



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 G, S, 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, NEMA 4X and IK10

 HEVC Advance™

BeyondHumanVision

MOBOTIX

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Table of Contents

Order Information	2
Hardware	2
Image and Video Properties	7
General Software Features	7
Video Analysis	9
Video Management Software	9
Sensor Modules	10
Functional Modules	16
Connector Box LSA /Connector Box RJ45	16
Dimensions	18

Order Information

Name	MOBOTIX M73
Order Code:	Mx-M73(A/B)-SL

Hardware

Feature	Properties
Image sensor (color or B&W)	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 @ 1sBW 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)

Feature	Properties
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. 16
Microphone/Speaker	<ul style="list-style-type: none"> ▪ Functional audio module, max. 4.5 Watt (see Functional Modules, p. 16) ▪ 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, p. 16)
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	<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

Technical Specifications

MOBOTIX M73

Feature	Properties
Housing	Aluminum, PBT-30GF
Standard accessories	<ul style="list-style-type: none">3 Transport plugs1 blind module (must be installed when using only two sensor modules)1 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 Information1 Sticker with EAN number of camera1 Sticker with IP address of camera1 Connector box RJ45 or LSA black 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 blue3 housing plugs silicone white3 Security clips plastic red2 Cable tie black1 Allen wrench 5 mm1 Allen wrench 2.5 mm1 TORX wrench TX201 TORX wrench TX101 Screw driver yellow4 Washers dia. 6.4 mm plastic white4 Wood screws 4.5 x 60 mm4 Dowels S83 Oval head screws with shank 2.5x6.5 mm, stainless steel black2 Covers for screw plastic white
Tiltability of camera	Horizontal: 2 x 180 degrees Vertical: 110 degrees
Detailed technical	www.mobotix.com > Services > Download Center > Marketing & Docu-

Feature	Properties
documentation	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 server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, TCP, UDP, VLAN, VPN, Zero-conf/mDNS S
Manufacturer warranty	3 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

Technical Specifications

MOBOTIX M73

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	<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 sensor: 4K UHD, 3840x2160 (8MP) ▪ Both sensors (dual image): 2x 4K UHD, 7680x2160 (16MP)
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"> ▪ 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

Technical Specifications

MOBOTIX M73

Feature

Properties

- 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)
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Master/Slave functionality	Yes
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Remote alarm notification	Email, network message (HTTP/HTTPS), SNMP, MxMessageSystem, MQTT
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DVR/image storage management	<ul style="list-style-type: none">▪ 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
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Camera and data security	User and group management, SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature
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Digitally signed firmware	Yes (to prevent firmware file tampering)
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Video Analysis

Feature	Properties
Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1, 3.0 and object-based MxAnalytics AI
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

Height x Width	58 x 42,5 (50 mm)		
Weight	Standard Sensor Modules	max. 150g	
	Functional Modules	max. 150g	
	Thermal Sensor Module B-Models	max. 380g	
	Thermal Sensor Module C-Models	max. 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*
	Mx-O-M7SA-4DN280
	Mx-O-M7SA-8L280
Sensor module with tele lens 8°	Mx-O-M7SA-8D500

Sensor Module	Order Code
	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
B-Models	
CIF Thermal 25° x 19°	Mx-O-M73TB-336T150
CIF Thermal Radiometry	Mx-O-M73TB-336R100

Technical Specifications

MOBOTIX M73

Sensor Module

Order Code

B-Models

45° x 35°

CIF Thermal Radiometry 25° x 19°	Mx-O-M73TB-336R150
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CIF Thermal Radiometry 17° x 13°	Mx-O-M73TB-336R280
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CIF Thermal Radiometry 9,3° x 7,1°	Mx-O-M73TB-336R500 (BTO)
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VGA Thermal 90° x 69°	Mx-O-M73TB-640T050
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VGA Thermal 69° x 56°	Mx-O-M73TB-640T080
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VGA Thermal 45° x 37°	Mx-O-M73TB-640T100
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VGA Thermal 32° x 26°	Mx-O-M73TB-640T150
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VGA Thermal Radiometry 69° x 56°	Mx-O-M73TB-640R080
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VGA Thermal Radiometry 32° x 26°	Mx-OM73TB-640R150
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VGA Thermal Radiometry 18° x 14°	Mx-O-M73TB-640R280 (BTO)
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Sensor Module

Order Code

C-Models

QVGA/CIF Thermal Radiometry 50° x 40°	Mx-O-M73TC-320R100
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QVGA/CIF, 12° x 10°	Mx-O-M73TC-320T280
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VGA Thermal Radiometry 95° x 76°	Mx-O-M73TC-640R050
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VGA Thermal Radiometry 50° x 40°	Mx-O-M73TC-640R100
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VGA Thermal, 18° x 14,4°	Mx-O-M73TC-640T280
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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 TR windows or over the complete sensor image over a temperature range of High Sensitivity: -40 to 170 °C/-40 to 320 °F -- Low Sensitivity: -40 to 550 °C/-40 to 1022 °F .

The **Thermal (non-TR)** variants only measure in the center of the image (Thermal spot, 2x2 pixel).

Features Thermal Image Sensors - B-Models

Feature	Properties	
Thermal sensitivity	Typ. 50 mK	
IR range	7.5 to 13.5 μm	
Temperature measurement range (adjustable)	High Sensitivity: -40 to 170° C/-40 to 320 ° F Low Sensitivity: -40 to 550° C/-40 to 1022 ° F	
Thermal image sensor	Uncooled microbolometer, CIF: 336 x 256 px / VGA: 640 x 480 px	
Dimensions	336/640 px: 48,5x48, 5x70 170 g without front plate / 265 g 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	9 fps (Fast version 25/30 fps on request)	
Pixel pitch	17 μm	
Field of view	Sensor Module	FoV
	336 xx 500	9° x 7°; 0.486 mrad; focal length 35 mm, f/1.5
	640 xx 280	18°x14°; 0.486 mrad; focal length 35 mm, f/1.5
Operating temperature	-40° to +65° C / 40° to 149° F; 5 % to 95 % non-condensing	
Power consumption	max. 1.2 W	
MTBF	80,000 hours	
IP rating	IP67	
IK rating	IK04	
Material	PBT-30GF (housing); Germanium (lens)	
Software (included)	Video management software MxManagementCenter	

Features Thermal Image Sensors - C-Models

Feature	Properties	
Thermal sensitivity	Typ. 30 mK	
IR range	8 to 14 μm	
Temperature measurement range (adjustable)	High Sensitivity: -40 to 150 °C / -40 to 302 °F Low Sensitivity: -40 to 350 °C / -40 to 622 °F	
Thermal image sensor	Uncooled microbolometer, CIF: 320 x 256 px / VGA: 640 x 480 px	
Dimensions	tbd	
Max. image size	Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX sensor module	
Max. frame rate	30 fps	
Pixel pitch	12 μm	
Field of view	Sensor Module	FoV
	320R100	50° x 40°; focal length 9.2 mm; f/1.0
	320T280	12° x 9.6°; focal length 18 mm; f/1.0
	640R050	95° x 76°; focal length 4.9 mm; f/1.1
	640R100	50° x 40°; focal length 4.5 mm; f/1.2
	640T280	18° x 14.4°; focal length 24.9 mm; f/1.0
Operating temperature	-40° to +65° C / 40° to 149° F; 5 % to 95 % non-condensing	
Power consumption	1.5 W	
MTBF	80,000 hours	
IP rating	IP67	
IK rating	IK04	
Material	PBT-30GF (housing); Germanium (lens)	
Software (included)	Video management software MxManagementCenter	

Features ECO Thermal Image Sensor

Feature	Properties
Thermal sensitivity	Typ. 65 mK, IR range 7.8 to 14 μ m
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	12 μ m
Max. image size	Can be scaled up to 3072 x 2048 (6MP) (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

Functional Modules

Functional Module	Order Code	Remark
Audio module	Mx-F-AUDA	Audio module with microphone and speaker
Functional MultiSense module	Mx-F-MSA	with PIR sensor, temperature sensor, illumination sensor
Functional IR Light modules	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.
White Light Modules	Mx-F-WLA-W	for Super Wide-Angle Lens Sensor Modules 95°
	Mx-F-WLA-S	for Standard & Wide-Angle Lens Sensor Modules 45° and 60°
	Mx-F-WLA-T	for Tele Lens Sensor Modules 15° and 30°
		Power consumption White Light Modules: 3.2 W at 100% brightness.

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>	
	AWG	20 - 26
	Rigid	0.14mm ² - 0.5mm ²

Interface	Properties				
	<table border="1"> <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>	Flexible	0.14mm ² - 0.5mm ²	Flexible with ferrule	0.25mm ² - 0.34mm 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	<p>Headphones with 20mW @ 16 Ohm or 32 Ohm.</p> <p>Audio inputs as a Line Out function to 10k Ohm impedance of receiver. Audio level while connected to 10k Ohm equals -10dbV</p>				
Input	<p>Contact Closure (no galvanic isolation necessary) or max. 30 Vrms AC / 50V DC</p> <p>Switching thresholds:</p> <ul style="list-style-type: none"> ▪ Input > 1.6V leads to a detected HIGH ▪ Input < 0.9V leads to a detected LOW (after a high) <p>max. length for cables: 50m</p>				
Output	<p>M73-A</p> <p>requires pull-up resistor and external power supply (10mA / max 30 Vrms AC / max. 50V DC)</p> <p>Output may be loaded with max. 50mA</p> <p>max. length for cables: depends on loop impedance of the connected cable.</p> <p>M73-B</p> <p>Dry contact, form A (rmax 30 Vrms AC / max, 50V DC/ 60 W/ 2A DC)</p>				

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!

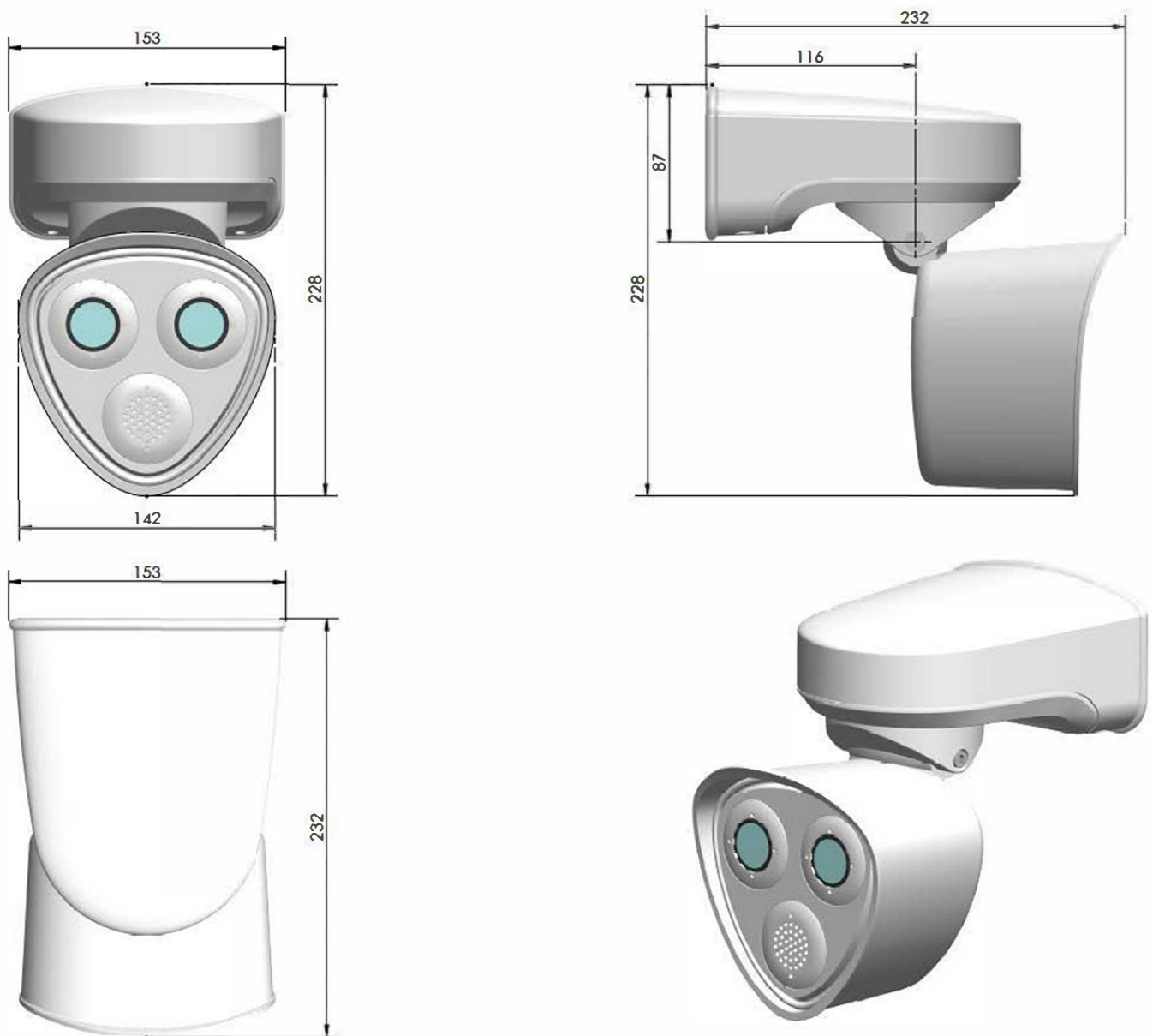


Fig. 1: MOBOTIX M73: All measurements in mm

MOBOTIX

Beyond Human Vision

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