



MIC400 Aluminum PTZ Camera



- ▶ **Rated to an industry leading IP68**
- ▶ **Brushless Motor Technology**
- ▶ **Host of mounting and viewing options**
- ▶ **Integrated wiper and optional heater**
- ▶ **Multi-protocol operation**

The MIC400 aluminum range 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.

Rated to an industry leading IP68, the compact, vandal-resistant 6 mm thick aluminum camera housing is suitable for installation in the harshest of environments. The optically perfectly-flat viewing window and integrated wiper ensure razor-sharp images are captured in even the most demanding conditions.

Brushless motor technology ensures ultra-reliable, whisper quiet operation. Ground breaking resolver technology provides pinpoint accuracy and affords the user full 360° continuous rotation pan and an unprecedented 320° tilt control.

A choice of true day/night camera modules, offering up to 36x optical zoom (12x digital), coupled with flexible upright, 45 degree canted or inverted mounting capability, allows the perfect field of view to be achieved every time.

Functions

Rated to an industry leading IP68

Zero dust ingress and able to withstand sustained periods of immersion under water, the MIC400 aluminum range 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 either upright or inverted gives the user a host of mounting and viewing possibilities. A canted option is provided for upright pole-mounted applications, allowing the base of the pole to be viewed.

Integrated wiper and optional heater

Hot or cold, rain or shine, regardless of the weather the MIC400 aluminum range is able to capture the highest possible quality image all year around thanks to its integrated wiper and optional heater.

Multi-protocol operation

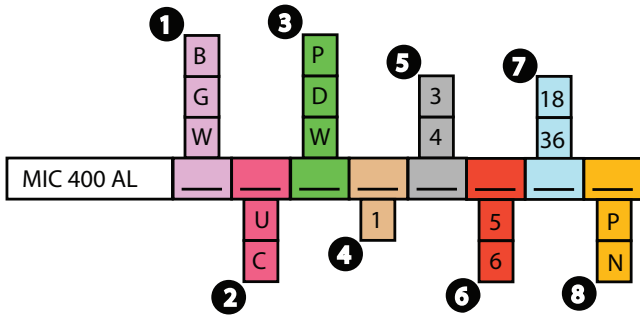
Compatible with virtually any control equipment available today, the MIC400 aluminum range will seamlessly integrate with the vast majority of security systems.

Applications:

- General CCTV
- Town centers

- Extreme environments
- Rapid deployment
- High security
- Prestigious developments
- Broadcast
- Architectural

Installation/Configuration Notes



Ordering Guide

1 Colors

- B Black
- G Grey
- W White

2 Configuration

- U Upright
- C Canted

3 Protocol

- P Bosch
- D Pelco P/D
- W Forward Vision

4 Wiper

- 1 Wiper fitted

5 Heater

- 3 Heater
- 4 No heater

6 Privacy

- 5 Privacy fitted
- 6 No privacy

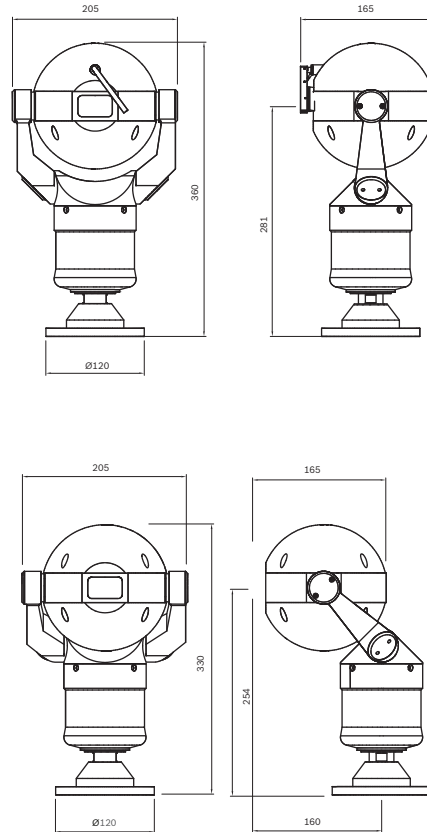
7 Camera Zoom Ratio

- 18 18:1
- 36 36:1

8 Video Standard

- P PAL
- N NTSC

Dimensions



Technical Specifications

Camera Module

Image sensor	1/4 in EXview CCD
Picture elements	380K NTSC / 440K PAL (wide)
Horizontal resolution	470 TVL NTSC / 460 TVL PAL (wide)
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)
Recommended illumination	100 to 100,000 lux
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, 1/60 s NTSC, 1/50 s PAL), 0.11 lux (F1.4, 1/4 s NTSC, 1/3 s PAL), 0.01 lux or less (F1.4, 1/4 s NTSC, 1/3 s 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), 0.1 lux (1/4 s NTSC, 1/3 s PAL), 0.01 lux or less (1/4 s NTSC, 1/3 s PAL, ICR ON)
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
Dynamic privacy zones	3D privacy masking with infinite zones (using optional privacy card)
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, Pelco P/D or FV protocol cameras available. Bosch camera requires Biphasic to RS485 converter (MIC-BP4) available separately. Other protocols supported. Please consult separate protocol list for available options.

Connectivity

Video	Co-axial via composite cable
Telemetry	Twisted pair. Simplex, half and full duplex operation via composite cable
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	Integral pan/tilt motor drive
Pan angle	360° continuous rotation
Pan speed	Up to 90° per second (variable)
Tilt angle	320°
Tilt speed	0.2° to 90° per second (variable)
Speed control	Closed loop electronics
Preset accuracy	Better than 0.08°
Proportional P/T to zoom	Yes

Construction

Construction material	6 mm thick aluminum
Viewing window	Tempered flat glass
Standard colors	Black (RAL9005), Gray (RAL7001) or White (RAL9003)
Standard finish	Powder coated
Dimensions	205 x 360 x 165 mm (WxHxD) 8 x 14.2 x 6.5 in (WxHxD) (upright and inverted)
Weight	5.5 kg (12 lb) including 4 in. pitch circle diameter (PCD) base

Environmental

Operational temperature	-20 °C to +50 °C (-4 °F to +122 °F) (-30 °C (-122 °F) with optional heater)
Weather proofing	NEMA 4x / IP68

Electrical

Input voltage	15 VAC / 18 VDC
Power consumption	25.2 W max. without heater 45.2 W max. with heater

Options

Configurations available	Upright mount or upright canted at 45° mount. (Inverted mount is possible using software setting. Please order upright camera.)
Color/Finish	Black, grey, or white
Camera module	18x camera module or 36x camera module
Camera color system	NTSC or PAL
Telemetry control card	Built-in
Window wiper	Fitted as standard
Washer	Optional, (only bracket and nozzle supplied)
Washer pump drive card	Optional, fitted in PSU
Heater	Optional, factory fit
Privacy board	Optional, factory fit
Alarm card	Optional, fitted in PSU

Accessories

Power supply	Choose from 115 VAC, 230 VAC, 24 VAC or 12V DC versions
Mounting hardware	Compatible with all MIC1 series brackets
Cabling	Optional. Choose from 2M, 10M, 20M or 25M versions

Ordering Information

MIC400ALBUD14618P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, 18:1 PAL	MIC400ALBUD14618P
MIC400ALGUD14618P MIC400 Aluminum MIC400 aluminum PTZ, Grey, upright mount, Pelco protocol, wiper, 18:1 PAL	MIC400ALGUD14618P
MIC400ALBUP14618P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, 18:1 PAL	MIC400ALBUP14618P
MIC400ALGUP14618P MIC400 Aluminum MIC400 aluminum PTZ, Grey, upright mount, Bosch protocol, wiper, 18:1 PAL	MIC400ALGUP14618P
MIC400ALBUD13618P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, heater, 18:1, PAL	MIC400ALBUD13618P
MIC400ALGUD13618P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, heater, 18:1, PAL	MIC400ALGUD13618P
MIC400ALBUP13618P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, 18:1, PAL	MIC400ALBUP13618P
MIC400ALGUP13618P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, heater, 18:1, PAL	MIC400ALGUP13618P
MIC400ALBUD14636P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, 36:1, PAL	MIC400ALBUD14636P
MIC400ALGUD14636P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, 36:1, PAL	MIC400ALGUD14636P
MIC400ALBUP14636P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, 36:1, PAL	MIC400ALBUP14636P
MIC400ALGUP14636P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, 36:1, PAL	MIC400ALGUP14636P
MIC400ALBUD13636P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, heater, 36:1, PAL	MIC400ALBUD13636P
MIC400ALGUD13636P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, heater, 36:1, PAL	MIC400ALGUD13636P
MIC400ALBUP13636P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, 36:1, PAL	MIC400ALBUP13636P

Ordering Information

MIC400ALGUP13636P MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, heater, 36:1, PAL	MIC400ALGUP13636P
MIC400ALBUD14618N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, 18:1 NTSC	MIC400ALBUD14618N
MIC400ALGUD14618N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, 18:1, NTSC	MIC400ALGUD14618N
MIC400ALBUP14618N MIC400 Aluminum MIC1-400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, 18:1 NTSC	MIC400ALBUP14618N
MIC400ALGUP14618N MIC400 Aluminum MIC400 aluminum PTZ, Grey, upright mount, Bosch protocol, wiper, 18:1 NTSC	MIC400ALGUP14618N
MIC400ALBUD13618N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, heater, 18:1, NTSC	MIC400ALBUD13618N
MIC400ALGUD13618N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, heater, 18:1, NTSC	MIC400ALGUD13618N
MIC400ALBUP13618N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, 18:1, NTSC	MIC400ALBUP13618N
MIC400ALGUP13618N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, heater, 18:1, NTSC	MIC400ALGUP13618N
MIC400ALBUD14636N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, 36:1, NTSC	MIC400ALBUD14636N
MIC400ALGUD14636N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, 36:1, NTSC	MIC400ALGUD14636N
MIC400ALBUP14636N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, 36:1, NTSC	MIC400ALBUP14636N
MIC400ALGUP14636N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, 36:1, NTSC	MIC400ALGUP14636N
MIC400ALBUD13636N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Pelco protocol, wiper, heater, 36:1, NTSC	MIC400ALBUD13636N
MIC400ALGUD13636N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Pelco protocol, wiper, heater, 36:1, NTSC	MIC400ALGUD13636N
MIC400ALBUP13636N MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, 36:1, NTSC	MIC400ALBUP13636N
MIC400ALGUP13636N MIC400 Aluminum MIC400 aluminum PTZ, grey, upright mount, Bosch protocol, wiper, heater, 36:1, NTSC	MIC400ALGUP13636N
MIC400ALBCD14618P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, 18:1 PAL	MIC400ALBCD14618P

Ordering Information

MIC400ALGCD14618P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, 18:1, PAL	MIC400ALGCD146 18P
MIC400ALBCP14618P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, 18:1, PAL	MIC400ALBCP1461 8P
MIC400ALGCP14618P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, 18:1, PAL	MIC400ALGCP146 18P
MIC400ALBCD13618P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, heater, 18:1, PAL	MIC400ALBCD136 18P
MIC400ALGCD13618P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, heater, 18:1, PAL	MIC400ALGCD136 18P
MIC400ALBCP13618P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, 18:1, PAL	MIC400ALBCP1361 8P
MIC400ALGCP13618P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, heater, 18:1, PAL	MIC400ALGCP136 18P
MIC400ALBCD14636P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, 36:1, PAL	MIC400ALBCD146 36P
MIC400ALGCD14636P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, 36:1, PAL	MIC400ALGCD146 36P
MIC400ALBCP14636P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, 36:1, PAL	MIC400ALBCP1463 6P
MIC400ALGCP14636P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, 36:1, PAL	MIC400ALGCP146 36P
MIC400ALBCD13636P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, heater, 36:1, PAL	MIC400ALBCD136 36P
MIC400ALGCD13636P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, heater, 36:1, PAL	MIC400ALGCD136 36P
MIC400ALBCP13636P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, 36:1, PAL	MIC400ALBCP1363 6P
MIC400ALGCP13636P MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, heater, 36:1, PAL	MIC400ALGCP136 36P
MIC400ALBCD14618N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, 18:1, NTSC	MIC400ALBCD146 18N
MIC400ALGCD14618N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, 18:1, NTSC	MIC400ALGCD146 18N
MIC400ALBCP14618N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, 18:1, NTSC	MIC400ALBCP1461 8N

Ordering Information

MIC400ALGCP14618N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, 18:1, NTSC	MIC400ALGCP146 18N
MIC400ALBCD13618N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, heater, 18:1, NTSC	MIC400ALBCD136 18N
MIC400ALGCD13618N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, heater, 18:1, NTSC	MIC400ALGCD136 18N
MIC400ALBCP13618N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, 18:1, NTSC	MIC400ALBCP1361 8N
MIC400ALGCP13618N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, heater, 18:1, NTSC	MIC400ALGCP136 18N
MIC400ALBCD14636N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, 36:1, NTSC	MIC400ALBCD146 36N
MIC400ALGCD14636N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, 36:1, NTSC	MIC400ALGCD146 36N
MIC400ALBCP14636N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, 36:1, NTSC	MIC400ALBCP1463 6N
MIC400ALGCP14636N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, 36:1, NTSC	MIC400ALGCP146 36N
MIC400ALBCD13636N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Pelco protocol, wiper, heater, 36:1, NTSC	MIC400ALBCD136 36N
MIC400ALGCD13636N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Pelco protocol, wiper, heater, 36:1, NTSC	MIC400ALGCD136 36N
MIC400ALBCP13636N MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, 36:1, NTSC	MIC400ALBCP1363 6N
MIC400ALGCP13636N MIC400 Aluminum MIC400 aluminum PTZ, grey, canted mount, Bosch protocol, wiper, heater, 36:1, NTSC	MIC400ALGCP136 36N
MIC400ALBCP13518P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, privacy card, 18:1, PAL	MIC400ALBCP1351 8P
MIC400ALBCP13536P MIC400 Aluminum MIC400 aluminum PTZ, black, canted mount, Bosch protocol, wiper, heater, privacy card, 36:1, PAL	MIC400ALBCP1353 6P
MIC400ALBUP13518P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, privacy card, 18:1, PAL	MIC400ALBUP1351 8P
MIC400ALBUP13536P MIC400 Aluminum MIC400 aluminum PTZ, black, upright mount, Bosch protocol, wiper, heater, privacy card, 36:1, PAL	MIC400ALBUP1353 6P

Americas:

Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: +31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security Systems
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3453
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by