Invisible strength. Visible impact.

With the **MOBOTIX S ONE Dual**, MOBOTIX presents the next generation of modular premium dual cameras. It builds on the success of the S16 DualFlex and takes the proven concept to a new performance class: two freely positionable 4K UHD sensor modules dual images larger than 16 MP, a compact, concealed camera housing, and AI-based edge analysis that works simultaneously on both sensor channels for the first time.

The S ONE Dual was developed for industrial requirements, mobile applications, and security-critical environments – robust, weatherproof, durable, and energy-efficient (PoE, < 10 W).

MOBOTIX S ONE Dual:
One of the most robust high-end built-in cameras in the world.

MOBOTIX ONE | NDAA Compliant | AI | 4K ULTRA HD | ONVIF | GST | H.265 H.264 JPEG | MxPEG+ MJPEG | IK10 | IP66 | Ambarella

2. Modular Built-In Camera MOBOTIX S ONE Dual

Dual camera module (body)
Ultra-robust special plastic (PBT-30GF) and black aluminum mounting plate; dimensions: 130 × 115 × 33 mm: Identical mounting holes as for the S16 for easy replacement
Max. image size: 2×4K
Max. 2x 30 frames/s
Protection class: IP66, NEMA 4X

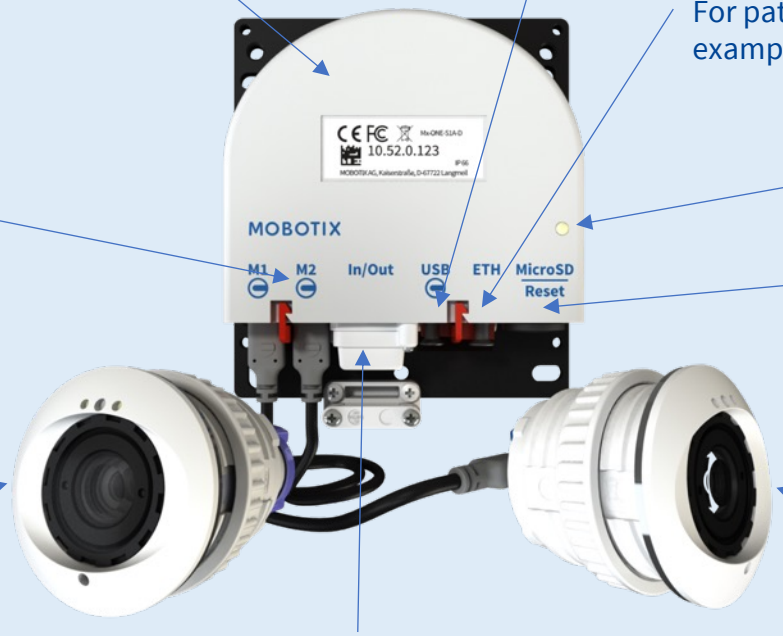
USB-C port
For USB-C cables Mx-A-S7A-CBL01/02/03 and I/O box Mx-F-4IOA; red security clip

RJ45 Ethernet port
For patch cables MX-OPT-CBL-LAN-1/2/5/10 and, for example, Mx-F-NPAA; red security clip

Status LED: RGB

Module connections 1+2
For one or two meter long MOBOTIX sensor cables; red safety clip

microSD port
64 GB card already installed
(supports memory cards up to 2 TB)



Sensor Module 1
4K UHD day & night image sensor with lens, RGB status LED, microphone, and ambient light sensor; IP66, IK10, NEMA 4X

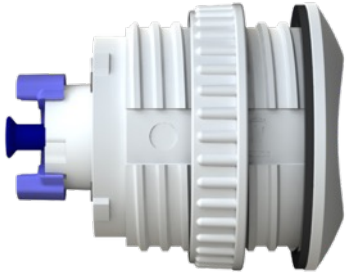
Sensor Module 2
4K UHD Day & Night image sensor with lens, RGB status LED, microphone and ambient light sensor; IP66, IK10, NEMA 4X

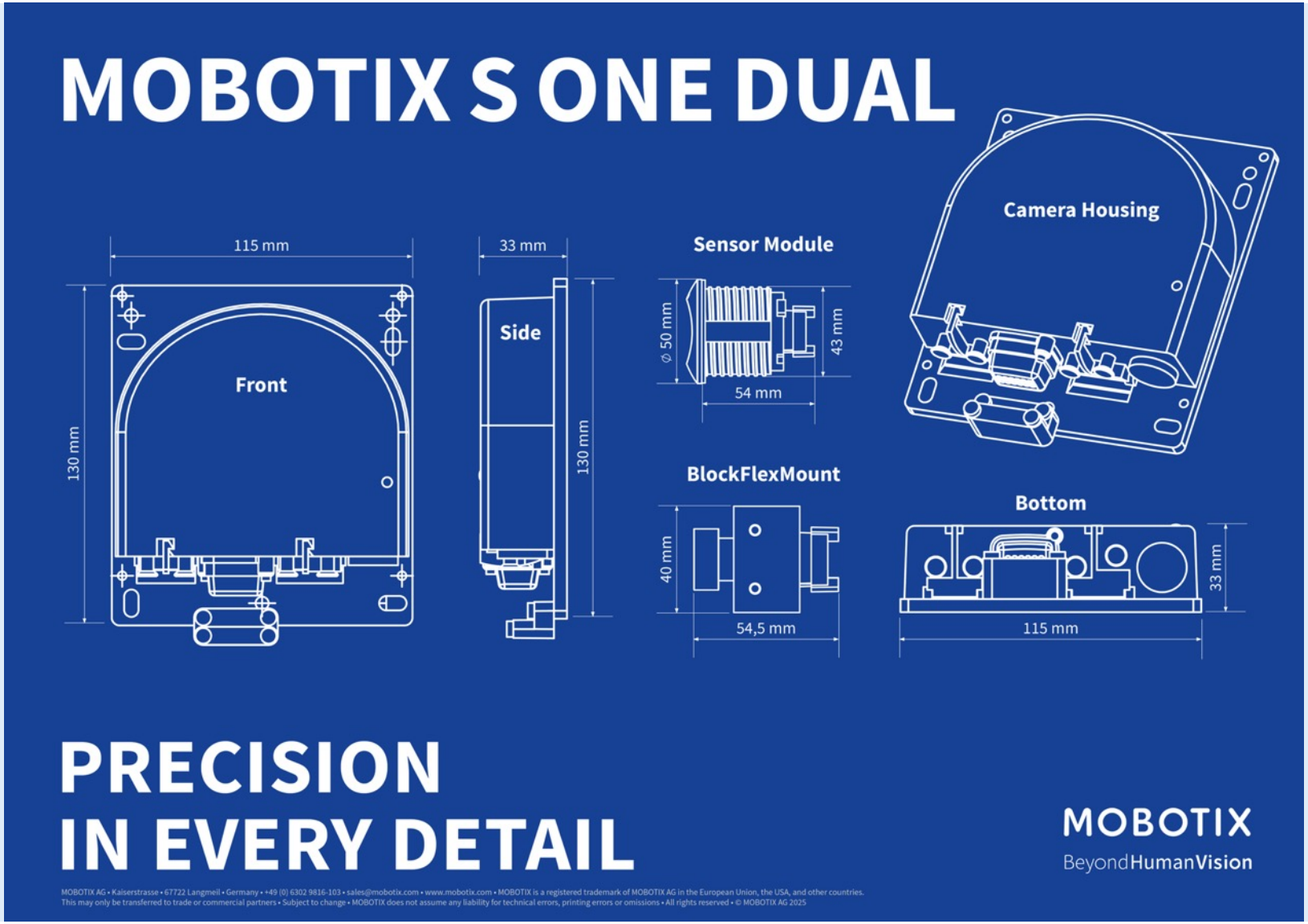
Additional connection terminal
3× Out, 1× In, DC Power Supply +/–, Speaker +/–
Includes cable strain relief strip

Typical MOBOTIX: MTBF >100,000 hours • 5-year manufacturer's warranty • Developed, manufactured and tested in Langmeil, Germany

2. Modular Built-In Camera MOBOTIX S ONE Dual

- Fixed lens 120°
- Fixed lens 95°
- Fixed lens 60°
- Fixed lens 45°
- Fixed lens 30°
- Fixed lens 15°




MOBOTIX S ONE DUAL
115 mm
130 mm
Front
33 mm
Side
130 mm
Sensor Module
⌀ 50 mm
43 mm
54 mm
Camera Housing
BlockFlexMount
40 mm
54,5 mm
Bottom
33 mm
115 mm
PRECISION
IN EVERY DETAIL
MOBOTIX
BeyondHumanVision
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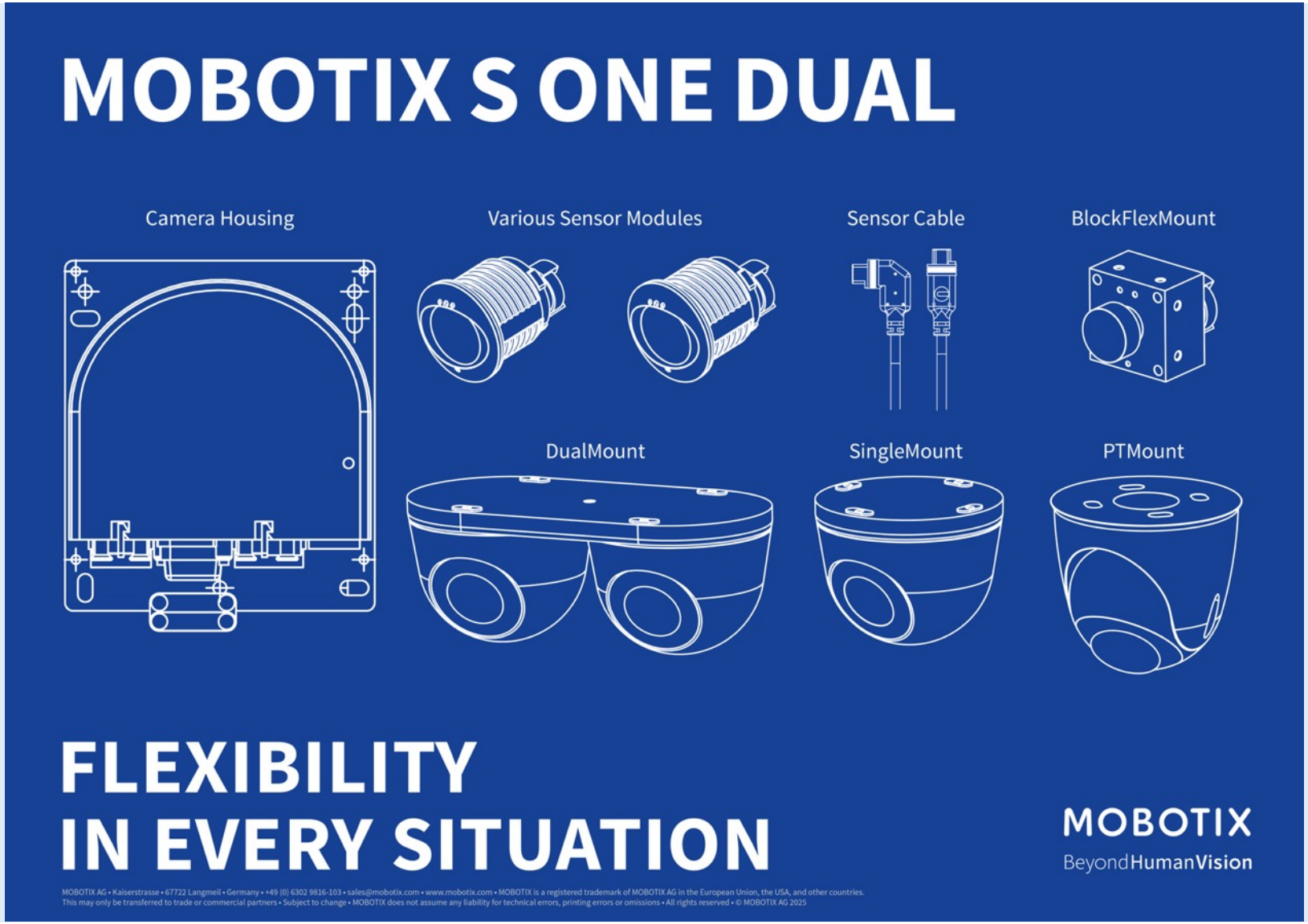
MOBOTIX S ONE DUAL
Camera Housing
Various Sensor Modules
Sensor Cable
BlockFlexMount
DualMount
SingleMount
PTMount
FLEXIBILITY
IN EVERY SITUATION
MOBOTIX
BeyondHumanVision
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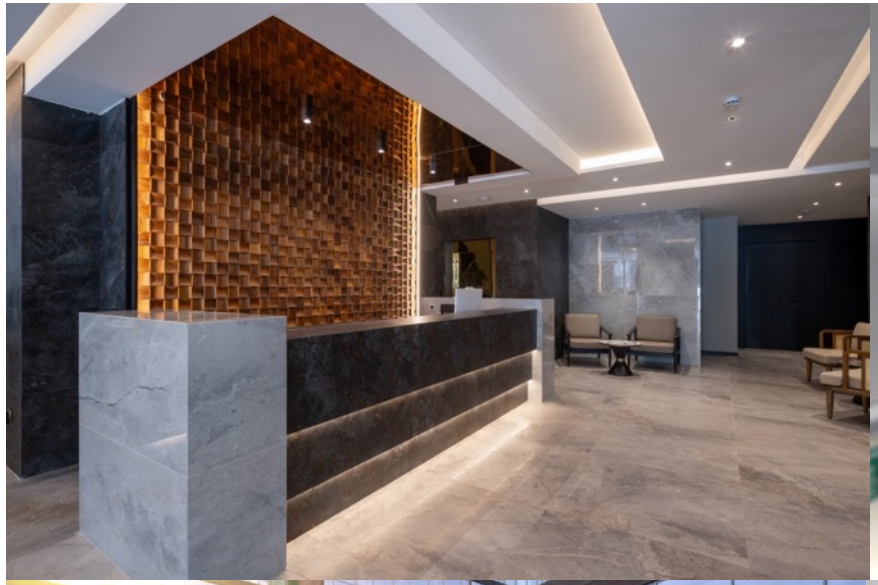
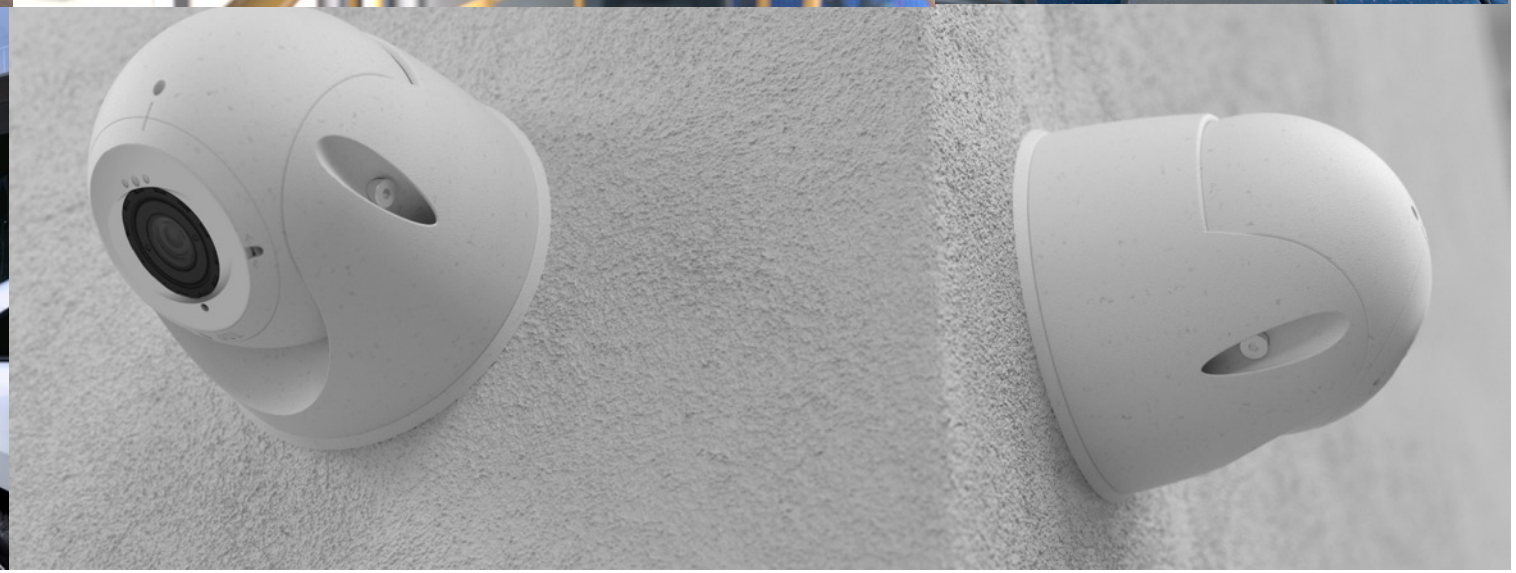
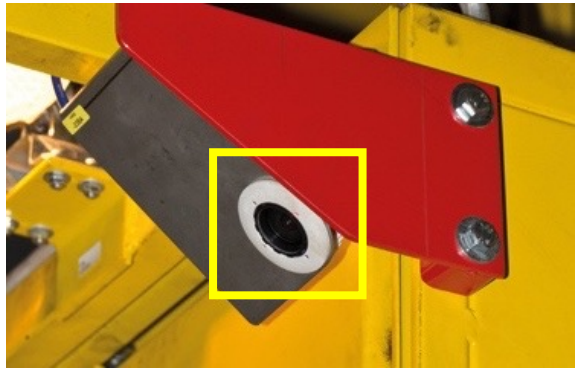
2. Modular Built-In Camera MOBOTIX S ONE Dual





2. Modular Built-In Camera MOBOTIX S ONE Dual

Modular 2x4K dual camera – maximum flexibility for confined and challenging installations



At the heart of the S ONE Dual is a concealed camera body (Mx-ONE-S1A-D) with two 4K day & night sensor modules connected by a weatherproof cable. These can be mounted up to 2 meters away from the camera housing (at product launch) and enable flexible installation scenarios, for example in machines, vehicles, behind panels, or in control cabinets.

Thanks to high-resolution 1/1.8" sensors, the S ONE Dual delivers high-contrast, detailed images from two perspectives, even in difficult lighting conditions.

- 2x 4K UHD (3840 × 2160 / 16:9 each), max. 2x 30 frames/s
- Light sensitivity:
  Up to 0.1 lx@1/60 s (color)
  0.005 lx@1 s (color, long exposure)
- Automatic day/night switching per sensor
- 120 dB wide dynamic range

Six lens options are available at launch (4K Day & Night, fixed aperture and angle H×V):

- Wide (f/1.8): 120°x60°; 95°x50°; 60°x33°
- Normal (f/1.8): 45°x25°
- Telephoto (f/1.8): 30°x17°; 15°x8.5°

2. Modular Built-In Camera MOBOTIX S ONE Dual

Intelligent video analysis – AI-based object detection on two sensor channels

The S ONE Dual performs AI-based video analysis in parallel on two independent sensor channels. High-performance, reliable and without reducing the frame rates (up to 30 fps per sensor, in parallel).

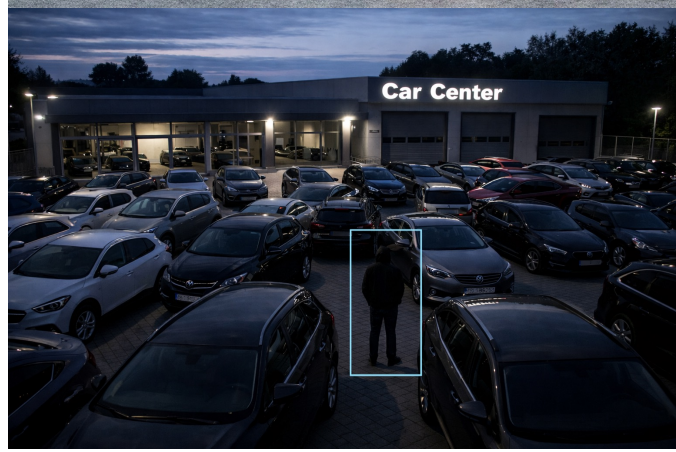
The integrated MOBOTIX ActivitySensor ONE is a standard, license-free component of the standard equipment and is available exclusively for MOBOTIX ONE cameras. The analysis is performed entirely in the camera – standalone, without a server, cloud or additional VMS components. Only a PoE power supply is required for operation.

MOBOTIX S ONE Dual: Specific added value through parallel AI analysis

- **Two sensor channels, two analysis tasks simultaneously:** Different scenarios can be evaluated in parallel – without switching or prioritization.
- **Object-based event logic per sensor:** Alarms only for relevant objects (people/vehicles), direction of movement, or length of stay – not for weather- or light-related image movements or other objects (e.g., animals, vegetation).
- **Self-sufficient real-time processing:** Consistent analysis times regardless of network, server performance, or system size.
- **License-free scaling:** No channel- or server-based analysis licenses, no follow-up costs for system expansions.

Practical example: Car dealership

At the car dealership, the S ONE Dual can use both image sensors in parallel for different tasks: one sensor monitors vehicles entering and leaving the access area, while the second analyzes the showroom and reliably detects people there outside business hours.



2. Modular Built-In Camera MOBOTIX S ONE Dual

Robustness and reliability for the harshest environments

The MOBOTIX S ONE Dual meets the most stringent industrial requirements:

- **IP66:** Protection against dust and heavy rain
- **NEMA 4X:** Corrosion-resistant, even in salty air, chemicals, industrial atmospheres, snow, and ice
- **IK10 (sensor modules):** High vandalism resistance thanks to new protective front with recessed lens
- **Operating temperature:** –40 to +65 °C
- **Cold start:** down to –30 °C
- **MTBF:** >100,000 hours

A vibration and tamper sensor (tamper detection) integrated into the camera housing reliably detects mechanical interference or malfunctions.

The housing, made of saltwater-resistant PBT-30GF plastic, is mounted on an aluminum plate and designed for continuous industrial use.

Conclusion: The S ONE Dual offers exceptionally high resistance even without additional protective measures. It is suitable for indoor and outdoor applications as well as for industrial facilities, coastal regions, and other environments where cameras must be operated continuously and with low maintenance.

The S ONE Dual keeps on running. Even in extreme cold, heat, dust, and wet conditions.

2. Modular Built-In Camera MOBOTIX S ONE Dual

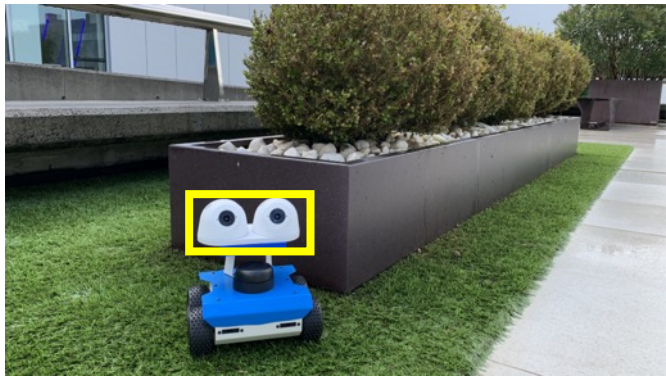
Energy consumption & network technology – compact, secure, efficient

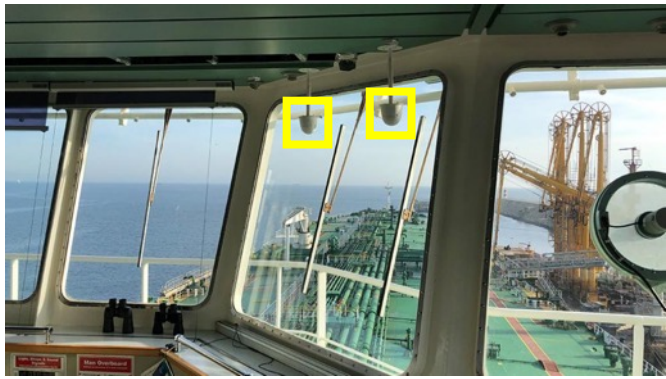
Despite having the most powerful dual processor ever used in a MOBOTIX camera, the S ONE Dual operates continuously in **PoE Class 3** (IEEE 802.3af, max. 12.95 W). Typical power consumption is only **approx. 9 W** with two active sensor modules, including WDR and ActivitySensor ONE.

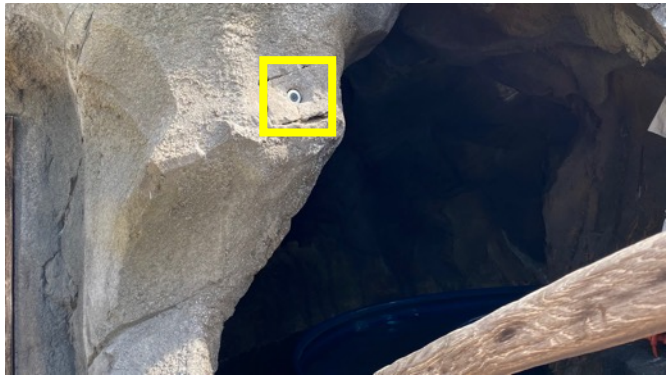
Additional technical features:

- Gigabit Ethernet (RJ45)
- 12–24 V DC connection optional (e.g., battery or solar power)
- USB-C connection for MOBOTIX I/O box (4x input, 4x output)
- 3 internal relay outputs (up to 50 V DC / 2 A)
- 1 alarm input

MicroSD cards (SDXC) up to **2 TB** are supported for internal storage. A preformatted **64 GB industrial memory card** is installed at the factory.







2. Modular Built-In Camera MOBOTIX S ONE Dual

Secure and versatile system integration

Network and security protocols:

- IPv4, IPv6
- HTTPS, TLS 1.3
- SNMP
- MQTT
- SFTP, FTPS
- SIP (client & server)
- VLAN
- VPN
- mDNS / Zeroconf

Video streaming:

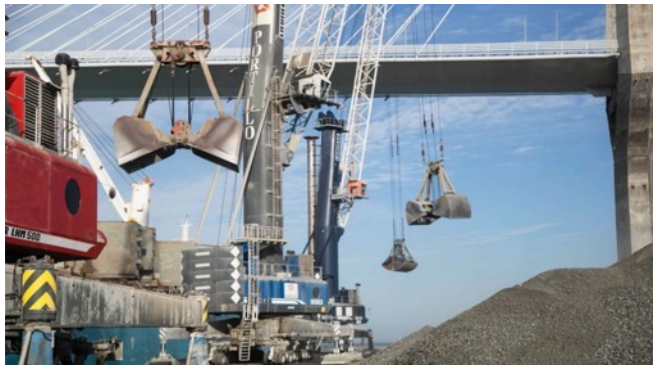
- H.264, H.265
- MxPEG+
- MJPEG
- Multistreaming
- RTSP/Multicast

ONVIF compatibility:

- Profiles G, S, T
- Profile M (via future firmware update)

Video management systems:

- MxManagementCenter
- MOBOTIX HUB (including DualVision Plug-In)
- MOBOTIX CLOUD
- MOBOTIX LIVE App
- ONVIF-based third-party VMS



Both 4K sensor modules appear under **a single IP address**, reducing licensing costs and minimizing system complexity.

2. Modular Built-In Camera MOBOTIX S ONE Dual

Typical areas of application – where the S ONE Dual shows its strengths

The S ONE Dual is optimized for applications where overview, space requirements, robustness, and reliability are crucial. It combines two freely positionable 4K sensor modules, a robust industrial platform, AI-based real-time analysis, and high energy efficiency in a compact, concealed design.

It is the ideal solution for scenarios that require two reliable perspectives, intelligent object recognition, and extreme environmental resistance – while also offering easy integration and low operating costs.

Industry and mechanical engineering
- Manufacturing cells
- Robotics
- Hard-to-reach areas
- Process monitoring

Logistics and goods flow
- Handling areas
- Storage areas
- Conveyor technology
- Yard management

Vehicles (buses, trains, special vehicles)
- Dual surface monitoring
- Passenger compartment & door area
- Mobile security applications

Access control
- Security gates
- Barriers
- Turnstiles
- Gates and access roads

Critical infrastructures
- Energy supply
- Research facilities
- Sensitive plant areas

Other applications
- Parking garages
- Cash register systems and ATMs
- Amusement parks, ski resorts
- Mountain railways, gondolas

2. Modular Built-In Camera MOBOTIX S ONE Dual

Easy integration into large and small video surveillance systems or standalone operation

The MOBOTIX S ONE Dual can be seamlessly integrated into **MxManagementCenter** (version 2.9.3 or higher), the **MOBOTIX LIVE app, MOBOTIX HUB** (with the latest MOBOTIX HUB driver) and the **MOBOTIX CLOUD**. Of course, all ONVIF-compatible video management systems are also supported (currently profiles G, S, and T; profile M via future firmware update).

Thanks to the camera's internal MOBOTIX system architecture (decentralized edge design) and power supply via 12-24 V DC, the S ONE Dual is also ideal as **a local or mobile solution** – without the need for an additional server, NAS or external VMS.

Direct **access** via a standard web browser is possible **without additional devices or licenses**. Data can be stored either on the camera itself (internal DVR), on a NAS/NVR or in the cloud. The integrated DVR (64 GB microSD card included, support up to 2 TB) also enables reliable **failover recording**, e.g. in the event of temporary network or NAS failures.

MOBOTIX MxMC

Download on the App Store

GET IT ON Google Play

MOBOTIX LIVE app

MOBOTIX HUB

MOBOTIX HUB L2 MOBOTIX HUB L3 MOBOTIX HUB L4 MOBOTIX HUB L5

MOBOTIX CLOUD

ONVIF | GST

BeyondHumanVision

MOBOTIX