

# EX65 Explosion-Protected Illuminator

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Invented for life

- ▶ Electropolished 316L stainless steel or aluminum construction
- ▶ 3D diffuser technology for even illumination
- ▶ Integrated junction box
- ▶ ATEX, UL, IECEx, and INMETRO Certifications
- ▶ Constant Light technology

The EX65 Explosion Protected Illuminator is the world's first Intelligent-IR infrared illuminator for explosive environments, combining the latest innovations in infrared technology and design to deliver the highest quality CCTV illumination for critical 24/7 surveillance applications.

The EX65 is available in an electropolished 316L stainless steel or anodized aluminum configuration. When paired with the EX65 Camera, users can expect unrivaled image quality in complete darkness. Energy efficient infrared illumination also eliminates the need for any conventional high voltage lighting to be installed, which cuts costs significantly.

A single pre-assembled unit with an integrated junction box, the EX65 is designed to be easy to install. Through any of the four (4) 3/4 in. conduit entries, connections are made to the convenient terminal block; there is also space for any additional wiring. All connections are conveniently accessible within the junction box including power and telemetry. Constant Light technology compensates for LED degradation, a natural occurrence with all LED-based illuminators, to deliver a constant level of lighting performance throughout the life of the illuminator. Powered by award-winning 3D Diffuser IR technology, the EX65 delivers Even-Illumination from the foreground to the background of the scene eliminating hotspots and underexposure.

The EX65 holds all major international explosion-protected certifications for safe use in almost any region of the world. In addition, the EX65 meets NEMA 4X and IP67 ratings. The EX65 has undergone vibration and shock testing to IEC standards, as well as Highly Accelerated Life Testing (H.A.L.T.), which pushes the limits of products to ensure reliability throughout the product's lifetime.

The EX65 gives you the confidence to ensure a safe workplace while getting the picture in the world's most volatile locations.

## System overview

### Easy to Install

- One piece installation
- Integrated junction box
- Multiple mounting options

### Controlled by Constant Light technology

- Maintains a constant level of infrared performance throughout the life of the illuminator across the temperature range
- Reduces initial input power consumption for a more environmentally-friendly solution

### Powered by 3D Diffuser Even Illumination Technology

- Award winning 3D Diffuser IR Technology eliminates hotspots in the foreground and underexposed backgrounds
- Less camera noise reduces IP video bandwidth requirement

### Cool Operation Surface Mount LEDs

- Maintains T6 temperature rating
- Reduces power input and consumption

## Functions

### Construction

The EX65 Explosion Protected Illuminator includes a smart infrared illuminator pre-wired into an electropolished 316L stainless steel housing offering excellent corrosion protection. For less corrosive environments, an anodized aluminum configuration is also available. The EX65 holds the most common explosion-protected certifications for guaranteed safe operation in explosive environments and also NEMA 4X and IP67 ratings for wet locations. For operation in areas prone to vibration, the EX65 has been tested to IEC standards for vibration and shock.

### Wide Temperature Range

Designed with the harshest conditions in mind, the EX65 welcomes deployment in the toughest areas on the planet including the subzero conditions found in northern Russia or the scorching heat found in Middle Eastern deserts. The impressive  $-50^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ) temperature range is standard on all models.

### Global Explosion Protection Certification

The EX65 holds all major international explosion protected certifications for global installation. As a UL listed product the EX65 is certified for the division and zone system per the NEC standards. For Europe it holds the ATEX certification. The EX65 has been tested against and conforms to the international IECEx scheme. For Brazil the EX65 holds the INMETRO certification.

### Integrated Junction Box

The integrated junction box allows for easy connections to the terminal block for power and alarm outputs. An integral junction box saves money and time spent on installing external junction boxes and provides easy access for setup and maintenance.

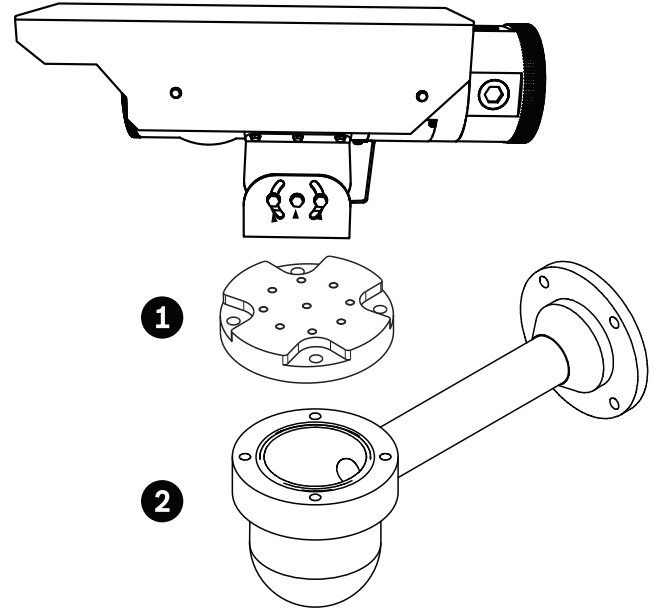
### Various mounting options with the mount adapter

The EXS-ADPT is a stainless steel mount adapter that allows installers to mount an EXTEGRA/EX65 device onto one of a variety of mounting brackets originally designed for the MIC Series of cameras. Installers secure the mounting cradle of the device to the mount adapter, and then secure the adapter to a MIC wall mount bracket (MIC-WMB). The MIC-WMB can be mounted to any of the following MIC Series mounting brackets:

- Spreader plate (MIC-SPR), for installation on a wall

- Corner mount bracket (MIC-CMB), for installation in a corner
- Pole mount bracket (MIC-PMB), for installation on the side of a CCTV pole

Refer to the datasheet “MIC Mounting Brackets and Other Accessories” for details about these mounts.



EXTEGRA IP 9000/EX65 device to EXS-ADPT (1) to MIC Wall Mount Bracket (MIC-WMB) (2)

## Certifications and approvals

Region	Certification
Europe	CE Declaration of Conformity Certificate of Conformity 11/UL-BRHZ-0037X UL DEMKO 10 ATEX 0948139X
USA	UL, FCC
Canada	cUL
Brazil	INMETRO
International	Certificate of Conformity IECEx UL 10.0010X

### Electromagnetic Compatibility (EMC)

Emission	EN55022 class B, FCC part 15 class B
Immunity	EN 61000-4, EN 50130-4:1996

### Safety

UL 508, CAN/CSA C22.2 No. 60065-03, IEC 60825-1

### Explosion Protection

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UL/cUL Listed 3RR9

UL/cUL Hazardous Locations Listed as per NEC Division and Zone requirements

- Class I, Div 1, Groups C, and D; Class II, Groups E, F, and G; Class III
- Class I, Zone 1, AEx d IIB T6; Ex d IIB T6 X
- AEx tD 21 T85°C
- DIP DIP A21 Ta85°C X

ATEX

- DEMKO 10 ATEX 0948139X
- CE 0344 II 2 GD
- Ex d IIB T6 Gb
- Ex tb IIIC T85°C Db IP67

IECEx

- IECEx UL 10.0010X
- Ex d IIB T6 Gb
- Ex tb IIIC T85°C Db IP67

11/UL-BRHZ-0037X

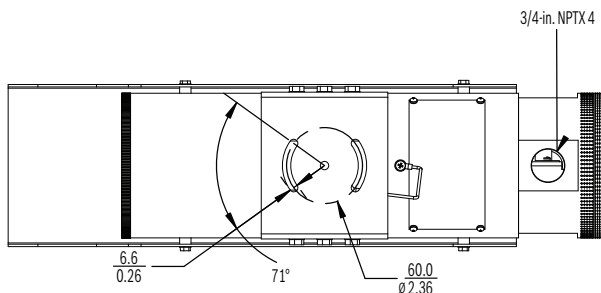
UL 1203, UL 60079-0, UL 60079-1, ANSI/ISA-61241-0, ANSI/ISA-61241-1, CAN/CSA C22.2 No. 30-M1986, CAN/CSA C22.2 No. 25-1966, CAN/CSA C22.2 No. 60079-0-07, CAN/CSA C22.2 No. 60079-1-07, CAN/CSA E61241-1-1-02, EN 60079-0:2006, EN 60079-1:2007, EN 60079-31:2009, IEC 60079-0:2009, IEC 60079-1:2007, IEC 60079-31:2008, INMETRO Portaria 179:2010, ABNT NBR IEC 60079-0:2008, ABNT NBR IEC 60079-1:2009

### Environmental

UL Type 4X; IP67; Sinusoidal Vibration tested; Random Vibration tested; Shock tested; UL50, UL50E, IEC 60529, EN60068-2-6, EN60068-2-64, EN60068-2-27, CAN/CSA C22.2 No. 94.1-07, CAN/CSA C22.2 No. 94.2-07, CAN/CSA C22.2 No. 60529-05

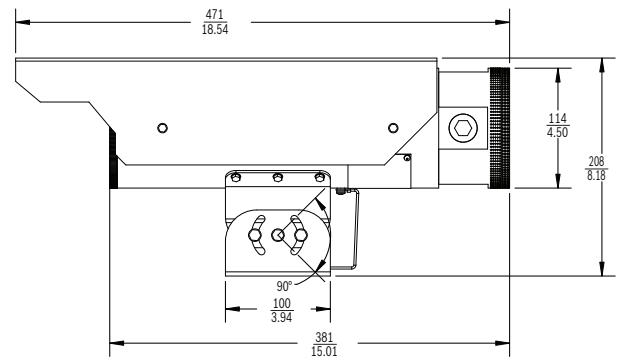
Region	Certification
	Certificate of Conformity 11/UL-BRHZ-0037X
Europe	CE Declaration of Conformity
USA	UL E333679 Certificate of Compliance
	UL DEMKO 10 ATEX 0948139X
	UL Certificate of Conformity IECEx UL 10.0010X

### Installation/configuration notes



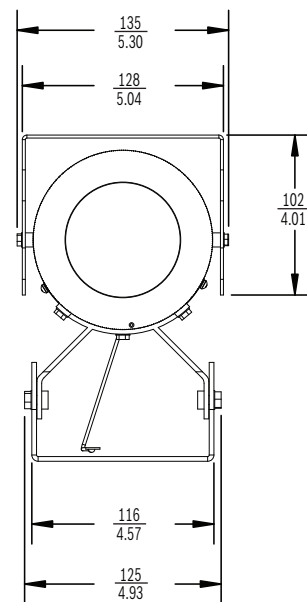
mm  
in.

Bottom View



mm  
in.

Side View



mm  
in.

Front View

### Technical specifications

#### Electrical

IR Source	High-efficiency LED array with current limited integral power circuit
Beam Patterns	20° or 50°
Wavelength	850 nm
Power consumption	37 to 40 W (40 W max. power). Power consumption will vary over time due to the intelligent IR's optical output control which compensates for LED degradation and ambient temperature fluctuations.

## Performances Ranges

Model	Horizontal Angle	Achievable Distance <sup>1</sup>	Horizontal Field of View
LED-658-AM/SM	20	54.3 m (178.1 ft)	18.9 m (61.9 ft)
LED-658-AW/SW	50	39.3 m (c ft)	33.2 m (109.0 ft)

1. Actual illumination distance achieved is dependent on camera and lens characteristics. These values are based on test results with an EX65 camera.

## Mechanical

Dimensions (L x W x H)	381 x 114 x 114 mm (11.01 x 4.5 x 4.5 in.) without sunhood or mounting cradle
Weight	Stainless Steel: 12.7 kg (28 lb) Aluminum: 6.1 kg (13.5 lb)
Construction	Electropolished 316L Stainless Steel or Anodized Aluminum
Bracket	Pan(±36°)/Tilt(±45°), mounting cradle included
Cable Entry	Four (4) 3/4-in. NPT entries
View Window	9-mm thick borosilicate float glass

## Environmental

Operating Temperature	-50 °C to +60 °C (-58 °F to +140 °F)
Storage Temperature	-55 °C to +70 °C (-67 °F to +158 °F)
Operating Humidity	0 to 100% relative (condensing, after installed and sealed)
Storage Humidity	20 to 98% relative (non-condensing)

## Ordering information

### LED-658-AM Aluminum EX65 Explosion Protected Illuminator

Intelligent-IR 850 nm illuminator for explosive environments. IP67; LED array; Constant Light technology; 3D Diffuser; 18.9 m HFOV; 54.3 m distance; 20° beam pattern, aluminum  
Order number **LED-658-AM**

### LED-658-AW Aluminum EX65 Explosion Protected Illuminator

Intelligent-IR 850 nm illuminator for explosive environments. IP67; LED array; Constant Light technology; 3D Diffuser; 33.2 m HFOV; 39.3 m distance; 50° beam pattern, aluminum  
Order number **LED-658-AW**

### LED-658-SM Stainless Steel EX65 Explosion Protected Illuminator

Intelligent-IR 850 nm illuminator for explosive environments. IP67; LED array; Constant Light technology; 3D Diffuser; 18.9 m HFOV; 54.3 m distance; 20° beam pattern, stainless steel  
Order number **LED-658-SM**

### LED-658-SW Stainless Steel EX65 Explosion Protected Illuminator

Intelligent-IR 850 nm illuminator for explosive environments. IP67; LED array; Constant Light technology; 3D Diffuser; 33.2 m HFOV; 39.3 m distance; 50° beam pattern, stainless steel  
Order number **LED-658-SW**

## Accessories

### UPA-2450-50 Power Supply, 220 V, 50 Hz

Indoor power supply for camera. 220 VAC, 50 Hz In; 24 VAC, 50 VA Out  
Order number **UPA-2450-50**

### UPA-2450-60 Power Supply, 120 V, 60 Hz

Indoor power supply for camera. 120 VAC, 60 Hz In; 24 VAC, 50 VA Out  
Order number **UPA-2450-60**

### EXS-ADPT EX65-to-MIC Mount Adapter, Stainless Steel

Adapter that allows the EX65 camera or illuminator to be mounted on a MIC wall mount bracket (MIC-WMB) and then to one of a variety of other MIC Series mounting brackets.  
Order number **EXS-ADPT**

### MIC-CMB-S Corner Mount Bracket, Stainless Steel

Corner mount bracket, grade 316 stainless steel  
Order number **MIC-CMB-S**

### MIC-WMB-S Wall Mount Bracket, Stainless Steel

Wall mount bracket, grade 316 stainless steel (Requires MIC-SPR or MIC-PMB for secure mounting because of weight.)  
Order number **MIC-WMB-S**

### MIC-PMB Pole Mount Bracket

Pole mount bracket (includes 2 x 455 mm stainless steel banding straps for pole diameters 75 to 145 mm)  
Order number **MIC-PMB**

### MIC-SPR-S Spreader Plate, Stainless Steel

316L stainless steel spreader plate suitable for brickwork surface mounting, plain finish  
Order number **MIC-SPR-S**

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