BOSCH

Invented for life

MIC Series 500 Professional

- ▸ **Rated to an industry leading IP68**
- ▸ **Multiple camera programming through Camset software**
- ▸ **Many mounting and viewing options**
- ▸ **Easy set-up and configuration through the powerful on-screen display**
- ▸ **Multi-protocol operation**
- ▸ **On-site canting ability**
- ▸ **Ultra long-life silicone wiper**
- ▸ **Powerful privacy masking allowing over 900 separate masked zones**

The MIC Series 500 Professional combines cutting-edge technology with the latest production techniques to provide a class-leading feature set in an economical package. The MIC Series 500 Professional 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 500 Professional functions perfectly in the most demanding conditions. This tough casing provides protection from the elements and physical attack. Coupled with an optically perfect flat viewing window, integrated long life silicone wiper, and a reversible rain shield, ensures high quality images regardless of the installed environment.

The brushless-motor technology offers ultra-reliable, whisper-quiet operation with full 360º continuous rotation pan and 267º tilt control for exceptional viewing capability. Small increment pan/tilt speeds from just 0.2º per second to 120º 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.

On-screen menus allow camera set-up from the control room via a remote keyboard. The MIC Series 500 Professional is compatible with all leading control systems and has a wide choice of protocols available.

A choice of true day/night camera modules offering up to 36x optical zoom (12x digital) are available, providing 540 TV lines (PAL) or 520 TV lines (NTSC). Preset positions, preset tours and random tours ensure flexible surveillance options.

The integrated privacy card provides over 900 individual privacy masks, with a choice of mask styles, for use in high density residential applications. Each mask changes size smoothly and quickly to ensure the covered target cannot be seen.

The MIC Series 500 Professional features twist-lock canting functionality. This allows the camera to be securely canted on-site at 45º for pole mount applications allowing the base of the pole to be viewed. The sheer flexibility of mounting options allows the camera to be installed upright, inverted or canted to achieve the perfect field of view.

Functions

Rated to an industry leading IP68
Subjected and certified to rigorous IP68 dust and immersion tests, the MIC Series 500 Professional is perfectly suited for installation in even the most unforgiving environments.

Brushless motor technology

Ultra-reliable brushless motors provide whisper-quiet operation and smooth control.

Host of mounting and viewing options

Faultless operation in upright, inverted or canted positions gives the user a host of mounting and viewing possibilities. The twist-lock canting feature allows the MIC Series 500 Professional to be canted to 45º on site. This allows, for example, the base of the pole to be viewed in upright pole-mounted applications.

Sophisticated privacy masking

The integrated privacy card allows for over 900 individual privacy masks, with a choice of mask styles, to be programmed.

Easy set-up

Camera settings can be adjusted via the on-screen menu from a control room via a remote keyboard.
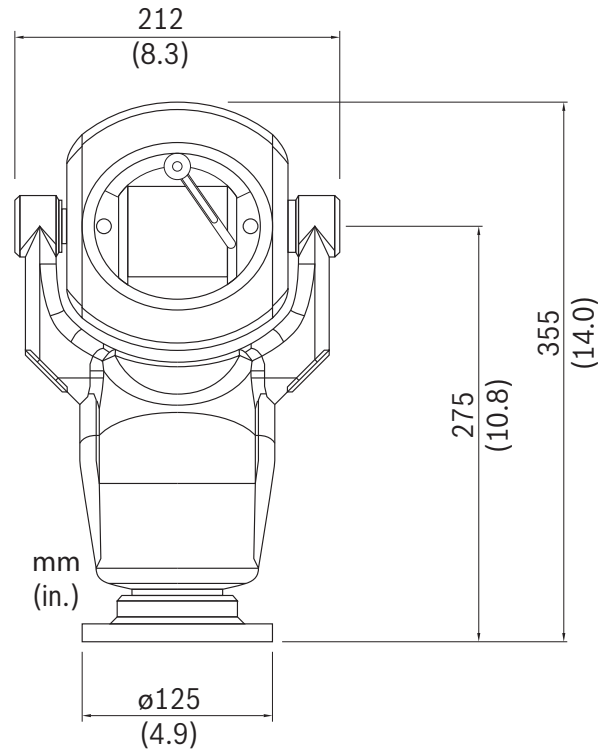
Multi-protocol operation

Compatible with virtually any control equipment available today, the MIC Series 500 Professional seamlessly integrates with the vast majority of security systems.

Applications:
- General CCTV
- Town centers
- ANPR systems
- Vandalism prone areas
- Extreme environments
- Rapid deployment
- High security
- Prestigious developments
- Broadcast
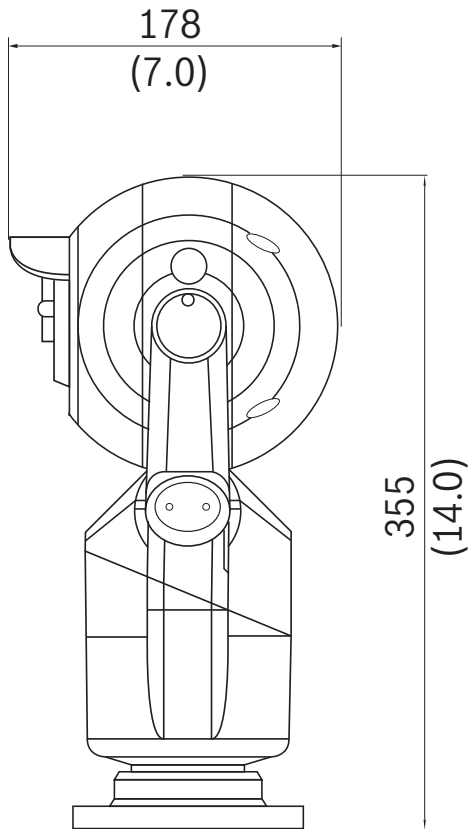- Marine/costal
- Architectural
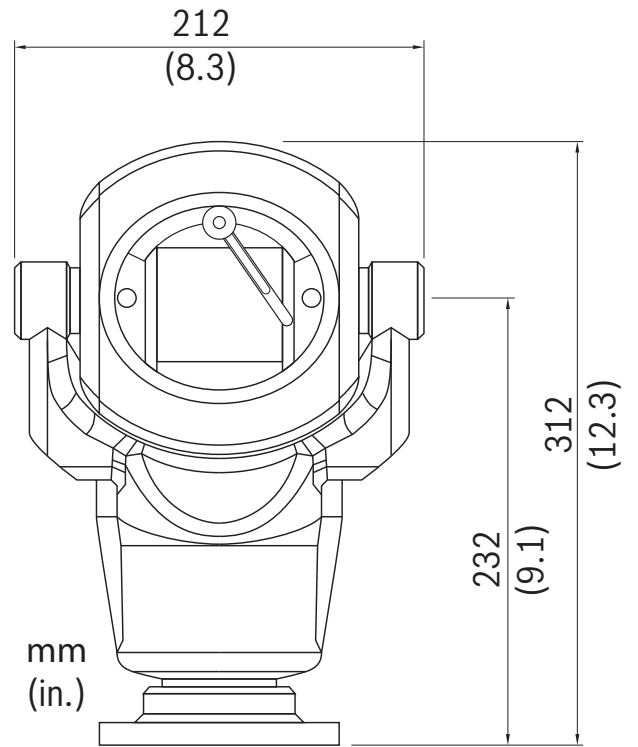
Installation/Configuration Notes

Front Detail, 90° (straight)

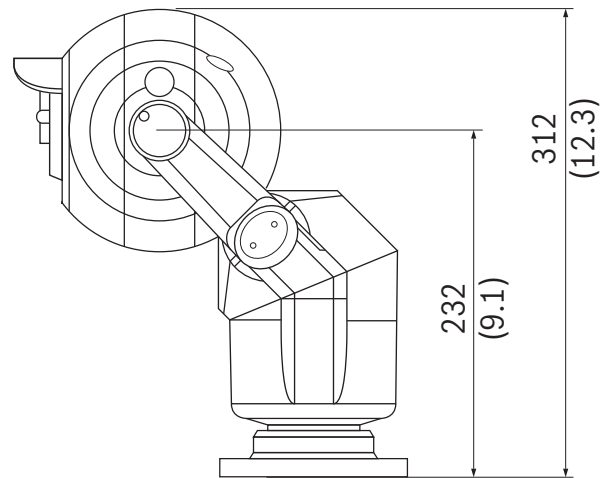**Certifications and Approvals**

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
Weatherproofing	IP68 (1m submersion for 24 hours)

178
(7.0)

355
(14.0)

Side Detail, 90° (straight)

212
(8.3)

312
(12.3)

232
(9.1)

mm
(in.)

Front Detail, 45° (canted)

312
(12.3)

232
(9.1)

Side Detail, 45° (canted)

Technical Specifications

Camera Module

Image Sensor	1/4 in. Exview CCD (WDR)
Effective Pixel Elements	PAL: Approx. 440,000; 752(H) x 582(V) NTSC: Approx. 380,000; 768 (H) x 494 (V)
Horizontal Resolution	PAL: 540 TVL NTSC: 520 TVL
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-to-Noise Ratio (SNR)	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)
Field of View	48° (wide) to 2.8° (tele)
Minimum Illumination	1/60 s mode, 0.7 lx (typical) (F1.4, 50 IRE) 1/4 s mode, 0.07 lx (typical) (F1.4, 50 IRE)
Shutter Speed	1/4 to 1/10,000 s (20 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)
Field of View	57.8° (wide) to 1.7° (tele)
Minimum Illumination	1/60 s mode: 1.4 lx (typical) (F1.6, 50 IRE) 1/4 s mode: 0.1 lx (typical) (F1.6, 50 IRE)
Shutter Speed	1/4 to 1/10,000 s (20 steps) NTSC 1/3 to 1/10,000 s (20 steps) PAL

Operational

Auto Flip	Yes
Manual Flip	Yes
E-flip	Yes, E-flip enables the camera module to invert the image
Dynamic Privacy Zones	3-D privacy masking with 959 zones
Presets	64 telemetry presets accurate to 0.08° utilizing resolver technology using the on-screen menu or via Camset, Up to 10 camera module presets (Sony sets) to allow ANPR, color correction etc.
Preset Tours	Four (4) tours each with up to 32 presets
Pattern Tours	Two (2) tours

Sector Titles	64 sectors, 20 characters per title
Preset Titles	20-character caption for each of the 64 presets
Home Position	Preset 1 or tour
On-screen Menu	Most camera functions can be accessed through the on-screen menu

Communication and Protocols

Communication	RS485 / RS422
Control Protocol	FV and Bosch protocols pre-installed. Twin protocol packs including FV/Pelco, FV/VCL, FV/American Dynamics and FV/Kalatel can be loaded using the MIC Universal Camera Setup Software Utility (Camset)

Connectivity

MIC Universal Camera Setup Software Utility (Camset)	Supplied free with each camera, Camset 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
Video	Coaxial via composite cable
Telemetry	Twisted pair. Simplex, half and full duplex operation via composite cable
Power	Via composite cable

Alarms

Alarm Inputs	One (1) tamper input (additional inputs possible with optional alarm card)
Alarm Communication	Tamper switch (ground connection)

Mechanical

Drive Unit	Brushless, integral pan/tilt motor drive
Pan Angle	360° continuous rotation
Pan Speed	Up to 120° per second (variable)
Tilt Angle	270°
Tilt Speed	0.2° to 80° per second (variable)
Speed Control	Closed loop electronics
Preset Accuracy	±0.17°(typical)
Proportional Pan/Tilt to Zoom	Yes

Electrical

Input Voltage	18 VAC
Power Consumption	25 W max. without heater; 36 W max. with heater on

Options

Camera Module	18x camera module or 36x camera module
Camera Color System	NTSC or PAL
Telemetry Control Card	Built-in
Washer Drive	Optional washer kit (MIC-WKT Kit with washer pump drive)
Heater	Standard

Privacy Masking	Privacy card with up to 959 masks, fitted as standard
Alarm Card	Optional, 8-input with washer pump drive function, fits in MIC Series power supply
Biphase Converter	Optional, fits in MIC Series power supply expansion slot (BP-4)

Environmental

| Operating Temperature (with heater) | -30 ℃ to +60 ℃ (-22 ℉ to +140 ℉) |
| Weatherproofing | IP68 (1m submersion for 24 hours) |

Construction

Dimensions (W x H x D)	
Upright and Inverted	212 x 355 x 177 mm (8.35 x 13.98 x 6.97 in.)
Canted	212 x 312 x 255 mm (8.35 x 12.28 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 (RAL9005) or white (RAL9010)
Standard Finish	Alocrom 1200 surface treatment with powder coat paint, sand finish
Window Wiper	Standard
Canting	Twist Lock canting secured by two security screws

Ordering Information

MIC-500-ALB18N MIC Series 500 Professional 18x NTSC Camera, Black
18x, NTSC, PTZ camera, black, with an integrated wiper, heater, and privacy function
MIC-500-ALB18N

MIC-500-ALB18P MIC Series 500 Professional 18x PAL Camera, Black
18x, PAL, PTZ camera, black, with an integrated wiper, heater, and privacy function
MIC-500-ALB18P

MIC-500-ALB36N MIC Series 500 Professional 36x NTSC Camera, Black
36x, NTSC, PTZ camera, black, with an integrated wiper, heater, and privacy function
MIC-500-ALB36N

MIC-500-ALB36P MIC Series 500 Professional 36x PAL Camera, Black
36x, PAL, PTZ camera, black, with an integrated wiper, heater, and privacy function
MIC-500-ALB36P

MIC-500-ALW18N MIC Series 500 Professional 18x NTSC Camera, White
18x, NTSC, PTZ camera, white, with an integrated wiper, heater, and privacy function
MIC-500-ALW18N

Ordering Information

MIC-500-ALW18P MIC Series 500 Professional 18x PAL Camera, White
18x, PAL, PTZ camera, white, with an integrated wiper, heater, and privacy function
MIC-500-ALW18P

MIC-500-ALW36N MIC Series 500 Professional 36x NTSC Camera, White
36x, NTSC, PTZ camera, white, with an integrated wiper, heater, and privacy function
MIC-500-ALW36N

MIC-500-ALW36P MIC Series 500 Professional 36x PAL Camera, White
36x, PAL, PTZ camera, white, with an integrated wiper, heater, and privacy function
MIC-500-ALW36P

Accessories

MIC-24PSU-UL 24 VAC Camera Power Supply
24 VAC, 50/60 Hz power supply for MIC Series cameras
MIC-24PSU-UL

MIC-115PSU-UL 115 VAC Camera Power Supply
115 VAC, 60 Hz power supply for MIC Series cameras
MIC-115PSU-UL

MIC-240PSU-UL 240 VAC Camera Power Supply
240 VAC, 50 Hz power supply for MIC Series cameras
MIC-240PSU-UL

MIC-ALM Alarm and Washer Pump Drive Card
8 Input alarm and washer pump drive card for PSU (Not for IR PSU)
MIC-ALM

MIC-BP4 Biphase Converter
Biphase converter for non-IR versions of MIC series power supply units
MIC-BP4

MICUSB485CVTR2 USB to RS485 Signal Converter
USB to RS485 signal converter to allow MIC Series cameras to connect to a PC, supplied with each camera
MICUSB485CVTR2

MIC-501KBD Keyboard Controller
Keyboard controller with 3-axis joystick for 1 camera (FV PROTOCOL ONLY)
MIC-501KBD

MIC-516KBD Keyboard Controller
Keyboard controller with 3-axis joystick for 1 to 16 cameras (FV PROTOCOL ONLY)
MIC-516KBD

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)
MIC-WKT

HAC-WAS05-20 24 VAC Washer
24 VAC washer inst. 5M 25L
HAC-WAS05-20

HAC-WAS05-50 230 VAC Washer
230 VAC washer inst. 5M 25L
HAC-WAS05-50

HAC-WAS30-50 230 VAC Washer
230 VAC washer inst. 30M 25L
HAC-WAS30-50

Ordering Information

MIC-DCA-WD Deep Conduit Adapter, White Deep conduit adapter for 4 in. PCD base - white sand finish, RAL9010	MIC-DCA-WD
MIC-DCA-BD Deep Conduit Adapter, Black Deep conduit adapter for 4 in. PCD base - black sand finish, RAL9005	MIC-DCA-BD
MIC-SCA-WD Shallow Conduit Adapter, White Adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR mount, white sand finish, RAL9010	MIC-SCA-WD
MIC-SCA-BD Shallow Conduit Adapter, Black Adapter for a MIC-WMB, a MIC-PMB, or a MIC-SPR mount, black sand finish, RAL9005	MIC-SCA-BD
MIC-SPR-WD Spreader Plate, White Aluminum spreader plate suitable for brickwork surface mounting – white sand finish RAL9010	MIC-SPR-WD
MIC-SPR-BD Spreader Plate, Black Aluminum spreader plate suitable for brickwork surface mounting – black sand finish RAL9005	MIC-SPR-BD
MIC-CMB-WD Corner Mount Bracket, White Corner mount bracket - white sand finish RAL9010	MIC-CMB-WD
MIC-CMB-BD Corner Mount Bracket, Black Corner mount bracket - black sand finish RAL9005	MIC-CMB-BD
MIC-WMB-WD Wall Mount Bracket, White Wall mount bracket - white sand finish RAL9010	MIC-WMB-WD
MIC-WMB-BD Wall Mount Bracket, Black Wall mount bracket - black sand finish RAL9005	MIC-WMB-BD
MIC-PMB Pole Mount Bracket Pole mount bracket (includes 2 x 455 mm banding ties for pole diameters 75 to 145 mm)	MIC-PMB
MIC-2M-S 2 m Shielded Composite Cable Shielded Composite 2 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply	MIC-2M-S
MIC-10M-S 10 m Shielded Composite Cable Shielded Composite 10 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply	MIC-10M-S

Ordering Information

MIC-20M-S 20 m Shielded Composite Cable Shielded Composite 20 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply	MIC-20M-S
MIC-25M-S 25 m Shielded Composite Cable Shielded Composite 25 m cable that provides power, telemetry and video connection from a MIC Series camera to a MIC Series power supply	MIC-25M-S
MIC-500-RWAB Replacement Wiper Assembly, Black	MIC-500-RWAB
MIC-500-RWAC Replacement Wiper Assembly, Silver	MIC-500-RWAC