



# 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
- 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



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## Hardware

|                                    |                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------|
| Image sensor (color or B&W sensor) | up to 4K UHD 3840x2160, 16:9, 1/1,8"                                                                       |
| Light sensitivity                  | - Color sensor (day): 0,1 lx @ 1/60s; 0,005 lx @ 1s<br>- BW sensor (night): 0,02 lx @ 1/60s; 0,001 lx @ 1s |
| Exposure control                   | Manual and automatic mode<br>1 s to 1/16,000 s                                                             |
| Video codecs                       | H.264, H.265 with Triple Streaming<br>MxPEG+<br>MJPEG                                                      |
| 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<br>Ethernet 1000BaseT<br>USB-C                                               |

|                                        |                                                                                                                                                                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting Options                       | Wall-mountable                                                                                                                                                                                                                                                               |
| Dimensions<br>(height x width x depth) | 36 x 232 x 110 mm                                                                                                                                                                                                                                                            |
| Weight without sensor modules          | 1.130g                                                                                                                                                                                                                                                                       |
| Housing                                | Aluminum, PBT-30GF                                                                                                                                                                                                                                                           |
| Standard accessories                   | 1 SD card 8 GB (installed)<br>1 Important Safety Information<br>1 Sticker with EAN number of camera<br>1 Sticker with IP address of camera<br>1 Module wrench (gray)<br>1 Lens wrench blue<br>4 Wood screws 4.5 x 60 mm<br>4 Dowels S8<br>2 Covers for screw plastic white   |
| Detailed technical documentation       | <a href="http://www.mobotix.com">www.mobotix.com</a> > <b>Support</b> > <b>Download Center</b> > <b>Marketing &amp; Documentation</b>                                                                                                                                        |
| 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                                                                          |

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Multicast stream via RTSP    Yes

Max. image resolution (dual image of both sensors)    4K UHD 3840x2160 (8MP)

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)<br><a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Download Center > Software Downloads |
| MxBell             | Yes<br><a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Download Center > Software Downloads                       |

## Dimensions of Sensor Modules

|                                |                   |
|--------------------------------|-------------------|
| Dimensions<br>(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      |

## Features Thermal Sensors

|                                    |                                                                                                  |
|------------------------------------|--------------------------------------------------------------------------------------------------|
| Sensitivity thermal image sensor   | Typ. 50 mK, IR range 7.5 to 13.5 µm; Temperature Measurement Range: -40 to 550 °C/-40 to 1022 °F |
| Image sensor: Thermal image sensor | Uncooled microbolometer,<br>CIF: 336 x 256 pixels / VGA: 640 x 480                               |

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|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Max. image size MX sensor module     | Can be scaled up to 3072 x 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° 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 |

| Order Code                                       |                  |
|--------------------------------------------------|------------------|
| <b>Sensor Module</b>                             |                  |
| 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<br>45° x 35°  | Mx-O-M7SB-336R100  |
| CIF Thermal Radiometry<br>45° x 35°  | Mx-O-M7SA-336RS100 |
| CIF Thermal Radiometry<br>25° x 19°, | Mx-O-M7SA-336RS150 |
| CIF Thermal Radiometry<br>17° x 13°  | Mx-O-M7SA-336RS280 |
| 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 |

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

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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°<br>Mx-F-IRA-S: for Standard & Wide-Angle Lens Sensor Modules 45° and 60°<br>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.<br>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.<br>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.<br>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> <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!

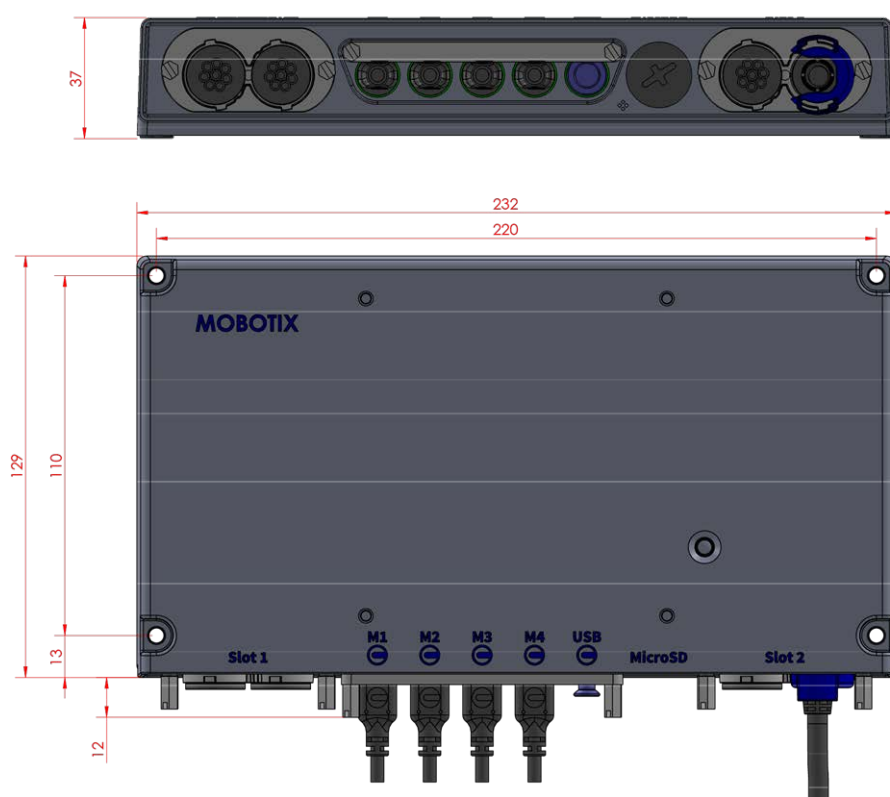


Fig. 1: S74: All measurements in mm



[EN\\_12/21](#)

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