BOSCH
Invented for life

EX72N Explosion-protected Integrated Day/Night Camera

▸ **UL/CSA or ATEX certified for explosion-protected performance**

▸ **Integrated Day/Night design for 12 m (40 ft) night vision**

▸ **Performance optics with mechanical filter technology**

▸ **High-strength design can withstand an internal explosion**

▸ **Safe for use where explosive gases are normally present**

▸ **Vari-focal auto-iris lens options**

The EX72N 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 EX72N incorporates a Day/ Night CCD with a mechanical filter for outstanding daytime color and 12 m (40 ft) active-IR night vision under low light and no light conditions.

The EX72N 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 EX72N is safe for use even in environments where explosive gases are present under normal operating conditions.

The EX72N 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 EX72N assures safe, effective performance at less hazardous Division 2 and Class II locations.

Rated NEMA 4X for both indoor and outdoor use, the EX72N carries a T6 temperature code, the lowest and safest rating. When combined with the optional EX72LED infra-red illuminator, the EX72N provides exceptional 24/7 surveillance.

The EX72N is easy to 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
- High efficiency LED infrared array
- 12 m (40 ft) active-IR night vision
- Enables effective surveillance in low-light environments

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- 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
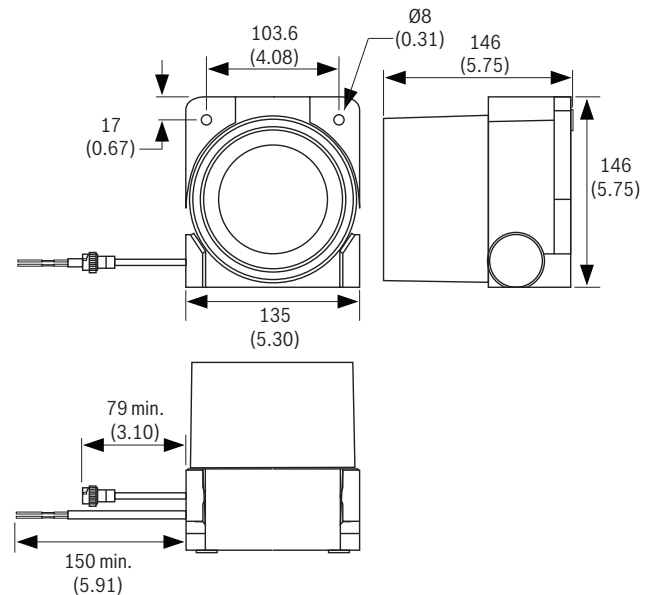
Certifications and Approvals

Region	Certification
Europe	CE ATEX
Canada	CSA
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, 3rd 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.0.4-04 - Bonding of Electrical Equipment
	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	Temp Code T6 (Max. operation ambient 40 ºC.)
Environmental	CSA / NEMA TYPE 4X

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

	EX72MNX Day/Night
CCD	MX4 extended day/night CCD
Resolution	540 TVL color / 540 TVL mono
IR Spectral Response	Enhanced IR Sensitivity
Day Sensitivity	0.02 lux with F1.4 lens
Night Sensitivity	0 lux (works in total darkness)
S/N Ratio	Greater than 48 dB (AGC off)

Night Vision Distance	12 m (40 ft)
Lens	Varifocal 4 to 9 mm or 9 to 22 mm, auto-iris lens
Output Signal	1 Vpp, 75 ohm
Electronics Iris	1/60 to 1/100,000 (EIA)
LED	18 LED high efficiency array, 850 nm
Voltage	12 VDC or 24 VAC
Power Consumption	8 W (max.)
Cabling holes	3/4-inch NPT
Construction	Sand-cast, copper-free aluminum
Flame Path	Threaded joint flame paths
Operation Temperature Range	-50 ºC to +40 ºC (-58 ºF to 104 ºF)
Weight	1.4 kg (3.1 lb)
Dimensions	145 x 135 x 144 mm (HxWxD) (5.7 x 5.3 x 5.7 in (HxWxD))

Note   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

EX72MNX8V0409-N Explosion-protected Integrated Day/Night Camera
Day/Night,18 LEDs, 850 nm, 1/3 in CCD, 540 TVL color/ 540 TVL mono, VA 4 to 9 mm lens, bracket, NTSC, CSA/UL Certified

EX72MNX8V0409-N

EX72MNX8V0922-N Explosion-protected Integrated Day/Night Camera
Day/Night,18 LEDs, 850 nm, 1/3 in CCD, 540 TVL color/ 540 TVL mono, VA 9 to 22 mm lens, bracket, NTSC, CSA/UL Certified

EX72MNX8V0922-N

Ordering Information

Accessories

EXMB.028B Cable Managed Wall Bracket Cable-managed arm bracket, black	**EXMB.028B**
EXMB.072B Adapter Bracket EXMB72 Adapter Bracket, Black	**EXMB.072B**
EXMB.015B Pole Mount Adapter Bracket Pole Mount Adapter, black	**EXMB.015B**
EXMB.017B Wall Mount Adapter Bracket Wall Mount Adapter, Black	**EXMB.017B**
EXMB.004B Ceiling and Pedestal Bracket Mounting Bracket, HD, Pan/Tilt Adjust - Ceiling Mount for EX52, EX62, black	**EXMB.004B**
UPA-2430-60 Power Supply 120 VAC, 60 Hz, 24 VAC, 30 VA Out	**UPA-2430-60**
UPA-2420-50 Power Supply 220 VAC, 50 Hz, 24 VAC, 20 VA Out	**UPA-2420-50**