



# **Professional Video Solutions**

6MP Moonlight • VMS • Dual Thermal • IP Access Control • Analytics









- 6MP Moonlight Technology
- VMS MxManagementCenter
- c25, i25 & p25 Hemispheric Indoor Cameras







**MOBOTIX** 

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### **MOBOTIX 6MP Moonlight Sensor Technology**

MOBOTIX 6MP cameras offer maximum light sensitivity and deliver highly detailed images with significantly reduced motion blurring even under the most difficult light conditions.



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MOBOT	IX

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### **Made in Germany**



Thanks to the highest manufacturing standards, MOBOTIX cameras are continuing to satisfy the requirements of the most demanding installations by delivering an exceptionally long product life and the utmost in reliability and security (see «References» on page 78).

# **MOBOTIX Milestones**



The MOBOTIX concept has completely changed the architecture of IP video. The camera is an all-in-one device, realizing a complete surveillance system.



# First Intelligent IP Camera At CeBIT All Intelligence Inside

First CMOS based IP camera, without auto iris, with telephone modem, pioneering PoE and automatic event and long term recording using standard IT storage.



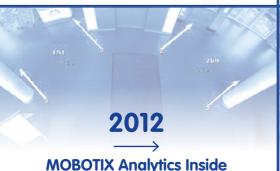
# MxPEG Perfect For Security First Quality Video Codec

MxPEG was developed to achieve the best image quality at every single frame and is still today the only preferred video codec for security applications.



# SIP Compliant And Audio Worldwide Available In All Cameras

Every camera is VoIP compliant based on worldwide SIP standard including video, featuring camera control, two way audio and automatic alarm calls.



# MOBOTIX Analytics Inside Q24 Hemispheric

With 2nd generation of hemispheric products,
MOBOTIX has provided object counting and heatmap
reporting as free update inside the camera.



MxActivitySensor has revolutionized motion detection in video surveillance with highest success rate to avoid false alarms at lowest configuration costs.



World first dual camera with automatic switching between day and night sensor without any moving mechanical parts.



### MOBOTIX Ring Buffer Concept First Feature To Bridge Network Failures

World first recording management to synchronize internal (RAM, SD Card) and external (NAS) ring buffer by the camera.



### World First Hemispheric IP Camera Q22

Introducing hemispheric technology has revolutionized IP video with real 180° panorama and the best corrected image quality in the market.



### First IP Video Door Station Hemispheric T24 Camera Module

With the first IP Video Door Station, MOBOTIX has started to combine video surveillance with IP based entrance control.



MOBOTIX introduced the most innovative dual camera system, embracing thermal, video and MxActivity Sensor in one device to capture events in absolute darkness.



### MOBOTIX 6MP Moonlight Technology Best Light Sensitivity In The Industry

New groundbreaking technology perfect for color images without any motion blurring in dark room or outdoor moonlight scenarios.

# **MOBOTIX Technology**



### Decentralized Video – Stand Alone, Intelligence Inside

MOBOTIX is the pioneer of decentralized IP video systems, creating the first IP cameras that do not require any central PC (DVR). This decentralized in-camera intelligence allows users to build cost-effective systems that can be easily used for automatic video recording. The customer has the choice between onboard devices (SD card) or standard IT storage – No extra PC or software, no DVRs or VMS is required (see page 68).

### Software 100% Included

Every MOBOTIX camera comes with all the software necessary to create a high-quality surveillance system. Advanced functions are built into the camera, such as video management, image analysis, and VoIP calling. Professional Video Management System (VMS) is included for Windows, Mac and Linux\* without limits and costs (see pages 42-47).







### Moonlight Technology – A New Benchmark

All new MOBOTIX cameras are equipped with the brand-new 6MP Moonlight Technology, which gives an outstanding increase of light sensitivity of up to 300-times versus former models. The new 6MP technology is a major improvement of the whole image processing inside the camera, from the lens and sensor to the final image. This allows fast-moving objects to be captured in low light conditions like moonlight (see page 71).

### Innovative Motion Detection Without False Alarms

MOBOTIX cameras include sophisticated sensor technologies to define precise events with the right notification activities. MxActivitySensor is able to detect motion during the most extreme conditions, without false alarms and complicated configuration, but with the highest reliability. MxActivitySensor reduces false alarms of up to 90 % and will save installation and operational costs dramatically (see page 50).





### Lowest Energy Bill – Green IP Video

All MOBOTIX cameras are supplied via standard PoE (IEEE 802.3af) and do not require more than 4 to 5 watts. This low power consumption is achieved because of the MOBOTIX low power design and assures one of the lowest energy bills in the market. Further energy savings are realized with lowlight (Moonlight) and thermal technologies, enabling our cameras to capture high-quality video without extra liahtina equipment.

### Ring Buffer Concept And Failover Storage

MOBOTIX invented in 2000 the ring-buffer concept to support long term onboard (SD card) or NAS recording to bridge network failures or bandwidth fluctuations. With MxFFS (MOBOTIX Flash File System), MOBOTIX cameras are able to bridge recordings and to use the built-in SD card as failurer buffer in the case of connection loss to the external NAS. In addition, all cameras can use an external NAS as automatic backup to realize a safe, robust and efficient video recording system.





#### Maintenance Free

Every MOBOTIX camera is a solid investment, built to withstand extreme weather conditions and temperatures for a very long time without moving parts. No additional housings or climate control systems are needed for outdoor installation. The fiber-glass reinforced outer housing protects the camera and is immune to corrosion and direct sunlight.

### Privacy And Data Security

Every MOBOTIX system includes sophisticated password security with supervisory protection for users and cameras. Lavered with our fully encrypted two-wire MxBus connectivity system and power backup, MOBOTIX offers unrivalled system privacy and data security. Recordings are encrypted to guarantee the security of the data.



# **Product Selection Guide**

	Outdoor					
	Dual Lens			Single	e Lens	
<b>M15</b> (p. 10)	<b>S15</b> (p. 14)	<b>D15</b> (p. 16)	<b>M25</b> (p. 30)	<b>S15M</b> (p. 32)	<b>Q25</b> (p. 26)	<b>D25</b> (p. 28)
		*••		0		
Wall Mount Ceiling Mount	SurroundMount	Wall-/Pole Mount Set	Wall Mount Ceiling Mount	AudioMount	On-Wall	On-Wall
Pole Mount	HaloMount	Wall Mount	Pole Mount		Wall-/Pole Mount Set	Wall-/Pole Mount Set
	DualMount				Wall Mount	Wall Mount
	PTMount				Pole Mount	Pole Mount
	SpeakerMount				In-Ceiling	In-Ceiling
	BlockFlexMount				Demo Stand/ Wall Mount	Demo Stand/ Wall Mount
	Vandalism Camera	Vandalism Kit			Vandalism Kit	Vandalism Kit

Indoor Thermal Buildi			Indoor Therr		Building A	utomation
Wall	Ceiling	PT Ceiling	Dual Lens		Camera	Remote Station
<b>i25</b> (p. 22)	<b>c25</b> (p. 20)	<b>p25</b> (p. 24)	<b>M15</b> (p. 12)	<b>S15</b> (p. 14)	<b>T25</b> (p. 34)	MxDisplay+ (p. 40)
	•				•	
On-Wall Set	On-Wall Set	On-Wall Set	Wall Mount Ceiling Mount	PTMount Thermal	FlatMountFrame	FlatMountFrame
In-Wall Set	Corner Mount		Pole Mount		In-Wall/On-Wall Single Frame	
					In-Wall/On-Wall Double Frame	
					In-Wall/On-Wall Triple Frame	
					In-Wall/On-Wall Quad Frame	

### M15 AllroundDual Camera



LEFT sensor RIGHT sensor

### Robust. Most Advanced Design.

The M15 features two light-sensitive image sensors and two lenses that allow the camera to generate sharp color videos and high-contrast B&W videos, even in dark situations. The electronic switching between the day and night system is automatic, with no moving parts and is based on light conditions to ensure reliable operation at any temperature and in any weather.

€1,248

#### **Intelligent Dual-Lens Surveillance**

Along with an integrated microphone, speaker and sensor to record the ambient temperature, the weatherproof housing (IP66) features automatic recording onto SD cards and secure video motion analysis (MxActivitySensor) with alarm messaging.

www.mobotix.com





### Fast, Cost-Effective Installation

The M15 ships as a complete kit, including combined wall & ceiling mounts and other mounting accessories. As with all MOBOTIX cameras, no additional software, housings or cooling/heating fans are required.



### Robust Design

By design, the M15 is the most robust of the entire MOBOTIX range of products. With an IP66 weatherproof rating, it can withstand extreme temperatures and the harshest of conditions.



### Fully Integrated Future-proof System

The all-in-one sensor modules can be swapped out within minutes, thanks to our new modular hardware platform. The integrated locking system ensures the sensor modules remain fixed in place.

Technical Data				
Lens Options	B016 to B500 (L10 to L270)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec	
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)	
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps, 2x 6MP: 4 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video)	
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording	
Operating Conditions	IP66, IK07, -30 to +60 °C	Internal Sensors	Temperature, PIR, microphone illumination, shock detector	
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App	

### M15 - Reliable Even Under Extreme Conditions

The M15 camera is certified according to IP66 and has been successfully tested in a temperature range of -30 to +60 °C/-22 to +140 °F. In line with the proven MOBOTIX product strategy, the M15 model does not require additional cooling, heating or a special housing, and needs only five watts to be fully operational.

### **M15-Thermal Camera**



M15 with optional optical sensor module.

# Thermal. Dual-Lens Camera. Detect And Identify.

Based on the revolutionary M15 hardware platform, the M15-Thermal is equipped with a pre-installed thermal image sensor that detects vehicles and people in total darkness with extremely high accuracy. A second optical sensor module can be fitted to provide positive object identification for complete lowlight security.

from €3,998

#### M15-Thermal – Weatherproof Thermographic PoE Dual Camera

The modular design of the M15 platform provides the ultimate in flexibility. The M15-Thermal is factory-fitted with a thermal image sensor for accurate movement detection over long distances in all lighting conditions. An additional (optional) image sensor is used to identify people and objects.

www.mobotix.com





### Thermal: Detect Movement Around The Clock

High thermal resolution allows moving object detection up to 400 m/437 yards in total darkness and in all conditions such as smoke, dust, fog. No lighting required.

### Optical: Identify Objects

The M15-Thermal dual-lens design allows for a secondary optical lens to be fitted for clear identification of facial features, clothing, license plate numbers, vehicle color etc.

### Privacy Zone – Identification And Recognition On Event

Combined with MxActivitySensor, the camera automatically switches from thermal sensor to optical sensor, when an object moves into the pre-defined privacy zone. This ensures the identification and recognition of moving objects only when MxActivitySensor triggers an alarm.





Thermal

	Technical Data			
Lens Options	Thermal: L43, L65, L135 (factory-fitted, not interchangeable) Optical: B016 to B500 (L10 to L270)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec Thermal Sensor: 0 lux	
Optical Image Sensor	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Optical Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)	
Thermal Image Sensor	Uncooled microbolometer temp. measuring range from -40 to +550 °C/-40 to +1,022 °F.	Thermal Sensor Resolution	Thermal: 336x252 NETD typically 50 mK (1/20 °C) MTBF > 80,000 hours	
Max. Frame Rate (MxPEG)	Thermal only: max. 9 fps Thermal and optical: 9 fps Optical only: 30 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)	
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording	
Operating Conditions	IP66, IK06, -30 to +60 °C	Internal Sensors	Temperature, PIR, microphone illumination, shock detector	
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App	

### **Movement Detection In All Conditions**

The M15 and S15 thermal sensors detect objects in complete darkness and/or through fog and smoke. Primarily designed for accurate movement detection over large areas such as border protection and coastal monitoring. The M15-Thermal camera has a super low power consumption – max. 5.5 W.





Indoors and outdoors

### Flexible. Virtually Invisible Dual-Lens Camera.

With its unique fusion of dual sensor technology and flexmount design, the S15 covers two areas at once and is virtually invisible. The S15 has been perfectly created for customized solutions or installations where standard cameras simply won't fit.

from €898

### Weatherproof Thermal Sensor Modules (L43, L65 and L135)



The S15 can also be operated with one or two thermal sensor modules. Objects can be detected in total darkness, smog or smoke thanks to thermal technology. The thermal sensor modules feature low power consumption of only 1.5 W each (NETD: typically 50 mK; MTBF: >80,000 hours; temperature measuring range: -40 to +550°C/-40 to +1,022°F).

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### Flexible Installation

The S15 core unit miniature size fits into tight spaces (ATMs, machinery, vehicles). The flexible 3 m/9.8 ft video cables make it a easy to create customized installations (see page 60).



### Double Hemispheric = 360° Full Spherical Capture

This cost-effective solution can simultaneously capture and record two super-wide 360° fields of view, providing the same coverage as eight standard CCTV cameras.





Virtually Invisible

With a diameter of only 50 mm/1.96 inch and available in both white and black, the S15 sensor modules blend in with any environment. Ideal for applications where standard-sized cameras are unsuitable.



### Secure Two Areas With One Device

The two flexible video cables allow for coverage of two separate areas. Just one S15 can secure two separate rooms, an indoor and outdoor area and around corners

	Technical Data				
Lens Options	Optical: B016 to B500 (L10 to L270) Thermal: L43, L65, L135	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec Thermal Sensor: 0 lux		
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)		
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps, 2x 6MP: 4 fps, Thermal: 9 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)		
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	2-way VoIP available with accessories such as the SpeakerMount		
Operating Conditions	IP65, IK06, -30 to +60 °C	Internal Sensors	Temperature, microphone, illumination, shock detector		
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App		

### **Manual PT-Mount With Integrated Thermal Sensor**

MOBOTIX offers the weatherproof PTMount-Thermal (IP65), an attractive, compact, discreet and dome-shaped mount that is adjustable in three directions and contains a pre-installed MOBOTIX L43, L65 or L135 thermal sensor module. For additional information on the PTMount-Thermal see page 63.



# **D15 DualDome Camera**



Adjustable lens modules can capture two different areas simultaneously.

### Versatile. Twice As Vigilant.

The D15 is a dual-lens dome camera with two lens modules providing a wide range of fully adjustable viewing options. The D15 180° model delivers a superwide panorama view in super-high resolution.

€1,248

#### D15 - Fixed Dome With Two Lenses

The D15 is able to secure two different areas simultaneously. The key advantage of the D15 is its manually adjustable lens configuration. Once installed, the lenses can be manoeuvred into any position.

www.mobotix.com



Adjustable Lenses

### Versatile Installation

Choose from various lens units, all fully adjustable in any direction within the camera. This flexibility, combined with the dual-lens system, provides practically unlimited viewing options from one camera.



180°

### Panoramic View

The D15 180° model captures a super-wide view, with a combined maximum recording resolution of 12 megapixels. The fixed lenses can be manually adjusted up/down, swivelled left/right for viewing adjustment.



### Day & Night Capture

The D15-DNight-Fix includes a locked-lens system with parallel alignment of two lens units for perfect same-view day and night video capture.





Dual-lens system captures two different views simultaneously and requires only a single PoE cable connection.

	Technical Data				
Lens Options	B036 to B237 (L20 to L135), 180° version (panorama), DNight-FIX version with parallel Day/ Night lenses	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec		
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)		
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps, 2x 6MP: 4 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)		
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording		
Operating Conditions	IP65/54 (with/without wall mount), IK10, IP66/IK10+ (with Vandalism Kit), -30 to +60 °C	Internal Sensors	Temperature, PIR, microphone illumination, shock detector		
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App		

### **D15 - Individual Lens Selection**

The standard models of the D15 stand out in particular as they allow to combine image sensors and lenses as required. In fact, we provide a choice of 18 different variations of lenses and image sensor combinations. To see the range of D15 lens options, go to page 65.



LEFT sensor RIGHT sensor

### **High-Security Dual-Lens Camera.**

Constructed from 5 mm/0.2 in. stainless steel, the V15 is a bullet-resistant corner-mounted IP dual-lens camera designed for monitoring potentially volatile conditions. Made for high-security locations such as military sites, prisons and embassies or extreme environmental conditions.

from €2,498

#### V15 - Bullet-Resistant For High-Risk Installations

The V15 is the most sturdy MOBOTIX camera to-date. Specifically designed for high-risk areas, it offers unmatched protection against attacks. Nonetheless, it's still a camera with MOBOTIX technology and the full array of possibilities to connect external sensors and actuators.

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### With S15 Technology

Hidden inside the V15 is an S15 core unit and two sensor modules, so of course it includes the range of features and lens options available within the S15 (except Hemispheric). Includes 2-way audio thanks to integrated microphone and speaker.



### **Armor-Plating**

The outer housing is designed for corner-mounting and is constructed from 5 mm/0.2 in. stainless steel plating that will deflect bullets fired from a handgun.



### Versatile Installation

The V15 comes in two models. One has a parallel alignment of two sensor modules for perfect same-view day and night video capture. The other model includes one lens facing forward, the second lens facing down to avoid blind spots.

	Technical Data				
Lens Options	Sensor modules B036 to B237 (L20 to L135)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec		
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)		
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps, 2x 6MP: 4 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)		
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording		
Operating Conditions	IP65, bullet-proof, IK10++, -30 to +60 °C	Internal Sensors	Temperature, microphone illumination, shock detector		
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App		
<b>Lens Protection</b>	3 mm special glas	Housing	5 mm stainless steel		

#### V15 - Modularity Guarantees High ROI

Based on the modular S15 platform, the V15 allows using almost the same range of sensor modules (except for the Hemispheric modules). To see the range of V15 sensor module options, go to page 62.

# **c25** Hemispheric Camera





The ceiling-mounted c25 delivers two 180° panorama images of a room.

### Indoor Ceiling Camera. Easy To Install.

With a diameter of only 12 centimeters and a weight of approximately 200 grams, the c25 is the smallest and lightest hemispheric MOBOTIX video complete system for fast ceiling mounting in protected indoor areas. Features include a light-sensitive 6MP day or night sensor and MxAnalytics. Features all functions like the traditional Q25 outdoor camera.

20 from €398



### **Two Models Available**

The c25 is available mainly as a hemispheric camera (B016, 180° panorama) to capture an entire room but with a long lens holder it supports a B036 lens (103° ultrawideangle), for example to monitor the area around a cash register.





### Original MOBOTIX Hemispheric Technology

Unlike the devices of other manufacturers, hemispheric distortion correction in a MOBOTIX system takes place in the camera and not later on the computer using separate video management software. This drastically reduces the image data and bandwidth that needs to be transferred and saved.



### MxAnalytics With Behavioral Detection

Especially interesting for indoor applications like retail, exhibition area, public premises, the c25 provides object counting and automatic Heatmap reporting inside the camera. As a new extension, people behavior can be defined as event trigger, for example duration of stay, moving in the opposite direction, different turns and exceeding speed limits. MxAnalytics does not require any additional infrastructure or extra costs.



### Simple Installation In Suspended Ceilings

The c25 can be easily installed using a standard drill bit (105 mm/4 inch in diameter) in suspended ceilings. The c25, which is connected to an Ethernet cable, is simply slotted in from below using raised spring clips and automatically secured in place.

	Technical Data			
Lens Options	B016, B036 (L10, L20)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec	
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)	
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)	
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio (optional)	VoIP, sound recording using audio package	
Operating Conditions	IP20, 0 to +40 °C	Internal Sensors	Temperature, illumination, shock detector	
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App	

### **New MOBOTIX Indoor Camera Line**

MOBOTIX offers the c25, i25 and p25, highly compact, discreet IP cameras for use indoors that deliver a wide range of features (for example, MxAnalytics video analysis tools). Matching accessories such as radar and surge protection modules are already in the works.

# i25 Hemispheric Camera







Wall-mounted i25 captures 180° field of view – no blind spots.

### Perfect Wall Mount. Compact and Discrete.

The i25 is a 6MP hemispheric camera and is perfectly suited to be wall mounted with a tilt angle of 15 degree to achieve the best panoramic overview of a room without any blind spots. One i25 captures an entire room, easily replacing four standard CCTV cameras. The newly-designed wall mount form factor fits into every environment.

22 from €398

#### i25 - The Perfect Overview

The MOBOTIX i25 is an indoor-only wall-mountable Hemispheric camera providing an allround view with just one lens. Only one camera is needed to view an entire room. The i25 can be mounted onto any indoor surface blending seamlessly into the surroundings.







Lens tilted down 15 deg.

### Perfect Fit

The i25 can be wall mounted onto any surface. The small form factor matches perfectly with any environment. For fast installations, simply use the optional cavity installation set. A surface mount kit for concrete walls, for example, is available as well.



### Captures An Entire Room

The wall-mountable i25 captures an entire room with stunning wall-towall view, without any blind spots. Virtual PTZ on the live and recorded images is performed by the camera.



### HD Audio Package (optional)

All 6MP indoor models are available upon request with an integrated HD audio package (microphone and speaker in the camera housing). In addition to video recording with sound, the audio functionality can also be used for making announcements in sales or exhibition rooms, or for automatically playing an alarm signal when the camera-integrated sensor is triggered to scare off undesired visitors.

	Technical Data				
Lens Options	B016, B036 (L10, L20)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec		
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)		
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)		
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio (optional)	VoIP, sound recording using audio package		
Operating Conditions	IP30, 0 to +40 °C	Internal Sensors	Temperature, illumination, shock detector		
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App		

### **Accessory Options**

The detachable MxBus-IO-Module is an extension of the system accessories for the indoor camera line. Connected to a MOBOTIX indoor camera, the module with 2 self-powered inputs and 2 outputs allows to access MxBus and the connection of external sensors or the switching of relais.



# p25 Hemispheric Camera





Ceiling-mounted p25 delivers 180° panorama corrected color image – best light sensitivity at approx. 1.5 lux.

### The Perfect Ceiling Camera.

The new p25 6MP model is equipped with the brand-new 6MP Moonlight sensor technology, providing best low-light performance to cope with every indoor situation. The p25 is positioned extremely price competitive and represents with all included MOBOTIX features and the MOBOTIX video management system MxMC, one of the most attractive security solutions in the market.

from €398

### **Audio Option And On-Wall Kit**

For all indoor models (i25, c25, p25), there will be a surface mount kit to cope with concrete ceilings, as well as an optional audio package incl. microphone and speaker, to enable two-way audio communication.



### **Highest Flexibility**

The new p25 is a ceiling camera with a manual pan/tilt functionality providing full installation flexibility. Equipped with a telephoto lens, the p25 can be directed to a specific spot in the room. With a 90 degree lens and mounted in the corner, the p25 covers the entire space in 6MP resolution. A hemispheric version and on-wall kit is available, too. Beside the pre-built models, nearly all lens options can be self-assembled with a p25 day or night body.



### **MxAnalytics**

The p25 provides people counting and analysis of people behavior, without any extra costs, which is perfect for indoor locations like retail stores, museums, etc. Without any extra PC or license fees, the p25 represents highest flexibility and cost savings for end users.



### **Competitive Without Compromise**

Beside MxAnalytics, all other MOBOTIX features are included, such as MxActivitySensor – which avoids 95 % of false alarms – on board and/or NAS recording, notification via email, FTP and IP request, and much more.

Technical Data			
Lens Options	B016, B036, B041, B061, B079, B119, B237	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio (optional)	VoIP, sound recording using audio package
Operating Conditions	IP20, 0 to +40 °C	Internal Sensors	Temperature, illumination, shock detector
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App



60° (B061)





25

45° (B079)

15° (B237)

# **Q25 Hemispheric Camera**





Wall-mounted Q25 captures 180° field of view - no blind spots.

### **Elegant. Allround Secure.**

Setting a new benchmark in design, this all-in-one Hemispheric camera offers a super-wide 360° allround view, in high resolution. Easily replacing four standard CCTV cameras, just one Q25 captures an entire room. The Q25 is highly discreet and fits in everywhere – both indoors and outdoors.

26 €798

#### Q25 - The Perfect Overview

The Q25 provides a Hemispheric 360° allround view with just one lens. Only one camera is needed to view an entire room. Using the in-ceiling mount option, the Q25 can be flush-mounted into a ceiling so that it blends elegantly into the surroundings.





### Fits In Everywhere

The Q25 can be flush-mounted into a wall or ceiling, and looks more like a mounted speaker than a security camera. The low-profile form factor fits in with every environment (pictured with in-ceiling mount set).



### Image Correction Built-in

All of the image correction in the MOBOTIX Hemispheric cameras is handled by the camera's on-board imaging analysis software. No additional PC or software required.



### Day Or Night Capture

Available in both Day (color) and Night (B&W) models, which cater to the most challenging lighting conditions and a wide range of applications.

Technical Data			
Lens Options	B016, B041 (L10, L22)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording
Operating Conditions	IP65, IK07, IP66/IK10 (with Vandalism Kit), -30 to +50 °C	Internal Sensors	Temperature, microphone, illumination, shock detector.
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App

### **MOBOTIX Panorama Image Technology**

Unlike competitors, hemispheric distortion correction takes place in the MOBOTIX camera and not later on the computer. This drastically reduces the image data before it is transferred and saved. This "decentralized" MOBOTIX solution lowers the volume of network traffic and allows dozens of hemispheric cameras to be displayed on a computer or smartphone.



### Traditional Design. Innovative Technology.

Bringing unprecedented technology and video performance to a traditional dome camera form factor. The MOBOTIX D25 offers the same advanced engineering and innovative technology of all the MOBOTIX cameras.

€798

#### D25 - Compact, Cost-Efficient And With High Resolution

This weatherproof dome camera is the right choice for sites requiring a traditional dome form factor. The in-ceiling mount provides a low profile for discreet surveillance.

www.mobotix.com



### Traditional Yet Innovative

Beneath the traditional dome interior is a powerful VMS-enabled hardware platform with decentralized recording management and a 6MP image sensor for high-quality video capture.



### In-Ceiling Mount

The in-ceiling mount kit allows the D25 to be mounted into a ceiling tile for a low-profile dome installation that blends into the surrounding environment.



#### Vandalism Set

Protect your camera investment with this tough vandalism set comprised of a high-tensile stainless steel outer ring and a 3 mm/0.1 in. polycarbonate dome. All vandalism sets have an IK10 impact rating.



### Intercom Expansion

By combining the D25 with an ExtlO (see page 58), you can create a powerful 2-way intercom system that integrates seamlessly with your PC. Mac or iOS devices.

Technical Data			
Lens Options	B036 to B237 (L20 to L135)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio (ExtIO required)	Integrated microphone & speaker, VoIP, intercom, sound recording via ExtIO
Operating Conditions	IP65/66 and IK09/10 (without/with vandalism kit), -30 to +50 °C	Internal Sensors	Temperature, illumination, shock detector
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App

### D25 - Well Designed

All D25 models come with a robust 1.5 mm/0.06 in. polycarbonate dome. An extensive range of mounting accessories is also available for expanding device functionality, so that the camera can be installed anywhere.

# **M25 Allround Camera**



Camera image of Mount Everest, recorded by the highest webcam in the world (5675 m altitude).

### **Tough. For Any Environment.**

Designed and engineered to withstand the most demanding of conditions, featuring high tolerance and an IP66 rating. The M25 features the 6MP technology and is highly adaptive as to where it can be deployed, thanks to the wide choice of available lenses.

30 €798

#### M25 - The Robust Allrounder

The cost-effective and professional single-lens camera solution with exchangeable lenses for indoor and outdoor use. The lenses can be freely selected: from Hemispheric through Super Wide Angle to Telephoto lens, CSVario adjustable lens and Long Pass Filter for license plate capture.





### Fast, Cost-Effective Installation

The M25 ships as a complete kit, including wall & ceiling mounts and other mounting accessories. As with all MOBOTIX cameras, no additional software, housings or cooling/heating fans required.



### Tough Design

The M25 is built tough, with an IP66 weatherproof rating, it can withstand extreme temperatures and the harshest of conditions. The fibreglass re-inforced outer housing is designed for long life.



### 2-Way Audio

Like the other MOBOTIX cameras, the M25 has built-in VoIP functionality for 2-way lip synchronous audio/video via IP phones and mobile devices.



### Powerful 270 mm Telephoto Capture

It is possible to identify license plates and people even at distances of more than 70 meters/230 ft. thanks to the B500 (L270) lens that can be used with the M25 and the high-resolution 6MP sensor.

Technical Data			
Lens Options	B016, B036 to B500 (L10 to L270), B045-100-CS (CSVario 24 to 54 mm)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording
Operating Conditions	IP66, IK08, -30 to +50 °C	Internal Sensors	Temperature, microphone, illumination, shock detector
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App

#### **MOBOTIX CSVario Lens For Flexible Installations**

The M25 is available with a compact 1/2" CS vario lens (manually adjustable image angle) either in a color (day) or a black & white (night) version.



# **S15M FlexMount Camera**





The S15M is a single-lens Hemispheric video device that mounts discreetly behind surface panels.

### Sees Everything. Is Hard To See.

Never before has so much power and functionality been incorporated into such a tiny form factor. The camera features 6MP Hemispheric video technology for discreet integration into housings and devices, behind walls or ceiling panels.

€798

### S15M – One Camera Replaces Four

Like the Q25, the S15M is a Hemispheric camera that can display four different viewing angles on the monitor, from a single lens. Each of the four views has a virtual PTZ function and can be adjusted separately.



### Hemispheric Video

Capturing a super-wide 180° field of view, the S15M captures everything wall-to-wall. The Hemispheric image correction is handled by the camera, no additional software required.



#### **Door Station**

The optional AudioMount turns the S15M into an IP Video Door Station. The built-in speaker and microphone integrates with the S15 VoIP functionality, allowing 2-way communication.



### Discreet

The compact design allows for installation into small spaces and cavities. When flush-mounted behind a wall or ceiling panel, only the camera's lens is visible.

	Technical Data			
Lens Options	B016 (L10)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec	
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)	
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)	
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	2-way VoIP available with AudioMount or external microphone & SpeakerMount	
Operating Conditions	IP65, IK06, -30 to +60 °C	Internal Sensors	Temperature, illumination, shock detector	
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App	

#### S15M - Low Light, No Problem

The maximum resolution of the color and B&W sensors is 6 megapixels. Thanks to the new color sensors that feature higher light sensitivity, it is now often possible to use MOBOTIX day cameras with color image sensors around the clock, even under low light conditions.

# **Hemispheric IP Video Door Station**



IP Video Door Station in triple frame with BellRFID and Info Module

### The World's Most Advanced Door Station.

This modular IP Video Door Station, a one-of-its-kind, offers a combination of 6MP Hemispheric technology and integrated VoIP/SIP to provide full access control and a two-way video communication option – at home or via a mobile app while on the go.

from €1,298

### Advanced IP Video Intercom Technology

Most video door stations are designed around analog TV technology. Such systems can only deliver very low image quality with limited 2-way communication. The new IP Video Door Station from MOBOTIX is based on the most up-to-date technology, incoporating megapixel Hemispheric video, RFID keyless access, digital voice messaging with seamless smart phone and PC access.

www.mobotix.com





### Hemispheric Video

Capturing a super-wide 180° field of view, the T25 camera module captures everything wall-to-wall for secure viewing and recording. The Hemispheric image correction is handled by the camera, no external PC required. The in-camera image correction saves bandwidth by up to 70%.



### Instant 2-Way Communication – From Anywhere!

SIP/VoIP built-in for instant 2-way intercom communication. If the bell button is pressed, the camera records and a phone call or message can be sent directly to your PC, mobile or phone. A conversation can be initiated with the visitor, from wherever you are in the world.



### Secure Access With RFID And Messaging

With the door station modules, keyless RFID and PIN access can be added to ensure secure door entry at all times. Visitors can leave voicemails and message retrieval is done instantly locally or remotely.

Technical Data			
Lens Options	B016 (L10)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	Integrated microphone & speaker, VoIP, intercom, sound recording
Operating Conditions	IP65, IK09, -30 to +50 °C	Internal Sensors	Temperature, microphone, illumination, shock detector.
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	<b>Software</b> (free of charge)	MxManagementCenter, MOBOTIX App

### Hemispheric IP Video Door Station – Simple And Cost-Effective Installation

The MOBOTIX IP Video Door Station can be connected and supplied with power via a standard network cable (PoE), or - thanks to the Mx2wire+ technology - via standard wiring such as bell wire, antenna cabling or coax.

### **Door Station Modules**



### **T25 Camera Module**

With a super-wide 180° field of view, the T25 camera module captures everything wall-to-wall. Includes programmable buttons for activating lights and a bell. Hemispheric image correction is handled by the camera, no additional software required. Built-in VoIP/SIP for instant 2-way communication via PC or mobile device.

Available in two models, MX-T25-D016 and MX-T25-N016

€798



### **BellRFID**

The weatherproof BellRFID module provides keyless entry, voice mailbox control and is available with any one of six available bell button sets. The bell button sets are customizable and can be exchanged at any time. The module allows visitors to record messages, which residences can play back locally or remotely. Includes mailbox feature, 1 admin and 5 user RFID cards.



Available with six different button sets, MX-Bell1-Button-F1/F2/F3/F4/05/XL1

€298



### KeypadRFID

The weatherproof KeypadRFID module provides keyless entry and voice mailbox control. The modules allow visitors to record messages, which residences can play back locally or remotely. Includes 1 admin and 5 user RFID cards.

MX-Keypad1-EXT-PW

€298

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### **Modular System**

MOBOTIX offers a varied selection of modules, which can be upgraded and interchanged within the door station at any time. All door station modules are fully weatherproof (IP65, except MX-DoorMaster). Choose from a range of 5 colors, see product color codes on page 37.

Free-of-charge printing for Info Module and BellRFID module: www.mobotix.com > Support > Printing Service



## Info Module

This weatherproof backlit display for showing an address or logo can be ordered with or without Mx2wire+ technology. When optioned with Mx2wire+, Ethernet cabling is not required, as the Mx2wire+ technology converts existing 2-wire telephone or electrical cable into a 10/100 PoE network.

Available in two models, MX-2wirePlus-Info1-EXT And MX-Info1-EXT.

€98



# **Frames And Housings**

All of the door station modules require a frame and housing for the purpose of wall mounting. Frames are available for in-wall and on-wall mounting. Includes unique anti-theft system for device security.













Different frames available for on-wall and in-wall mounting

from €58



## **MX-DoorMaster**

This internal security door opener includes door access battery backup and encrypted security for the door access codes, to prevent unauthorized access. Compatible with standard door openers (6 to 12 V AC, 24 V AC/DC) using an external power supply. Available in white only.

> In-wall: MX-Door2-INT-PW On-wall: MX-Door2-INT-ON-PW

> > €248

### The T25 And Door Station Modules Are Available In 5 Colors

Silver (s)











# **Easy Installation**



Existing two-wire cable

38

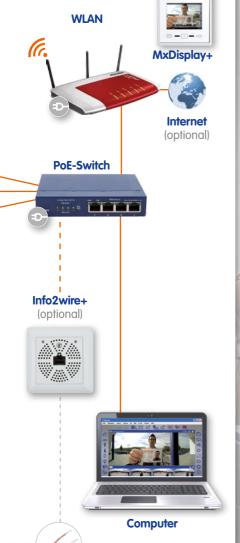
www.mobotix.com

### Complete Panorama View. No Blind Spots.

The T25 core module is equipped with a Hemispheric lens and a 6MP image sensor allowing monitoring of an entire entrance area, capturing a complete 180° Panorama view from wall to wall and floor to ceiling.









### Fast, Cost-Effective Installation

Existing doorbells and intercoms can be replaced with a MOBOTIX Door Station, because it's an end-to-end solution that can be installed anywhere, even if there is no existing network infrastructure, using Mx2wire+. Any number of additional video and access devices can be integrated to create a door access control solution that can be controlled from any location.

### Hemispheric IP Video Door Station - Simple Setup

Two-wire cable

The outdoor station requires just one cable for data and power to be connected to a PoE switch and thereby to any expandable Ethernet network. The T25 core module is also fitted with an internal MicroSD storage for convenient on-board storage, or alternatively can record to networked storage (NAS or PC).



# Building Automation Server With Touchscreen Display For Viewing & Device Management.

MxDisplay+ is a wall-mountable Building Automation Server with touch-screen display, incorporating WiFi and RFID functionality. From this central glass terminal, you can add and configure all MOBOTIX devices. Multiple MxDisplay+ can be wirelessly connected, each being powered via PoE.

40 €698

#### **Smart Phone On The Wall**

MxDisplay+ is often referred to as a "smart phone on the wall" because it can be operated using swipe and zoom gesture control, just like a smart phone. With a few swipes, the user can see an overview of several cameras, retrieve the latest video messages or create a new access transponder card for a visitor.

### Touchscreen Viewing Station For The IP Video Door Station

MxDisplay+ serves as a wall-mountable remote viewing station for the MOBOTIX IP Video Door Station and cameras. Here are just a few of the many features available within the display:

#### Instant Live View & Access



Control of multiple Door Stations and cameras via a single MxDisplay+.

### Playback Messages & Alarm Events



Finger-swipe scolling through recorded video clips.

#### **Quick Event Overview**



MxDisplay+ tells at one glance what and how many events were recorded.

### **Access & Device Configuration**



Central management of cameras and access control systems.

### **Additional MxDisplay+ Features**

- Full control of your lighting, heating, blinds, camera and alarm system
- Doors can be unlocked with the press of a button
- Excellent voice transmission quality thanks to HD wideband audio codec (G.722)



Single and multi-site management, allowing video wall setup for large-scale control room monitoring.

# The New Milestone Of Video Management.

MxManagementCenter (MxMC) the new video management software is a complete new development from scratch that focuses on a unique and intuitive user experience. MxMC is perfectly designed in combination with MOBOTIX cameras representing the decentralized concept at its best. Following the MOBOTIX software concept, MxMC is 100% included in the MOBOTIX product offering, requiring no extra software, license or update costs and at the same time having no limits in terms of users, screens and cameras.

42 100% included

#### **Different Platforms And Standards**

MOBOTIX is offering one of the most competitive and user friendly VMS solutions, running on PC, Mac and Linux\*. MxMC is also open to interact with H.264/ONVIF compatible cameras in the future.

\* based on project requests only.

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### Intuitive Layout View – Cameras And Groups

MxMC helps users to manage huge amount of cameras by sorting and structuring devices into groups and different layout views. MxMC is structured in 4 major areas:

### 1. Group or camera bar

Perfect preview of all available cameras and groups.

### 2. Layout area supporting grid, graphic and info view

Major display area for grid layout including focus and grid windows, graphic view supporting intuitive layout constructions with symbols and background images as well as an information screen where support, emergency or and additional project information is displayed. All 3 views can be toggled and selected with a single click.

### 3. Intelligent event bar

Chronological preview of all recordings and events. The complete bar can be suppressed or displayed. All previews can be directly selected or filtered and sorted by cameras and type of events. With Drag&Drop every recording can be moved into focus window for live view or player view for deeper analysis. Vice versa, complete groups or selected cameras can be dragged into the event bar for event research.

#### 4. Command bar

Includes all buttons for different views, player and research, history, layout editing, management and control functions.



### **Fastest Learning Curve**

MxMC does not need a huge user manual or other heavy documentation to get started. MxMC is one of the most intuitive video management systems on the market.

# **MxManagementCenter**

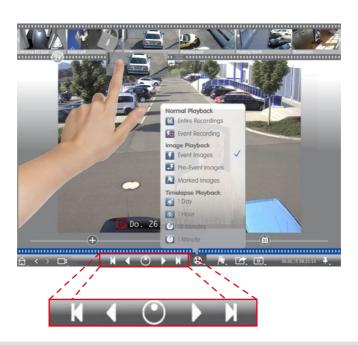
### **MOBOTIX Power Player Technology**

MxMC includes different player and research tools to provide fastest results on events and recordings, comfortable research and in-depth analysis.

**Research Player** allows high-speed rewind and fast forward for "on-the-spot" and "Jog (Dial)" search with speeds of up to 16 times. Efficient time-lapse playback provides extremely fast results even during longer history periods with selectable steps from minutes up to days. Search and analysis can be conducted by time, date or range. Investigations across all cameras can be arranged by reference time with the pin symbol.

Another powerful research tool is the so-called **Grid Player** where all cameras are placed into player mode, showing all recordings synchronized with the search criteria of the camera in the focus window.

Another big innovation is the MOBOTIX **Instant Player**, providing immediate access to the last 25 events in every live view of a camera without changing the layout view.



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### **MOBOTIX Hemispheric Dewarping**

MxMC is able to dewarp hemispheric fisheye views, supporting keyboard, mouse, trackpad and joystick to allow easiest and fastest tracking.



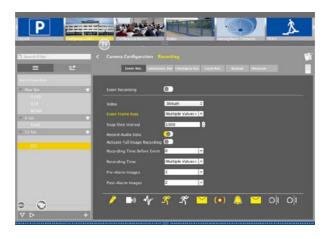
### Adaptive Bandwidth Management

MxMC is perfectly designed in combination with MOBOTIX products, supporting the decentralized concept in all aspects. MxMC is able to handle different predefined scenarios, which can be defined by the user depending on the available bandwidth. This feature is ideal for mobile devices like laptops, which are used in different locations (home with remote, office with direct LAN connection) without any network or bandwidth configuration necessary.

The fully intelligent MOBOTIX cameras are able to manage frame rates and image resolution, depending on the available bandwidth. In this way LoRes images are transferred via a small bandwidth connection, but stored in full resolution and high details on the local storage, managed by the camera. In the case more details are required, the user can define the area of interest down to the maximum resolution provided by the camera. In this way MxMC in combination with MOBOTIX cameras can make the best usage of available bandwidth and enables quality research even via low bandwidth connections.

### Intelligent Configuration Management

MxMC includes a complete user interface to manage all parameters of all MOBOTIX products. No web browser is required in the future. MxMC provides a sorted overview of all devices and parameters and supports visual control and Drag&Drop configuration of cameras and complete groups. Furthermore MxMC supports intelligent parameter sorting and verification of configurations, which will drastically reduce installation and configuration costs.



### **MOBOTIX Hyperlinks**

MxMC is able to interact with 3rd party IP devices and supports the setup of hyperlink buttons to integrate devices like IOs or home servers and MxBus modules via MOBOTIX cameras.

# **MxManagementCenter**

### **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.



### MOBOTIX Multi Slider - Major Selection Tool

MOBOTIX has revolutionized selection and control of parameters. With Multi Sliders, the user is able 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.

Multi Slider is the fastest selection tool to define image settings, zoom views, set aspect ratios or to filter events and cameras. Multi Slider buttons also provide "jump tags" via context menus for direct selection.























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### PTZ Control And MxAuto-Flip

MxMC ensures fast and comfortable support of all hemispheric display modes, provides perfect image alignment with panorama correction and comfortable tracking even through zero point "Nadir" of the camera.

### **Highlights**

- MxMC is 100% included in the MOBOTIX product offering free of charge, with no license fees or update costs and available without any limits for users and cameras.
- The new MxMC represents a unique user concept with a highly intuitive user interface and tools allowing the fastest learning curve without user manual.
- MxMC includes a new generation of player and research technologies for comfortable analysis and fastest investigation results in all views.
- MOBOTIX Multi Slider is the fastest selection tool for all kind of parameters, filter and sort functions.
- MxMC is supporting one of the unique features in the market, which is adaptive bandwidth management supporting quality search even over mobile networks with very limited bandwidth.
- MxMC supports easy setup and arrangement of dual or multi-monitor installations without any extra software costs.
- MxMC includes graphical configuration management of all MOBOTIX camera products and devices. No interaction with web browser is required anymore in the future.
- With the integration of hyperlinks, MxMC is able to interact with 3rd party IP devices and MxBus modules to manage complete alarm systems.
- Sophisticated user management to define detailed access rights to different users.
- Supports access to H264/ONVIF in the future.
- Short latency from scene to screen thanks to MxPEG and high performance video decoding.

www.mobotix.com

## Highest Return Of Investment

The unique concept of MOBOTIX Management Center (MxMC) and cameras provide the highest cost savings for users. No software costs, no license and update fees will generate the highest return of a future-proof investment.



# Stay In Control While You're On The Go.

Turn your Apple iOS device into a mobile surveillance station with this feature-rich App from MOBOTIX. Now you can stay in constant contact with your MOBOTIX cameras from anywhere in the world. The App is compatible with the iPad, iPhone and iPod touch. Download it from the App Store today!

48 100 % included

#### **View Your MOBOTIX System From Anywhere**

The MOBOTIX App provides instant access to your MOBOTIX surveillance systems via WiFi, 3G/4G connections. This free viewing client is compatible with all Apple iOS devices such as the iPhone, iPad and iPod Touch. MxApp works seamlessly with the video management system (VMS) in the MOBOTIX cameras.

### Premium iOS Software

The MOBOTIX App offers advanced features, such as voice mailbox retrieval, camera grouping, event filtering and bandwidth optimization – no central DVR is required. The MOBOTIX App is fully compatible with the entire range of MOBOTIX cameras.

#### Instant Communication



When a bell button is pressed or motion is detected, you are notified with a phone call.

### **Alarm Notification**



If an alarm trigger occurs, the camera will start recording and sends an alarm message.

### **Bandwidth Optimization**



Live video streaming is optimized automatically as you move between WiFi and mobile (3G/4G) networks while recording HighRes locally.

### **Fast Event Searching**



Logical filtering for faster search and playback of recorded events.

### **Other Features**

- Control external devices, such as doors/gates and switching lights on/off.
- All data communication is encrypted using an SSL connection.
- Receive instant notification of incidents, conveniently view and play back recorded events.



MxActivitySensor registers only traveling movement of people and objects in the scene, reducing false alarms.

## **Motion Detection Has Been Re-Invented!**

MxActivitySensor is a revolutionary technology that only registers movements of people and objects, while dismissing all redundant changes in the scene like shaking trees in the wind or moving camera poles. This drastically reduces the number of false alarms of more than 90 %.

50 100 % included

www.mobotix.com

"MxActivitySensor is a completely new technology that is literally five years ahead of existing video motion detection systems. We believe it is a game changer and as with all MOBOTIX software, it is available for free."



### Game-Changing Technology

MxActivitySensor surpasses traditional motion detection for accurately detecting general human and vehicular activity. This revolutionary technology is years ahead of all other video motion detection (VMD) systems.

### **Decentralized Management**

MxActivitySensor is managed by the camera. No central DVR required for the image analysis and alarm handling. This represents huge savings in bandwidth and software/hardware costs. MxActivitySensor is availabile in camera software version 4.1.6 and higher.

### Single-Click Configuration

Enabling MxActivitySensor takes a single mouse click to self-configure and adapt to the scene, so there is no need for a specialist to do the configuration. Left at the default settings, it is more accurate than a complicated video motion detection setup.

## **Directional Alarming**

Specific directions of movement (up/down/left/right) can be setup as relevant events that trigger an alarm for recording, phone call, activate alarm etc. This way, it is possible to capture movements going against the direction of traffic on a one-way street, for example.

## **MxActivitySensor Detects Only What's Important**







In this sequence, captured by a MOBOTIX camera during a storm, only the moving vehicle is registered, while changes in the scene such as trees swaying, water on the lens and lightning flashes, are all ignored. This world-first in-camera technology can reduce false alarms in cameras located outdoor of more than 90%.

### See MxActivitySensor In Action

To see a video demonstration of MxActivitySensor, go to www.mobotix.com > Products > MxActivitySensor. For detailed information relating to configuration and setup, please refer to the MxActivitySensor Compact Guide available at www.mobotix.com > Support > Media Library > Compact Guides.

Heat map: The areas with the most movement are shown in red, and those with little movement in blue.

# **Camera-Integrated Video Analysis.**

MxAnalytics makes it possible to collect statistical behavior data on people and objects. This is done by defining recognition zones and counting corridors. The camera then records how often the object moved through each counting corridor within a specified time period. The most frequented areas are highlighted in color as a heat map. Best results with hemispheric cameras.

52 100 % included

#### **MxAnalytics - Highlights:**

- Live analysis without network load, decentralized in the camera
- No additional devices like computers, servers or black boxes required
- Video analysis software available free of charge with no usage restrictions
- Also available free of charge for previously installed cameras via firmware update (MX-V4.3.2.45 or higher)

www.mobotix.com

### Visualize Highly Frequented Areas (Heat Maps)

Which shelves in the shop attract the most customers? Which paintings by the new artist hold the attention of the visitors most? Which waiting areas in the departure hall are preferred in the afternoon? To answer questions like these, all movements of objects of a particular size are recorded and evaluated, either in the live image or in a previously defined detection area. The frequency of the movements is shown visually by means of different colors in a heat map.

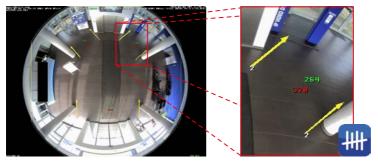
### Count People Or Objects (Counting Corridors)

You can define counting corridors in the camera live image to find out, for example, how many people walk in and out of each entrance of a shop. The camera records how often each counting corridor is crossed within a specified period.

### MxAnalytics Extensions For Behavioral Detection

"Undesired" motion patterns of objects and people can now trigger events, when using a 6MP camera c25, Q25 and S15M in-ceiling installations:

- Corridor: Count objects in a defined corridor
- Duration of stay: Object/person exceeds a defined time staying in the image area
- Opposite direction: Object moves against main direction
- $\bullet$  Turn: Object changes direction between 45° and 135°
- U-Turn: Object suddenly reverses direction
- Speed: Object/person exceeds the defined speed (m/s)



The enlarged image section shows a counting corridor of a reception area, indicated by two yellow arrows with a total of three counting corridors. Since the counting started, 264 objects crossed the corridor (green number) and 370 crossed in the opposite direction (red number).

- Easy configuration and intuitive operation for the user
- Automatic counting corridor and heat map reports
- Counting corridor solution can be configured to only count objects that move in a predefined direction
- Detection of unexpected movement patterns within defined areas

# **Weatherproof Interface Boxes**



MX-Protection-Box

## **Protection-Box**

This network protection box allows you to protect your MOBOTIX camera from damage caused by electrical surges of up to 4,000 volts that are triggered, for example, by voltage fluctuations, high-voltage loads and lightning strikes nearby. Used to establish an Ethernet connection using a MOBOTIX patch cable (RJ45) or via a single-wire terminal connector with an FTH installation cable.

> MX-Overvoltage-Protection-Box-RJ45 MX-Overvoltage-Protection-Box-LSA

> > €48 each



# NPA-Box, PoE-Injector

The Network Power Adapter (NPA) box is used to connect a camera to the network and supply power from external power supplies or batteries from 12 to 57 V DC. Ideal for battery-powered mobile surveillance units.

MX-OPT-NPA1-EXT

€128



## **GPS-Box**

GPS timer for MOBOTIX systems. Includes temperature and illumination sensors for outdoor use and an NTP time server for system synchronization. Tracking functions and alarms can be configured in the camera software based on position, speed, illumination and temperature. The box is connected via MxBus to a MOBOTIX camera.

MX-OPT-GPS1-FXT

€178

Outlook



**Proximity-Box** 

Connected to a MOBOTIX camera via MxBus wires, this interface box enables motion detection with direction and distance detection up to max. 10 m/33 ft. based on radar microwaves. It can be mounted behind walls (e.g. wooden, plastic, dry walls) and is a MOBOTIX alternative to PIR.

MX-OPT-PROX1-EXT

€128



#### **Secure Installation Of Interface Boxes**

All interface boxes are weatherproof (IP65, -30 to +60°C/-22 to +140°F) and feature a highly compact design (width: 8 cm). They can be mounted securely out of reach in the M15 and M25 VarioFlex wall mounts or in the D15 and Q25/D25 wall mounts (see figure).

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**MX-Input-Box** 

# Input-Box

Flexible camera sensor expansion by connecting up to six external sensors per box (for example, window and door contacts, light barriers etc.). The MX-Input-Box is a peripheral device that connects to the camera via MxBus and provides it with six galvanically isolated, self-powered inputs.

MX-OPT-Input1-EXT

€128



MX-Output-Box

# **Output-Box**

Flexible system expansion with connection of up to eight peripheral devices per box (for example, power relay for lighting, garage door drive, blinds, etc.). In addition to the four MxBus terminals, the MX-Output-Box includes a total of eight signal outputs, of which six are self-powered (12 V DC, max. 10 mA per output) and two are potential-free.

MX-OPT-Output1-EXT

€128



## 232-IO-Box

Expansion box for connecting external sensors and for switching external devices via MOBOTIX cameras; RS232 interface, connection to camera via MiniUSB or MxBus. Includes two galvanically isolated, self-powered signal inputs and two 12 V relay outputs. One 232-IO-Box can be connected to the camera's USB port and one to the camera's MxBus port to double the number of signal inputs and outputs.

MX-OPT-RS1-EXT

€148



## **BPA-Box**

NEW

The task of the MX-BPA-Box (Bus Power Adapter) is to assume sole responsibility for providing all power for every MxBus module connected to a camera. With a connected external voltage source of 24 to 48 V DC up to seven MxBus devices can be powered at the same time (output power: 9 W).

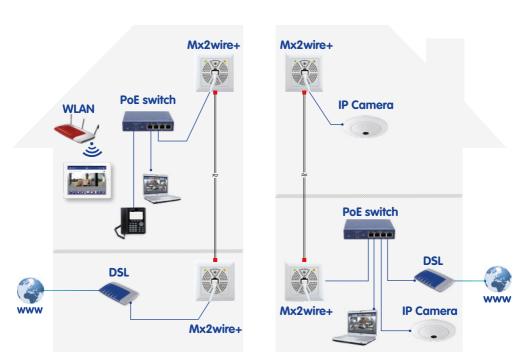
MX-OPT-BPA1-EXT

€98 55

### What Is MxBus?

The interface boxes are connected via MiniUSB or MxBus directly to a camera and are powered by it as well. MxBus is a MOBOTIX-developed, encrypted, two-wire bus system up to 100 m/109 yards in length and is used to flexibly add new functions to a video system.

# **Mx2wire+ Media Converter**



Mx2wire+ converts standard 2-wire cabling into a PoE network connection.

## **Convert Standard 2-Wire Cable Into PoE.**

Mx2wire+ turns existing two-wire cabling into a powered Ethernet (PoE) network – quickly and cost-effectively. This means you don't need to have any Ethernet cabling installed to connect and network your IP cameras and PoE devices. All you need is Mx2wire+. Each Mx2wire+ kit includes two units.

€298

#### Mx2wire+ - Saves On Installation Costs

Mx2wire+ can create a computer network via analog cabling such as an unused telephone line or antenna cable. The Mx2wire+ can be used to connect a computer, IP cameras and even the new IP Video Door Station intercom system. It will also power standard PoE devices.

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### **Cost Savings**

The significant benefit of Mx2wire+ is that, in addition to data connectivity, the power can also be transferred via the two-wire cable, to PoE devices such as MOBOTIX IP cameras, for example. This can literally save you thousands in cabling costs.

### **Extended Connection**

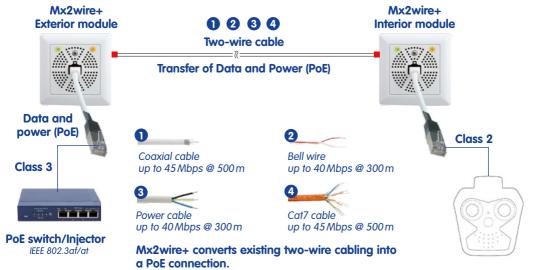
With the right cabling, Mx2wire+ can send video data at a distance of up to 500 meters/547 yds; data rate up to 45 Mbps, depending on cable quality and distance.

### Standards-Compliant

Connected devices are supplied with up to 13 watts via Power over Ethernet, which is compliant to the IEEE 802.3af standard.

### Info2wire+ – Special Product Version For MOBOTIX IP Video Door Station

The optional Info2wire+ module for the IP Video Door Station can be combined with an Mx2wire+ unit. Helps to quickly establish the power supply via an existing phone line and to connect the door station to the network.



### Mx2wire+ - Power Supply On Customer Requirements

Mx2wire+ requires a voltage supply by a standard PoE switch (class 0 or class 4, IEEE 802.3af/at) for its own consumption as well as for supplying power to the connected PoE end device. This can either be the NPA-PoE-Set by MOBOTIX or a DC power supply unit (48 to 57 V, 600 mA).

# **ExtIO Module**



# Intercom Device With Sensors And Inputs.

The ExtIO module extends the functionality of your MOBOTIX camera, providing 2-way intercom communication via its in-built microphone and speaker. It also includes a passive infrared motion sensor, a temperature sensor and additional signal inputs/outputs. The two programmable buttons are ideally suited for activating camera functions and external electronic devices. The ExtIO can be connected to a MOBOTIX camera directly via USB or network switch.

MX-FXTIO

€198

ExtlO Overview			
Interfaces	USB, Ethernet 10/100 Mbps		
Intercom	Microphone and speaker, integrated amplifier		
Inputs	2 x galvanically isolated input contacts		
Outputs	2 potential-free output contacts, safe extra-low voltage (AC/DC, max load 100 mA)		
Sensors	- Passive IR motion sensor (PIR) - Temperature sensor - Illumination sensor - 2 programmable buttons		
Status Display	Two status LEDs		
<b>Protection Class</b>	IP65 (DIN EN 60529)		
Operating Temperature	-30 to +60 °C/-22 to +140 °F		
Power Supply	USB, Power over Ethernet (IEEE 802.3af; Class 2)		
Wattage	typ. 1 W		
Dimensions	diam.xH: 16x4.5 cm		



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### **ExtIO – Intelligent Technology For Combined Systems**

The practical and functional ExtIO module can be easily combined with all MOBOTIX cameras and enables door and gate intercoms to be integrated with your MOBOTIX system.





# **PoE Injector To Power** Your MOBOTIX Device.

- Powers all MOBOTIX cameras and PoF devices.
- Connects directly to standard mains power.
- Camera-to-PC connection without needing a switch.
- Can draw power from batteries (12 to 57 V DC).
- Powers any standard PoE (IEEE 802.3af) devices, such as VoIP phones, IP cameras etc.
- Connects to a PoE device using Ethernet cable.

MX-NPA-PoF-INT-Set

€98

NPA-PoE Set			
	Power Supply and Injector		
Conso	Universal power supply 24 V DC/ 750 mA with exchangeable plug		
4	EU plug		
	For operation in Europe		
1 A	UK plug		
7	For operation in UK		
	US plug		
	For operation in North America		
	AUS plug		
	For operation in Australia		
Accessories			
Co	ble for 12–24 V battery connection		

Cable length 2.0 m/6.56 ft 1x RJ45 (injector) connector 1x connector +/- (voltage source)

PoE Injector Overview			
Connectors	3x RJ45 (LAN/Power, PC/Power, camera)		
Input	12 V to 57 V DC		
Output	DC 48 V; PoE (IEEE 802.3af: PoE classes 1 to 3) 16 V input voltage or higher, PoE classes 1 and 2 (max. 6.49 W) at 12 V to 16 V		
Deactivating	Less than 10 V input voltage		
Operating Conditions	Indoor		
Dimensions	LxWxH: 6x5.5x2.7cm		
Weight	about 40 g		
Special Features	Integrated crossover for direct con- nection to PC; connection to power supply or battery 12 V or higher		

### **Robust, Proven Power Supply For MOBOTIX Devices**

The NPA-PoE Set is specifically designed for powering MOBOTIX devices. Our high-quality PoE injector includes three connection ports for network, camera/PoE device and computer.

# **DualMount**



The DualMount houses two S15 sensor modules, for discreet day and night video capture. The sensor modules are angled downwards to avoid covering irrelevant areas such as ceilings or the sky. Designed for indoor and outdoor ceiling mounting. Compatible with all S15 sensor modules, allows for dual hemispheric capture.

MX-FLEX-OPT-DM-PW For all optical S15 sensor modules

€38

## **SurroundMount**



Designed for monitoring long, narrow areas (corridor, bus, train, etc.). By perfectly aligning two sensor modules at a 25° angle in opposite direction, two Hemispheric sensor modules can even cover an entire corridor – no blind spots.

MX-FLEX-OPT-SM-PW For all optical S15 sensor modules B016 (L10), B041 (L22), B079 (L43)

€38





S15 SurroundMount installed in a bus.





S15 with SurroundMount

### **Hemispheric Video Improves Transportation Security**

The Stadtwerke Kaiserslautern (SWK) public utility company makes bus transportation more secure with mobile IP video systems from MOBOTIX. A MOBOTIX FlexMount camera connected to a monitor shows the driver what is happening in the bus.

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## **PTMount**

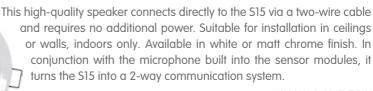


The PTMount converts \$15 sensor modules into a robust IP dome camera that can be both wall or ceiling-mounted. The adjustable dome features a unique three-axis system allowing re-alignment that compensates for sideway tilt. This ensures that the sensor module can be correctly positioned for a perfect image capture (PTMount-Thermal see page 15).

> MX-PTMount-OPT-PW For all optical S15 sensor modules

> > €58

# **SpeakerMount**



MX-HALO-SP-EXT-PW For all \$15 cameras

€128

## **HaloMount**



MX-HAI O-FXT-PW For all optical S15 sensor modules

€32

#### These mounts are also available in black without additional costs:



**DualMount** SurroundMount



**PTMount** 

# M15/S15 Sensor Modules



# **Modular Imaging System.**

Each sensor module consists of a lens, image sensor and microphone. Designed for the M15 and S15, the modules can be interchanged within minutes, at any time. The modules are weatherproof (IP66) and can be installed both indoors and outdoors. Choose between optical and thermal sensors.

### from €198

Sensor Modules Technical Overview				
Image Sensors     1/1.8" CMOS (6MP)     Sensor     6MP: 3072×2048 pixels       Day (Color) or Night (B&W)     Resolution     (Color/B&W)				
Operating Conditions	IP66, -30 to +60 °C/-22 to +140 °F	Audio	Microphone in each module (except thermal modules, BlockFlexMount, CS mount and B500 (L270))	

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### **Easily Exchangeble Sensor Modules**

The MOBOTIX S15/M15 modular system allows the sensor modules to be changed within minutes. This way, the camera optics, such as the field of view or sensor type can be easily exchanged.



S15/M15 Sensor Modules 6MP				
€198	Day (color)	Night (B&W)	Long Pass Filter (LPF)	
with lens D/N	MX-SM	MX-SM	MX-SM	
€298	-D10-PW-6MP	-N10-PW-6MP	-N10-LPF-PW-6MP	
with LPF	-D20-PW-6MP-F1.8	-N20-PW-6MP-F1.8	-N20-LPF-PW-6MP-F1.8	
	-D22-PW-6MP-F1.8	-N22-PW-6MP-F1.8	-N22-LPF-PW-6MP-F1.8	
	-D32-PW-6MP-F1.8	-N32-PW-6MP-F1.8	-N32-LPF-PW-6MP-F1.8	
5 141.7	-D43-PW-6MP-F1.8	-N43-PW-6MP-F1.8	-N43-LPF-PW-6MP-F1.8	
Pure White	-D65-PW-6MP-F1.8	-N65-PW-6MP-F1.8	-N65-LPF-PW-6MP-F1.8	
	-D135-PW-6MP-F1.8	-N135-PW-6MP-F1.8	-N135-LPF-PW-6MP-F1.8	
	-D270-PW-6MP-F1.8	-N270-PW-6MP-F1.8	-N270-LPF-PW-6MP-F1.8	

Sensor modules available: Day (color) • Night (black & white) • Long Pass Filter Modules can be installed by the user in the S15 and M15 and are interchangeable.

S15/M15 Sensor Modules CS-Mount				
€178	€298			
CO				
Sensor module with CS mount for high definition premium lenses	Sensor module with CS Vario Lens, 4.5mm - 10.0mm focal length			

#### **S15 Thermal Sensor Modules** from €2,968 from €3,098 **Thermal Sensor Modules** PTMount-Thermal (for flush mounting) (with integrated thermal sensors) MX-SM-Thermal-L43 MX-SM-PTMount-Thermal-L43 MX-SM-Thermal-L65 MX-SM-PTMount-Thermal-L65 Thermal-PTMount-MX-SM-Thermal-L135 MX-SM-PTMount-Thermal-L135 sensor module Thermal

The thermal sensors can be retrofitted and easily connected to the S15 with a sensor cable (max. length 3 m). The sensor modules cannot be individually replaced in the PTMount-Thermal. For information on the M15-Thermal Thermographic Camera, see page 12.

#### **More Than Just A Lens**

Optical sensor modules (IP66) have a lens, an image sensor, built-in microphone and two status LEDs. The sensor modules are connected to the M15 and S15 via specially designed gigabit video cables. Mounting accessories for the S15 (e.g., SurroundMount, DualMount, PTMount) are also available, making it the ideal choice for a wide range of surveillance applications.

# S15 BlockFlexMount & Long Pass Filter

S15 BlockFlexMount Sensor Modules 6MP				
€168	Day (color)	Night (B&W)	Long Pass Filter (LPF)	
with lens D/N	MX-BFM-MX	MX-BFM-MX	MX-BFM-MX	
€268 with LPF	-D10-6MP	-N10-6MP		
	-D20-6MP-F1.8	-N20-6MP-F1.8	-N20-LPF-6MP-F1.8	
1	-D22-6MP-F1.8	-N22-6MP-F1.8	-N22-LPF-6MP-F1.8	
	-D32-6MP-F1.8	-N32-6MP-F1.8	-N32-LPF-6MP-F1.8	
	-D43-6MP-F1.8	-N43-6MP-F1.8	-N43-LPF-6MP-F1.8	
1	-D65-6MP-F1.8	-N65-6MP-F1.8	-N65-LPF-6MP-F1.8	
	-D135-6MP-F1.8	-N135-6MP-F1.8	-N135-LPF-6MP-F1.8	
	-D270-6MP	-N270-6MP	-N270-LPF-6MP	

Rugged aluminum housing for concealed installation in automatic teller machines, machinery, vehicle panels, steel columns, etc.

### Sensor Modules/Lens Units With Long Pass Filters (LPF)



The Long Pass Filter (LPF) is part of a special black & white lens that, together with an infrared lamp, allows for optimal license plate recognition in all lighting conditions.

### CS-Mount-BlockFlexModule

€148 D/N, without lens €248 with LPF, without lens



MX-BFM-CS-D-6MP (Day) MX-BFM-CS-N-6MP (Night) MX-BFM-CS-N-LPF-6MP (Night-LPF)

Recommended MOBOTIX lens: CSVario MX-B045-100-CS

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# **D15 Lens Units**



D15 Lens Units 6MP				
€150 per unit	Day (color)	Night (B&W)	Long Pass Filter (LPF)	
€250 with LPF	MX-D15-Module	MX-D15-Module	MX-D15-Module	
	-D20-6MP-F1.8	-N20-6MP-F1.8	-N20-LPF-6MP-F1.8	
	-D22-6MP-F1.8	-N22-6MP-F1.8	-N22-LPF-6MP-F1.8	
	-D32-6MP-F1.8	-N32-6MP-F1.8	-N32-LPF-6MP-F1.8	
	-D43-6MP-F1.8	-N43-6MP-F1.8	-N43-LPF-6MP-F1.8	
	-D65-6MP-F1.8	-N65-6MP-F1.8	-N65-LPF-6MP-F1.8	
	-D135-6MP-F1.8	-N135-6MP-F1.8	-N135-LPF-6MP-F1.8	

The D15 camera housing includes two lens units that can be combined as required. They can be moved, thus making a precise alignment to the areas to be recorded possible.

## Dual Camera Technology From MOBOTIX For Day And Night Recordings



for the cameras.







"We chose MOBOTIX cameras based on their impressive array of features. I would like to mention the image quality in particular. I can zoom in on a potential troublemaker and I immediately have a detailed image of his or her face that I can send to the police, who can then identify the responsible person."

# Lens Table 6MP

		AL VE		
Lenses 6MP	<b>B016 (L10)</b> Fisheye Lens	<b>B036 (L20)</b> Ultra Wide Lens	<b>B041 (L22)</b> Super Wide Lens	B061 (L32) Wide Lens
Field of view (horizontal)				
Focal Length	1.6 mm	3.6 mm	4.1 mm	6.1 mm
35 mm photo equivalent	10 mm	20 mm	22 mm	32 mm
Aperture f/	2.0	1.8	1.8	1.8
Image angle (4:3 format, horizontal x vertical)	180° x 180°	103° x 77°	90° × 67°	60° x 45 °

#### Maximum distances in meters @ 6MP (3072 x 2048 pixels)

Monitor up to (1 px ≙ 80 mm)	14.4 m	103.0 m	123.8 m	197.8 m
<b>Detect up to</b> (1 px	7.2 m	51.5 m	61.9 m	98.9 m
Observe up to (1 px $\triangleq$ 16 mm)	2.9 m	20.6 m	24.8 m	39.6 m
Recognize up to (1 px	1.4 m	10.3 m	12.4 m	19.8 m
Identify up to (1 px	0.7 m	5.2 m	6.2 m	9.9 m
Inspect up to (1 px $\triangleq$ 1 mm)	0.2 m	1.3 m	1.6 m	2.5 m

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#### **DIN EN 50132-7**

As specified in the DIN EN 50132-7 standard, there are six different levels of quality for video surveillance. "Inspect" is the level with the highest demands on image quality, whereas "Monitor" is the one with the lowest. These can be used to determine the maximum distance between camera and surveillance area, the required minimum resolution, and the most suitable camera lens for optimal coverage of the surveillance area.

			Q.	
B079 (L43) Standard Lens	B119 (L65) Tele Lens	<b>B237 (L135)</b> Distant Tele Lens	<b>B500 (L270)</b> Super Tele Lens	B045-100-CS CS Vario Lens
7.9 mm	11.9 mm	23.7 mm	50 mm	4.5-10 mm
43 mm	65 mm	135 mm	270 mm	24-54 mm
1.8	1.8	1.8	2.5	f/1.6-f/2.3
45° x 34°	31° × 23°	15° x 11°	8° × 6°	39°-89° x 29°-65°

268.0 m	402.7 m	850.8 m	1,563.1 m
134.0 m	201.3 m	425.4 m	781.6 m
53.6 m	80.5 m	170.2 m	312.6 m
29.8 m	40.3 m	85.1 m	156.3 m
13.4 m	20.1 m	42.5 m	78.2 m
3.4 m	5.0 m	10.6 m	19.5 m

### Notes On The Table:

- px = pixels
- Online planning tool (optics): www.mobotix.com > Support > Planning Tools

# **Decentralized System**

# A World-First Technology

The first MOBOTIX product released was an IP camera with recording and DVR management technology built-in. It was a world-first. This decentralized approach was so revolutionary, it changed the video surveillance industry forever. Because the camera was completely self-managing, expensive central recording systems were, for the first time, no longer required.

The MOBOTIX decentralized system platform uses comparatively little computing power, even in megapixel resolutions, so it is far more cost-effective and easier to scale in size than traditional centralized systems.

As more cameras are added to the system, you only need to add more storage. No dedicated servers or recording software licenses needed. This low-cost, low-maintenance solution saves customers both upfront and over the life of the system.

MOBOTIX cameras are 'decentralized' because they are VMS-enabled with in-camera video recording, alarm and storage management.



# **MOBOTIX System Standard System** decentralized not decentralized Software not required Software required



Integrated terabyte recording with local failover storage

**Decentralized IP Cameras Are More Intelligent Than Standard IP Cameras** 



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www.mobotix.com

Intelligent Processing







# **Hemispheric Technology**

Security-Vision-Systems MOBOTIX

# **Another Revolutionary World-First**

The MOBOTIX decentralized platform paved the way for the world's first successful development of Hemispheric video technology. By combining a high-resolution image sensor with a Hemispheric lens, large areas can be captured, replacing 2 to 4 standard CCTV cameras. The Hemispheric camera processes and corrects the images internally, thus reducing bandwidth and server load. The camera also manages the virtual pan, tilt, zoom (vPTZ) within the live and recorded video.



Surround View: Quad





NAS or PC.

Pan and zoom within the live and recorded 360° image.



No blind spots! Everything captured.



The vPTZ and image correction is processed by the camera, not by an external PC with software.

## **What The Experts Say**

"A camera from MOBOTIX contains a total video surveillance system within itself, including built-in DVR software, microphone, speaker, motion detection sensor, temperature sensor. Such product innovations have provided MOBOTIX with a significant competitive advantage, positioning it to grow strongly in the future."

# **Superior Image Quality**

# **Highest Quality - Made In Gemany**

Great imaging starts with great technology. For many security specialists, our innovative history is legendary and the reason they continue to choose MOBOTIX. Each and every product is carefully constructed using the most advanced optical, electronic and manufacturing technologies. We use only the highest-quality CMOS sensors and develop image processing software, which enables our cameras to produce exceptionally sharp, clean images. The MOBOTIX devices are continually perfected in our laboratories in Germany.







Each camera is tested at extreme temperatures before shipping.

# **MxPEG - A Codec Designed For Security**

MOBOTIX developed MxPEG since the existing MPEG codecs were deemed unsuitable for IP video surveillance. MxPEG is the only video codec that has been designed for IP video surveillance applications, ensuring high-quality capture of movement occurs in every still frame.



A MOBOTIX camera captures a bird in flight. No blurring.



The sensor combined with MxPEG significantly reduces motion blur, allowing still image zooming in detail.

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"At MOBOTIX we strive to develop IP cameras that produce the highest possible image quality, which is much more important than 'highest resolution'. By combining a 6MP image sensor with MxLEO, our new low light image enhancing technology, the new MOBOTIX hardware platform is now unrivaled for high-resolution lowlight image capture and zooming."



# **6MP Moonlight Technology**

The 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 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.

In security every single frame of a video recording has to be as sharp as possible. For moving objects short exposure time is the key. Unfortunately short exposure time of 1/100 s grabs 10-times less light than 1/10 s. Especially in low light conditions, the lens, the image sensor and the image processing have to be very sophisticated to generate sharp images of the moving object.

In dark scenes long exposure times of up to one second create bright images and visible static objects. This is perfect to acknowledge objects in darkness. But if objects are moving, long exposure times will create blurring, and make verification nearly impossible. In security applications moving objects are of utmost importance, therefore short exposure times are essential. Some brands are using a combination of technologies (for example Lightfinder, HDR, etc.). However, with this adding and overlaying of subsequent frames, small details could be suppressed, which is not acceptable in security applications.

This huge increase in light sensitivity was achieved by several means: wider sensor with bigger pixels, hardware noise reduction, new sophisticated lens with better light transmission, and an improved image processing reducing noise of low light images. This is called the new MOBOTIX Moonlight Technology because it enables the camera to generate color video of moving objects even in low light scenarios like moonlight.



3MP, F2.0 color sensor, 0.5 lux



5MP, F1.8 color sensor, 0.5 lux



6MP, F1.8 color sensor, 0.5 lux



6MP, F1.8 B&W sensor, 0.5 lux

### Why Light Sensitivity Is So Important

One of the most important features that determines the quality of a security camera is its light sensitivity. A high light sensitivity allows for short exposure times, thus reducing motion blurring. This makes it easier to evaluate security-relevant footage, making details visible without the need for additional, expensive illumination.

### **High-Resolution Digital Image Quality**

6MP sensor and image processing inside the camera generate perfect images. More than twice as many pixels as Full HD. Increased resolution reduces amount of cameras required.

2

### **Decentralized Concept**

Every camera is a complete surveillance system with all features integrated. Up to 10 times more cameras per server compared to central VMS-based systems. Lowest bandwidth and storage.

3

### **No Storage Limit**

Each camera is able to manage its own terabyte-sized storage device (NAS) via the network. No additional management server needed.

4

### **HD Audio And SIP Technology**

Every camera is using SIP standard for two-way communication including video, lip-synchronous audio (live & recording), remote camera control and automatic alarm calls.

5

### **Unlimited Scalability**

Flexibility gives highest Return on Investment. Cameras and storage can be added, even while the system is in use; image format, frame rate and recording parameters are camera specific.

6

### **High Quality • Made In Germany**

Robust and practically maintenance-free. Fiberglass-reinforced composite housing with built-in cable protection. No mechanically moving parts (no auto iris) to increase product lifetime.

7

### **Dual Camera Concept • Day And Night**

Dual cameras with two sensors and digital switching between day and night, with brilliant color and best light-sensitive B&W sensor. Maintenance free without mechanical components.

8

### **Sun And Backlight Compensation**

High-quality CMOS sensor without auto iris, software-driven contrast enhancement and configurable exposure zones guarantee optimum exposure control and longest product lifetime.

9

### Weatherproof

Weatherproof design allows the camera to be installed anywhere without additional housings or climate systems to reduce power consumption and increase flexibility.

10

#### Efficient Video Codec • MxPEG

The MOBOTIX codec captures highest image quality and sharpness with full details on every still frame. The only video codec for security applications with shortest latency from scene to screen.

72

# **Innovations To Differentiate**



0

### Simultaneous Recording, Event Search & Live Viewing

Each camera can handle live viewing for multiple users, recording and event search from anywhere in the world via network connection. Full image recording is independent from the live view.

- 12
- **Lowest Energy Consumption**

Lowest energy bill saves up to 80 % due to low-power design. Each camera uses ca. 4 watts with no heating/cooling required, enables year-round standard PoE with one centralized UPS.

13

### **Bandwidth Management For Optimized Remote Access**

Camera is recording high resolution without any loss of details and is able to manage frame rate and image size depending on the available bandwidth. Quality search over mobile networks.

14

### **MOBOTIX Ring Buffer Concept**

MOBOTIX invented local longterm ring buffer recording in 2000. Synchronization (cloud principle) between internal (RAM, SD Card) and external storage (NAS). No network required during recording.

15

### **Bridging Of Recordings During Network Failures • MxFFS**

Local gigabyte recording with automatic archiving to external file server with terabyte capacity – no management software required. No lost events, robust against network failures.

16

### Hemispheric Technology • 180° Panorama View

Secure an entire room without blind spots and virtual PTZ. All dewarping and panorama correction is managed inside the Hemispheric camera – no additional computer or software required.

1

## **Counting & Behavioral Analysis • MxAnalytics**

MxAnalytics, inside the camera and free of charge, counts objects or generates behavioral events like turns, exceeding speed and more. Perfect tool to combine security and marketing needs.

18

### **Dual Camera • Intelligent Combination**

The most advanced security camera solution combining thermal, optical and MxActivitySensor. Motion detection in complete darkness of up to 400 meters, supports privacy zones.

19

## Game Changer In Motion Detection • MxActivitySensor

Most reliable detection of motion of objects with reduction of false alarms of up to 90 %. Inside the camera without any network required. No configuration time, license fees or extra costs.

20

### Professional Video Management • MxMC

Highly intuitive and easy to learn without limits, for any operation systems and type of projects. 100 % included in the portfolio without extra costs. Highest cost saver for end users.

# **MOBOTIX Campus**

The MOBOTIX certification program is important for professionals seeking expertise in next-generation IP video surveillance systems.

MOBOTIX has developed a range of courses, which cater to people in both sales and engineering job functions. Our programs will continue to evolve and expand to adapt to market demands and available technologies.

Obtaining certification requires the successful completion of all training seminars.

www.mobotix.com > Partners > Seminars

SPI-Workshop			
Duration	1 day		
Audience	Sales people and engineers		
Overview	Sales, Planning & Installation Workshop. Students will learn how consult with the customer to specify and plan the right solution. We sho how to align MOBOTIX and other technologies to fit the requirements of the application.		
Content	Consulting and planning Calculating viewing angles Camera and lens selection Camera positioning Selecting peripheral devices The SPI workshop is a vital start for technical sales people wanting to sell MOBOTIX systems. Engineers new to MOBOTIX, should also attend.		



Starter Seminar		Advanced Seminar	
Duration	2 days	Duration	1 day
Audience	Sales people and engineers	Audience	Engineers after successfully completing Starter Seminar
Overview	of MOBOTIX cameras using the intuitively designed MxManage-mentCenter software. This seminar communicates all information fundamentally necessary to set up private and commercial projects in	Overview	This seminar is a follow-up to the crash course. Advanced configuration options are presented on the basis of an installation scenario. The knowledge gained here is augmented by hands-on exercises.
	a time and cost saving manner with basic knowledge of networks.	Content	• MxManagementCenter – Advanced functions
Content	MxManagementCenter – Setup and use		<ul> <li>Image settings and exposure (advanced)</li> </ul>
	Image settings and exposure     Event detection		<ul> <li>Other event triggers and alarm configurations</li> </ul>
	Memory configuration		• System maintenance and updates
	• vPTZ in hemispheric models		• Notifications – E-mail, FTP, network
	Video export		messages
	While this workshop is primarily		
	geared toward installation technici- ans, technical sales staff may also benefit from attending the seminar.		

# Glossary

#### **CMOS**

Complementary metal-oxide semiconductor (CMOS) sensors efficiently transform light into electrons to facilitate image capturing. To further enhance light sensitivity and hence image quality, MOBOTIX has launched a new 1/1.8" 6-megapixel CMOS image sensor with moonlight technology.

#### **DVR**

A Digital Video Recorder typically consists of a Windows PC with licensed video management system (VMS) installed. MOBOTIX cameras do not require a DVR, since the VMS is already installed in the cameras.

### **IK** ratina

Indicates the degree of resistance against impact. MOBOTIX cameras with the appropriate vandalism sets have the highest impact rating of IK10 or better.

#### IP camera

Network-based camera that is using the Internet Transfer Protocol (TCP/IP) to establish video, audio and data connections.

### **IP** rating

Ingress Protection is given as a two digit classification, which indicates the level of protection against water and dust. Most MOBOTIX devices are weatherproof rated at IP65 or IP66. The first digit classifies protection against foreign objects (6 – dustproof), the second digit classifies protection against water (5 – protected against water jets from any angle, 6 – protected against strong water jets from any angle).

### **MxBus**

MxBus is a fully encrypted, two-wire bus system that connects and powers MOBOTIX devices over a distance of up to 50 m/55 yds for building automation and camera-driven control systems. When adding an MxBus device, it gets a secured key that encrypts the entire communication.

#### **MxPEG**

MxPEG is the only codec specifically designed for video surveillance systems. The encoding capabilities of MxPEG by far exceed that of H.264 for capturing and recording movement in varying lighting conditions.

#### NAS

Network Attached Storage is a computer that is dedicated to file sharing only and thus more stable than Windows-based PCs. Generally Linux-based.



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#### PoE/PoE+

Power over Ethernet is a standard for transferring both data and power via an Ethernet cable. All MOBOTIX cameras are PoE-enabled and can be powered using a standard (IEEE 802.3af/ at) PoF network switch.

#### PT7

Pan, Tilt, Zoom usually refers to the mechanical movement of the camera. vPTZ refers to the digital movement and zooming within the camera's field of view. MOBOTIX cameras have no moving parts, and thus use virtual Pan, Tilt, Zoom (vPTZ).

#### **RFID**

Radio-Frequency Identification (RFID) is the wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying objects such as swipe cards to allow door access, for example.

#### SD/microSD card

Data is recorded on the factory-installed 4GB microSD card built into the camera, for example, on an NAS; the camera buffers the data on the internal SD card when the connection is severed and automatically synchronizes it at a later time.

### SIP

The Session Initiation Protocol is a network protocol that is used to establish and control connections via computer networks. SIP is used for phone calls and for audio/video connections to and from MOBOTIX cameras.

#### **VMS**

Video Management System provide data monitoring, image analysis and recording management. The system intelligence and logic resides in the VMS. MOBOTIX cameras are VMS-enabled.

#### **VoIP**

A Voice-over-IP device can initiate and carry phone calls over an IP data network. All MOBOTIX video devices are VoIP-enabled

#### WiFi

This standard (sometimes also referred to as Wireless LAN or WLAN) allows IP devices to connect to the Internet or communicate with one another without Ethernet cabling.



www.mobotix.com





**DEPOT Logistics Center** 66 MOBOTIX Cameras, Germany



**Barwa Commercial Avenue** 1,840 MOBOTIX Cameras, Qatar



Tyger Valley Shopping Centre
48 MOBOTIX Cameras, South Africa



**ODS Optical Service GmbH** 264 MOBOTIX Cameras, Germany



Multistrada Tire Manufacturer 134 MOBOTIX Cameras, Indonesia



**S. Florida Water Management District** 147 MOBOTIX Cameras, U.S.A.



City of Dillingham, Traffic Security 80 MOBOTIX Cameras, U.S.A



Icelandic Road Traffic Directorate 256 MOBOTIX Cameras, Iceland



**Panorama Towers** 137 MOBOTIX Cameras, U.S.A.





**Druzhba Arena, Hockey Stadium** 600 MOBOTIX Cameras, Ukraine



**Bergen County Jail** 820 MOBOTIX Cameras, U.S.A.



**Vatican Apostolic Library** 70 MOBOTIX Cameras, Vatican City



City of Ghent Parking Authority 300 MOBOTIX Cameras, Belgium



**Panama Ports Company** 54 MOBOTIX Cameras, Panama



**Valley Health Hospital** 100+ MOBOTIX Cameras, U.S.A.



**Republic Polytechnic** 1,000 MOBOTIX Cameras, Singapore



**Interislander Ferries** 30 MOBOTIX Cameras, New Zealand



**Calgary School** 200 MOBOTIX Cameras, Canada







# **Professional Video Solutions**

6MP Moonlight • VMS • Dual Thermal • IP Access Control • Analytics









- 6MP Moonlight Technology
- VMS MxManagementCenter
- c25, i25 & p25 Hemispheric Indoor Cameras







**MOBOTIX**