

EX70 Compact Explosion-protected Camera

www.boschsecurity.com



BOSCH

Invented for life



- ▶ UL/CSA or ATEX certified for explosion-protected performance
- ▶ Class I, II, III, Div. 1, 2, Groups B, C, D, E, F, G, T6, Ex II 2 G, Ex d IIC T6
- ▶ Performance optics with mechanical filter technology
- ▶ High-strength design can withstand an internal explosion
- ▶ Small, compact housing, NEMA 4X rated

The EX70 is a small, tough, compact, explosion-protected camera with performance optics for safe, effective surveillance in hazardous locations such as in oil and gas, and chemical facilities.

The EX70 is certified for ATEX Zone 1 or NEC Class I, Division 1 environments, the most stringent safety standards for explosion-protected performance. By definition, the Class I, Division 1 certifications signify that the EX70 is safe for use even in environments where explosive gases are present under normal operating conditions.

The EX70 incorporates high-strength design, featuring a construction of sand-cast, copper-free aluminum, strong enough to withstand an internal explosion. Threaded flame paths extinguish burning explosive gases and allow them to exit the housing harmlessly, without risking ignition in the external environment. By meeting the rigorous requirements for Class I, Division 1 environments, the EX70 assures safe, effective performance at less hazardous Division 2 and Class II locations.

Rated NEMA 4X for both indoor and outdoor use, the EX70 carries a T6 temperature code, the lowest and safest rating. The EX70 is available with either a

3.6 mm or 6.0 mm fixed lens and is easy to install into any 12 VDC or 24 VAC system. It is a safe and effective surveillance solution for hazardous locations.

Functions

Performance Optics

- Performance CCD with mechanical filter technology
- Enables effective surveillance in low-light environments
- Sensor provides higher IR sensitivity, low smear, low streaking and excellent anti-blooming characteristics

Compact Ruggedized Construction

- Small, unobtrusive and discreet housing
- NEMA 4X design for indoor and outdoor performance
- High-strength reinforced aluminum construction strong enough to withstand an internal explosion.
- Threaded flame paths extinguish burning explosive gases, allowing them to exit the housing harmlessly without risking ignition in the external environment

Installer-Friendly Features

- Fixed 3.6 mm or 6.0 mm lens
- 12 VDC / 24 VAC operation
- Optional pan-tilt brackets
- Optional wall and pole adapter plates

Applications

- Petroleum processing facilities
- Chemical factories
- Agricultural processing plants
- Refineries
- Munitions storage
- Oil and gas plants
- Fuel storage sites
- Industrial plants
- Nuclear facilities
- Pharmaceutical plants
- Aircraft hangers

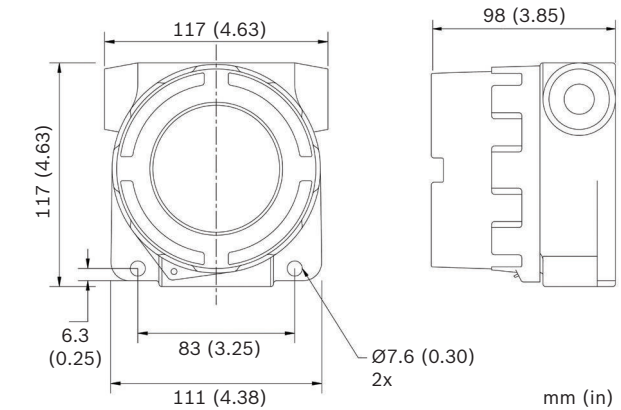
Certifications and approvals

CSA/NRTL	LR 113310
Class	2258 / 82 – Process Control Equipment – For Hazardous Locations – Certified to US Standard 2258 / 02 – Process Control Equipment – For Hazardous Locations
Safety	UL / CSA / ATEX UL 508, 16th Edition – Industrial Control Equipment UL 698, 11th Edition – Industrial Control Equipment for Use in Hazardous (Classified) Locations UL 1203, 2nd Edition – Explosion-Proof and Dust-Ignition-Proof Elec. Eqmt for Use in Hazardous (Classified) Locations CSA C22.2 No.0-M1991 – General Requirements – Canadian Electrical Code Part II CSA C22.2 No.0.4-M1982 – Bonding and Grounding of Electrical Equipment (Protective Grounding) CSA C22.2 No.25-M1966 – Enclosures for Use in Class II Groups E, F and G Hazardous Locations CSA C22.2 No.30-M1986 – Explosion-proof Enclosures for Use in Class I Hazardous Locations CSA C22.2 No.94-M1991 – Special Purpose Enclosures CSA C22.2 No.142-M1987 – Process Control Equipment Class I, Division 1 and 2, Groups B, C, and D Class II, Division 1 and 2, Groups E, F, G Class III ATEX Ex II 2G certified – Equipment or Protective System intended for use in Potentially Explosive Atmospheres; Directive 94/9/EC ATEX Ex d IIC T6 certified – Equipment or Protective System intended for use in Potentially Explosive Atmospheres; Directive 94/9/EC
Operational	Temperature Code T6 (At ambient operational temperature of 40°C, the maximum unit surface temperature will not exceed 85°C.)
Environmental	CSA / NEMA TYPE 4X

Region	Certification	
Europe	CE	
	CE	ATEX

Installation/configuration notes

Dimensions



Flexible Mounting Options

- Wall mounting
 - use a combination of EXMB.070B (EX70 adapter plate), EXMB.028B (pan/tilt bracket) and EXMB.017B (wall mount adapter).
- Pole mounting
 - use a combination of EXMB.070B (EX70 adapter plate), EXMB.028B (pan/tilt bracket) and EXMB.015B (pole mount adapter).
- Ceiling mounting
 - use a combination of EXMB.070B (EX70 adapter plate) and EXMB.002B (ceiling bracket).

All brackets are available as optional accessories.

Technical specifications

Color Cameras

Parameter	MX4 CCD Mechanical Filter	C7 High Resolution Color
Image Sensor	1/3 in CCD	1/3 in Interline SuperHAD
Resolution	540 TVL color/ 540 TVL mono	500 TVL
Effective Pixels (NTSC)	768 (H) x 494 (V)	768 (H) x 494 (V)
Effective Pixels (PAL)	752 (H) x 582 (V)	768 (H) x 582 (V)
Sensitivity	0.02 lx at F1.4	2.7 lx at F1.4
S/N Ratio	Greater than 48 dB	Greater than 48 dB
Output Signal	1 Vpp, 75 ohm	
BLC	On / Off selectable	
Gain Control	AGC automatic	

Electronics Iris	1/60 to 1/100,000 (NTSC)	1/50 to 1/100,000 (PAL)
Voltage	12 - 24 VAC (50/60 Hz) 12 - 24 VDC	
Power consumption	3.9 W max.	
Operation Temperature Range	-50 °C to +40 °C (-58 °F to 104 °F)	
Weight	1.4 kg (3.1 lbs)	
Dimensions	117 x 117 x 99 mm (4.6 x 4.6 x 3.9 in)	
Construction	Powder-coated copper-free cast aluminum with two 3/4-inch NPT conduit entries	

**Notice**

To order a CSA/ UL certified product use product codes without the AT suffix. To order an ATEX certified product use product codes with the AT suffix.

Ordering information

EX70MX404-N Compact, Explosion-protected Camera
Day/Night 1/3 in. CCD, 540/540 TVL, mech. filter, 3.6 mm fixed lens, NTSC, CSA/UL Certified
Order number **EX70MX404-N**

EX70MX404-P Compact, Explosion-protected Camera
Day/Night 1/3 in. CCD, 540/540 TVL, mech. filter, 3.6 mm fixed lens, PAL, CSA/UL Certified
Order number **EX70MX404-P**

EX70MX406-N Compact, Explosion-protected Camera
Day/Night 1/3 in. CCD, 540/540 TVL, mech. filter, 6.0 mm fixed lens, NTSC, CSA/UL Certified
Order number **EX70MX406-N**

EX70MX406-P Compact, Explosion-protected Camera
Day/Night 1/3 in. CCD, 540/540 TVL, mech. filter, 6.0 mm fixed lens, PAL, CSA/UL Certified
Order number **EX70MX406-P**

EX70C704-N Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 3.6 mm fixed lens, NTSC, CSA/UL Certified
Order number **EX70C704-N**

EX70C704-P Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 3.6 mm fixed lens, PAL, CSA/UL Certified
Order number **EX70C704-P**

EX70C706-N Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 6.0 mm fixed lens, NTSC, CSA/UL Certified
Order number **EX70C706-N**

EX70C706-P Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 6.0 mm fixed lens, PAL, CSA/UL Certified
Order number **EX70C706-P**

EX70MX404AT-N Compact, Explosion-protected Camera
Day/Night 1/3 in CCD, 540/540 TVL, mech. filter, 3.6 mm fixed lens, NTSC, ATEX Certified
Order number **EX70MX404AT-N**

EX70MX404AT-P Compact, Explosion-protected Camera
Day/Night 1/3 in CCD, 540/540 TVL, mech. filter, 3.6 mm fixed lens, PAL, ATEX Certified
Order number **EX70MX404AT-P**

EX70MX406AT-N Compact, Explosion-protected Camera
Day/Night 1/3 in CCD, 540/540 TVL, mech. filter, 6 mm fixed lens, NTSC, ATEX Certified
Order number **EX70MX406AT-N**

EX70MX406AT-P Compact, Explosion-protected Camera
Day/Night 1/3 in CCD, 540/540 TVL, mech. filter, 6 mm fixed lens, PAL, ATEX Certified
Order number **EX70MX406AT-P**

EX70C704AT-N Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 3.6 mm fixed lens, NTSC, ATEX Certified
Order number **EX70C704AT-N**

EX70C704AT-P Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 3.6 mm fixed lens, PAL, ATEX Certified
Order number **EX70C704AT-P**

EX70C706AT-N Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 6 mm fixed lens, NTSC, ATEX Certified
Order number **EX70C706AT-N**

EX70C706AT-P Compact, Explosion-protected Camera
1/3 in color CCD, 500 TVL, 6 mm fixed lens, PAL, ATEX Certified
Order number **EX70C706AT-P**

Accessories

EXMB.015B Pole Mount Adapter Bracket
Pole Mount Adapter, black
Order number **EXMB.015B**

EXMB.017B Wall Mount Adapter Bracket
Wall Mount Adapter, Black
Order number **EXMB.017B**

EXMB.028B Cable Managed Wall Bracket
Cable-managed arm bracket, black
Order number **EXMB.028B**

EXMB.070B Adapter Bracket
Aluminum adapter bracket for EX70
Order number **EXMB.070B**

EXMB.002B Ceiling and Pedestal Bracket

Ceiling and Pedestal Bracket, Black
Order number **EXMB.002B**

UPA-2430-60 Power Supply

120 VAC, 60 Hz, 24 VAC, 30 VA Out
Order number **UPA-2430-60**

UPA-2420-50 Power Supply

220 VAC, 50 Hz, 24 VAC, 20 VA Out
Order number **UPA-2420-50**

Represented by:

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
5617 BA 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
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:

Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road
North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
latam.boschsecurity@bosch.com
www.boschsecurity.com