

MIC Series 550 Camera

www.boschsecurity.com



BOSCH

Invented for life



- ▶ Choice of 36x or 28x day/night cameras with 550 TVL, 12x digital zoom, Wide Dynamic Range (WDR), advanced privacy masking, and image stabilization
- ▶ Video and control over IP when powered by MIC IP Power Supply (sold separately)
- ▶ Sodium Vapor White Balance mode restores objects to their original color
- ▶ Robust design rated to an industry-leading IP68
- ▶ Complete series of mounting accessories; various mounting positions, including on-site canting

The MIC Series 550 camera combines cutting-edge technology with the latest production techniques to provide a class-leading feature set in an economical package. The MIC Series 550 range takes high quality surveillance to new levels of excellence.

As a best-fit camera for virtually any security application, it can be installed in the harshest of environments. Thanks to its IP68-rated aluminum casing, the MIC Series 550 camera functions perfectly in the most demanding conditions. This tough and vandal-resistant casing provides protection from the elements and physical attack. An integrated long-life silicone wiper and a reversible rain shield ensure high quality images regardless of the installed environment. The brushless-motor technology offers ultra-reliable operation with full 360° continuous rotation pan and 270° tilt control for exceptional viewing capability. Small increment pan speeds from just 0.2° per second to 120° per second gives the user precise control. This speed control is especially important when used with video analytic systems, particularly for tracking subjects when fully zoomed in.

The MIC Series 550 camera incorporates Bosch's standard controller interface supporting familiar AutoDome on-screen menus. This enhancement makes

it simple to integrate and use the MIC Series 550 within systems that already use Bosch AutoDome cameras and systems.

When powered by a MIC IP Power Supply, the MIC camera becomes an IP-enabled device with extra features such as Intelligent Video Analysis (IVA), and the ability to record video on a network-attached RAID iSCSI storage device or locally on a user-supplied SD or SDHC card (32 GB maximum). The optional "hybrid" operation provides video and control of the MIC camera over both analog (Bilinx over coax) and IP connections simultaneously. For more information, see the MIC Series IP Power Supply datasheet on the online Product Catalog at www.boschsecurity.com.

System overview

Robust design rated to an industry-leading IP68

Subjected and certified to rigorous dust and immersion tests (IP68), MIC Series cameras are perfectly suited for installation in even the most unforgiving environments. Reliable 'O' ring seals completely protect the internal components from the external environment, meaning that there is no need to pressurize the camera. To guarantee the seal, the factory subjects each MIC camera to a 100% leak test before shipping. In addition, the cameras' aluminum

construction is protected from corrosion by two different processes: first, the cameras receive a coating of Alodine 5200, a chromate-free conversion coating of aluminum that is used in the aerospace and defense industries where a protective layer is required to improve corrosion resistance. Second, they receive a robust, powder coat layer of paint.

Various mounting options, including on-site canting

The MIC Series 550 camera features twist-lock on-site canting functionality. This allows the camera to be installed upright, inverted, or canted (at a 45° angle) to achieve the perfect field of view. No matter the installation position, the camera will operate faultlessly.

Integrated wiper

Regardless of the weather, the MIC Series 550 camera is able to capture the highest possible quality image all year long, thanks to its integrated, long-life silicone wiper.

Multi-protocol operation

Compatible with a multitude of protocols, including Bosch “Biphase (OSRD)” and “Bilinx,” Pelco “P” and “D,” and Forward Vision, the MIC Series 550 camera integrates seamlessly with existing security systems.

Applications:

- General CCTV
- Town centers
- ANPR systems
- Vandalism prone areas
- Extreme environments
- Rapid deployment
- High security
- Prestigious developments
- Broadcast
- Architectural

Functions

High-performance PTZ day/night cameras

Image control and quality are integral aspects of any PTZ camera, and the MIC Series 550 camera delivers. The camera is available with a choice of 28X or the industry-leading 36X optical zoom lens, and offers a full 12X digital zoom. Both camera options provide 550 TVL of horizontal resolution for outstanding clarity and image detail. The cameras also incorporate technology that dramatically improves the dynamic range by 128 times. Also known as Wide Dynamic Range (WDR), it results in clear image reproduction in extreme high-contrast environments. The AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera) features ensure optimal control. Day/night capabilities and outstanding sensitivity make the MIC Series 550 cameras exceptional performers in all lighting conditions. In low light, these cameras automatically switch from color to monochrome by removing the IR filter to boost sensitivity, while maintaining superior image quality. For operation in the darkest conditions, the SensUp control feature

automatically reduces the shutter speed to as little as one second. This increases sensitivity by more than 50 times.

In addition to low light applications, the camera is also an exceptional performer when viewing under a sodium vapor lamp (for example, a street lamp or tunnel lamp). Images under these conditions normally have a yellowish tint, so the MIC Series 550 camera automatically compensates for the light from a sodium vapor lamp to restore objects to their original color. With super-quick, 120°/60° per-second pan/tilt speeds, the MIC Series 550 camera outperforms other cameras in its class. The camera supports 99 pre-positions and two styles of Guard Tours: Preset and Record/Playback. The preset tour has capability for up to 99 pre-positions with a configurable dwell time between pre-positions, and can be customized as to the order and frequency each preset is visited. The camera also provides support for two recorded tours, which have a combined duration of 15 minutes of movements. These are recorded macros of an operator’s movements, including pan, tilt, and zoom activities, and can be played back in a continuous manner.

Superior privacy masking

The MIC Series 550 camera allows for a total of 24 individual privacy masks, with up to eight displayed in the same scene. Unlike conventional privacy masks, these can be programmed with three, four, or even five corners each to cover more complex shapes. Each mask changes size and shape smoothly and quickly, ensuring that the covered object cannot be seen. Each mask can appear in black, white, or blurred. Blurred is useful when privacy is an issue, but determining the presence of motion is still required.

Image Stabilization

As PTZ cameras continue to increase their optical zoom capabilities, image stabilization becomes critical to eliminate movement caused by unstable camera mounts. A mere quarter-inch of movement of the camera mount can shift the field of view by more than 6 m (20 feet) when the camera is zoomed to a high value. This can render images unusable. Image stabilization algorithms included with the MIC Series 550 camera reduces camera shake in both the vertical and horizontal axis, resulting in exceptional image clarity (pixel displacement up to +/- 10% for frequencies up to 10 Hz). Bosch’s unique image stabilization solution does not reduce camera sensitivity, unlike competitive systems.

Ease of installation and servicing

Bosch’s innovative software, the Configuration Tool for Imaging Devices (CTFID), allows technicians or operators to control the PTZ, change camera settings, and even update firmware from remote locations without need for additional wiring.

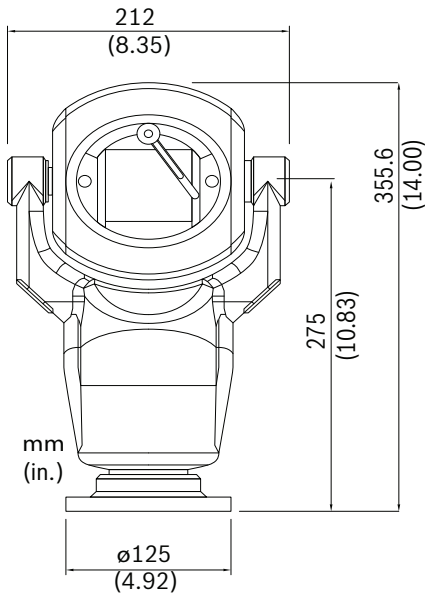
The MIC Series 550 camera has advanced built-in diagnostics to simplify service and minimize downtime. Using the On Screen Display (OSD), a technician can quickly and easily check critical parameters (such as internal temperature) to verify that the camera is functioning within acceptable operating limits.

Certifications and approvals

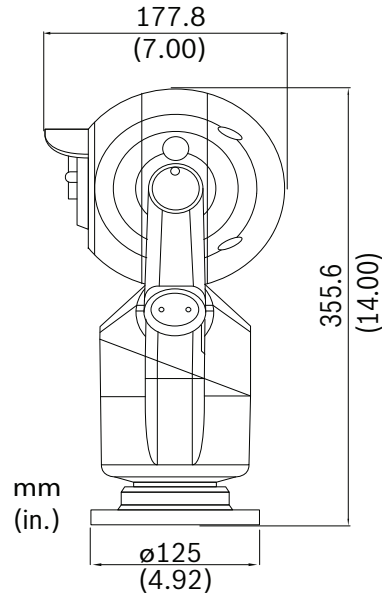
| | |
|-------------------------------------|--|
| Electromagnetic Compatibility (EMC) | Complies with FCC Part 15, ICES-003, and CE regulations, including EN50130-4 and EN61000-3-2 & 3-3 and EN55022 |
| Product Safety | Complies with CE regulations, UL, EN, and IEC Standards 60950-1 & 22 |
| Ingress Protection Rating | IP68 (1m submersion for 24 hrs) |

| Region | Certification |
|--------|---------------|
| USA | UL |

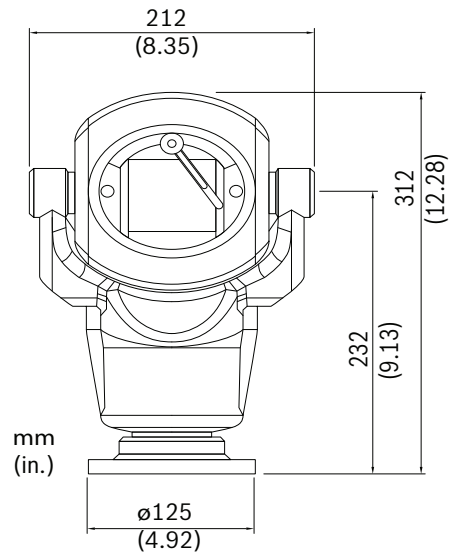
Installation/configuration notes



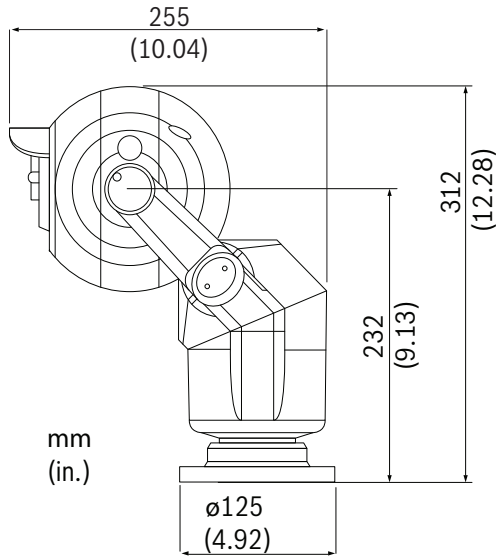
Front Detail, 90° (upright)



Side Detail, 90° (upright)



Front detail, 45° (canted)



Side detail, 45° (canted)

Parts included

Technical specifications

Camera - 36x Day/Night

| | | |
|---|---|---------------|
| Imager | 1/4 in.-type Exview HAD CCD (progressive scan) | |
| Resolution / Effective Picture Elements | PAL: Approximately 440,000; 752(H) x 582(V) NTSC: Approximately 380,000; 768 (H) x 494 (V) | |
| Lens | 36x Zoom (3.4 to 122.4 mm) F1.6 to F4.5 | |
| Zoom Movement Speed | 4.0 seconds (optical Wide to optical TELE) 6.2 seconds (optical wide to digital TELE) | |
| Focus | Automatic with manual override | |
| Iris | Automatic with manual override | |
| Field of View (FOV) | 1.7° to 57.8° | |
| Video Output | 1.0 Vp-p, 75 Ohm | |
| Gain Control | Auto/Manual/Max. (-3 dB to 28 dB, 2 dB steps) | |
| Aperture Correction | Horizontal and vertical | |
| Digital Zoom | 12x | |
| Horizontal Resolution | 550 TVL (NTSC, PAL) typical | |
| Sensitivity (typical) ¹ | 30 IRE | 50 IRE |
| Day Mode | | |
| SensUp Off | 0.66 lux | 1.4 lux |

| | | |
|--|--------------------------------|------------|
| SensUp On (NTSC: 1/4s, 15X; PAL 1/3s, 16.7X) | 0.04 lux | 0.1 lux |
| Night Mode | | |
| SensUp Off | 0.104 lux | 0.209 lux |
| SensUp On (NTSC: 1/4s, 15X; PAL 1/3s, 16.7X) | 0.0052 lux | 0.0103 lux |
| Electronic Shutter Speed | 1/1 to 1/10,000 sec., 22 steps | |
| Signal-to-Noise Ratio (SNR) | >50 dB | |
| White Balance | 2000 K to 10,000 K | |

¹ Unless otherwise stated, test conditions are: F1.6; shutter = NTSC 1/60s, PAL 1/50s; max AGC

Camera - 28x Day/Night

| | | |
|--|---|---------------|
| Imager | 1/4 in.-type Exview HAD CCD (progressive scan) | |
| Resolution / Effective Picture Elements | PAL: Approximately 440,000; 752(H) x 582(V) NTSC: Approximately 380,000; 768 (H) x 494 (V) | |
| Lens | 28x Zoom (3.5 to 98.0 mm) F1.35 to F3.7 | |
| Zoom Movement Speed | 1.7 seconds (optical wide to optical TELE, optical wide to digital TELE) | |
| Focus | Automatic with manual override | |
| Iris | Automatic with manual override | |
| Field of View (FOV) | 2.1° to 55.8° | |
| Video Output | 1.0 Vp-p, 75 Ohm | |
| Gain Control | Auto/Manual/Max. (-3 dB to 28 dB, 2 dB steps) | |
| Aperture Correction | Horizontal and vertical | |
| Digital Zoom | 12x | |
| Horizontal Resolution | 550 TVL (NTSC, PAL) typical | |
| Sensitivity (typical) ² | 30 IRE | 50 IRE |
| Day Mode | | |
| SensUp Off | 0.33 lux | 0.66 lux |
| SensUp On (NTSC: 1/4s, 15X; PAL 1/3s, 16.7X) | 0.02 lux | 0.04 lux |
| Night Mode | | |
| SensUp Off | 0.066 lux | 0.166 lux |

| | | |
|--|--------------------------------|------------|
| SensUp On (NTSC: 1/4s, 15X; PAL 1/3s, 16.7X) | 0.0026 lux | 0.0082 lux |
| Electronic Shutter Speed | 1/1 to 1/10,000 sec., 22 steps | |
| Signal-to-Noise Ratio (SNR) | >50 dB | |
| White Balance | 2000 K to 10,000 K | |

2 Unless otherwise stated, test conditions are: F1.35, shutter = NTSC 1/60s, PAL 1/50s; max AGC

Mechanical

| | | |
|------------------------------------|--|--|
| Drive Unit | Brushless, integral pan/tilt motor drive | |
| Pan Range | 360° continuous rotation | |
| Tilt Angle | 270° | |
| Tilt Range | Upright unit: -58° - +90° Canted unit: -103° - +90° | |
| Variable Speed | Pan: 0.2°/second - 120°/second Tilt: 0.2°/second - 60°/second | |
| Pre-position Speed | 120°/second | |
| Preset Accuracy | 0.17° (typical) | |
| Proportional Pan / Tilt to Zoom | Yes | |
| Audible Noise | <66dB | |

Electrical

| | | |
|---------------------|----------------|--|
| Input Voltage | 18 VAC nominal | |
| Power Consumption | 18 W maximum | |
| Current Consumption | 1 A maximum | |

Miscellaneous

| | | |
|-----------------------------|--|--|
| Sectors / Titling | 16 independent sectors with 20 characters per title | |
| Privacy Masking | 24 individually-configurable privacy masks | |
| Pre-positions | 99, each with 20 characters per title | |
| Camera Setup / Control | RS-485, Bilinx (coax); also Bosch Biphase with converter (sold separately) | |
| Communications Protocols | Bosch (Bilinx, OSRD), Pelco P/D, Forward Vision (Bosch OSRD requires use of converter device (MIC-BP3 or MIC-BP4), sold separately.) | |
| Guard Tours | Two (2) types of tours: <ul style="list-style-type: none"> Recorded tours - two (2), total duration 15 minutes | |

| | |
|---------------------|--|
| | <ul style="list-style-type: none"> Preset tour - one (1), consisting of up to 99 scenes, consecutively and (1) customized up to 99 scenes |
| Washer Drive | Optional washer kit (MIC-WKT Kit used with the appropriate HAC-WAS washer pump) |
| Supported Languages | English, Czech*, Dutch, French, German, Italian, Polish, Portuguese, Russian*, Spanish |

* Available with separate language upload

User Connections

| | |
|------------------------|--|
| Power | Via composite cable (sold separately) |
| RS-485 Biphase ± | RS-485 (Twisted pair; Simplex, half and full duplex operation via composite cable) Biphase ± (Optional; requires MIC Biphase module with external power supply.) |
| Video | Coaxial via composite cable (sold separately) |
| Alarm Inputs | One (1) tamper input (eight [8] additional inputs possible with optional alarm card) |
| Relay Out | Two (2) relay outputs and washer relay output only with optional alarm card |
| Alarm Communication | Tamper switch (ground connection) |

Environmental

| | |
|------------------------------|--|
| Ingress Protection Rating | IP68 |
| Operating Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Cold Start-up Temperature | -40 °C (-40 °F) (Requires 30-minute warm-up prior to PTZ operations) |
| Storage Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Humidity | 0-100% |
| Wind Load | 209 km/h (130 mph) (sustained) (Gusts up to 290 km/h (180 mph)) Effective Projected Area (EPA): 0.044m ² (0.47 ft ²) |
| Vibration | IEC60068-2-6, Test Fc: Vibration (sinusoidal), 20m/s ² (2.0g) |
| Shock | IEC60068-2-7, Test Ea: Shock, 20g |

Construction

Dimensions (W x H x D)

| | |
|-----------------------|---|
| Upright and Inverted | 212 x 355 x 177 mm (8.35 x 14.0 x 7.0 in.) |
| Canted | 212 x 312 x 255 mm (8.35 x 12.3 x 10.0 in.) |
| Weight | 7 kg (15.43 lb) (including 4 in. pitch circle diameter (PCD) base) |
| Viewing Window | Tempered flat glass |
| Construction Material | Cast solid aluminum |
| Standard Colors | Black (RAL 9005), White (RAL 9010); Grey (RAL 9006, available in specific regions) |
| Standard Finish | Alodine 5200 surface treatment with powder coat paint, sand finish |
| Window Wiper | Standard, long-life silicone wiper |
| Canting | Twist-lock canting secured by two security screws |

Ordering information

MIC-550ALB28N 28X NTSC Camera, Black
PTZ, day/night, aluminum, Black, 28X, NTSC
Order number **MIC-550ALB28N**

MIC-550ALW28N 28X NTSC Camera, White
PTZ, day/night, aluminum, White, 28X, NTSC
Order number **MIC-550ALW28N**

MIC-550ALB36N 36X NTSC Camera, Black
PTZ, day/night, aluminum, Black, 36X, NTSC
Order number **MIC-550ALB36N**

MIC-550ALW36N 36X NTSC Camera, White
PTZ, day/night, aluminum, White, 36X, NTSC
Order number **MIC-550ALW36N**

MIC-550ALB28P 28X PAL Camera, Black
PTZ, day/night, aluminum, Black, 28X, PAL
Order number **MIC-550ALB28P**

MIC-550ALG28P 28X PAL Camera, Grey
PTZ, day/night, aluminum, Grey, 28X, PAL
Note: Available in specific regions only.
Order number **MIC-550ALG28P**

MIC-550ALW28P 28X PAL Camera, White
PTZ, day/night, aluminum, White, 28X, PAL
Order number **MIC-550ALW28P**

MIC-550ALB36P 36X PAL Camera, Black
PTZ, day/night, aluminum, Black, 36X, PAL
Order number **MIC-550ALB36P**

MIC-550ALG36P 36X PAL Camera, Grey
PTZ, day/night, aluminum, Grey, 36X, PAL
Note: Available in specific regions only.
Order number **MIC-550ALG36P**

MIC-550ALW36P 36X PAL Camera, White
PTZ, day/night, aluminum, White, 36X, PAL
Order number **MIC-550ALW36P**

Accessories

MIC Cable 2M
2 meter (6.56 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-2M**

MIC Cable 10M
10 meter (32.81 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-10M**

MIC Cable 20M
20 meter (62.62 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-20M**

MIC Cable 25M
25 meter (82.02 ft) composite cable with plug for power, data and video for MIC Series cameras
Order number **MIC-CABLE-25M**

MIC-24PSU-2 MIC Power Supply Unit, 24VAC, 50/60 Hz
24 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-24PSU-2**

MIC-115PSU-2 MIC Power Supply Unit, 120VAC, 50/60 Hz
115 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-115PSU-2**

MIC-240PSU-2 MIC Power Supply Unit, 230 VAC, 50/60 HZ
230 VAC, 50/60 Hz power supply with two video outputs for MIC Series cameras.
Order number **MIC-240PSU-2**

MIC IP Power Supply 24 VAC
24 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-24**

MIC IP Power Supply 115 VAC
115 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-115**

MIC IP Power Supply 230 VAC
230 VAC, 50/60 Hz, IP-enabled power supply for MIC Series cameras
Order number **MIC-IP-PS-230**

MIC-DCA-BD Deep Conduit Adapter, Black

Deep conduit adapter for 4 in. PCD base, black sand finish (RAL9005)

Order number **MIC-DCA-BD**

MIC-DCA-WD Deep Conduit Adapter, White

Deep conduit adapter for 4 in. PCD base, white sand finish (RAL9010)

Order number **MIC-DCA-WD**

MIC-DCA-GD Deep Conduit Adapter, Grey

Deep conduit adapter for 4 in. PCD base, grey sand finish (RAL 9006)

Order number **MIC-DCA-GD**

MIC-SCA-BD Shallow Conduit Adapter, Black

Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR, black sand finish (RAL9005)

Order number **MIC-SCA-BD**

MIC-SCA-WD Shallow Conduit Adapter, White

Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR mount, white sand finish (RAL9010)

Order number **MIC-SCA-WD**

MIC-SCA-GD Shallow Conduit Adapter, Grey

Shallow conduit adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR, grey sand finish (RAL 9006)

Order number **MIC-SCA-GD**

MIC-SPR-BD Spreader Plate, Black

Aluminum spreader plate suitable for brickwork surface mounting, black sand finish (RAL9005)

Order number **MIC-SPR-BD**

MIC-SPR-WD Spreader Plate, White

Aluminum spreader plate suitable for brickwork surface mounting, white sand finish (RAL9010)

Order number **MIC-SPR-WD**

MIC-SPR-GD Spreader Plate, Grey

Aluminum spreader plate suitable for brickwork surface mounting, grey sand finish (RAL 9006), for MIC-612xxxxD36x series

Order number **MIC-SPR-GD**

MIC-CMB-BD Corner Mount Bracket, Black

Corner mount bracket, black sand finish (RAL9005)

Order number **MIC-CMB-BD**

MIC-CMB-WD Corner Mount Bracket, White

Corner mount bracket, white sand finish (RAL9010)

Order number **MIC-CMB-WD**

MIC-WMB-BD Wall Mount Bracket, Black

Wall mount bracket, black sand finish (RAL9005)

Order number **MIC-WMB-BD**

MIC-WMB-WD Wall Mount Bracket, White

Wall mount bracket, white sand finish (RAL9010)

Order number **MIC-WMB-WD**

MIC-WMB-GD Wall Mount Bracket, Grey

Wall mount bracket, grey sand finish (RAL9006)

Order number **MIC-WMB-GD**

MIC-PMB Pole Mount Bracket

Pole mount bracket (includes 2 x 455 mm stainless steel banding straps for pole diameters 75 to 145 mm)

Order number **MIC-PMB**

MIC-BP3 Biphase Converter

Biphase converter for IR power supplies or non-IR power supplies without a free expansion slot available

Order number **MIC-BP3**

MIC-BP4 Biphase Converter

Biphase converter for non-IR versions of MIC series power supply units

Order number **MIC-BP4**

MIC-ALM Alarm and Washer Pump Drive Card

8 Input alarm and washer pump drive card for PSU (Not for IR PSU)

Order number **MIC-ALM**

MIC-WKT Washer Kit

Washer kit for non infrared MIC models (includes washer pump drive card, washer nozzle and mounting brackets for wall and 4 in. PCD base)

Order number **MIC-WKT**

MICUSB485CVTR2 USB to RS485 Signal Converter

USB to RS485 signal converter to allow MIC Series cameras to connect to a PC

Order number **MICUSB485CVTR2**

VP-USB Cable

USB to BNC adaptor

Order number **VP-USB**

VG4-SFPCKT Fiber Optic Ethernet Media Converter Kit

Ethernet media converter video transmitter/data receiver fiber optic kit

Order number **VG4-SFPCKT**

Software Options**VP-CFGSFT Configuration Tool for Imaging Devices**

Camera configuration software for use with Bilinx cameras

Order number **VP-CFGSFT**

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