wrench 5 mm 1 Allen wrench 2.5 mm 1 TORX wrench TX20 1 TORX wrench TX10 1 Screw driver yellow 4 Washers dia. 6.4 mm plastic white 4 Wood screws 4.5 x 60 mm 4 Dowels S8 3 Oval head screws with shank 2.5x6.5 mm, stainless steel black 2 Covers for screw plastic white
Tiltability of camera	<p>Horizontal: 2 x 180 degrees</p> <p>Vertical: 110 degrees</p>

Technical Specifications

MOBOTIX M73 EN54

Feature	Properties
Detailed technical documentation	www.mobotix.com > Support > Download Center > Marketing & Documentation
MTBF	80,000 hours
Certificates	EN 50121-4, EN 55032, EN 55035, EN54-10:2002, EN54-10:2002/A1:2005, 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
Protocols	DHCP (client and server), DNS, ICMP, IGMP v3, IPv4, IPv6, HTTP, HTTPS, FTP, FTPS, NFS, NTP (client and server), RTP, RTCP, RTSP, SFTP, SIP (client and server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, TCP, UDP, VLAN, VPN, Zeroconf/mDNS S
Manufacturer warranty	5 years

Average Power Consumption

M73 - Body

Average power consumption: 8.5 W

M73 - D/N, IR, Audio

Modules:

M1: IR 850nm wide

M2: ULL Day/Night DN280

M3: Audio

Average power consumption: 15.4 W

M73 - D/N, IR, Multisense

Modules:

M1: IR 850nm wide

M2: ULL Day/Night DN280

M3: Multisense

Average power consumption: 14.1 W

M73 - D/N, Thermal, Audio

Modules:

M1: Thermografic Sensor 336R100

M2: ULL Day/Night DN280

M3: Audio

NOTE! Thermal overlay used as Live view.

Average power consumption: 12.2 W

M73 - D/N, Thermal, Multisense

Modules:

M1: Thermografic Sensor 336R100

M2: ULL Day/Night DN280

M3: Multisense

NOTE! Thermal overlay used as Live view.

Average power consumption: 11.5 W

M73 - D/N, Thermal, IR

Modules:

M1: Thermografic Sensor 336R100

M2: ULL Day/Night DN280

M3: IR 850nm wide

NOTE! Thermal overlay used as Live view.

Average power consumption: 16.5 W

Image Formats, Frame Rates, Image Storage

Feature	Properties
Available video codecs	<ul style="list-style-type: none">▪ H.264, H.265▪ MxPEG+▪ MJPEG
Image resolutions	VGA 640x360, XGA 1024x576, HD 1280x720, FullHD 1920x1080, QHD 2560x1440, 4K UHD 3840x2160
Multi streaming	H.264, H.265 with triple streaming
Multicast stream via RTSP	Yes
Max. image H.264 resolution	<ul style="list-style-type: none">▪ One thermal sensor: VGA, 640x480▪ One thermal sensor, one optical sensor: 1xVGA, 640x480, 1x 4K UHD, 3840x2160 (8MP)
Max. frame rate	MxPEG: 20@4K, H.264: 30@4K, H.265: 30@4K

General Features

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

Technical Specifications

MOBOTIX M73 EN54

Feature	Properties
DVR / image storage management	<ul style="list-style-type: none">▪ MxPEG+ only▪ Internal microSD card (SDHC/SDXC), 8 GB out of the box▪ 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

Feature	Properties
Video motion detection	Yes
MxActivitySensor (Optical sensor only)	Version 1.0, 2.1 and object-based MxAnalytics AI
ONVIF compatibility	Profile S, T
MxAnalytics (Optical sensor only)	Heatmap, people counting & object-based counting
MOBOTIX App support	Yes

Video Management Software

Feature	Properties
MOBOTIX HUB	Yes www.mobotix.com > Support > Download Center > Software Downloads
MxManagementCenter	Yes (MxMC 2.2 and higher) www.mobotix.com > Support > Download Center > Software Downloads

Feature	Properties
MOBOTIX LIVE App	Yes Available in Android and iOS App Stores.

Sensor Modules

Dimensions of Sensor Modules

Dimensions (height x width)	58 x 42,5 (50 mm)
--------------------------------	-------------------

Weight of Sensor Modules

Sensor Module	Weight
Standard Sensor Modules	max. 150g
Functional Modules	max. 150g
Thermal Sensor Module	380g
PTMount Thermal	890g

Supported Image 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 > [Support](#) > [Download Center](#) > [Marketing & Documentation](#) > [Lens Table](#).

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

CAUTION! Do not remove or replace the pre-installed thermal sensor module included in the scope of delivery. Otherwise, the camera will lose the EN54 certification.

Sensor Module	Order Code
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 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 32° x 26°	Mx-OM73TB-640R150

The **Thermal Radiometry (TR)** 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 .

Features Thermal Image Sensors

Feature	Properties
Thermal sensitivity	Typ. 50 mK, IR range 7.5 to 13.5 µm
Temperature measurement range	-40 to 550 °C/-40 to 1022 °F

Technical Specifications

MOBOTIX M73 EN54

Feature	Properties																
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																
Pixel pitch	17µm																
Field of view	<table><thead><tr><th>Sensor Module</th><th>FoV</th></tr></thead><tbody><tr><td>336 xx 100</td><td>45° x 35°; 2.27mr, focal 7.5mm, f/1.25</td></tr><tr><td>336 xx 150</td><td>25° x 19°; 1.31mr, focal 13mm, f/1.25</td></tr><tr><td>336 xx 280</td><td>17° x 13°; 0.90mr, focal 19mm, f/1.25</td></tr><tr><td>640 xx 050</td><td>90° x 69°; 2.27mr, focal 7.5mm, f/1.4</td></tr><tr><td>640 xx 080</td><td>69° x 56°; 1.89mr, focal 9mm, f/1.4</td></tr><tr><td>640 xx 100</td><td>45° x 37°; 1.31mr, focal 13mm, f/1.25</td></tr><tr><td>640 xx 150</td><td>32° x 26°; 0.90mr, focal 19mm, f/1.25</td></tr></tbody></table>	Sensor Module	FoV	336 xx 100	45° x 35°; 2.27mr, focal 7.5mm, f/1.25	336 xx 150	25° x 19°; 1.31mr, focal 13mm, f/1.25	336 xx 280	17° x 13°; 0.90mr, focal 19mm, f/1.25	640 xx 050	90° x 69°; 2.27mr, focal 7.5mm, f/1.4	640 xx 080	69° x 56°; 1.89mr, focal 9mm, f/1.4	640 xx 100	45° x 37°; 1.31mr, focal 13mm, f/1.25	640 xx 150	32° x 26°; 0.90mr, focal 19mm, f/1.25
Sensor Module	FoV																
336 xx 100	45° x 35°; 2.27mr, focal 7.5mm, f/1.25																
336 xx 150	25° x 19°; 1.31mr, focal 13mm, f/1.25																
336 xx 280	17° x 13°; 0.90mr, focal 19mm, f/1.25																
640 xx 050	90° x 69°; 2.27mr, focal 7.5mm, f/1.4																
640 xx 080	69° x 56°; 1.89mr, focal 9mm, f/1.4																
640 xx 100	45° x 37°; 1.31mr, focal 13mm, f/1.25																
640 xx 150	32° x 26°; 0.90mr, focal 19mm, f/1.25																
Operating temperature	-40° to +65°C / 40° to 149°F; 5% to 95% non-condensing																
Power consumption	CIF: 1W VGA: 1.2W																
MTBF	80,000 hours																
IP rating	IP67																
IK rating	IK04																
Material	PBT-30GF (housing); Germanium (lens)																
Software (included)	Video management software MxManagementCenter																

Supported Functional Modules (Pre-mounted on Front Plate)

Functional Module	Order Code	Remark
Functional MultiSense module (pre installed)	Mx-F-MSA	with PIR sensor, temperature sensor, illumination sensor and status LED

Connector Box RJ45

Interface	Properties								
Network	100/1000 Mbps								
Allowed cable dimensions for cables connected to the PCB terminals	<p><i>Conductor cross section</i></p> <table border="1"> <tr> <td>AWG</td> <td>20 - 26</td> </tr> <tr> <td>Rigid</td> <td>0.14mm² - 0.5mm²</td> </tr> <tr> <td>Flexible</td> <td>0.14mm² - 0.5mm²</td> </tr> <tr> <td>Flexible with ferrule</td> <td>0.25mm² - 0.34mm²</td> </tr> </table>	AWG	20 - 26	Rigid	0.14mm ² - 0.5mm ²	Flexible	0.14mm ² - 0.5mm ²	Flexible with ferrule	0.25mm ² - 0.34mm ²
AWG	20 - 26								
Rigid	0.14mm ² - 0.5mm ²								
Flexible	0.14mm ² - 0.5mm ²								
Flexible with ferrule	0.25mm ² - 0.34mm ²								
Line In	Standard Line In: (0dB) V _{rms} =1V								
Line Out	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	<p>INPUT</p> <ul style="list-style-type: none"> Contact Closure (no galvanic isolation necessary) or up to 50V AC/DC max. length for cables: 50m <p>OUTPUT</p> <ul style="list-style-type: none"> 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. 								

Dimensions

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

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

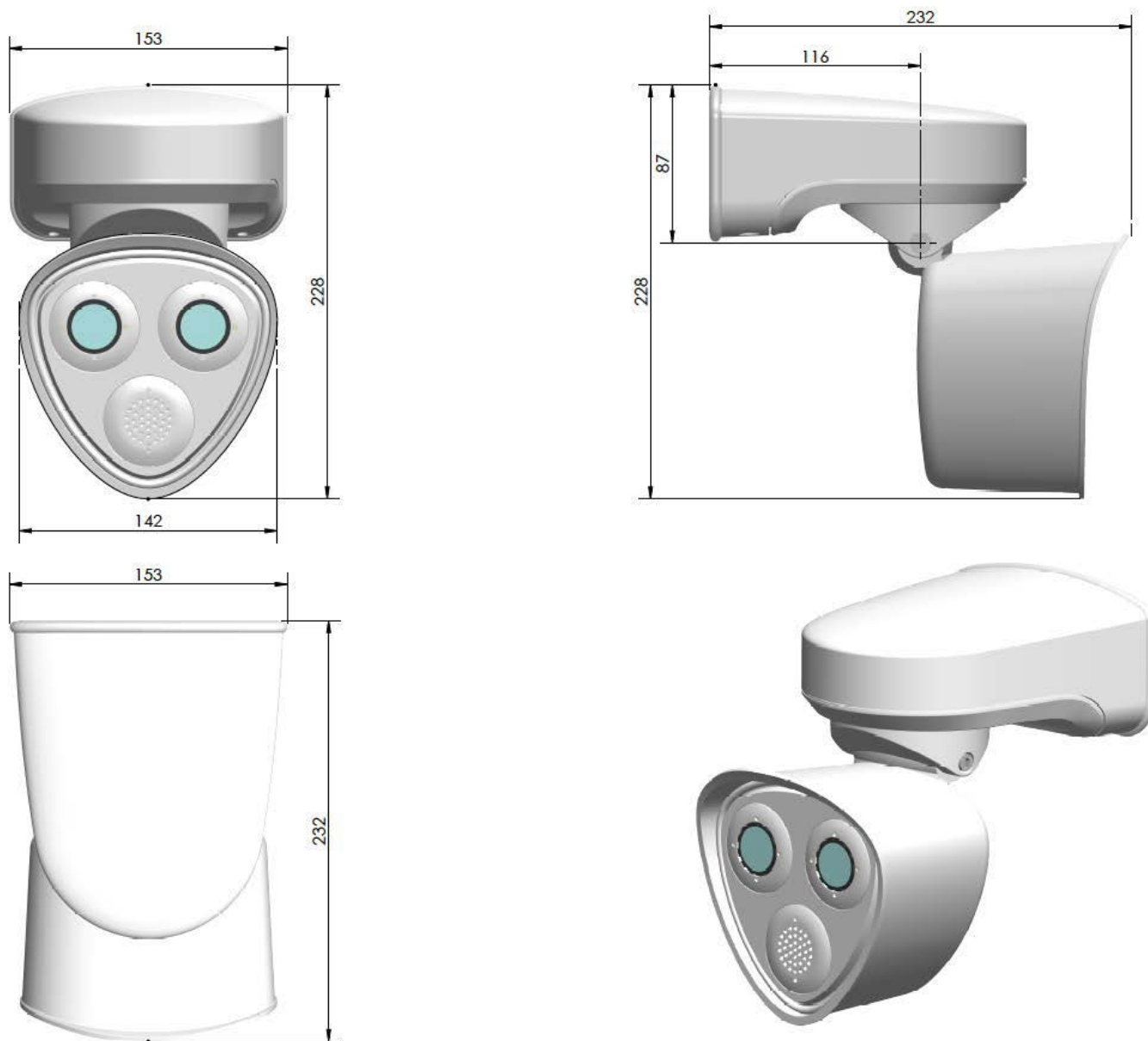


Fig. 1: MOBOTIX M73 EN54: All measurements in mm

MOBOTIX

BeyondHumanVision

[EN_08/23](#)

MOBOTIX AG • Kaiserstrasse • D-67722 Langmeil • Tel.: +49 6302 9816-103 • sales@mobotix.com • www.mobotix.com

MOBOTIX is a trademark of MOBOTIX AG registered in the European Union, the U.S.A., and in other countries. Subject to change without notice. MOBOTIX do not assume any liability for technical or editorial errors or omissions contained herein. All rights reserved. © MOBOTIX AG 2019