



Technical Specifications

MOBOTIX M73 VGA Radiometry+

Redefining Thermal Precision and Early Detection

With the 95°x76° Radiometry+ VGA module, MOBOTIX takes thermal imaging to the next level. High-resolution radiometry, a wide field of view, and a frame rate of up to 30 fps deliver highly detailed thermal data, even in dynamic environments. The Thermal Distance Compensation feature, intelligently corrects for distance blur. The MOBOTIX M73 VGA Radiometry+ is built to last, with a robust housing and an impressive MTBF exceeding 10,000 hours—perfect for demanding long-term deployments in industrial, critical infrastructure, and outdoor applications.

- Modular and retrofittable MOBOTIX M73 VGA Radiometry+ thermal sensor with 95° wide-angle.
- Up to 30 fps for smooth, real-time thermal video streams (also in combination with a second optical sensor)
- Thermal Distance Compensation for enhanced temperature accuracy
- Compatible with MOBOTIX Thermal Validation App and Advanced Radiometry Apps
- Up to 20 freely configurable temperature measurement windows
- Rugged, weatherproof housing for indoor and outdoor use
- Optional optical sensor module for combined thermal and visual imaging (Thermal Overlay Function)



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Hardware

Feature	Properties
Image sensor (color or B&W)	up to 4K UHD 3840x2160, 16:9, 1/1,8"
Light sensitivity	■ 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 Storage	Internal microSD card (SDHC/SDXC), 8 GB out of the box, max. 1 TB.
I/Os	see Connector Box LSA / Connector Box RJ45, p. 11
Microphone/Speaker	■ Functional audio module, max. 4.5 Watt (see Functional Modules)

Feature	Properties
	- Microphone Sensitivity: -35 +/-4 dB (0 dB = 1 V/pa, 1 kHz) - Speaker: 0.9 W at 8 Ohm
Passive infrared sensor (PIR)	Available with functional module, max. 4.5 Watt (see Functional Modules)
Infrared illumination	Three functional modules for wide-angle, standard, and tele lenses
Range of infrared 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 MOBOTIX 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
Tiltability of camera	Horizontal: 2 x 180 degrees Vertical: 110 degrees
Detailed technical documentation	www.mobotix.com > Services > Download Center > Marketing & Documentation
MTBF	80,000 hours
Certificates	EN 50121-4, 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
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

Technical Specifications

Feature	Properties
	server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, TCP, UDP, VLAN, VPN, Zero-conf/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 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
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	■ H.264, H.265 Multistreaming ■ Multicast stream via RTSP ■ Digital pan, tilt, zoom/vPTZ (up to 8x zoom) ■ Genetec protocol integration ■ Programmable 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) ■ MxMessageSystem
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	■ On internal microSD card ■ On external USB and NAS devices ■ Different streams for live image and recording ■ MxPEG+ only ■ MxFFS with buffered archive, pre- and post-alarm images, storage monitoring with error reporting

Feature	Properties
Camera and data security	User and group management, SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature
Digitally signed firmware	Yes (to prevent firmware file tampering)

Video Analysis

Feature	Properties
Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1, 3.0
MxAnalytics	Yes
MOBOTIX App support	Yes

Video Management Software

Feature	Properties
MOBOTIX HUB	Yes www.mobotix.com > Services > Download Center > Software Downloads
MxManagementCenter	Yes (latest version recommended) www.mobotix.com > Services > Download Center > Software Downloads
MOBOTIX Cloud	Streaming & Events supported
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

Sensor Modules

Dimensions of Sensor Modules

Dimensions (height x width)	58 x 42,5 (50 mm)
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Weight of Sensor Modules

Sensor Module	Weight
Standard Sensor Modules	max. 150g
Functional Modules	max. 150g
Thermal Sensor Module	220g

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
	Mx-O-M7SA-8L150
Sensor module with tele lens 15°	Mx-O-M7SA-8DN280*
	Mx-O-M7SA-8D280
	Mx-O-M7SA-8N280*

Sensor Module	Order Code
	Mx-O-M7SA-4DN280
	Mx-O-M7SA-8L280
Sensor module with tele lens 8°	Mx-O-M7SA-8D500
	Mx-O-M7SA-8N500
	Mx-O-M7SA-8L500
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
	Mx-O-M7SA-8L040
Sensor module with hemispheric lens 180° 12MP	Mx-O-M7SA-12DN016*

*also available in black.

NOTE! Please consider any lens-related restrictions. For example, license plate recognition is not possible with a hemispheric lens.

For a complete list of lenses for MOBOTIX cameras, please see the Lens Table document for MOBOTIX 7 models on www.mobotix.com > Services > Download Center > Marketing & Documentation > Lens Table.

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

Sensor Module	Order Code
VGA Thermal 95° x 76°	Mx-O-M73TC-640R050

Features Thermal Image Sensors

Feature	Properties	
Thermal sensitivity	Typ. 30 mK, IR range 7.5 to 13.5 μm	
Temperature measurement range (adjustable)	High Sensitivity: -40 to 150 °C/-40 to 302 °F -- Low Sensivity: -40 to 350 °C/-40 to 622 °F	
Thermal image sensor	Uncooled microbolometer, CIF: 336 x 256 pixels / VGA: 640 x 480	
Dimensions	t.b.d	
Max. image size	Can be scaled up to 4K UHD 3840x2160 (8MP) , automatically scaled to size of MX sensor module	
Max. frame rate	30fps	
Pixel pitch	12μm	
Field of view	Sensor Module	FoV
	640R050	95° x 76°; f/1.10
Operating temperature	-40° to +65°C / 40° to 149°F; 5% to 95% non-condensing	
Power consumption	W1.5 W	
MTBF	80,000 hours	
IP rating	IP67	
IK rating	IK04	
Material	PBT-30GF (housing); Germanium (lens)	
Software (included)	Video management software MxManagementCenter	

Connector Box LSA / Connector Box RJ45

Interface	Properties								
Network	100/1000 Mbps								
Overvoltage Protection	max. 4 kV on the PoE network cabling								
Allowed cable dimensions for cables connected to the PCB terminals	<i>Conductor cross section</i> <table> <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) Vrms=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								
Input	Contact Closure (no galvanic isolation necessary) or max. 30 Vrms AC / 50V DC Switching thresholds: - Input > 1.6V leads to a detected HIGH - Input < 0.9V leads to a detected LOW (after a high) max. length for cables: 50m								
Output	M73 VGA Radiometry+-A requires pull-up resistor and external power supply (10mA / max 30 Vrms AC / max. 50V DC) 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!

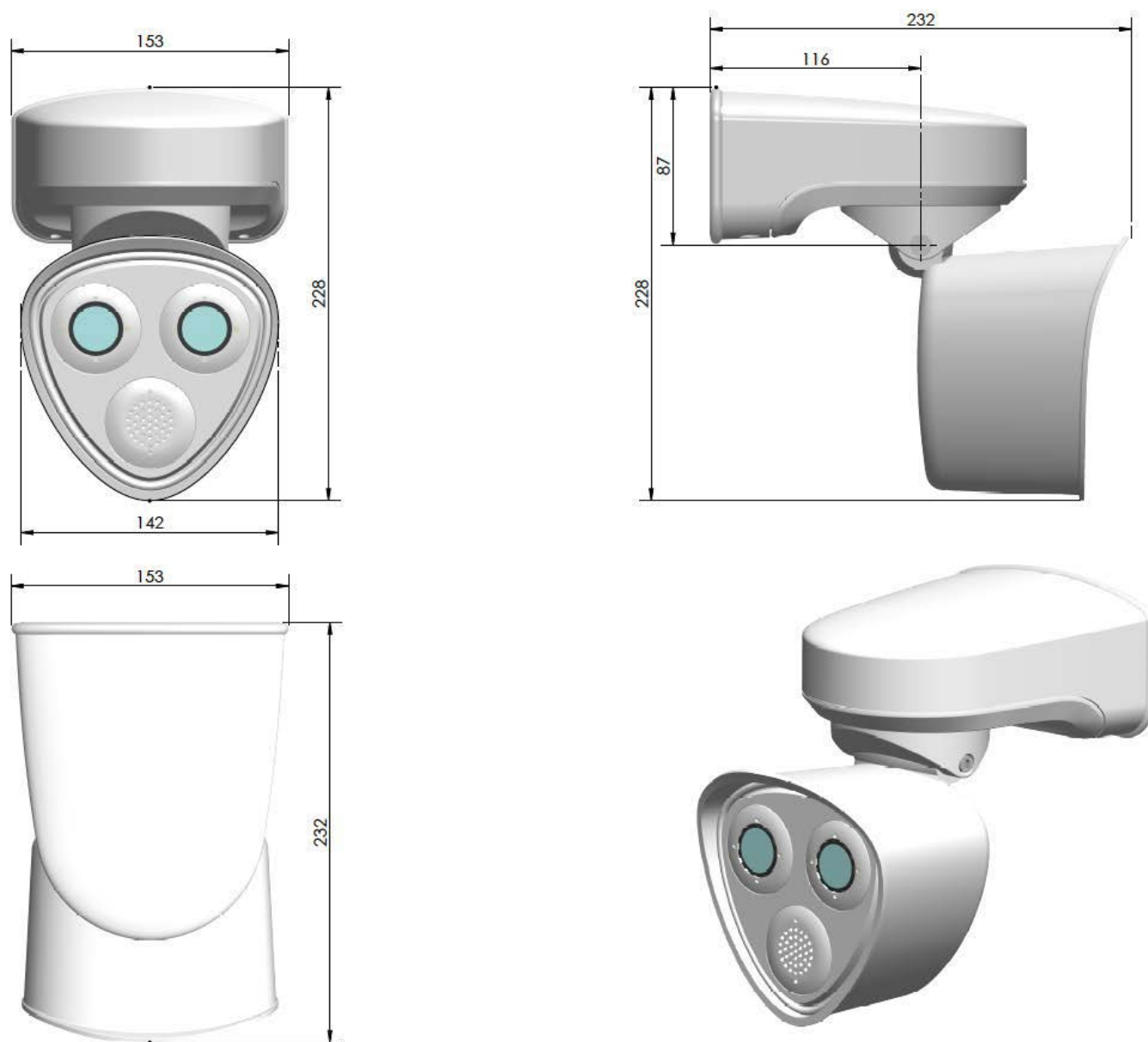


Fig. 1: MOBOTIX M73 VGA Radiometry+: All measurements in mm



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