



# MIC Series 400 Public Address Camera



- ▶ **Built-in speakers**
- ▶ **Brushless motor technology**
- ▶ **Host of mounting and viewing options**
- ▶ **Integrated long-life silicone wiper**
- ▶ **Multi-protocol operation**

The MIC Series 400 public address camera has been designed to offer an extremely reliable, robust, and high quality surveillance solution for security applications that demand the very best performance. Precision engineered to exacting standards, the range offers numerous benefits over the use of traditional dome and PTZ cameras, and comes with a variety of options in order to offer a best fit solution for virtually any application that requires video and voice communication.

The MIC Series 400 public address camera affords the user directional one-way voice communication thanks to its 100 dB built-in twin speaker system. Coupled with leading PTZ camera technology, the range is suitable for a host of crowd control and public space applications.

Rated to an industry leading IP68 (speakers rated to IP67), the compact, vandal-resistant, machined aluminum camera housing is suitable for installation in the harshest of environments. Machined from solid aluminum, the MIC Series 400 cameras ensure corrosion protection by using two different processes; first an Alocrom 1200 coating, then a robust powder paint coating. Alocrom 1200 is a chromate conversion coating of aluminum, used in the aerospace and defense industries where a protective layer is required to improve corrosion resistance. The optically-perfect flat viewing window and integrated, long-life silicone wiper ensure razor sharp images are captured in even the most demanding conditions.

The brushless motor technology offers ultra-reliable, whisper-quiet operation with full 360° continuous rotation pan and 196° tilt control for exceptional viewing capability. Small-increment pan/tilt speeds, from just 0.2° per second to 90° per second, give the user precise control. This speed control is especially important when used with video analytic systems, particularly for tracking subjects when fully zoomed in.

A choice of true day/night camera modules, offering up to 36x optical zoom (12x digital) are available, providing either 470 TVL NTSC/PAL typical (18x module) or 530 TVL NTSC/PAL typical (36x module). When coupled with upright or inverted mounting capability, the MIC Series 400 public address camera allows the perfect field of view to be achieved every time.

## Functions

### **Built-in speakers**

Twin 100 dB speakers offer directional voice communication in addition to the units' flexible surveillance capability.

Note: Requires suitable third party amplifier and microphone.

**Brushless motor technology**

Whisper-quiet operation and smooth control is provided through the use of ultra-reliable brushless motors.

**Host of mounting and viewing options**

Faultless operation either upright or inverted gives the user a host of mounting and viewing possibilities.

**Integrated wiper**

Hot or cold, rain or shine - regardless of the weather the MIC Series 400 public address camera is able to capture the highest possible quality image all year round thanks to its integrated long-life silicone wiper.

**Multi-protocol operation**

Compatible with virtually any control equipment available today, the MIC Series 400 public address camera is able to seamlessly integrate with the vast majority of security systems

**Applications:**

- Town Centers
- Railway Stations
- Events
- Crowd Control
- Rapid Deployment
- Stadia
- Remote Locations
- Airports

**Certifications and Approvals**

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations, including EN50130-4, EN61000-3-2:2006, EN61000-3-3:1995, and EN55022:2006 inc AL:2007
Safety	Complies with CE regulations, UL, EN, and IEC Standards 60950-1 & 22
Weatherproofing	IP68 camera housing, IP67 speakers

**Technical Specifications****Camera Module**

Image sensor	1/4-inch EXview CCD, WDR (36x only)
Horizontal resolution	18x module, 470 TVL NTSC/PAL typical 36x module, 530 TVL NTSC/PAL typical
Filter	Automatic mechanical IR cut filter
Focus system	Auto or manual
Iris	Auto or manual with slow shutter integration modes
Synchronization	Internal / External (V-Lock)
Signal/Noise ratio	50 dB or more
Back Light Compensation (BLC)	On/Off

White balance	Automatic
Automatic Gain Control (AGC)	-3 to -28 dB, 2 dB steps
Aperture control	16 Steps

**18x Optical Zoom Module**

Lens	F=4.1 mm (wide) to 73.8 mm (tele), F1.4 to F3.0
Zoom	18x optical (12x digital)
Angle of view	48° (wide) to 2.8° (tele)
Minimum illumination	0.7 lux (F1.4, 1/60s NTSC, 1/50s PAL) 0.11 lux (F1.4, 1/4s NTSC, 1/3s PAL) 0.01 lux (F1.4, 1/4s NTSC, 1/3s PAL ICR on)
Shutter speed	1/1 to 1/10,000 s (22 steps) NTSC, PAL

**36x Optical Zoom Module**

Lens	F=3.4 mm (wide) to 122.4 mm (tele), F1.6 to F4.5
Zoom	36x optical (12x digital)
Angle of view	57.8° (wide) to 1.7° (tele)
Minimum illumination	1.4 lux (1/60 s NTSC, 1/50 s PAL, typical, F1.6, 50IRE) 0.1 lux (1/4 s NTSC, 1/3 s PAL, typical, F1.6, 50IRE) ICR-ON mode: 0.01 lux (1/4 s NTSC, 1/3 s PAL)
Shutter speed	1/4 to 1/10,000 s (20 steps) NTSC, 1/3 to 1/10,000 s (20 steps) PAL

**Twin Speakers**

Output	6 W / 8 ohm
Construction	Polyamide UL94 V0
Weatherproofing	IP67
Control	Third party amplifier and microphone

**Operational**

Auto flip	Yes
Manual flip	Yes
Dynamic privacy zones	Standard, 3D privacy masking with infinite zones
Presets	64 telemetry presets utilizing resolver technology (using FV protocol, 10 camera set-up presets to allow ANPR, color correction etc.)
Preset tours	6 tours each with up to 32 presets
Sector titles	Yes (64 sectors) 20 characters per title
Preset titles	20 character caption for each of the 64 presets
Home position	Yes (preset 1 or tour)

**Communication and Protocols**

Communication	RS485 / RS422
Control protocol	Bosch or FV protocol cameras available; additional protocols supported are Pelco D, Kalamtel, 360 Vision, American Dynamics, Panasonic, Molyx, VCL, and Vicon. These can be loaded using the MIC-USB485CVTR signal converter and Cam-set via a PC. Biphase control requires a Biphase to RS485 converter (MIC-BP4, available separately) installed in the MIC Series PSU to connect to Biphase equipment.

**Connectivity**

Video	Co-axial via composite cable
Telemetry	Twisted pair. Simplex, half and full duplex operation via composite cable
MIC Universal Camera Setup Software Utility (Cam-set)	Supplied with each camera, Cam-set allows direct connection to a USB equipped PC via the MIC Series PSU or over a full duplex or IP network to provide access to all camera functions and useful diagnostic tools
USB to RS485 signal converter	Allows MIC Series cameras to connect to a PC (supplied free with MIC Series 400 public address camera or available separately)
Power	Via composite cable

**Alarms**

Alarm inputs	1 tamper input (additional inputs possible with optional alarm card in PSU)
Alarm communication	Tamper switch (ground connection)

**Mechanical**

Drive unit	Brushless, integral pan/tilt motor drive
Pan angle	360° continuous rotation
Pan speed	Up to 90° per second (variable)
Tilt angle	196°
Tilt speed	0.2° to 90° per second (variable)
Speed control	Closed loop electronics
Preset accuracy	Better than 0.08°
Proportional Pan/Tilt to Zoom	Yes

**Construction**

Construction material	Machined aluminum
Viewing window	Tempered flat glass
Window wiper	Standard, long-life silicone wiper
Standard color	Black (RAL9005) or Grey (RAL7001)
Standard finish	Alochrom 1200 surface treatment with powder coat paint.
Dimensions (W x H x D)	205 x 420 x 165 mm (8.07 x 16.54 x 6.50 in.) (upright and inverted)

Weight	6.5 Kg (14.33 lb) including 4-in. pitch circle diameter (PCD) base
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Configurations available	Upright mount or upright canted at 45° mount. (Inverted mount is possible using software setting and upright camera.)
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**Environmental**

Operational temperature	-20°C to +50°C (-4 °F to 122 °F)
Weatherproofing	IP68 Camera, IP67 for Speakers

**Electrical**

Input voltage	18 VAC
Power consumption	25.2 W max

**Ordering Information**

<b>MIC400PABUW14518P MIC Series 400 public address</b> Public address, 18X, PAL, PTZ camera, Black, Upright, FV Protocol with integrated wiper and privacy function	<b>MIC400PABUW14518P</b>
<b>MIC400PABUW14536P MIC Series 400 public address</b> Public address, 36X, PAL, PTZ camera, Black, Upright, FV Protocol with integrated wiper and privacy function	<b>MIC400PABUW14536P</b>
<b>MIC400PAGUW14518P MIC Series 400 public address</b> Public address, 18X, PAL, PTZ camera, Grey, Upright, FV Protocol with integrated wiper and privacy function	<b>MIC400PAGUW14518P</b>
<b>MIC400PAGUW14536P MIC Series 400 public address</b> Public address, 36X, PAL, PTZ camera, Grey, Upright, FV Protocol with integrated wiper and privacy function	<b>MIC400PAGUW14536P</b>
<b>MIC400PABUP14518N MIC Series 400 public address</b> Public address, 18X, NTSC, PTZ camera, Black, Upright, Bosch Protocol with integrated wiper and privacy function	<b>MIC400PABUP14518N</b>
<b>MIC400PABUP14536N MIC Series 400 public address</b> Public address, 36X, NTSC, PTZ camera, Black, Upright, Bosch Protocol with integrated wiper and privacy function	<b>MIC400PABUP14536N</b>
<b>MIC400PAGUP14518N MIC Series 400 public address</b> Public address, 18X, NTSC, PTZ camera, Grey, Upright, Bosch Protocol with integrated wiper and privacy function	<b>MIC400PAGUP14518N</b>

**Ordering Information**

**MIC400PAGUP14536N MIC Series 400 public address**      **MIC400PAGUP14536N**

Public address, 36X, NTSC, PTZ camera, Grey, Upright, Bosch Protocol with integrated wiper and privacy function

**Accessories**

**MIC-24PSU-UL 24 VAC Camera Power Supply**      **MIC-24PSU-UL**

24 VAC, 50/60 Hz power supply for MIC Series cameras

**MIC-115PSU-UL 115 VAC Camera Power Supply**      **MIC-115PSU-UL**

115 VAC, 60 Hz power supply for MIC Series cameras

**MIC-240PSU-UL 240 VAC Camera Power Supply**      **MIC-240PSU-UL**

240 VAC, 50 Hz power supply for MIC Series cameras

**MIC-BP4 Bi-phase Converter**      **MIC-BP4**

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

**MIC-DCA-B Deep Conduit Adapter**      **MIC-DCA-B**

Deep conduit adapter for 4 in. PCD base - black leatherette finish, RAL9005

**MIC-DCA-G Deep Conduit Adapter**      **MIC-DCA-G**

Deep conduit adapter for 4 in. PCD base - grey leatherette finish, RAL9010

**MIC-SCA-B Shallow Conduit Adapter**      **MIC-SCA-B**

Shallow conduit adapter for 4 in. PCD base - black, leatherette finish, RAL9005

**MIC-SCA-G Shallow Conduit Adapter**      **MIC-SCA-G**

Shallow conduit adapter for 4 in. PCD base - grey, leatherette finish, RAL7001

**MIC-SPR Spreader Plate**      **MIC-SPR**

Aluminum spreader plate suitable for brickwork surface mounting – black leatherette finish RAL9005

**MIC-SPR-G Spreader Plate**      **MIC-SPR-G**

Aluminum spreader plate suitable for brickwork surface mounting – grey leatherette finish RAL7001

**MIC-CMB-B Corner Mount Bracket**      **MIC-CMB-B**

Corner mount bracket – black leatherette finish RAL9005

**MIC-CMB-G Corner Mount Bracket**      **MIC-CMB-G**

Corner mount bracket - grey leatherette finish RAL 7001

**MIC-PMB Pole Mount Bracket**      **MIC-PMB**

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

**Ordering Information**

**MIC-WMB-B Wall Mount Bracket**      **MIC-WMB-B**

Wall mount bracket - black leatherette finish RAL9005

**MIC-WMB-G Wall mount Bracket**      **MIC-WMB-G**

Wall mount bracket - grey leatherette finish RAL7001

**MIC-USB485CVTR USB to RS485 Signal Converter**      **MIC-USB485CVTR**

USB to RS485 signal converter to allow MIC Series cameras to connect to a PC, supplied with each camera

**MIC-ALM Alarm and Washer Pump Drive Card**      **MIC-ALM**

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

**MIC-WKT Washer Kit**      **MIC-WKT**

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

**HAC-WAS05-20 24 VAC Washer**      **HAC-WAS05-20**

24 VAC washer inst. 5M 25L

**UPA-2450-50 Power Supply**      **UPA-2450-50**

220 VAC, 50 Hz, 24 VAC, 50 VA Out

**UPA-2450-60 Power Supply**      **UPA-2450-60**

120 VAC, 60 Hz, 24 VAC, 50 VA Out

**MIC-2M-S 2 m Shielded Composite Cable**      **MIC-2M-S**

Shielded Composite 2 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply

**MIC-10M-S 10 m Shielded Composite Cable**      **MIC-10M-S**

Shielded Composite 10 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply

**MIC-20M-S 20 m Shielded Composite Cable**      **MIC-20M-S**

Shielded Composite 20 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply

**MIC-25M-S 25 m Shielded Composite Cable**      **MIC-25M-S**

Shielded Composite 25 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply

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