

### Key Features

- Heavy duty extruded aluminium design with four entry plugs
- Class I, Div 1 & 2, Groups A, B, C, D
- Class II, Div 1 & 2, Groups E, F, G
- Class III
- CSA – NRTL Approved to OSHA standards
- MFP Technology (Mechanical Filter with Photocell) CCD models for outstanding color and IR sensitivity
- LXR CCD models for excellent IR sensitivity, low smear, low streak and excellent anti-blooming characteristics
- Easy access slide tray allows for fast installation and easy camera adjustments
- 3/8" chemical resistant window
- Optional Lexan ballistic window
- Optional heater / blower
- Various compatible mounting hardware
- Various fixed lenses available
- May be combined with Extreme's Explosion Protected Infrared Illumination for 24/7 day and night effectiveness

### Product Description

The EX50 is a 7" explosion protected camera for effective surveillance at high risk environments. Designed for hazardous industrial locations including the entire range of OSHA (UL) designations for explosive locations. Its stringent Class I, Division I certifications allow safe functioning at locations where ignitable concentrations of flammable gases or liquid vapors are present during normal operation. Groups covered include acetylene, hydrogen, ethylene and methane, all highly explosive gases. The EX50 is also certified for operation in areas where ignitable concentrations of combustible dusts (such as carbon-based or agricultural dusts) are present during normal operation.

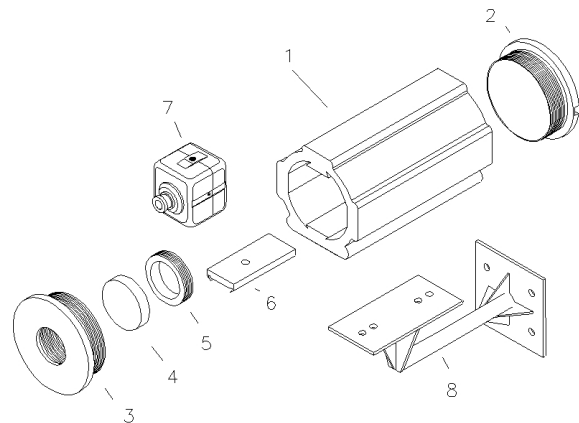
The EX50 is also designed to CCTV industry standards for mounting hardware and motorized pan/tilt devices.

### Applications

- Chemical factories
- Petroleum refineries, oil and gas processing
- Utility gas plants
- Grain elevators, flour mills
- Dry cleaning plants
- Pharmaceutical plants
- Coal and carbon processing
- Aircraft hangars
- Spray finishing areas
- Munitions and fuel storage facilities

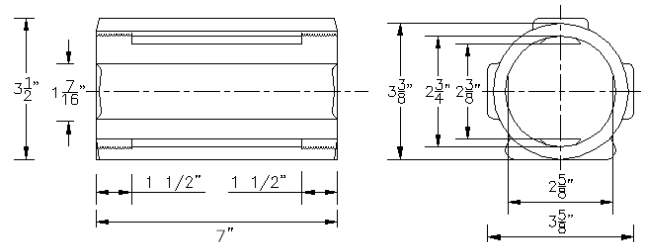
**Note:** The use of explosion protected housings may be subject to local or regional regulatory approval. The authorities having jurisdiction for each installation and application may vary and their respective requirements may differ. The integration of your equipment with the EX50 may also be subject to local authority approval.

### Product Images



#### Legend:

1. EX50 housing copper-free aluminum.
2. End cover with locking pin.
3. View cover with locking pin.
4. 3/8" view window (3/4" ballistic Lexan insert optional)
5. Retaining ring
6. Camera guide tray with locking pin.
7. Standard CCD camera. (optional)
8. Standard mounting hardware (optional)



Dealer / Distributor



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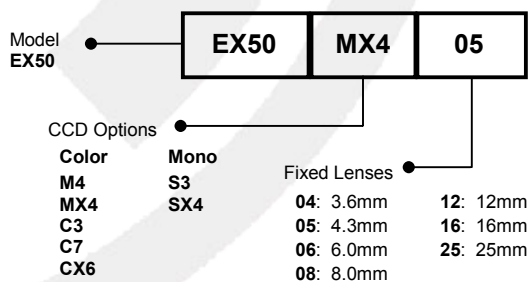
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**Certifications / Compliance**

|                                    | <b>EX50 Explosion Protected Surveillance Enclosure</b>   |
|------------------------------------|--|
| <b>CSA-NRTL</b>                    | LR 113310  |
| <b>Class</b>                       | 9098 01 / 81 - Miscellaneous - for Hazardous Locations   |
| <b>Safety</b>                      | OSHA / ANSI / UL / CSA   |
|                                    | UL 508, Sixteenth Edition - Industrial Control Equipment   |
|                                    | UL 698, Eleventh Edition - Industrial Control Equipment for Use in Hazardous (Classified) Locations              |
|                                    | UL 1203 Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations |
|                                    | CSA C22.2 No.0-M1991 General Electrical Requirements   |
|                                    | 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, Div 1, 2, Groups A, B, C, D   |
| Class II, Div 1, 2, Groups E, F, G |  |
| Class III                          |  |
| <b>Operational</b>                 | Temperature Code T6 at maximum ambient temperature 55°C   131°F  |
| <b>Environmental</b>               | CSA / NEMA TYPE 4  |

**General CCD Specification** (See specification tables for detailed camera specifications)

| <b>CCD</b> | <b>Description</b>  |
|------------|---|
| MX4        | Mechanical filter, photocell, enhanced infrared sensitivity, 1/3" LXR sensor, 550 TVL color, 570 TVL monochrome |
| M4         | Mechanical filter, photocell, 1/3" SuperHAD sensor, 550 TVL color, 570 TVL monochrome                           |
| CX6        | Enhanced infrared sensitivity, 1/3" LXR sensor, 480 TVL color   |
| C7         | 1/3" SuperHAD sensor, 480 TVL color   |
| C3         | 1/3" SuperHAD sensor, 380 TVL color   |
| S3         | 1/3" SuperHAD sensor, 600 TVL color   |
| SX4        | High performance infrared, 1/3" LXR sensor, 420 TVL monochrome  |

**Part Numbers** (Special Order Models available on request)

**Optional Accessories**

|                          |  |
|--------------------------|--|
| <a href="#">EXPS.001</a> | Power supply, 110 AC input to 12 VDC           |
| <a href="#">EXMB.001</a> | Pan-Tilt adjustable wall bracket               |
| <a href="#">EXMB.002</a> | Pan-Tilt adjustable ceiling & pedestal bracket |

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**Specifications: Photocell-Controlled Mechanical Filter Cameras, Day / Night Switching**

|                   | Day-Night Switching, Color / Monochrome   | Day/Night, Color/Mono w/ Enhanced IR Performance      |
|-------------------|---|---|
| CCD               | <b>M4 with MFP Technology</b>   | <b>MX4 with MFP Technology</b>                        |
| Image Sensor      | 1/3" Interline SuperHAD CCD   | 1/3" LXR CCD  |
| Resolution        | 550 TVL color / 570 TVL monochrome  | 550 TVL color / 570 TVL monochrome                    |
| Effective Pixels  | NTSC: 768 (H) x 494 (V) • PAL: 752 (H) x 582 (V)  | NTSC: 768 (H) x 494 (V) • PAL: 752 (H) x 582 (V)      |
| Sensitivity       | 0.06 Lux with F1.4 lens   | 0.02 Lux with F1.4 lens   0 Lux under IR illumination |
| S/N Ratio         | Greater than 48dB (AGC off)   | Greater than 48dB (AGC off)                           |
| Output Signal     | 1Vp-p, 75Ω  |   |
| Gamma             | 0.45  |   |
| Gain Control      | AGC   |   |
| Electronics Iris  | 1/60 ~ 1/100,000 (NTSC) • 1/50 ~ 1/100,000 (PAL)  |   |
| Filter            | Dual-window mechanical type   |   |
| Consumption       | 5 W maximum   |   |
| Voltage           | 12 to 24 AC/DC  |   |
| Construction      | Robust aluminum extrusion with four entry plugs   |   |
| Bracketry         | U-Bracket with stainless steel straps included  |   |
| View Window       | Copper-free tempered view window  |   |
| Weight            | 5 lbs   2.3 kg without camera   |   |
| Operational Range | With sunhood: -50°C to +55°C   -58°F to +131°F   without sunhood -50°C to +50°C   -58°F to +122°F |   |
| Overall Dimension | Approximately 3 3/8"   86mm diameter x 7"   178mm length  |   |

**Specifications: Color Cameras**

| CCD                   | C3 Standard  | C7 High Resolution Color | CX6 LXR High Resolution Color |
|-----------------------|--|--------------------------|-------------------------------|
| Image Sensor          | 1/3" Interline SuperHAD                                  | 1/3" Interline SuperHAD  | 1/3" LXR CCD                  |
| Resolution            | 380 TVL  | 480 TVL                  | 480 TVL                       |
| Effective Pixels NTSC | NTSC: 510 (H) x 492 (V)                                  | NTSC: 768 (H) x 494 (V)  | NTSC: 811 (H) x 508 (V)       |
| Effective Pixels PAL  | PAL: 500 (H) x 582 (V)                                   | PAL: 752 (H) x 582 (V)   | PAL: 795 (H) x 586 (V)        |
| Sensitivity           | 0.5 Lux @ F1.4   | 2.7 Lux @ F1.4           | 0.14 Lux @ F1.4               |
| S/N Ratio             | Greater than 48dB  | Greater than 48dB        | Greater than 48dB             |
| Output Signal         | 1Vp-p, 75Ω   |                          |                               |
| Gamma                 | 0.45   |                          |                               |
| Gain Control          | AGC  |                          |                               |
| Electronics Iris      | 1/60 ~ 1/100,000 (NTSC) • 1/50 ~ 1/100,000 (PAL)         |                          |                               |
| Consumption           | 5 W maximum  |                          |                               |
| Voltage               | 12 to 24 AC/DC   |                          |                               |
| Construction          | Robust aluminum extrusion with four entry plugs          |                          |                               |
| Bracketry             | U-Bracket with stainless steel straps included           |                          |                               |
| View Window           | Copper-free tempered view window                         |                          |                               |
| Weight                | 5 lbs   2.3 kg without camera                            |                          |                               |
| Operational Range     | -50°C to +50°C   -58°F to +122°F                         |                          |                               |
| Overall Dimension     | Approximately 3 3/8"   86mm diameter x 7"   178mm length |                          |                               |

Patent Pending. Specifications are subject to change without notice  
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EX50\_TS\_070101

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**Specifications: Monochrome Cameras**

|                   |  |
|-------------------|--|
| CCD               | <b>S3 High Resolution Monochrome</b>                     |
| Image Sensor      | 1/3" Interline SuperHAD                                  |
| Resolution        | 600 TVL  |
| Effective Pixels  | NTSC: 768 (H) x 494 (V) • PAL: 752 (H) x 582 (V)         |
| Sensitivity       | 0.05 Lux @ F1.4  |
| S/N Ratio         | Greater than 50dB  |
| Output Signal     | 1Vp-p, 75Ω   |
| Gamma             | 0.45   |
| Gain Control      | AGC  |
| Electronics Iris  | 1/60 ~ 1/100,000 (NTSC) • 1/50 ~ 1/100,000 (PAL)         |
| Consumption       | 5 W maximum  |
| Voltage           | 12 to 24 AC/DC   |
| Construction      | Robust aluminum extrusion with four entry plugs          |
| Bracketry         | U-Bracket with stainless steel straps included           |
| View Window       | Copper-free tempered view window                         |
| Weight            | 5 lbs   2.3 kg without camera                            |
| Operational Range | -50°C to +50°C   -58°F to +122°F                         |
| Overall Dimension | Approximately 3 3/8"   86mm diameter x 7"   178mm length |

**Specifications: High Performance Infrared Cameras**

|                       |  |
|-----------------------|--|
| CCD                   | <b>SX4 High Performance Infrared</b>                     |
| Image Sensor          | 1/3" LXR CCD for high performance infrared               |
| Resolution            | 420 TVL  |
| Effective Pixels EIA  | EIA: 542 (H) x 492 (V)                                   |
| Effective Pixels CCIR | CCIR: 542 (H) x 582 (V)                                  |
| Sensitivity           | 0.01 Lux @ F1.2 (SAGC on)   0 Lux under IR illumination  |
| S/N Ratio             | Greater than 48dB  |
| Output Signal         | 1Vp-p, 75Ω   |
| Gamma                 | 0.45   |
| Gain Control          | AGC  |
| Electronics Iris      | 1/60 ~ 1/100,000 (EIA) • 1/50 ~ 1/100,000 (CCIR)         |
| Consumption           | 5 W maximum  |
| Voltage               | 12 to 24 AC/DC   |
| Construction          | Robust aluminum extrusion with four entry plugs          |
| Bracketry             | U-Bracket with stainless steel straps included           |
| View Window           | Copper-free tempered view window                         |
| Weight                | 5 lbs   2.3 kg without camera                            |
| Operational Range     | -50°C to +50°C   -58°F to +122°F                         |
| Overall Dimension     | Approximately 3 3/8"   86mm diameter x 7"   178mm length |

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