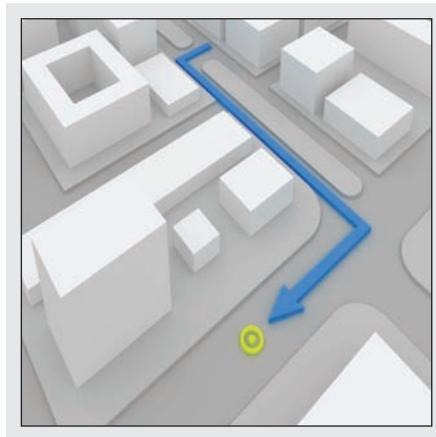


Security Index



Our products are breaking ground at every turn and we are excited to share these breakthroughs with our customers. Our designs are sleek – we combine simplistic and modern designs, use innovative materials, and incorporate the latest technologies with alternative energy power. Our technology is cutting edge - we offer our customers some of the most advanced security and surveillance capabilities available in the world. Our team is responsive - we work with each of our customers to tailor a security system that meets their precise needs, modifying products and offerings when applicable. Our products are revolutionary.

We are dedicated to providing our customers with support, and that includes providing knowledge about our technology, our products, and how we can provide comprehensive security and surveillance solutions. Within the Security Index we provide explanations for the icons featured throughout this catalog.



24 Hour Power Management

Security is a “twenty-four hours a day, seven days a week duty”. To provide our products with continuous power and uninterrupted security, our products are equipped with power management systems that offer power backups and integrated batteries.



2D/3D Noise Reduction

This new technology captures low noise images even in low light environments, eliminating image blur and offering spatial noise reduction in video frames. It also reduces the image’s frame size to facilitate quick transmission and minimize storage space requirements.



3rd Party Integration

In the world of security we recognize that no one can ‘do it alone’. Our systems provide customers the ability to integrate 3rd party components for truly customized and maximized solutions.



512 GB Local Storage

The heavy-duty head has 512 GB of internal solid state storage, and two separate video streams - one that is stored locally and one that transmits to the command center.



Accelerometer

Built into the console, the multi-axis sensor provides a wealth of information about the wearer and his surrounding environment such as changes in orientation or directional heading, pace, sudden changes in movement, free falls, and intense vibrations or shocks. This important feature provides an additional layer of in-field information and can reduce response times in the event of an attack on the wearer, sudden fall, earthquake, natural disaster, or explosion.



Area Illuminator

Ground illumination capability can be a priceless asset. We offer a spotlight module that can be activated when ground illumination is needed. The compact light features highly efficient LED lights that provide up to 1200 lumens at over 60 lumens/watt, with a 120-degree beam pattern.



Audio Recording

Audio recording is available in our pole, wearable and vehicle systems. In combination with the panorama microphone, directional microphone, or our wearable camera and microphone module, audio information can be discretely recorded and shared with the command center.



Audio/Alarm Broadcast

The speaker module is a valuable addition, providing a way to remotely deliver announcements to the surveillance field. This module can also be used to provide sirens or alerts to notify bystanders of impending threats or dangers. The speaker has an efficient, compact design yet offers premium sound quality with heat-resistant capabilities to ensure it can continue operating and communicating important messages through volatile, high-heat environments.



Ballistic resistant

Select product systems incorporate the latest in ballistic resistant housing including Kevlar composite housing and ballistic resistant glass. With an added layer of external protection, these products remain uncompromised even in the most hostile environments.



Bluetooth

All standard sensors and optional additional modules use the latest Bluetooth standards and near field communication (NFC) technology for easy and reliable pairing between the console’s sensors and the processor.



CCN

Building upon the advantages offered by closed circuit television (CCTV), we incorporate additional features into a secure, closed circuit network (CCN) optimally designed for secure surveillance. Video and data transmissions are made point-to-point or point-to-multipoint over a secure wireless network in the field, back to a command center.



Cloud Based Security

Because of the decentralized nature of our systems, operations can be set up completely off-site, with automatic back ups and monitoring from anywhere in the world. Each system can be designed to provide complete control room functionality from within the smart pole module and offer user control and monitoring from a handheld device.



Complete Vehicle Integration

In both traditional and discrete applications, the VSS offers optimized mounts and integrated solutions for complete vehicle integration.



Continuous 360° Pan

Several of our camera models provide continuous 360-degree pan capabilities. The Model 7 offers continuous pan within its protective dome housing, while the Signature Series Cameras, mounted on either a traditional pan module or our advanced Smart Perimeter System, utilizes complete pan functionality for area surveillance.



Corrosion Resistant Materials

For marine applications, our housing is offered in marine grade aluminum and/or coated carbon fiber to protect against corrosion and internal component damage.



Customizable Height

Our modular pole design allows for customized product height. For higher height applications additional pole modules and accompanying stability anchors can be added to the core system modules.



Day & Night Function

With an automatic “Day & Night” function, our cameras can operate successfully in a minimum illumination environment. As the scene darkens, the infrared cut filter is automatically disabled and the camera switches to night vision mode where the near-infrared sensitivity increases.



Digital Image Stabilizer

The image stabilizer function minimizes the appearance of shaky images caused by low-frequency vibration and maintains a normal horizontal resolution. The stabilization algorithm is activated automatically with zoom, where the slightest mechanical movement can introduce picture shake. This function is useful for outdoor surveillance and traffic monitoring applications.



Dual Decoder

To provide the highest level of forensic integrity, select products are available with dual decoder functionality. The dual decoder helps combat surveillance integrity through tampering or vandalism attempts by storing surveillance data twice. Data is sent through the network to the control room and also stored locally as a backup in the event of network failure or tampering.



Dual Output

To aid in system compatibility, this camera features both analog and IP output connectivity. Through the respective ports data can be sent from the camera via coaxial cables or optical fiber, or over an IP network.



EMCCD Camera

The ultra-sensitive electron multiplying charge coupled device (EMCCD) camera offers outstanding target recognition and identification capabilities by delivering crisp images in a diverse range of lighting levels. EMCCD technology combines thermoelectric cooling to reduce the effect of dark current noise and DSP technology for superior digital noise reduction. Our EMCCD core offers a resolution of 658 x 496 and has a monochrome accumulation mode of 0.00002 lux.



Environment Monitoring

Environmental sensors monitor air quality and provide continuous readings on often-undetectable dangers such as carbon monoxide and oxygen levels. In addition, sensors for ambient temperature and atmospheric pressure can be used to detect sudden changes in weather or air pressure that result from blasts and explosions.



External Optics Compatible

For specialized, long-distance surveillance imaging select camera models are compatible with 3rd party optics such as external lenses and filters.



Frame Rate

Our cameras provide both National Television System Committee (NTSC) and Phase Alternating Line (PAL) resolution standards, offering compatibility almost anywhere in the world.



Future Proof

Our product systems are designed for longevity and technological growth. When new technologies call for upgrades or replacements, our systems allow for isolated component replacement, which saves customers the cost and logistical burden of replacing an entire system.



GPS

Integrated Global Positioning System (GPS) technology is used in the console to identify the current location of the wearer when positioned outside and to track the wearer's geographic movement. This is a useful tool for the command center through which the wearer's position can always be determined.



Grid Power

For direct integration into traditional grid power, our systems are dual voltage (110/120V to 220/240V) compatible.



Hazmat Detection

In addition to standard environmental readings, the surveillance system detects hazardous environmental materials, many of which are often undetectable by humans. The console equips the pole or wearer with gas sensors that will alert the wearer and the command center when propane, butane, methane, and natural gas readings indicate unsafe levels.



HD Display

An HD video display is incorporated into all of our smart protection and control systems. For SPS applications, a large display screen can provide video broadcasts and important information to bystanders. When paired with the PSS, KSS or VSS, a handheld or wearable display connects the user to the control for video display on command and system information updates.



High Speed PTZ

Select camera models are equipped with a high speed motor for quick, sharp and responsive pan, tilt and zoom (PTZ) functions. As with our traditional PTZ models, our High Speed PTZ cameras offer continuous 360-degree pan and broad tilt angles to maximize the viewing area.



Hybrid Power Solution

To maximize system efficiency and 24 hour power management, hybrid power solutions are available through the combination of grid and renewable power sources.



Illumination Sensitivity

Due to its high shutter speed, the camera works within a minimum illumination range of 1.4 lux at 1/50s shutter speed up to 0.01 lux at 1/4s shutter speed with ICR on, allowing the camera to offer visibility in dark lighting conditions.



Image Format

Our cameras support H.264 compression, providing clear moving images over IP networks. The high H.264 compression algorithm works with half of the bit rate of previous compression algorithms, with a controllable bit rate up to 5Mbs, even on limited bandwidth networks.



Image Stabilization

For truly advanced capabilities in outdoor or mobile surveillance applications, select camera models are available with an image stabilization core. The more ruggedized stabilization core goes beyond standard digital stabilization to deliver steady and clear images through movement or shake.



Integrated Optical Fiber

Upon request, an optical fiber connector can be integrated into the camera. An integrated optical fiber facilitates the direct connection to the fiber cable, eliminating the need for an extra junction box, and can extend the range up to 20 km.



Internal Battery

The larger ruggedized housing of the BUMA Heavy Duty allows for independent and rechargeable internal battery power for the camera core. The internal battery provides backup power to the camera head in the event of power loss and ensures uninterrupted 24-hour surveillance.



IP Output

These cameras have all the advantages and flexibility of an IP Network, allowing flexible connectivity through network cables, optical fiber cables or wireless systems. We provide customers with several installation options, depending on their requirements and the layout of the installation site.



IPS

Through calibration with existing wireless networks, the console is able to track distance between other WiFi hotspots and provide the command center with precise location and internal positioning system (IPS) information. More precise room-by-room tracking is possible when building schematics are uploaded to the command center.



Lightning Protection

A lightning rod can be attached to our pole modules that grounds electric current and protects internal electronic components and housing integrity in the event of a lightning strike.



Lightweight

Cameras incorporating our newly designed carbon fiber housing integrate the benefits of lightweight carbon fiber. Without compromising durability or sacrificing protection, the lightweight carbon fiber design lessens the weight burden placed on mounts and motorized components and thus extends the life of these components.



Local Storage

Sensor readings and data gathered by the console are both stored locally on the console and communicated directly with the command center where it can be backed up on a secure server. Local storage enables the console to continue gathering and saving information in the event the console goes offline and ensures the readings and data collected during such an outage is not lost. Once the console goes back online, the readings and data will then be sent automatically to the command center where it can be accessed and stored.



Long Range Night Vision

To further enhance the nighttime surveillance capabilities of our BUMA Modular, we offer an IR laser illuminator module. For low-light applications, power to the illuminator is activated by a built-in light sensor. The IR laser illuminator is optimally paired with our standard camera core modules for a complete surveillance solution in any lighting condition.



Mobile Data Connection

To facilitate completely portable and mobile operations, our systems adhere to global data network standards for fast and uninterrupted cellular connections.



Modular Freedom

Single solution products no longer fit the varying and dynamic demands of the security industry. For maximum flexibility, customized solutions, and efficient technological upgrades we have based all of our product systems on a modular principle and design.



Motion Detection

Motion detection modules provide valuable information about movement around the SPS, including the size and threat level of the object detected and the speed of the object's approach. The motion detection modules are optimally used in perimeter protection, ingress and egress detection and traffic speed enforcement.



Navigation

Integrated GPS and Google Maps compatibility delivers seamless navigation and tracking capabilities. Navigation and positioning information can also be shared with the user from the command center over our HD display modules.



Off-Grid Compatible

The use of highly efficient, flexibly designed solar panels and wind turbines makes off-grid solutions available for many different types of terrains and weather conditions. To further ensure uninterrupted surveillance, each power station is equipped with internal batteries to bridge any lapse in power. The batteries are rechargeable, can provide up to 48 hours of power, and have a lifespan of three to five years.



PTZ Capability

Our cameras offer pan/tilt/zoom features. Each model offers 360° continuous pan and tilt angles are designed to allow the user to monitor a wider viewing area. Cameras paired with pan and tilt capabilities also feature superior zoom functionality. The 5 Series features a tilt angle from +20° to -70°, the 7 Series features an auto flip tilt angle from 0° to 180°, and the BUMA cameras feature a tilt angle from 10° to -45°.



Panic Button

A panic alert button is a standard feature on every console. Once triggered, an alert signal is immediately sent to the command room, which relays vital information such as time, precise location, and current readings from all sensors. To minimize false alarms or accidental triggers, the panic alert button can incorporate a cancellation window during which the panic alert signal may be disarmed.



Panorama

For complete, simultaneous, 360-degree field surveillance we offer several Smart Perimeter System Panorama Modules. Four modules provide generalized area surveillance, covering all ground angles surrounding the pole mount. Optional targeted head modules can be integrated into the pole system to provide more advanced and higher resolution features for targeted area focus.



Plug and Play

To facilitate easy installation and maximize compatibility between system modules, we have chosen to incorporate plug and play technology. Modules featuring this design can be 'plugged' in directly for immediate operation as well as replaced quickly for future system upgrades.



POE Connection

Each camera in our product portfolio offers power over Ethernet (PoE). Through a single Ethernet cable the camera is able to receive both power and data connectivity, reducing the cabling infrastructure requirements and streamlining the security network. The camera can also act as a powered device (PD) to supply power over Ethernet to other devices.



Portable Control Room

Network modules integrated into our smart systems can provide all necessary technology for completely portable control room functionality.



Portable Power Solution

We work with the latest power sourcing technology and leading providers of alternative energy to bring customers optimal and often renewable energy solutions to power their their security needs anywhere in the world.



Quick Install

The modular, flexible design of our products facilitates quick installation with minimal civil works. Our portable, off-grid products completely remove the requirements for civil works or existing infrastructures, which make them ideal for mobile, temporary or special event security.



Radiation Detection

Paired with the hazardous materials sensors, a radiation detector can alert the wearer and command center of the presence of harmful radiation levels so that people can evacuate the contaminated area and seek protection.



Range Extender

To extend transmission signal power, receiver power and coverage distance, range extenders are available for vehicle and pole mount systems.



Renewable Energy Compatible

Our stand-alone camera systems are optimal for remote, undeveloped locations. Efficient power consumption by our cameras allows easy and autonomous integration of green technologies such as solar and wind power. We have entirely removed any requirements for connection to a power grid or related utility power as well as the need for civil works for installation, integration, or compatibility.



RFID

An RFID tag will carry a unique number and will be used to identify the wearer and store useful information as determined by the end user. When used with RFID readers, the command center can track the wearer at checkpoints and through rounds, which can improve efficiency and help monitor a wearer's mobility.



Ruggedized

Our systems are designed for optimal functionality in remote, off-grid and extreme environments. Component ruggedization includes specially coated internal electronics to withstand movement and shocks. Our systems are further protected by our heavy duty housing, which provides maximum durability, longevity and flawless performance in any environment.



Screwless Design

Following our philosophy of 'security through design' our products offer a screwless design for sleek, yet tamper protective, housing.



Server and Network

Networking modules offered in the SPS completely remove the need for dedicated server and control room locations. We integrate these functions into the pole system to enable cloud computing, remote access and full mobility.



Short Range Night Vision

An external IR illuminator is used to provide clear night vision images and extends the night vision range up to 300 meters.



Smart Technology

Going beyond single function products, we integrate smart technology directly into our product modules to offer advanced capabilities and a more comprehensive solution.



SD / HD Camera

All of our camera modules are available with either SD or HD camera cores. Our SD cameras offer exceptional image quality and are available with 18x, 26x, or 40x zoom. For detailed or high contrast environment surveillance, the HD cameras deliver full HD resolution of 1920x1080p at 30 frames per second. The HD cores are available with up to 30x optical zoom and are further enhancement through digital image stabilization and true wide dynamic range (WDR) processing.



Tamper Protection

Anti-climb caging and wiring can be used to prevent tampering and maintain system integrity. The anti-climb barriers are a valuable complement to our screwless design in creating a thorough tamper resistant system.



Thermal Imaging Camera

Thermal imaging cameras offer image penetration through smoke, dust, and water vapor in addition to providing clear images at near or mid-range distances in full darkness. Our thermal camera has a 384 x 288 pixel uncooled detector and uses an image detail enhancement (IDE) algorithm to enhance low contrast targets in high dynamic range scenes.



Thermal Night Vision

We proudly offer today's most advanced thermal imaging technologies. The thermal imager collects heat signatures of all approaching targets and allows for detailed environment detection and monitoring at 0 lux.



Traffic Management

Using traffic signals and speed enforcement cameras, a traffic management system with basic directional signals and alerts can be set up in developed or off-grid locations for construction site traffic or special events.



Two-Way Audio

Two-way audio enables the camera to both transmit audio information to a PC monitoring the camera and receive audio information sent from the command center. A single channel MIC in or line input facilitates audio input, and a single channel RCA linear output interface facilitates output.



Ultra High Definition Camera

We are pleased to announce that our BUMA, and BUMA Modular cameras will soon be available with an ultra high definition (UHD) core. Bringing our customers the latest in video imaging technology, the UHD camera provides superior surveillance imaging and boasts a resolution of 3840x2160 pixels.



Universal Data Adapter

In a rapidly advancing world with varied regional standards we offer universal data adapters to provide data and communication connectivity across all major technologies and input standards.



Universal Power Adapter

Our systems are designed to work with almost any power source available, including solar panels, wind turbines, fuel generators, internal rechargeable batteries, and traditional grid power. The system incorporates a universal power adapter which acts as a buffer between the incoming power source and system components for smooth current transfer and steady operations.



Video on Demand

The HD display modules allow users to select and view recorded video footage, play live video feeds on command from the system's camera modules, or access information sent from the command center. With this feature the control room can also access the wearer's live video stream on command.



Visual Display

The Base Module in our wearable surveillance systems includes a visual display to keep the wearer up-to-date on sensor readings, battery charge and connectivity status.



Vitals Readings

A discrete wearable sensor can provide Electric Cardio Gram, pulse, body temperature, and perspiration level measurements that are transmitted via Bluetooth to the console and forwarded wirelessly to the command center. By monitoring the wearer's vitals, the command center can help protect the health of the wearer and quickly dispatch help should any of the readings drop to dangerous levels.



Weather Station

A weather station can be incorporated into the pole system to offers up-to-the-minute readings for ambient temperature, wind speed, humidity, barometric pressure, precipitation levels and forecasting.



Wide Dynamic Range

These cameras are capable of backlight compensation, which improves the video dynamic range of the camera by 128 times. The camera captures the same image twice, first with normal shutter speed and then with a high shutter speed. The two images are then processed and combined into one clear image using an advanced DSP LSI, producing a final product with clear images and visible detail even in extremely high contrast environments.



Wifi Connectivity

The extensive communication features of the console include WiFi conforming to IEEE 802.11 industry standards.



WiFi Hotspot

In response to increasing use and reliance on wireless technology, we incorporate a WiFi access point/extender directly into our product. This creates a discrete solution for the extension and broadcasting of commercial and company networks.

Housing and Mounts



BUMA Modular Housing

The housing of the BUMA Modular system is designed to accommodate its plug-and-play design. The housing is comprised of a single or triple bracket frame into which individual modules can easily be inserted.



Ceiling Mount

To provide complete 360° surveillance from above, these products are available with a ceiling mount.



Dash Mount

For use in non-commercial vehicles, our smaller cameras and module can be dash mounted for stable, mobile use.



External Vehicle Mount

Carbon fiber and/or mixed media housing is used to securely mount our systems to tactical vehicle exteriors for maximum technology integration with minimal impact on vehicle performance. This mounting capability creates a comprehensive mobile system, ideal for tracking personnel and equipment.



In-Ceiling Mount

For more discreet surveillance, our cameras utilize an in-ceiling mount, making the camera's presence less obtrusive while still providing complete surveillance coverage.



Indoor

These products feature light, protective housing and are designed for indoor use.



In-Vehicle Mount

Our smaller camera modules can easily be installed 'in-vehicle' for surveillance needs onboard public transportation vehicles, commercial transports, and personal vehicles.



IP 67 External Fixed Housing

To provide the highest level of protection, our fixed cameras are available in durable IP67 certified protective housing. The IP67 rating ensures that the camera and components will remain protected from airborne solids as well as water.



IP 67 External PT Housing

For outdoor applications, the cameras offer IP67 certified housing can be paired with a pan/tilt base for a complete PTZ visual surveillance solution.



Maritime

Several of our systems have been adapted for maritime use to equip travelers with the tools to combat the increasing dangers of maritime travel, threats of dangerous weather and the need for 360° surveillance. Our maritime systems feature maritime grade aluminum and/or coated carbon fiber IP68 housing with ruggedized internal components.



Mobile

Our systems are designed to be completely mobile with the most modern materials, advanced power methods, and wireless communication systems to accommodate vehicly security, personnel, and a society on the move.



Outdoor

Designed to withstand harsh environments and the elements of nature, our outdoor products are protected in a minimum of IP 67 housing and offer ruggedized internal component mounts.



Height Extension Module

Height Extension modules can be added to any pole system to provide design flexibility and meet custom height requirements.

Housing and Mounts



Portable

The simplicity and modularity of our design, along with lightweight carbon fiber housing, allows for simple system assembly and easy transport between locations.



Roof Mount

Smaller VSS components that require external mounting such as cameras and environmental sensors can be attached snugly to the vehicle's roof or hood without compromising the vehicle's performance or silhouette.



Smart Perimeter System

Our Signature Series cameras and select individual component modules are compatible with and can be integrated directly into our REKKS Smart Perimeter System (SPS).



Under Hood Mount

To aid in complete vehicle integration and discrete surveillance, our VSS modules can be mounted under a vehicle's hood or body frame.



Wall Mount

To meet varying camera and system needs, an upright wall mount can integrate into existing structures and can be used as an alternative to our pole mount.

Materials and Finish



Aluminum

Our high grade aluminum housings are treated to withstand harsh environmental conditions and corrosion. The lightweight metal is durable and provides superior protection for the internal components.



Camouflage

As a way to further protect the internal components of our carbon fiber products as well as provide discrete surveillance options, we offer 4 camouflage film options for complete environment integration: arctic, forest, marine, and desert. The camouflage film helps to extend the life of the product by protecting the exterior, reflecting heat and providing insulation in cooler environments.



Carbon Fiber

Among its many advantages, carbon fiber has very high strength to weight and stiffness to weight ratios, is significantly lighter than steel and aluminum, offers high rigidity, is among the most corrosion resistant materials available, is an excellent conductor of electricity and demonstrates superior fatigue properties. In addition, carbon fiber's low thermal expansion properties prevent significant expansion, shrinkage, or warping when exposed to large or repeated temperatures changes.



Cases

Components designed for portable and/or mobile use are offered with a protective case in which system components can be secured during travel.



Glass Color

In combination with housing color selections, we offer several color choices for dome and window glass components. Our standard material finishes include traditional clear, tinted, and reflective, with the option for customized colors upon request.



Helmet

Our wearable modules are compatible with universal helmet side rails for easy integration and transferability.



Housing Color

To offer more flexibility in housing colors, we offer our aluminum housed products in three colors: white, silver or standard black. Additional color options can be accommodated by our team upon request.



Mixed Media

In some instances one size does not fit all for housing materials. In response to unique product attributes we offer select products with mixed media housing - our hybrid solution for optimized external protection. Our mixed media housing incorporates both aluminum and carbon fiber, maximizing the benefits of both materials.



MOLLE

Wearable components in both our PSS and KSS have clip and pouch attachments that are directly compatible with Modular Lightweight Load-carrying Equipment (MOLLE) systems for simple and seamless integration.



Pouch

A soft, fitted pouch is available for PSS and VSS modules for added protection between uses and during transport.



Utility Belt

PSS components have clip and pouch attachments that are directly compatible with most standard utility belts.

Certifications



CE

In compliance with European Union regulations, all m_PAC products have received a Declaration of Conformity for compliance with CE standard requirements.



FCC

In compliance with United States regulations, all m_PAC products have received a Declaration of Conformity for compliance with FCC standard requirements.



IK Rating

In addition to having a dust-tight and immersible IP67 rating, this product also features an IK10 external mechanical impact rating. As defined by the European Standard EN 62262, an IK10 rating indicates that when enclosed in housing, the camera is protected from external impacts of up to 20 Joules.



IP Rating

Our outdoor products feature housing with a minimum Ingress Protection (IP) rating of 67 that provides protection against solid particles, water, extreme weather conditions, and vandalism.



ONVIF

As a member of the Open Network Video Interface Forum (ONVIF), m_PAC stays current in the development of global IP-based physical security standards. All of our products conform to the latest ONVIF standards.



UL

In order to ensure user safety and optimal product performance we certify our components conform to applicable safety standards and have received certification from Underwriters Laboratories (UL) or an alternate Nationally Recognized Testing Laboratory.



WiFi Certified

To stay current with the latest communication standards and ensure smooth system operability our WiFi enabled modules are WiFi Certified.

Product Ordering



We welcome your interest in our products and are happy work with you on pricing requests, orders, or building a quotation for your project. A full risk assessment, optimized security solutions and a site visit may be incorporated into a product quotation request.

For more information, please visit our website or contact us directly as provided below. Our team values your business and the importance of your project. Once you have submitted your request, an expert from our sales team will contact you.

We assure you that your request will be promptly and comprehensively reviewed by our team. We look forward to working with you on your upcoming security and surveillance needs.



m_PAC AG
Rödingsmarkt 39
D-20459 Hamburg
Phone: +49 (0) 40 228 152 46 0
www.mpac.com
info@mpac.com



m_PAC USA, LLC
15720 Brixham Hill Avenue,
Suite 322
Charlotte, NC 28277 USA
Phone: +1 704 401 5288
www.mpac.com
info@mpac.com



m_PAC MENA, LLC
Al-Jandaweel
Radhi Innab Street 124
Phone: +962 (6) 5825982
www.mpac.com
info@mpac.com