



# Technical Specifications

## MOBOTIX S74

### Flexible. Modular. Unique.

Weatherproof and robust, the latest generation of our successful S 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
- 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



## Technical Specifications

### MOBOTIX S74

---

#### Hardware

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
Video codecs	<ul style="list-style-type: none"><li>▪ H.264, H.265 with Triple Streaming</li><li>▪ MxPEG+</li><li>▪ MJPEG</li></ul>
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	<a href="#">S74 IO Slide in Board (Mx-F-S7A-INT01)</a> , p. 9 required
Microphone/Speaker	<a href="#">S74 IO Slide in Board (Mx-F-S7A-INT01)</a> , p. 9 required
Passive infra-red sensor (PIR)	Available with functional module, max. 4.5 Watt (see <a href="#">Supported Functional Modules</a> , p. 8)
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	25 W
Electrical surge protection	integrated with S74 Network slide in board with LSA terminal (not part of the scope of delivery)
PoE standard	PoE Plus (802.3at-2009)/Class 4
Interfaces	4 sensor / functional modules Ethernet 1000BaseT USB-C

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 (gray)</li> <li>1 Lens wrench blue</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>
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 55032:2012AC:2013 Class A, EN 55035:2017, EN 50121-4:2016, EN 61000-6-1:2007, EN 61000-6-2:2015, EN 61000-6-3:2007A1:2011+AC:2012, EN 61000-6-4:2007A1:2011, EN50581:2012, EN 62368-1:2014+AC:2015A11:2017+AC:2017, 47 CFR Part 15b Class A, AS/NZS CISPR 32:2015 Class A
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, 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

## Technical Specifications

### MOBOTIX S74

---

Multicast stream via RTSP Yes

Max. image resolution

- 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 Features

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
- 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 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
MxAnalytics	Heatmap, people counting & object-based counting
MOBOTIX App support	Yes

## Video Management Software

MxManagementCenter	Yes (MxMC 2.2 and higher) <a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Download Center > Software Downloads
MxBell	Yes <a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Download Center > Software Downloads

## Dimensions of Sensor Modules

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

## Weight of Sensor Modules

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

## Technical Specifications

### MOBOTIX S74

---

## Features Thermal Sensors

Sensitivity thermal image sensor	Typ. 50 mK, IR range 7.5 to 13.5 $\mu\text{m}$ ; Temperature Measurement Range: $-40$ to $550$ $^{\circ}\text{C}$ / $-40$ to $1022$ $^{\circ}\text{F}$
Image sensor: Thermal image sensor	Uncooled microbolometer, CIF: $336 \times 256$ pixels / VGA: $640 \times 480$
Max. image size MX sensor module	Can be scaled up to $3072 \times 2048$ (6MP), automatically scaled to size of MX sensor module
Max. frame rate Thermal image sensor	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)
Software (included)	Video management software MxManagementCenter

## Supported Sensor Modules

Sensor Module	Order Code
Sensor module with standard $45^{\circ}$ lens	Mx-O-M7SA-8DN100
	Mx-O-M7SA-8D100
	Mx-O-M7SA-8N100
	Mx-O-M7SA-4DN100
Sensor module with tele lens $30^{\circ}$	Mx-O-M7SA-8DN150
	Mx-O-M7SA-8D150
	Mx-O-M7SA-8N150
	Mx-O-M7SA-4DN150
Sensor module with tele lens $15^{\circ}$	Mx-O-M7SA-8DN280
	Mx-O-M7SA-8D280
	Mx-O-M7SA-8N280
	Mx-O-M7SA-4DN280
Sensor module with wide angle lens $60^{\circ}$	Mx-O-M7SA-8DN080
	Mx-O-M7SA-8D080
	Mx-O-M7SA-8N080
	Mx-O-M7SA-4DN080

---

Sensor Module	Order Code
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

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

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

Sensor module	Order code
CIF Thermal 45° x 35°	MX-O-M7SB-336T100
CIF Thermal 45° x 35°	Mx-O-M7SA-336TS100
CIF Thermal 25° x 19°	Mx-O-M7SA-336TS150
CIF Thermal 17° x 13°	Mx-O-M7SA-336TS280
CIF Thermal Radiometry 45° x 35°	Mx-O-M7SB-336R100
CIF Thermal Radiometry 45° x 35°	Mx-O-M7SA-336RS100
CIF Thermal Radiometry 25° x 19°,	Mx-O-M7SA-336RS150
CIF Thermal Radiometry 17° x 13°	Mx-O-M7SA-336RS280

## Technical Specifications

### MOBOTIX S74

---

Sensor module	Order code
VGA Thermal 90° x 69°	Mx-O-M7SB-640T050
VGA Thermal 90° x 69°	Mx-O-M7SA-640TS050
VGA Thermal 69° x 56°	Mx-O-M7SA-640TS080
VGA Thermal 45° x 37°	Mx-O-M7SA-640TS100
VGA Thermal 30° x 26°	Mx-O-M7TA-640TS150
VGA Thermal Radiometry 90° x 69°	Mx-O-M7SB-640R050
VGA Thermal Radiometry 90° x 69°	Mx-O-M7TA-640RS050
VGA Thermal Radiometry 69° x 56°	Mx-O-M7TA-640RS080
VGA Thermal Radiometry 45° x 37°	Mx-O-M7SA-640RS100
VGA Thermal Radiometry 30° x 26°	Mx-O-M7SA-640RS150

---

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 (missing or bad snippet).

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

## Supported Functional Modules

Functional Module	Order Code/Remark
Functional MultiSense module	Mx-F-MSA with PIR sensor, temperature sensor, illumination sensor
Functional 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 Module: 4,2 W at 100% brightness.

---



## S74 IO Slide in Board (Mx-F-S7A-INT01)

### Interface

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								
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)								
IN / OUT	<p>INPUT</p> <ul style="list-style-type: none"> <li>▪ Contact Closure (no galvanic isolation necessary) or up to 50V AC/DC</li> <li>▪ max. length for cables: 50m</li> </ul> <p>OUTPUT</p> <ul style="list-style-type: none"> <li>▪ requires pull-up resistor and external power supply (10mA / max. 50V DC - no AC)</li> <li>▪ max. length for cables: depends on loop impedance of the connected cable.</li> </ul> <p>Specs for cables connected to the PCB terminals:</p> <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>
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>								

# MOBOTIX S74 – 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 at 100% of the original size!

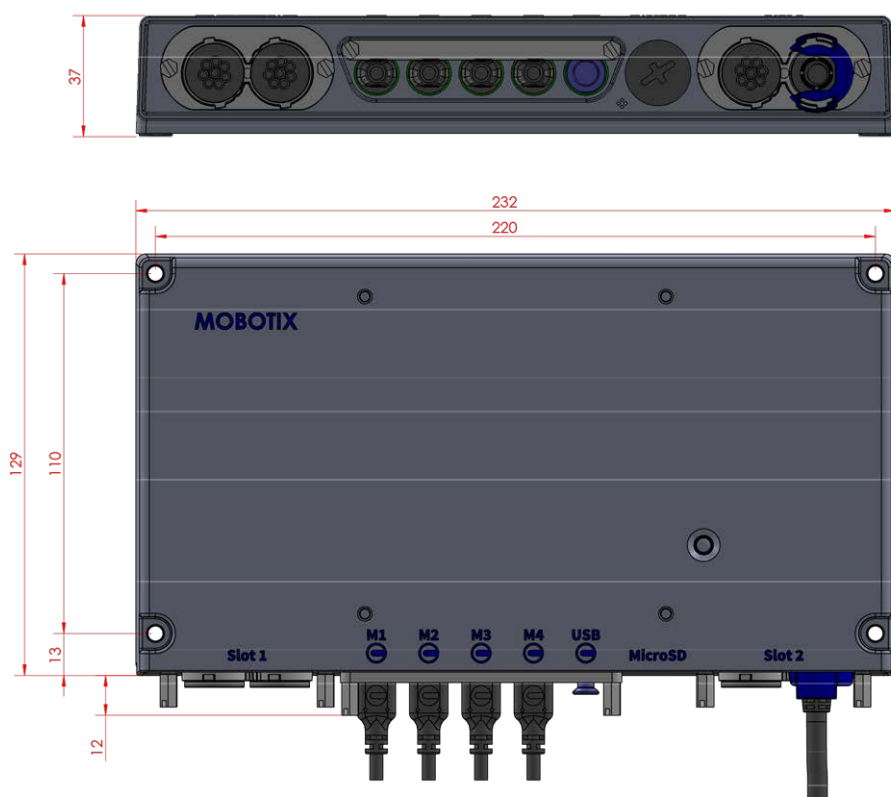


Fig. 1: S74: All measurements in mm

# MOBOTIX

BeyondHumanVision

[EN\\_01/22](#)

MOBOTIX AG • Kaiserstrasse • D-67722 Langmeil • Tel.: +49 6302 9816-103 • [sales@mobotix.com](mailto:sales@mobotix.com) • [www.mobotix.com](http://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 2020