


BOSCH

Invented for life

MIC440 Explosion-Protected PTZ Camera



- ▶ **ATEX and CSA certified**
- ▶ **Rated to an industry leading IP68**
- ▶ **Integrated wiper**
- ▶ **Multi-protocol operation**

The MIC440 explosion-protected range has been designed to offer an extremely reliable, robust and high quality surveillance solution for potentially volatile security applications that demand the very best performance. Precision engineered to exacting standards, the range meets the requirements of ATEX Directive 94/9/EC Exd IIC T6 and CSA Class 1, Division 1, Groups CD, Class 11, Division 1, Groups EFG, T6 for safe use in explosive atmospheres such as those found in oil, gas, chemical processing sites and petrochemical refineries.

Rated to an industry leading IP68, the specially designed aluminum camera housing is suitable for installation in the harshest of environments, while the optically perfectly-flat viewing window and integrated wiper ensure razor sharp images are captured in even the most demanding conditions. This allows the MIC440 explosion-protected range to function perfectly in highly corrosive areas such as offshore oil rigs.

The use of high specification motors ensures reliable operation, while ground breaking resolver technology provides pin-point 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 or inverted mounting capability, allows the perfect field of view to be achieved every time.

Functions

ATEX and CSA Certified

Meets the requirements of ATEX Directive 94/9/EC Exd IIC T6 and CSA Class 1, Division 1, Groups CD, Class 11, Division 1, Groups EFG, T6 for safe use in explosive atmospheres

Rated to an industry leading IP68

Zero dust ingress and ability to withstand sustained periods of immersion under water, the MIC440 explosion-protected range is perfectly suited for installation in even the most unforgiving environments

Integrated wiper

Regardless of the weather the MIC440 explosion-protected range is able to capture the highest possible quality image all year around thanks to its integrated wiper

Multi-protocol operation

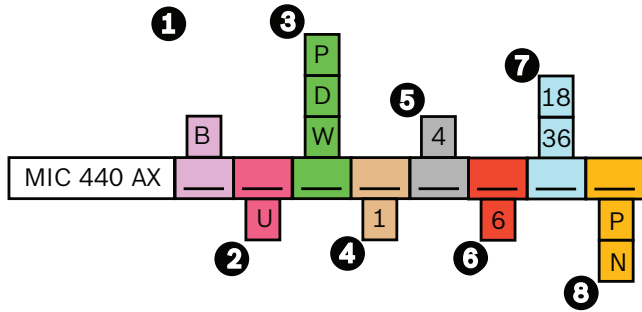
Compatible with virtually any control equipment available today, the MIC440 explosion-protected range is able to seamlessly integrate with the vast majority of security systems

Certifications and Approvals

Approvals

ATEX certified	Directive 94/9/EC Exd IIC T6
CSA C/US	Class 1, Division 1, Groups CD Class 11, Division 1, Groups EFG Temperature Code T6

Installation/Configuration Notes



Ordering Guide

1 Colors

B Black

2 Configuration

U Upright

3 Protocol

P Bosch

W Forward Vision

D Pelco P/D

4 Wiper

1 Wiper fitted

5 Heater

4 No heater

6 Privacy

6 No privacy

7 Camera Zoom Ratio

18 18:1

36 36:1

8 Video Standard

P PAL

N NTSC

Technical Specifications

Camera Module

Image sensor	1/4-inch EXview CCD
Picture elements	380 K NTSC / 440 K 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 lx
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 end) to 2.8° (TELE end)
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 or less (F1.4, 1/4s NTSC, 1/3s PAL, ICR ON)
Shutter speed	1/1 to 1/10,000s (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 end) to 1.7° (TELE end)
Minimum illumination	1.4 lux (1/60s NTSC, 1/50s PAL), 0.1 lux (1/4s NTSC, 1/3s PAL), 0.01 lux or less (1/4s NTSC, 1/3s PAL, ICR ON)
Shutter speed	1/4 to 1/10,000s (20 steps) NTSC, 1/3 to 1/10,000s (20 steps) PAL

Operational*

Auto flip	Yes
Manual flip	Yes
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. Other protocols supported. Please consult separate protocol list for available options. Bosch camera requires Biphas to RS485 converter (MIC-BP4) to be installed in the power supply (available separately).

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

Physical

Construction material	Solid aluminum
Viewing window	Tempered flat glass
Standard colors	Standard black(RAL9005)
Standard finish	Powder coated
Dimensions (W x H x D)	286 x 523.6 x 189 mm (including deep conduit adapter)
Weight	15.5 Kg (including 4-inch PCD base and supplied deep conduit adapter)

Environmental

Operational temperature	-20°C to +60°C
Weatherproofing	NEMA 4x / IP68

Electrical

Input voltage	15 VAC / 18 VDC
Power consumption	25.2 W max

Available Options

EXD accessories Please call for details on EXD glands, cables, conduits & PSU enclosures

**functions available when used with the Forward Vision protocol, other protocols may vary.*

Ordering Information

MIC440AXBWU14618P MIC440 ATEX MIC 18x Optical zoom, Explosion-Protected, black, upright, FV Protocol, wiper fitted, PAL	MIC440AXBWU14618P
MIC440AXBWU14636P MIC440 ATEX MIC 36x Optical zoom, Explosion-Protected, black, upright, FV Protocol, wiper fitted, PAL	MIC440AXBWU14636P
MIC440AXBUD14618P MIC440 ATEX MIC 18x Optical zoom, Explosion-Protected, black, upright, Pelco Protocol, wiper fitted, PAL	MIC440AXBUD14618P
MIC440AXBUD14618N MIC440 ATEX MIC 18x Optical zoom, Explosion-Protected, black, upright, Pelco Protocol, wiper fitted, NTSC	MIC440AXBUD14618N
MIC440AXBUD14636P MIC440 ATEX MIC 36x Optical zoom, Explosion-Protected, black, upright, Pelco Protocol, wiper fitted, PAL	MIC440AXBUD14636P
MIC440AXBUD14636N MIC440 ATEX MIC 36x Optical zoom, Explosion-Protected, black, upright, Pelco Protocol, wiper fitted, NTSC	MIC440AXBUD14636N
MIC440AXBUP14618P MIC440 ATEX MIC 18x Optical zoom, Explosion-Protected, black, upright, Bosch Protocol, wiper fitted, PAL	MIC440AXBUP14618P
MIC440AXBUP14618N MIC440 ATEX MIC 18x Optical zoom, Explosion-Protected, black, upright, Bosch Protocol, wiper fitted, NTSC	MIC440AXBUP14618N
MIC440AXBUP14636P MIC440 ATEX MIC 36x Optical zoom, Explosion-Protected, black, upright, Bosch Protocol, wiper fitted, PAL	MIC440AXBUP14636P
MIC440AXBUP14636N MIC440 ATEX MIC 36x Optical zoom, Explosion-Protected, black, upright, Bosch Protocol, wiper fitted, NTSC	MIC440AXBUP14636N

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