
Modular, Individually Configurable Video System
Maximum range of lenses from super tele lens to Hemispheric

Discreet 6 Megapixel Sensor Modules Including Microphone
Mountable up to three meters away from the camera housing

Double Hemispheric Camera
Overview in two separate rooms at the same time with no blind spots

Weatherproof, Low-maintenance Professional Solution
Digital technology without any moving parts, excellent image quality during the day and at night

Mobile-Ready (DIN EN 50155)
Certified for mobile use, for example, on buses and trains

Decentralized MOBOTIX Complete Solution
Integrated software, long-term storage and image processing
S15
with two flexible sensor modules
optical and/or thermal

6MP Sensor
50 mK
1/20 °C

2 x 3 Meter

S15M
with integrated lens

MOBOTIX
Increased Value For MOBOTIX Customers

Product Advantages For You

As decentralized complete video systems, MOBOTIX cameras have much more to offer than conventional solutions: modern, network-based video security technology that improves efficiency and daily usefulness. The icons illustrate the most prominent features of our products.
6MP Moonlight Technology

THE NEW BENCHMARK IN LOWLIGHT FOR OBJECTS IN MOTION

The brand-new MOBOTIX 6MP cameras have an outstanding increase of light sensitivity of more than 100-times than the former 3MP cameras. The monochrome version reaches even a 300-times higher sensitivity than the previous series. Instead of one full second of exposure time the new 6MP systems can select only 1/100 s which results in capturing even fast moving objects in low light conditions.

Short Exposure Times are Essential

In security monitoring every moment and therefore every single frame of a video recording has to be as sharp as possible. For moving objects this implies the necessity of short instead of long exposure times. Unfortunately a short exposure time of 1/100 s grabs 10-times less light than a 1/10 s. Especially in low light conditions, the lens, the image sensor itself and the image processing for sure have to be very sophisticated to generate a sharp and crisp image of the moving object.

6MP Image Format 3 Times Larger Than Full HD

The day and night sensors feature a resolution of 6MP, which corresponds to 3072 x 2048 pixels.

Fast bird, sharp image:
The MxPEG video codec developed in-house at MOBOTIX delivers non-blurred, detailed still images that can even be zoomed in the recorded HiRes video stream.
Only a Sharp Image is a Proof
In dark scenes long exposure times of up to 1 second create bright images and visible static objects. Perfect to acknowledge objects in darkness. But if objects are moving, long exposure times will create blurring or ghost images, and make verification of moving objects nearly impossible.

In security applications moving objects are of utmost importance, therefore short exposure times are essential to understand what’s going on. Some manufacturers are using a combination of technologies like adding frames to generate a brighter image (e.g. Lightfinder, HDR, etc.). However, with this adding and overlaying of subsequent frames, small details or objects in the scene could be suppressed or distorted, which is inacceptable in security applications.

Optimized for Best Performance
This huge increase in light sensitivity was achieved by several means: wider sensor with bigger pixels to catch more light, a hardware noise reduction filter directly at the sensor, a new sophisticated lens with a better light transmission, and an improved image processing software reducing the noise of low light images. This is called the new MOBOTIX Moonlight Technology.

MOBOTIX Saves Only What Is Necessary
MOBOTIX offers three important additional features to save storage space: Recording only relevant image sections (sky or ceiling, etc. is removed), recording only when relevant events occur (such as movement in the image) and continuous recording with increased frame rate only when events occur.
Discreet Security

The S15D FlexMount features miniature sensor modules and allows a huge range of application scenarios. Another advantage of the S15D is the option of using two hemispheric sensor modules simultaneously.

A CAMERA CAN BE THIS DISCREET

In some application scenarios it is best if a surveillance camera is present but not visible. With the S15 FlexMount, MOBOTIX presents an IP video system with an especially discreet appearance, enabling a flexible range of applications. The inconspicuous appearance of this digital network camera makes it an ideal solution when unobtrusive design and appearance are important.

When in use, the S15 also remains inconspicuous as its lenses usually have a stationary focus that captures an entire room rather than following individual objects. Cameras without mechanical moving parts require low maintenance. In addition, they are silent when digitally panning and focusing on a specific image area.

Typical application scenarios for an S15 FlexMount are in hotels and restaurants, installations in public buildings, waiting rooms, sales rooms, parking garages, warehouses and exhibition booths, but also the installation in machines or devices such as ATMs is possible.
High-Performance HiRes System With Single Or Dual Lens System

MOBOTIX offer a single lens version of the camera with a lens directly screwed into the camera housing. The camera features a high-resolution 5 megapixel color sensor for daylight or a black-and-white sensor for locations with low lighting. If needed, microphone and/or speaker units can be directly connected to the camera via suitable terminal connectors.

The dual lens version is the S15D. One or two compact sensor modules (with a diameter of just 50 mm on the front) with integrated microphones are connected to the camera housing with a connector cable up to two meters in length.

Decentralized Network Video

MOBOTIX has redefined video. Whether on the Internet, in traffic management, building surveillance or banking environments, the MOBOTIX camera is connected to the network like a printer and live and recorded images can then be retrieved from any PC without installing any software.
**Concealed Camera Housing**

The flat housing of the S15D FlexMount, including longterm flash memory and all internal and external connectors (Ethernet, MiniUSB, MxBus, microphone, speaker), can be installed discreetly and with optimal protection behind a wall or ceiling panel so that only the lens units in their protective housings are visible in the room.

**Freely Select The Sensor Modules**

The sensor modules with integrated lens, 5MP image sensor and microphone are shipped pre-assembled from the factory as a ceiling or wall-mounting set that is easily connected to the camera housing by a quick connection plug. The color of the visible external part is either black or white, which makes it an outstanding fit within a broad range of installation environments, whether indoors or outdoors. The sensor modules are available in two exterior colors, with day or night sensor and eight different focal lengths each.

**6MP Sensor Modules With CS-Mount**

- Sensor modules with integrated 6MP image sensor for using CS-Mount lenses (microphone and LEDs not possible due to the nature of the design)
- Weatherproof (IP66) when included protective lens cover is used
- Maximum lens dimensions for using the protective lens cover
- Also suitable for DualMount, SurroundMount, PTMount and HaloMount
- Connection to camera via MOBOTIX sensor cable (can be ordered separately, maximum length: 3 m)
- Available in the following versions: with day/night sensor, with/without MOBOTIX CSVario lens

**Lowest Maintenance Costs**

Fiberglass-reinforced, robust housing with fully concealed cabling and no mechanical moving parts guarantee long product life with virtually no need for maintenance.
Network Connection Via Patch Or Installation Cable
Network connection is easy thanks to an up to ten-meter MOBOTIX patch cable that plugs directly into the housing. Alternatively, the eight individual strands of a standard installation cable (such as Cat5) can be attached to the LSA terminal integrated into the housing.

Easy Replacement Of S15D Sensor Modules
All sensor modules from the entire range (day or night, lens image angle 13° to 180°) can be freely combined, allowing users to build a camera system ideally suited to any task at hand.

Replacing the sensor modules at a later stage or upgrading from one to two sensor modules (single/dual operation) is quick and easy because the camera software automatically recognizes the connected modules.

One Camera For Different Light Conditions
Day and night versions are available for all sensor modules. If fitted with one day sensor and one night sensor, the S15D can simultaneously monitor a permanently light area (for example, hotel reception area) and a permanently dark area nearby (for example, storage room). Alternatively, it can monitor the same area during the day and at night.

Lowest Installation Costs
MOBOTIX cameras can be quickly and easily installed by any electrician with network experience or any IT technician – just like connecting a printer to a computer network.
S15M Lens
The S15M is available with an B016-lens and either a day sensor or night sensor.

Sensor Modules S15
The S15 is available with day or night sensor modules, each of which features a hemispheric B016 lens (L10) and any of the MOBOTIX B036 to B500 (L20 to L270) lenses (including a non-reflective protection layer made of tempered glass). All S15 sensor modules can be freely interchanged with each other. All S15 sensor modules (except B500/L270) can be used with the M15D AllroundDual camera platform (and vice versa). All night sensor modules can be ordered as LPF versions as an option (with Long Pass Filter).

<table>
<thead>
<tr>
<th>Lenses</th>
<th>B016 (L10)</th>
<th>B036 (L20)</th>
<th>B041 (L22)</th>
<th>B061 (L32)</th>
<th>B079 (L43)</th>
<th>B119 (L65)</th>
<th>B237 (L135)</th>
<th>B500 (L270)</th>
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</thead>
<tbody>
<tr>
<td>Fields of view (horizontal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal focal length</td>
<td>1.6 mm</td>
<td>3.6 mm</td>
<td>4.1 mm</td>
<td>6.1 mm</td>
<td>7.9 mm</td>
<td>11.9 mm</td>
<td>23.7 mm</td>
<td>50 mm</td>
</tr>
<tr>
<td>Equivalent focal length</td>
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<td>20 mm</td>
<td>22 mm</td>
<td>32 mm</td>
<td>43 mm</td>
<td>65 mm</td>
<td>135 mm</td>
<td>270 mm</td>
</tr>
<tr>
<td>Aperture f/</td>
<td>2.0</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
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<td>1.8</td>
<td>2.5</td>
</tr>
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<td>Horizontal image angle</td>
<td>180°</td>
<td>103°</td>
<td>90°</td>
<td>60°</td>
<td>45°</td>
<td>31°</td>
<td>15°</td>
<td>8°</td>
</tr>
<tr>
<td>Vertical image angle</td>
<td>180°</td>
<td>77°</td>
<td>67°</td>
<td>45°</td>
<td>34°</td>
<td>23°</td>
<td>11°</td>
<td>6°</td>
</tr>
</tbody>
</table>

Maximum distances in meters according to DIN EN 50-132-7

| Surveillance up to (1 px ≙ 80 mm) | 14.4 m | 103.0 m | 123.8 m | 197.8 m | 268.0 m | 402.7 m | 850.8 m | 1,563.1 m |
| Detection up to (1 px ≙ 40 mm) | 7.2 m | 51.5 m | 61.9 m | 98.9 m | 134.0 m | 201.3 m | 425.4 m | 781.6 m |
| Monitoring to (1 px ≙ 16 mm) | 2.9 m | 20.6 m | 24.8 m | 39.6 m | 53.6 m | 80.5 m | 170.2 m | 312.6 m |
| Observe up to (1 px ≙ 8 mm) | 1.4 m | 10.3 m | 12.4 m | 19.8 m | 29.8 m | 40.3 m | 85.1 m | 156.3 m |
| Identification up to (1 px ≙ 4 mm) | 0.7 m | 5.2 m | 6.2 m | 9.9 m | 13.4 m | 20.1 m | 42.5 m | 78.2 m |
| Verification up to (1 px ≙ 1 mm) | 0.2 m | 1.3 m | 1.6 m | 2.5 m | 3.4 m | 5.0 m | 10.6 m | 19.5 m |

Thermal Image Sensor (M15 Thermal, S15 Thermal)

<table>
<thead>
<tr>
<th>L43</th>
<th>L65</th>
<th>L135</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fields of view horiz.</td>
<td>42°</td>
<td>25°</td>
</tr>
<tr>
<td>Fields of view vertik.</td>
<td>32°</td>
<td>19°</td>
</tr>
</tbody>
</table>

Full Image Recording During vPTZ Commands (Virtual Pan/Tilt/Zoom)
It is always possible to record a full image, regardless of the live image stream that is being displayed. As a result, the recording always contains the full image, even if, for example, digital zooming is performed and the visible section is very small.
PTMount
All optical modules can be used with the new weatherproof PTMount, which is certified according to IP66. The manually adjustable dome features three axes that allow it to compensate for sideways tilt and to re-align the image horizon horizontally when mounted to a wall.

SurroundMount
The SurroundMount is designed to monitor long, narrow spaces (hotel corridor, bus, train, etc.) by elegantly and simply accommodating two optical sensor modules pointing in opposite directions. Owing to a 25° lens swivel range, two hemispheric sensor modules can even cover the entire area directly below the SurroundMount.

DualMount
The DualMount is also perfectly suited for aligning two optical sensor modules towards the same area when using the S15D as a highly discreet day and night camera. The lenses can be tilted downwards to avoid covering irrelevant areas such a ceilings or the sky. Outdoor ceiling mounting is possible beneath eaves, protruding construction elements, bridges or arches.

PTMount-Thermal
The S15D thermal sensors are factory-fitted inside the PTMount. This new option comes packaged as a robust IP dome thermal camera, that can be wall or ceiling-mounted both indoors and outdoors.

All mounts shown on this page are also available at no extra cost in black as the perfect accompaniment for the sensor modules also available in this color.
Double Hemispheric Camera Captures Two Areas With No Blind Spots

As a unique feature, the S15D provides the option of using two hemispheric sensor modules within a single camera, featuring L12 fisheye lenses and a horizontal image angle of 180°. This means that the entire hemispheric area in front of each lens is captured, with no blind spots from wall to wall and floor to ceiling. Within fractions of a second, the microprocessor of the camera transforms the hemispheric image into an undistorted, wide-angle 180° panorama image.

Two entirely separate rooms – next to or on top of each other, indoors or outdoors – can be captured simultaneously using the S15D with two hemispheric sensor modules.

Virtual PTZ – No Motor, No Wear-And-Tear

The virtual PTZ feature allows you to move image sections within the hemisphere just like with a camera, yet without the need for mechanical moving parts. The live image from the camera can be continuously enlarged, while allowing users to zoom in on any section of the image using the mouse or a joystick. This provides the features of a mechanical PTZ camera without the disadvantages of maintenance and wear.

Mechanical PTZ works by focusing on a section of the monitored space and recording this section only. When using the virtual MOBOTIX PTZ, however, users benefit from being able to pan to any section of the recording in retrospect (post PTZ) as the entire room is captured if full-image storage has been enabled.
Hemispheric Technology For An Overview With No Blind Spots

360° panorama view or 180° widescreen image with perspective correction; a single hemispheric sensor module (day or night version) can monitor an entire room or area without any blind spots.

Automatic Adjustment For Changing Light Conditions

The S15D can also be used as a hemispheric day/night camera. The black-and-white and color sensor modules are mounted directly next to each other so they cover the same area. The camera automatically chooses the best available mode depending on the lighting conditions: either the color sensor with daylight lens, or the black-and-white image sensor with infrared lens. The dual sensor system provides excellent colors in daylight and at dusk as well as higher light sensitivity in dark environments.

The difference between a MOBOTIX day-and-night camera and the standard versions is primarily that the MOBOTIX camera continuously uses two sensor modules rather than relying on a mechanical filter switch. In low light conditions, the hardware ensures an inherently better image quality, as a true infrared black-and-white image sensor is used instead of the usual color sensor with electronic color fade-out.
Outlook: Proximity-Box

Thanks to radar technology, the MX-Proximity-Box captures the approach and direction of motion of objects, even through wood and plastic.

HaloMount

Design-oriented camera installation in or at suspended ceilings or walls: The stylish high-quality metal mounting bracket comes in five different versions (matt chrome, glossy chrome, brushed nickel, white or black), is easy to set up and supports single sensor modules or illuminants. Sensor modules placed into the HaloMount can be tilted up to 20°, allowing perfect capture of the desired area.

SpeakerMount

The SpeakerMount, available in white or matt chrome, can be directly connected to the camera housing using a two-wire cable (no external power unit required) and makes the S15D capable of two-way communication when used in conjunction with the microphone integrated in the sensor module. The flexibly suspended speaker is already integrated in the HaloMount and can also be installed easily (protection class IP20).

Interface-Boxen

The weatherproof MOBOTIX interface boxes (Protection Class IP65, -30°C to +60°C/-22°F to +140°F) are only about 80 mm wide, increase the utility of an entire video system and are easy to install. The MX-Overvoltage-Protection-Box with integrated surge protection connects the camera patch cable to the 8-wire network installation cable. The MX-GPS-Box provides the exterior temperature and light intensity, the precise system time for one or more cameras, and an alarm if its position changes. The MX-NPA-Box provides a PoE power supply for an outdoor camera. The MX-232-IO-Box (with an RS232 port) and the MX-Output-Box (with up to eight 12 V power outputs) switches relays without an external power supply to control lights and electronic gates using the camera software. The MX-Input-Box expands the functionality of the camera sensors to include, for example, up to six window/door contacts that are powered directly via the box. The task of the MX-BPA-Box is to assume sole responsibility for providing all power for every MxBus module connected to a camera, for example, MX-GPS-Box, MX-Input-Box or MX-232-IO-Box.
**Night Sensor Modules With Long Pass Filter (LPF)**

All white night sensor modules (N12 to N160) can optionally be ordered with an LPF (Long Pass Filter) special lens that features an infrared sensor for ideal license plate identification in any lighting condition. All LPF sensor modules (except Hemispheric) can be equipped with an additional polarization filter.

The LPF camera provides a high-resolution image of the scene that can be used for evidential purposes (e.g., driver identification) using a second, regular B/W sensor module, in addition to the image provided for analysis purposes.

**BlockFlexMount For S15**

The installation options for an S15D have been expanded further with the new BlockFlexMount sensor modules (IP30). Because the image sensor (color or B/W) and lens (from telephoto to Hemispheric plus CSVario) are integrated in a robust aluminum block with prepared mounting holes, the concealed mounting of a MOBOTIX HiRes camera can be carried out quickly and easily in devices such as ATMs, machines for function and production monitoring, or very discreetly in paneling, columns, etc. One or two BlockFlexMount sensor modules can be connected to the S15D with a sensor cable (max. length 2 m).

For more information: www.mobotix.com > Products > Optics > Sensor Modules

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**Polarization Filter (MOBOTIX Accessories)**

The non-hemispheric B036 to B237 (L20 to L160) sensor modules allow for replacing the lens protection glass with a polarization filter. Example: Identifying persons through the windshield of a car – the filter reduces reflections on the windshield’s surface.
**Flexible System**

The separation of housing and sensor modules means the technology is barely visible in the room, making the S15D suitable for installations where maximum discretion and a harmonious design are paramount. Of course, the MOBOTIX S15 system is just as suitable for weatherproof installation in all kinds of devices such as automated bank tellers, a modern door spy hole, an animal observation and research camera and in many other scenarios. There are virtually no limits to your ideas.

**Vandalism Protection**

The MOBOTIX S15D also demonstrates its advantages in more critical environments. The inconspicuous appearance and low-visibility contact surfaces of the sensor modules, combined with the inaccessible camera housing and connectors mounted behind a wall or cover panel, make acts of vandalism significantly more difficult than with conventional cameras.

**Low Power Costs, No Extra Heating**

Anti-fogging without heating allows year-round usage of standard PoE technology to power the system via Ethernet or two-wire cable and saves the costs of power cabling (power consumption under 5 W).
Hard To Be Seen, But Sees Everything: S15M

Unlike the S15 dual camera version, the S15M single lens version has just one lens, which is directly connected to the camera housing without a sensor cable. However, the S15M has a special advantage compared with conventional single lens cameras:

The camera housing can be mounted completely out of view behind a wall up to 6 mm thick (wood paneling, stainless steel panel, etc.) with a small round opening measuring just 34 mm. The S15M can be simply adhered behind the wall, leaving only the tiny exposure area of the hemispheric lens visible.

This allows the following installation options:

- Wall- or ceiling-mounting behind correspondingly thin or countersunk panels/cover plates
- Individual mounting solutions such as installation in industrial equipment, paneling, air ducts, mail boxes, homemade mounts, etc.

MOBOTIX recommends the self-adhesive AudioMount with microphone and speaker (S15M accessory; stainless steel panel is not included in the delivery) for easy installation behind stainless steel panels.

S15M With AudioMount As A Door Station Camera

The AudioMount has a pre-installed speaker and microphone, thus ensuring full intercom capabilities of the S15M. It can also be utilized as a concealed Door Station in combination with other MOBOTIX accessories (e.g. BellRFID, MX-DoorMaster).
Reliable Over Long Distances
Thermal cameras detect the thermal radiation or temperature profile of objects and therefore can operate in complete darkness. MOBOTIX uses industrial grade sensors with a very high thermal resolution of 50 mK, which is equivalent to 1/20 of a degree Celsius and enables people or object detection over very long distance ranges of up to 400 meters/yards. Using the integrated and software based MxActivitySensor, the detection of moving objects is easy and reliable even in complete darkness.

Cost Effective Perimeter Solution
Only one thermal MOBOTIX camera is required to protect a huge outdoor area without the need of any additional illumination. The combination of thermal, video sensor and intelligent software based motion detection like MxActivitySensor are perfectly suited to cover wide perimeter situations efficiently without any secondary equipment like IR-conventional light or additional sensors and to detect all relevant events even in complete darkness.

Respecting Privacy
A thermal camera can guarantee perfect privacy in exclusive residence situations or in public areas because the produced thermal image profile does not show any details for identification. This privacy feature will help to increase the acceptance of video surveillance in public and sensitive environments like pool areas, hospitality or sport facilities.

A MOBOTIX dual camera system can automatically switch from thermal sensor to the optical sensor, producing visible high resolution video in the case a moving object was detected within a certain predefined area of interest or non-privacy zone. This unique MOBOTIX feature combines two aspects, first to ensure the privacy aspect during standard video monitoring, but secondly gives full access to high resolution video in the case of a relevant or critical events like motion.

Alert Promptly Sent In The Event Of A Smoldering Fire In A Landfill
A TR thermal sensor module can measure thermal radiation across the entire image area and assign a temperature value to each pixel. An event (camera alarm, network message, etc.) is triggered if a threshold value is exceeded (e.g., 60°C).
Revolutionary, Camera-Internal Video Motion Analysis

The biggest issue of motion detection software on the market today is that they generate a vast number of false alarms. In answer to this problem, MOBOTIX developed MxActivitySensor, an extremely reliable analysis tool unique on the market. MxActivitySensor is a software-based analysis tool for detecting movement of people and objects in an image area (full image or custom-defined area). MxActivitySensor delivers reliable results even in applications where a lot of external interference is present, in contrast to the still available video motion that registers all image changes in defined video motion windows. For example, the camera distinguishes between movements of vehicles, people or objects that trigger an alarm and movements that are not relevant for alarms, such as changes in illumination, heavy rain or trees swaying in the wind.

The sensor detects objects or people crossing the defined image area or continuously moving toward or away from the camera. MxActivitySensor works so reliably that it only detects people who enter or leave a room, while ignoring those who just stand up from sitting, turn around, etc.

MxActivitySensor also offers the option of setting specific directions of movement (up/down/left/right) as relevant events that trigger an alarm. This way, it is possible to capture movements going against the direction of traffic on a one way street, for example.

- Detect the movement of people and objects
- Filter according to directions of movement
- Fast, simple configuration
- Reliable even when interference (e.g., weather) is present
- Reduces the rate of false alarms by up to 90%, thus greatly freeing up system resources in terms of bandwidth and storage capacity
- Integrated into all MOBOTIX Secure cameras

In this sequence, only the movements of the white vehicle were registered, while the trees swaying in the storm were ignored. This intelligent technology thus drastically reduces the number of false alarms.

Compact Guide: MxActivitySensor

You can find all relevant information on the options for configuring/controlling the MxActivitySensor on the MOBOTIX website (www.mobotix.com) in the Support > Media Library > Compact Guides section.
The New Milestone of Video Management

The new MOBOTIX Management Center (MxMC) is a complete new development for PC/MAC/Linux* systems with the focus on a unique and intuitive user experience, providing the highest cost savings and flexibility in the market. Following the MOBOTIX software concept, MxMC is 100% included in the MOBOTIX portfolio, requiring no extra software, license or update costs.

MxMC can be used in projects independent of the number of cameras or the mix of products incl. doorstation, MxDisplay, accessories, storage devices, etc. All MOBOTIX products in the network will be automatically detected and can be configured with the brand-new graphical user interface without any web browser, easy and intuitive. So, it is possible to setup a complete system of cameras, home automation and alarm devices in the shortest time without extra software and license fees. Especially the configuration management of MxMC will help to reduce installation, configuration and maintenance costs dramatically.

Integrated Data Search

The integrated event database makes it possible to search quickly for specific events, event combinations or clusters.

The built-in data recorder enables recorded video footage to be synchronized directly with point-of-sale data. This means every line on a sales slip can be assigned directly to the video (version 1.1 or higher).

Intelligent Configuration

MxMC includes a complete user interface to manage all parameters of all MOBOTIX products. No web browser is required in the future. MxMC provides an overview of all components and

Adaptive Bandwidth Management

MxMC handles predefined scenarios, depending on the available bandwidth – ideal for mobile devices without re-configuration. LowRes images are transferred via small bandwidth connection, but stored in full resolution. The fully intelligent MOBOTIX cameras manage frame rates and image resolution, depending on the available bandwidth.
parameters with no blind spots and enables the control and Drag&Drop configuration of individual cameras and entire camera groups. Furthermore MxMC supports intelligent parameter sorting and verification of configurations which will drastically reduce installation and configuration costs.

**Multi-Monitor Capability**

MxMC supports setup and arrangement of dual or multi-monitor installations without any extra software costs. A simple double-click leads to the second monitor. Or MxMC is able to detect multiple monitors from different PCs in the network and can define target monitors for individual cameras or views. This is a perfect tool to setup and manage monitor wall systems in the most competitive and flexible way.

**Multi Slider – Major Selection Tool**

MOBOTIX has revolutionized selection and control of parameters. Multi Sliders enable users to manage multiple parameters in one selection line. Multi Sliders are available in grid, graphics and player view as well as in all different research and configuration screens.

*Linux if requested in the project

more details are required, the user can define the area of interest down to the resolution provided by the camera. In this way the MOBOTIX solution makes best usage of available bandwidth and enables quality research even via low bandwidth connections.
The Mobile Remote Station For Your MOBOTIX HiRes Video System

MOBOTIX offers high-resolution, network-based video security systems that meet the highest quality standards – with user-friendly hardware and software from a single source. The new, multifunctional App allows you to stay in contact with your MOBOTIX cameras from anywhere in the world. The App is available free of charge on the App Store for the iPad, iPhone and iPod touch.

- Mobile remote station for MOBOTIX cameras and Door Stations
- Bandwidth-optimized remote access
- Live images and recordings in the highest MOBOTIX HiRes quality
- Two-way communication intercom, door opening and video mailbox access
- Direct playback of camera recordings without buffering
- Doorbell and alarm notifications, “privacy” configuration mode
- Convenient search functions, viewer for external MxPEG videos
- Grouping of cameras and filtering of events

Integrated Bandwidth Optimization Available With The App

Remote bandwidth optimization adjusts the image size and frame rate to the available bandwidth. This not only applies to the live camera feed but also to recordings and image sections.
Maximum Reliability

Hundreds of thousands of MOBOTIX systems are successfully in use throughout the world. These cameras operate resiliently around the clock.
Simple, Cost-Effective Installation

Screw in sensor module. Connect to housing. Plug in network cable or wireless module, done! It doesn't get much faster and easier than that. Because fewer cameras are needed, the installation costs drop even further.
The two sensor modules are simply positioned at a right angle on the center corner in L-shaped rooms, again enabling the S15D to capture the entire room without any blind spots.

User-Friendly Manual

For every camera, MOBOTIX offers an extensively illustrated manual that explains every single mounting and installation step in an easy way (www.mobotix.com > Support > Manuals).
Wall Installation

Installing an S15D sensor module on a wall, for example, on simple partition walls or fake walls (minimum thickness of 15 mm), is just as easy as an installation on a ceiling. Drill a hole, insert the sensor module, fix from behind (in cavities behind the wall covering) with a locknut and connect to the camera housing. Depending on the installation height and the required camera focus, the camera can be installed with or without the additional sensor module mount (SlopeMount, HaloMount, DualMount).

The sensor modules are often mounted at a height of over 2.5 m so they are out of direct reach. The quality of the image and precision of the lens decreases as the distance from the camera focus (image center) becomes greater. We therefore recommend 15° inclined wall mounting to orient the camera focus on the center of activity in the room, which can be achieved with the mount accessories.

Mounting On A Door

A sensor module on a door should always be fitted with SlopeMount. By tilting the lens at an angle of 15°, the emphasis on areas such as the ceiling or sky is reduced and activities taking place at areas in front of the door can be captured with optimized sharpness.
When developing a new product, we ask our partners what they expect from it and what their end customers require in order to install and use it most effectively.

MOBOTIX also offers the appropriate installation accessories for mounting the sensor module on thicker walls. Longer “tunnel holes” through a wall can also be bridged using several extension pieces (each approx. 40 mm). The maximum wall thickness is therefore only limited by the length of the sensor cable in relation to the installation position of the camera housing.

**Mixed Ceiling And Wall Installation**

By installing a sensor module on the ceiling of a room and at the same time attaching the second sensor module to an outside wall of the same room, both the inside and outside area can be captured with one single S15D at minimal installation cost.

**Example: Kiosk**

Simultaneous capture of the entire sales floor and the area outside the entrance with stand-up cocktail tables.

Practical Down To The Last Detail

When developing a new product, we ask our partners what they expect from it and what their end customers require in order to install and use it most effectively.
Mobile Use

Security Is A Competitive Advantage
More than ever, operators of public and private transportation or commercial transport trucks must act on vandalism, theft and violence within and against their vehicles. This ensures their guests feel safe and that business remains viable in the long term. MOBOTIX’ decentralized, high-resolution video security technology is perfect for these requirements. With the help of detailed wall-to-wall HiRes and Hemispheric recordings, offenders can be identified faster and more reliably than with conventional video systems.

“Video Surveillance by MOBOTIX” discourages offenders, and has been proven to increase the safety of passengers and staff alike. For a good number of years now, security technicians from all over the world have been most enthusiastic about the effectiveness and the outstanding image quality delivered by the MOBOTIX systems.

Fully Suited To Mobile Use
The S15D and S15M models have been subjected to rigorous certification tests (DIN EN 50155), ensuring that even under the most challenging environmental conditions for mobile use, complete reliability is granted at all times.

The S15 System Is Also A Convincing Solution In Vehicles
- Easy installation, very little space required
- Low material costs and no need for expensive, fragile recording devices
- Camera housing with integrated flash memory can be securely mounted out of sight
- Resistant to continuous vibration
- Resistant to temperature and humidity fluctuations
- Cost-efficient replacement of parts that are visible/subject to vandalism – only the sensor module needs to be replaced, not the entire camera; no recordings are lost
- Custom-tailored accessories for enhanced usage options

Mobile PoE Power Supply And Camera Data
MOBOTIX offers the MX-NPA-Box, an appropriate functional box, to connect an S15 to the mobile power supply (12 to 57 V) and network technology (weatherproof PoE injector and network connector). A PC is not necessary for camera operation.
CASE STUDY FROM GERMANY

Stadtwerke Kaiserslautern (SWK) Public Utility Uses Intelligent Technology To Improve Public Transportation Security

The Stadtwerke Kaiserslautern (SWK) public utility company makes bus transportation more secure with mobile IP video systems from MOBOTIX. An S15D connected to a monitor shows the driver what is happening in the bus. In the medium term, SWK also plans to enable remote access to the live images from the transportation service in the main office.

Previously, it was necessary to install at least three conventional cameras in order to secure every area of a bus. Equipped with two sensor modules, one single S15D covers the entire interior without any blind spots. “Thanks to the mobile video system, we can keep an eye on what is going on in the bus, allowing us to ensure the safety of our passengers and employees,” says Boris Flesch, Department Manager at SWK Verkehrs-AG. In addition, the recordings are stored and processed directly in the camera, meaning a PC is needed only for viewing the video material. It is easy to extend the entire MOBOTIX system using functional boxes. In addition to cost savings as a result of the reduced number of cameras and the decentralized storage options, the low power consumption of four to five watts protects the environment, demonstrating the company’s green IT approach.
## Technical Specifications

### Technical Data S15 Dual Lens / S15M Single Lens

<table>
<thead>
<tr>
<th>Model versions (can be fitted with day or night sensors)</th>
<th>MX-S15M-D016 (day), MX-S15M-N016-NIGHT (night), MX-S15D-SEC (all combinations of day/night sensor modules)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor modules</td>
<td>10 to 270 mm format, horizontal angle 180° to 8° (6MP)</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Color sensor (6MP): 0.1 Lux at 1/60 s, 0.005 Lux at 1/1 s, B/W sensor (6MP): 0.02 Lux at 1/60 s, 0.001 Lux at 1/1 s</td>
</tr>
<tr>
<td>Image sensors</td>
<td>1/1.8” CMOS, 6 megapixels, progressive scan</td>
</tr>
<tr>
<td>Max. image size (per sensor)</td>
<td>Color: 3072x2048 (6MP), B/W: 3072x2048 (6MP)</td>
</tr>
<tr>
<td>Image formats (per sensor)</td>
<td>Freely configurable format 4:3/8:3/16:9, User-defined formats (image cropping, for example, 6MP, QXGA, Full HD, MEGA)</td>
</tr>
<tr>
<td>Max. frame rate, M-JPEG (live/recording)</td>
<td>MEGA/HD: 15 fps, QXGA: 8 fps, 6MP: 4 fps, Dual image: 12MP: 2 fps, 10MP: 3 fps</td>
</tr>
<tr>
<td>Max. video rate MxPEG (live/recording/sound)</td>
<td>MEGA/HD: 30 fps, QXGA: 20 fps, 6MP: 8 fps, 5MP: 10 fps, Dual image: 12MP: 2 fps, 10MP: 3 fps</td>
</tr>
<tr>
<td>Image compression</td>
<td>MxPEG, M-JPEG, JPEG, (H.264 for SIP connections only)</td>
</tr>
<tr>
<td>Internal DVR</td>
<td>microSD Slot (recording inside the camera; 4-GB card preinstalled)</td>
</tr>
<tr>
<td>External storage</td>
<td>Directly on NAS and computer/server without additional recording software</td>
</tr>
<tr>
<td>Software (included)</td>
<td>MxManagementCenter (MxMC), MOBOTIX App for iOS devices running on iOS 5.0 and higher</td>
</tr>
<tr>
<td>Image processing</td>
<td>Backlight compensation, automatic white balance, image distortion correction (including panorama image correction), motion detection, MxActivitySensor</td>
</tr>
<tr>
<td>Virtual PTZ (vPTZ)</td>
<td>Digital pan/tilt/zoom, continuous 8x zoom, full image recording in the background</td>
</tr>
<tr>
<td>Alarm/events</td>
<td>Video motion sensor, MxActivitySensor, external signals, temperature sensor, PIR, microphone, shock detector, notification via e-mail, FTP, IP telephony (VoIP, SIP), visual/acoustic alarm, pre- and postalarm images</td>
</tr>
<tr>
<td>Microphone and speaker</td>
<td>S15D: microphone built-in sensor modules; external microphone and external speaker can be connected, S15M: external microphone and external speaker can be connected</td>
</tr>
<tr>
<td>MxAnalytics</td>
<td>only S15</td>
</tr>
<tr>
<td>Audio</td>
<td>Lip-synchronous audio, intercom, sound recording</td>
</tr>
<tr>
<td>Interfaces</td>
<td>Ethernet 10/100 (Patch-or Installation cable,MiniUSB, MxBus, inputs/outputs and RS232 via MX-232-IO-Box, external microphone/speaker (AudioMount, SpeakerMount)</td>
</tr>
<tr>
<td>Video telephony</td>
<td>VoIP/SIP, intercom function, remote control via key code, event display</td>
</tr>
<tr>
<td>Security</td>
<td>User/group management, HTTPS/SSL, IP address filter, IEEE 802.1x, intrusion detection, digital image signature</td>
</tr>
<tr>
<td>Certifications</td>
<td>EMV (EN 55022, CISPR 22, EN 55024, EN 61000-6-1/2, FCC Part15B, CFR 47, AS/NZS 3548), EN 50155</td>
</tr>
</tbody>
</table>

### Remote Camera Access Via The Internet

With MOBOTIX, a PC is not used to record, but for viewing and researching images in case of an event – from any location on earth with a network connection.
No Storage Liwithout

There is no storage liwithout for the system as a whole, as each camera can optionally maintain its own terabyte storage system (NAS) over the network.
## Product Overview And Prices

### Camera S15

<table>
<thead>
<tr>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MX-S15-Sec</td>
<td>Camera housing without sensor module</td>
<td>648,-</td>
</tr>
</tbody>
</table>

### Ausstattung S15

<table>
<thead>
<tr>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MX-SM-D/N10/20/22/32/43/65/135/270-PW/BL-6MP-F1.8</td>
<td>6MP Moonlight sensor Color/day or B-W/night, L10 to 270 lens (-F1.8 does not appear in order no.), white (PW) or black (BL)</td>
<td>198,-</td>
</tr>
<tr>
<td>MX-SM-M10/20/22/32/43/65/135/270-LPF-PW/BL BL-6MP-F1.8</td>
<td>6MP Moonlight sensor B-W/night with Long Pass Filter, L10 to 270 lens (-F1.8 does not appear in order no.), white (PW) or black (BL)</td>
<td>298,-</td>
</tr>
<tr>
<td>MX-SM-D-CS, MX-SM-N-CS</td>
<td>Sensor module for standard lenses with a CS-Mount, 6MP Moonlight day or night sensor; white (PW) or black (BL)</td>
<td>178,-</td>
</tr>
<tr>
<td>MX-SM-D/N045-100-CS</td>
<td>Sensor module with a CSVario lens, 6MP Moonlight sensor, day or night, white</td>
<td>298,-</td>
</tr>
<tr>
<td>MX-PTMount-OPT-PW/BL</td>
<td>For installation in particularly long, narrow spaces such as in corridors, buses, planes, and trains; White (PW) or Black (BL)</td>
<td>58,-</td>
</tr>
<tr>
<td>MX-FLEX-OPT-SM-PW/BL</td>
<td>For mounting in especially long and narrow spaces such as hallways, buses, planes or trains; White (PW) or Black (BL)</td>
<td>38,-</td>
</tr>
<tr>
<td>MX-FLEX-OPT-DM-PW/BL</td>
<td>For using the FlexMount as day and night camera (aligning the lenses on the same area); White (PW) or Black (BL)</td>
<td>38,-</td>
</tr>
<tr>
<td>MX-HALO-EXT-CM/CO/NG/PW/BL</td>
<td>Offers the option to integrate sensor modules in a metal mounting bracket that comes in one of five different colors (matt chrome/chrome/brushed nickel/white/black)</td>
<td>32,-</td>
</tr>
<tr>
<td>MX-HALO-SP-EXT-CM/PW</td>
<td>External speaker that can be directly connected to the S15/S15M using a two-wire cable (no additional power supply required)</td>
<td>128,-</td>
</tr>
<tr>
<td>MX-FLEX-OPT-CBL-1/2/3</td>
<td>1, 2 or 3 cable for weatherproof connection (IP65) of one S15 sensor module</td>
<td>22/28/34,-</td>
</tr>
<tr>
<td>MX-SM-OPT-POL</td>
<td>Reduces reflections on glass surfaces, for all non-hemispheric sensor modules</td>
<td>128,-</td>
</tr>
<tr>
<td>MX-S14-OPT-MK-EX</td>
<td>For larger mounting depths; is directly plugged onto a sensor module or previously mounted extension</td>
<td>18,-</td>
</tr>
<tr>
<td>MX-S14-OPT-MK-CW</td>
<td>Complete set for mounting a sensor module to the ceiling or wall at a 15° inclination; including 40 mm extension, locknut and 15° wedges (white and black)</td>
<td>28,-</td>
</tr>
<tr>
<td>MX-S14-OPT-MK-N10/20/22/32/43/65/135/270-PW/BL-6MP-F1.8</td>
<td>6MP Moonlight sensor Color/day or B-W/night, L10 to 270 lens (-F1.8 does not appear in order no.)</td>
<td>168,-</td>
</tr>
<tr>
<td>MX-S14-OPT-MK-NE</td>
<td>6MP Moonlight sensor B-W/night with Long Pass Filter, L10 to 270 lens (-F1.8 does not appear in order no.)</td>
<td>268,-</td>
</tr>
<tr>
<td>S15 BlockFlexMount CS day (D) or night (N)</td>
<td>MX-BFM-CS-D/N-6MP</td>
<td>6MP Moonlight sensor for CS-Mount-lens (day or night), lens not included</td>
</tr>
<tr>
<td>S15 BlockFlexMount CS night &amp; LPF</td>
<td>MX-BFM-CS-N-LPF-6MP</td>
<td>6MP Moonlight sensor for B-W/night with Long Pass Filter, for lens with CS-Mount (lens not included)</td>
</tr>
<tr>
<td>S15 Thermal Sensor Modules</td>
<td>MX-SM-Thermal-L43/65/135</td>
<td>50 mK thermal image sensors, Germanium lens, horizontal/vertical image angle: horizontal/vertical image angle 45°/32° (L43), 25°19° (L65) and 17°/13° (L135)</td>
</tr>
<tr>
<td>PTMount-Thermal</td>
<td>MX-SM-PT-Mount-Thermal-L43/65/135-PW/BL</td>
<td>50 mK thermal image sensors, Germanium lens, horizontal/vertical image angle: horizontal/vertical image angle 45°/32° (L43), 25°19° (L65) and 17°/13° (L135), white (PW) or black (BL)</td>
</tr>
<tr>
<td>PTMount-Thermal TR</td>
<td>MX-MT-PT-TR079/119/237(-b)</td>
<td>50 mK thermal image sensors with thermal radiometry, Germanium lens, horizontal/vertical image angle 45°/32° (TR079), 25°19° (TR119) and 17°/13° (TR237), white or black (order number ends with -b)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Camera sets</th>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S15 Complete set 1, day</td>
<td>MX-S15-Set1</td>
<td>Camera housing with one L10 day sensor module, one 2 m sensor cable, one extension set, 0.5 m ETH patch cable, one replacement dome, color: white</td>
<td>898,-</td>
</tr>
<tr>
<td>S15 Complete set 2, day/day</td>
<td>MX-S15-Set2</td>
<td>Camera housing with two L10 day sensor modules, two 2 m sensor cables, two extension sets, 0.5 m ETH patch cable, two replacement domes, color: white</td>
<td>1.198,-</td>
</tr>
<tr>
<td>S15 Complete set 3, day/night</td>
<td>MX-S15-Set3</td>
<td>Like Set 2 but with one L10 day sensor and one L10 night sensor</td>
<td>1.198,-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Camera S15M</th>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S15M FlexMount day</td>
<td>MX-S15-D016</td>
<td>Single lens camera incl. L10/B016 lens with 6 megapixel OnBoard color sensor</td>
<td>798,-</td>
</tr>
<tr>
<td>S15M FlexMount night</td>
<td>MX-S15-N016</td>
<td>Single lens camera incl. L10/B016 lens with 6 megapixel OnBoard B/W sensor</td>
<td>798,-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mounting aids</th>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AudioMount</td>
<td>MX-FLEX-OPT-AM-BL</td>
<td>Installation of an S15M behind a thin, smooth surface (e.g., stainless steel plate, mailbox, etc.). Features a pre-installed speaker and microphone, thus ensuring the full intercom capabilities of the camera.</td>
<td>48,-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Article number</th>
<th>Note</th>
<th>Price (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MxDisplay+</td>
<td>MX-Display2-EXT-PW</td>
<td>MxDisplay+ with second generation CPU, indoor remote station for MOBOTIX Door Stations and video systems, with Ethernet, RFID and Wi-Fi</td>
<td>698,-</td>
</tr>
<tr>
<td>MxDisplay2-EXT-BL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MX-DoorMaster</td>
<td>MX-Door2-INT-PW (In-wall mounting)</td>
<td>Security door opener with emergency power supply for connecting to an S15 FlexMount camera (firmware 4.1.9 or higher)</td>
<td>je 248,-</td>
</tr>
</tbody>
</table>
HiRes Video Innovations
The German company MOBOTIX AG is known as the leading pioneer in network camera technology since its founding in 1999, and its decentralized concept has made high resolution video systems cost efficient. Whether in embassies, airports, railway stations, ports, gas stations, hotels or highways, MOBOTIX video systems have been in operation on every continent for years.

Technology Leader Of Network Cameras
In just a short time, MOBOTIX has climbed to the second place in European market share and fourth place worldwide in terms of market share. MOBOTIX has exclusively produced megapixel cameras for years and is the technology leader for high-resolution video systems. The decentralized MOBOTIX concept is characterized by the fact that a high-speed processor is built into every camera and, if required, a digital memory (MicroSD card) can also be integrated for long-term recording.

MOBOTIX cameras can make event-driven recordings even without a central PC or DVR and can digitally store videos long term with sound. This is why MOBOTIX solutions represent an unbeatably good value with their excellent image quality, even for small-scale installations.

Free Consulting Service
Simply call us or send us an e-mail. We will get in touch with you promptly.

With MOBOTIX, you’re in the best hands right from the start. Both our internal project managers and our experienced, highly specialized partners make sure that every system is planned and installed optimally. Our support specialists can help you with any technical questions you may have.

**Modular, Individually Configurable Video System**
Maximum range of lenses from super tele lens to Hemispheric

**Discreet 6 Megapixel Sensor Modules Including Microphone**
Mountable up to three meters away from the camera housing

**Double Hemispheric Camera**
Overview in two separate rooms at the same time with no blind spots

**Weatherproof, Low-maintenance Professional Solution**
Digital technology without any moving parts, excellent image quality during the day and at night

**Mobile-Ready (DIN EN 50155)**
Certified for mobile use, for example, on buses and trains

**Decentralized MOBOTIX Complete Solution**
Integrated software, long-term storage and image processing