



# Technical Specifications

## MOBOTIX S74 EN54 Bundle-V2

### 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 stand-alone 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



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## Order Information

**Order Code:**

**Bundle**

Mx-S74TA-B336R100-EN54	S74 EN54 Bundle-V2 CIF (45°)
Mx-S74TA-B336R150-EN54	S74 EN54 Bundle-V2 CIF (25°)
Mx-S74TA-B336R280-EN54	S74 EN54 Bundle-V2 CIF (17°)
Mx-S74TA-B640R050-EN54	S74 EN54 Bundle-V2 VGA (90°)
Mx-S74TA-B640R080-EN54	S74 EN54 Bundle-V2 VGA (69°)
Mx-S74TA-B640R100-EN54	S74 EN54 Bundle-V2 VGA (45°)
Mx-S74TA-B640R150-EN54	S74 EN54 Bundle-V2 VGA (32°)

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# 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"> <li>■ Color sensor (day): 0,1 lx @ 1/60s; 0,005 lx @ 1s</li> <li>■ BW sensor (night): 0,02 lx @ 1/60s; 0,001 lx @ 1s</li> </ul>
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. 2 TB.
I/Os	<a href="#">S74 IO Slide in Board, p. 12</a> required
Microphone/Speaker	<a href="#">S74 IO Slide in Board, p. 12</a> required
Passive infra-red sensor (PIR)	Available with functional module, max. 4.5 Watt (see <a href="#">Functional Modules, p. 10</a> )
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)
Max. power consumption	<ul style="list-style-type: none"> <li>■ Max. 25 W/1042 mA at 24 VDC</li> </ul>
Electrical surge protection	<a href="#">S74 Network Slide-in Board with LSA terminal, p. 12</a> or <a href="#">S74 Network Slide-in Board with RJ45 and VDC power supply - A (pre-installed), p. 13</a> required
Electrical surge protection	<a href="#">S74 Network Slide-in Board with RJ45 and VDC power supply - A (pre-installed), p. 13</a> required
PoE standard	PoE Plus (802.3at-2009)/Class 4 (Network Slide-in Board required. See <a href="#">Interface Slide-in Boards, p. 12</a> )

## Technical Specifications

### S74 EN54 Bundle-V2

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Feature	Properties
Interfaces	4 sensor / functional modules USB-C 2 Slots for slide in boards (Network, IOs etc.)
Mounting Options	Wall-mountable
Dimensions (height x width x depth)	36 x 232 x 110 mm
Weight without sensor modules	1.130g
Housing	Aluminum, PBT-30GF
Standard accessories	<ul style="list-style-type: none"><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 Module wrench</li><li>■ 1 Lens wrench</li><li>■ 4 Wood screws 4.5 x 60 mm</li><li>■ 4 Dowels S8</li><li>■ 2 Covers for screw plastic white</li></ul>
Standard accessories	See <a href="#">S74 EN54 Bundle-V2: Scope of Delivery</a>
Detailed technical documentation	<a href="http://www.mobotix.com">www.mobotix.com</a> > <a href="#">Services</a> > <a href="#">Download Center</a> > <a href="#">Marketing &amp; Documentation</a>
MTBF	80,000 hours
Certificates	EN 50121-4, EN 55032, EN 55035, EN54-10:2002, EN54-10:2002/A1:2005, FM 3260, ANSI/FM 3260, 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, MQTT, 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
Manufacturer warranty	5 years

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## Power Consumption

### CAUTION!

To comply with the requirements of EN 54-4, the entire flame detection system (cameras, alarm systems, etc.) must be protected by uninterruptible power supplies (UPS) or batteries that can bridge power outages of up to 72 hours!

Search for "Standby supply" in the EN 54-4 standards document.

### S74 EN54 Bundle-V2

Components	Average Power Consumption	Max. Power Consumption
<ul style="list-style-type: none"><li>■ Mx-S74A</li><li>■ M1: Thermal Image Sensor</li><li>■ M3: Multisense</li><li>■ Mx-F-4IOA</li></ul>	<ul style="list-style-type: none"><li>■ 11.1 W/462 mA at 24 VDC</li></ul>	<ul style="list-style-type: none"><li>■ Max. 25 W/1042 mA at 24 VDC</li></ul>

### S74 EN54 Bundle-V2 and D/N Image Module

Components	Average Power Consumption	Max. Power Consumption
<ul style="list-style-type: none"><li>■ Mx-S74A</li><li>■ M1: Thermal Image Sensor</li><li>■ M2: Day/Night sensor module</li><li>■ M3: Multisense</li><li>■ Mx-F-4IOA</li></ul>	<ul style="list-style-type: none"><li>■ 13.5 W/562 mA at 24 VDC</li></ul>	<ul style="list-style-type: none"><li>■ Max. 25 W/1042 mA at 24 VDC</li></ul>

# Image and Video Properties

Feature	Properties
Available video codecs	<ul style="list-style-type: none"><li>■ H.264, H.265</li><li>■ MxPEG+</li><li>■ MJPEG</li></ul>
Image resolutions	CIF 320x240, 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 resolution H.264	<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. image resolution H.264	<ul style="list-style-type: none"><li>■ One thermal sensor: VGA 640x480/CIF 320x240</li><li>■ Two thermal sensors: 2xVGA 640x480</li><li>■ One thermal sensor, one optical sensor: 1xVGA 640x480/CIF 320x240, 1x 4K UHD 3840x2160 (8MP)</li></ul>
Max. frame rate	MxPEG: 20@4K, H.264: 30@4K, H.265: 30@4K

# General Software Features

Feature	Properties
WDR	Up to 120 dB
Approved firmware release	MX-V7.3.6.70-FM as of June 2026, or latest FM-approved firmware release

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Feature	Properties
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>
ONVIF compatibility	Profile G, S, T
Master/Slave functionality	Yes
Remote alarm notification	<p>Email, network message (HTTP/HTTPS), SNMP, MxMessageSystem, MQTT ModBus TCP*</p> <p>*In combination with MxThermalValidation or MxAdvancedRadiometry apps (optional, requires additional license)</p>
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

## Optional MOBOTIX Apps for EN 54 Flame Detection

- MxAdvancedRadiometry (see [Technical Specifications](#)).
- MxThermalValidation (see [Technical Specifications](#)).

**NOTE!**

- Use of these optional apps is based on the specified use cases and subject to acceptance testing by the independent auditor.
- These MOBOTIX apps require additional licensing (30 days free trial included).

## Video Management Software

Feature	Properties
MOBOTIX HUB	Yes <a href="http://www.mobotix.com">www.mobotix.com</a> > <a href="#">Services</a> > <a href="#">Download Center</a> > <a href="#">Software Downloads</a>
MxManagementCenter	Yes (latest version recommended) <a href="http://www.mobotix.com">www.mobotix.com</a> > <a href="#">Services</a> > <a href="#">Download Center</a> > <a href="#">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

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# Sensor Modules

## Features Thermal Image Sensors – B Models

Feature	Properties																
Thermal sensitivity	Typ. 50 mK																
Thermal image sensor	Uncooled microbolometer, CIF: 336 x 256 px / VGA: 640 x 480 px																
IR range	7.5 to 13.5 $\mu\text{m}$																
Temperature measurement range (adjustable)	High Sensitivity: -40 to 170°C / -40 to 320°F Low Sensivity: -40 to 550°C / -40 to 1022°F Default: Automatic (switches between High and Low depending on highest temperatures in FoV)																
Dimensions	PT mount Thermal 336/640 px: 98.5 mm x 106 mm diam; 620 g (including PT Mount) Sensor module alone: 73 mm (+4.4 mm front glass) x 57 mm diam (63 mm front glass); 310 g																
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 $\mu\text{m}$																
Field of view	<table border="1"> <thead> <tr> <th>Sensor Module</th> <th>FoV</th> </tr> </thead> <tbody> <tr> <td>336R/T100</td> <td>45° x 35°; 2.27 mrad; focal length 7.5 mm, f/1.25</td> </tr> <tr> <td>336R/T150</td> <td>25° x 19°; 1.31 mrad; focal length 13 mm, f/1.25</td> </tr> <tr> <td>336R/T280</td> <td>17° x 13°; 0.90 mrad, focal length 19 mm, f/1.25</td> </tr> <tr> <td>640R/T050</td> <td>90° x 69°; 2.27 mrad; focal length 7.5 mm, f/1.4</td> </tr> <tr> <td>640R/T080</td> <td>69° x 56°; 1.89 mrad; focal length 9 mm, f/1.4</td> </tr> <tr> <td>640R/T100</td> <td>45° x 37°; 1.31 mrad; focal length 13 mm, f/1.25</td> </tr> <tr> <td>640R/T150</td> <td>32° x 26°; 0.90 mrad; focal length 19 mm, f/1.25</td> </tr> </tbody> </table>	Sensor Module	FoV	336R/T100	45° x 35°; 2.27 mrad; focal length 7.5 mm, f/1.25	336R/T150	25° x 19°; 1.31 mrad; focal length 13 mm, f/1.25	336R/T280	17° x 13°; 0.90 mrad, focal length 19 mm, f/1.25	640R/T050	90° x 69°; 2.27 mrad; focal length 7.5 mm, f/1.4	640R/T080	69° x 56°; 1.89 mrad; focal length 9 mm, f/1.4	640R/T100	45° x 37°; 1.31 mrad; focal length 13 mm, f/1.25	640R/T150	32° x 26°; 0.90 mrad; focal length 19 mm, f/1.25
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## Technical Specifications

### S74 EN54 Bundle-V2

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Feature	Properties
Operating temperature range	-40 to 65 °C/-40 to 149 °F
Relative Humidity	95 % non-condensing
MTBF	80,000 hours
IP rating	IP67
IK rating	IK04
Material	PBT-30GF (housing)

## Functional Modules

Functional Module	Order Code	Remark
Audio module (optional)	Mx-F-S7A-INT01	Via S74 IO Slide in Board
MultiSense module (included)	Mx-F-MSA	With PIR sensor, temperature sensor, illumination sensor

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## Interface Boxes

### Mx-F-4IOA

Inputs	4 galvanically separated inputs, self powered, up to 30 Vrms AC / 50V DC Switching thresholds: <ul style="list-style-type: none"> <li>▪ Input &gt;1.6V leads to a detected HIGH</li> <li>▪ Input &lt;0.9V leads to a detected LOW (after a high)</li> </ul> max. length for cables: 50m	
Outputs	4 Form A relay contacts (max 30 Vrms AC / max, 50V DC/ 60 W/ 2A DC)	
Wire specifications (terminals)	<i>Conductor cross section</i>	
	AWG	20 - 26
	Rigid	0.14mm <sup>2</sup> - 0.8mm <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>
Status indicators	Multi-color LEDs (Green, Red); refer to Mx-F-4IOA Quick Installation	
Mounting	Mx-M-OW-M73 (wall mount) Mx-M-CM-M73 (ceiling mount)	

## General Hardware Specifications

Power consumption	Typ. 1 W/200 mA
Protection class	IP66
Operating temperature	-40 to 65 °C/-40 to 149 °F
Certificates	CE, EMC, ROHS, AS/NZS CISPR 32, 47 CFR FCC Part 15, Subpart B, Class A, ICES-003 Class A, EN 54-18

## Technical Specifications

### S74 EN54 Bundle-V2

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Dimensions (width x height x depth)	86 x 56 x 31 mm/3.39 x 2.20 x 1.22 in (without rubber plugs)
Weight	70 g

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## Interface Slide-in Boards

### S74 Network Slide-in Board with RJ45 socket

Order Code	Mx-F-S7A-RJ45
Power Supply	PoE Plus (802.3at-2009)/Class 4
Network	RJ45 / Ethernet 1000Base-T

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### S74 Network Slide-in Board with LSA terminal

Order Code	Mx-F-S7A-LSA
Power Supply	PoE Plus (802.3at-2009)/Class 4
Network	LSA / Ethernet 1000Base-T
Overvoltage Protection	max. 4 kV on the PoE network cabling

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### S74 IO Slide in Board

Order Code	Mx-F-S7A-INT01
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Terminal	Remark
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
Line In	Standard Line In: (0dB) Vrms=1V

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Terminal	Remark								
SPK	0.9W at any 8 Ohm speaker. MOBOTIX Audio module: 0.9W at 8 Ohm								
MIC	Passive microphone to connect (for best results). R_Bias for the microphone is 2.2 kOhm (included on the camera). Microphone impedance < 2.2 kOhm, Operating voltage of the microphone is 2V. Sensitivity of the MOBOTIX Audio Module: -35 +/-4dB (0dB = 1V/pa, 1kHz)								
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>0.14mm<sup>2</sup> - 0.5mm<sup>2</sup></td> </tr> <tr> <td>Flexible</td> <td>0.14mm<sup>2</sup> - 0.5mm<sup>2</sup></td> </tr> <tr> <td>Flexible with ferrule</td> <td>0.25mm<sup>2</sup> - 0.34mm<sup>2</sup></td> </tr> </table>	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>
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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>								
Input	<p><b>M73-A</b></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><b>M73-B</b></p> <p>Dry contact, form A (max 30 Vrms AC / max, 50V DC/ 60 W/ 2A DC)</p>								
Output	<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>								

## **S74 Network Slide-in Board with RJ45 and VDC power supply - A (pre-installed)**

Order Code	Mx-F-S7A-RJ45-VDC
Power Supply	12-24 V DC only - recommended 2.5-1.5A 24Volt power supply unit required
Network	RJ45 / Ethernet 1000Base-T

## Technical Specifications

### S74 EN54 Bundle-V2

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#### Allowed cable dimensions for cables connected to the PCB terminals

AWG	26 - 20
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>

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### S74 Network Slide-in Board with RJ45 and VDC power supply - B (pre-installed)

Order Code	Mx-F-S7B-RJ45-VDC
Power Supply	12-24 V DC only - recommended 2.5-1.5A 24Volt power supply unit required
Network	RJ45 / Ethernet 1000Base-T

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#### Allowed cable dimensions for cables connected to the PCB terminals

AWG	26 - 14
Rigid	0.14mm <sup>2</sup> - 2.5mm <sup>2</sup>
Flexible	0.14mm <sup>2</sup> - 1.5mm <sup>2</sup>
Flexible with ferrule	0.25mm <sup>2</sup> - 1.5mm <sup>2</sup>

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## Dimensions

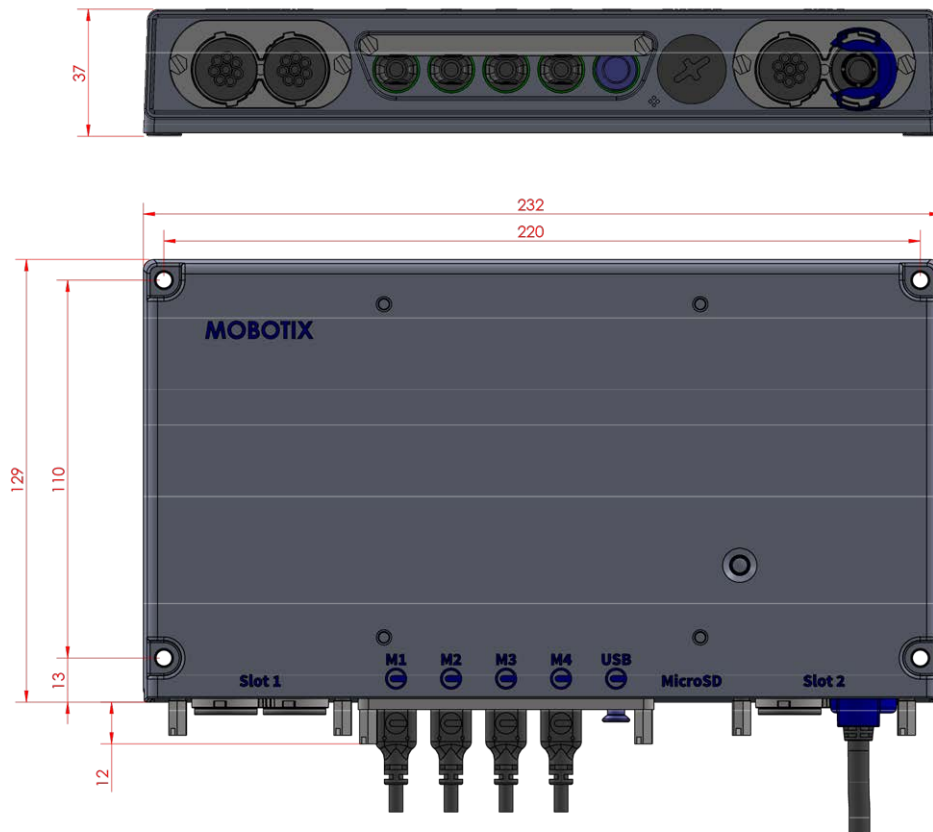


Fig. 1: MOBOTIX M73: All measurements in mm

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

## Dimensions of Interface Boxes

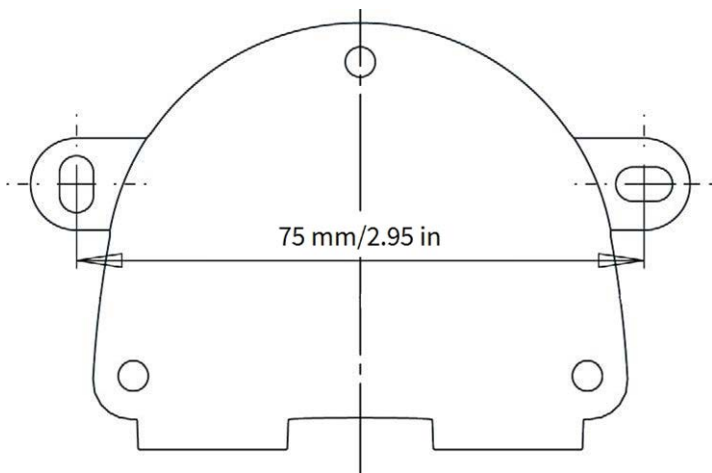


Fig. 2: All measurements in mm

**NOTE!**

When printing this page at 100% of the original size (no scaling) you can use this page as drilling template.

# MOBOTIX

BeyondHumanVision

EN\_06/26

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