

# EX72 Explosion-protected Camera

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Invented for life



The EX72 is a tough, compact, explosion-protected camera with performance optics for effective surveillance in hazardous locations such as oil and gas and chemical facilities.

The EX72 is certified for ATEX Zone 1 or NEC Class I, Division 1 environments, the most stringent safety standards for explosion-protected performance. In practical terms, the Class I, Division 1 certifications signify that the EX72 is safe for use even in environments where explosive gases are present under normal operating conditions.

The EX72 incorporates high-strength design, featuring 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 EX72 assures safe, effective performance at less hazardous Class II and Division 2 locations.

Rated NEMA 4X for both indoor and outdoor use, the EX72 carries a T6 temperature code, the lowest and safest rating. When combined with the optional EX72LED infra-red illuminator, the EX72 provides exceptional 24/7 surveillance. The EX72 is easy to

- ▶ UL/CSA or ATEX certified for explosion protected performance
- ▶ Class I, II, III, Div. 1, 2, Groups B, C, D, E, F, G, T6
- ▶ Safe for use where explosive gases are normally present
- ▶ High-strength design can withstand an internal explosion
- ▶ Compact design with threaded flame paths for maximum safety

install into any 12 VDC or 24 VAC system, and is a safe and effective surveillance solution for hazardous locations.

## Functions

### 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

### 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

- Certified CSA Type 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**

- Varifocal lens 4 to 9 mm or 9 to 22 mm
- 12 VDC / 24 VAC operation
- Optional pan-tilt brackets
- Optional wall and pole adapter plates

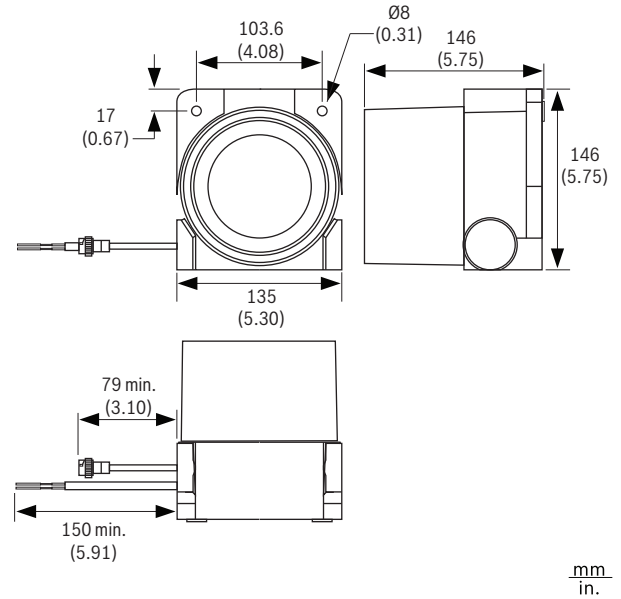
**Certifications and approvals**

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	ATEX
	CE	
Canada	CSA	

**Installation/configuration notes**

**Dimensions**



**Flexible Mounting Options**

- Wall mounting
  - use a combination of EXMB.072B (EX72 adapter plate), EXMB.028B (pan/tilt bracket) and EXMB.017B (wall mount adapter).
- Pole mounting
  - use a combination of EXMB.072B (EX72 adapter plate), EXMB.028B (pan/tilt bracket) and EXMB.015B (pole mount adapter).
- Ceiling mounting
  - use a combination of EXMB.072B (EX72 adapter plate) and EXMB.004B (ceiling bracket).

All brackets are available as optional accessories.

**Technical specifications**

**Color Cameras**

CCD	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 lux at F1.4	2.7 lux at F1.4
S/N Ratio	Greater than 48 dB	Greater than 48 dB
Output Signal	0.45	
Gamma	On / Off selectable	
Gain Control	AGC	
Electronics Iris	1/60 to 1/100,000 (NTSC)	1/50 to 1/100,000 (PAL)
Lens	Varifocal 4 to 9 mm or 9 to 22 mm auto-iris lens	
Voltage	12 VDC or 24 VAC	
Power consumption	3.9 W (max.)	
Cabling holes	Two 3/4-inch NPT conduit entries	
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)	

**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

**EX72C7V0409-N Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 4 to 9 mm lens, NTSC, CSA/UL Certified  
Order number **EX72C7V0409-N**

**EX72C7V0409-P Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 4 to 9 mm lens, PAL, CSA/UL Certified  
Order number **EX72C7V0409-P**

**EX72C7V0922-N Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 9 to 22 mm lens, NTSC, CSA/UL Certified  
Order number **EX72C7V0922-N**

**EX72C7V0922-P Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 9 to 22 mm lens, PAL, CSA/UL Certified  
Order number **EX72C7V0922-P**

**EX72MX4V0409-N Explosion-protected Camera**

Day/Night 1/3 in CCD, 540/540 TVL, mech filter, varifocal 4 to 9 mm lens, NTSC, CSA/UL Certified  
Order number **EX72MX4V0409-N**

**EX72MX4V0409-P Explosion-protected Camera**

Day/Night 1/3 in CCD, 540/540 TVL, mech filter, varifocal 4 to 9 mm lens, PAL, CSA/UL Certified  
Order number **EX72MX4V0409-P**

**EX72MX4V0922-N Explosion-protected Camera**

Day/Night 1/3 in CCD, 540/540 TVL, mech filter, varifocal 9 to 22 mm lens, NTSC, CSA/UL Certified  
Order number **EX72MX4V0922-N**

**EX72MX4V0922-P Explosion-protected Camera**

Day/Night 1/3 in CCD, 540/540 TVL, mech filter, varifocal 9 to 22 mm lens, PAL, CSA/UL Certified  
Order number **EX72MX4V0922-P**

**EX72C7V0409AT-N Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 4 to 9 mm lens, NTSC, ATEX Certified  
Order number **EX72C7V0409AT-N**

**EX72C7V0409AT-P Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 4 to 9 mm lens, PAL, ATEX Certified  
Order number **EX72C7V0409AT-P**

**EX72C7V0922AT-N Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 9 to 22 mm lens, NTSC, ATEX Certified  
Order number **EX72C7V0922AT-N**

**EX72C7V0922AT-P Explosion-protected Camera**

1/3 in color CCD, 500 TVL, varifocal 9 to 22 mm lens, PAL, ATEX Certified  
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**EX72MX4V0922AT-P Explosion-protected Camera**

Day/Night 1/3 in CCD, 540/540 TVL, mech. filter, varifocal 9 to 22 mm lens, PAL, ATEX Certified  
Order number **EX72MX4V0922AT-P**

**Accessories****EXMB.028B Cable Managed Wall Bracket**

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

**EXMB.072B Adapter Bracket**

EXMB72 Adapter Bracket, Black  
Order number **EXMB.072B**

**EXMB.015B Pole Mount Adapter Bracket**

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

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**EXMB.017B Wall Mount Adapter Bracket**

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

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**EXMB.004B Ceiling and Pedestal Bracket**

Mounting Bracket, HD, Pan/Tilt Adjust - Ceiling Mount  
for EX52, EX62, black  
Order number **EXMB.004B**

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**UPA-2430-60 Power Supply**

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

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**UPA-2420-50 Power Supply**

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

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