

EX85 Megapixel IP Infrared Imager

www.boschsecurity.com



The EX85 is at the pinnacle of today's most advanced imaging technologies, combining dual megapixel sensors and Black Diamond night vision technology. The result is the most advanced level of imaging performance for today's critical security applications: the amazing detail of 3.1 million color pixels by day and the award-winning performance of Black Diamond night vision to 128 m (420 ft). The EX85 also incorporates Bit-Reduce technology, helping to minimize bandwidth requirements.

The EX85 incorporates a ruggedized outdoor enclosure, field-proven for reliability in the world's worst environments.

The EX85 delivers the imaging performance required by today's critical applications and video analytics software.

Functions

Black Diamond Infrared Technology

- Award-winning Black Diamond technology eliminates hotspot foregrounds and underexposed backgrounds
- Effective 24/7 surveillance for critical applications, providing up to 128 m (420 ft) of high definition detection-level video
- Eliminates bit rate problems caused by poor night time performance

- ▶ 3.1 megapixel day sensor, 1.3 megapixel night sensor
- ▶ Award-winning Black Diamond technology
- ▶ Detection-level night vision at 128 m (420 ft)
- ▶ Field-proven IP67 all-weather design
- ▶ Innovative Bit-Reduce technology minimizes bit rate

Megapixel Sensors

- 3.1 megapixel day sensor and 1.3 megapixel night-time sensor
- Up to 10x the resolution of high performance CCD sensors
- Matched megapixel lenses for crystal clear images with amazing detail
- Megapixel field of view allows digital zoom, eliminating the necessity for pan-tilt-zoom functionality

Extreme Environment Housing Certified to IP67

- Extreme weather sealed for performance under harsh environmental conditions
- Field-proven for long-term reliability and toughness
- The security industry's only high performance outdoor night vision IP camera

Bit-Reduce Technology

Innovative Bit-Reduce technology ensures low bit rates and helps to stabilize networks. Bit-Reduce design is a combination of:

- Black Diamond Infrared illumination, which solves the problem of failed compression at night caused by image noise
- Proprietary on-camera image processing, which sends only the required image data down the network, reducing bandwidth

- More than twenty compression levels to help achieve the right balance of file size and image quality for any application

Bit-Reduce design is unique to the EX85, making it the most advanced megapixel camera available today, not only for imaging performance but also for its bandwidth management capabilities.

Megapixel Technology

Megapixel cameras offer numerous advantages over conventional cameras. Below is a partial list.

- Greater resolution for outstanding image detail
- Greater field of view, reducing the number of required cameras
- No need for PTZ, no moving parts, record everything all-the-time
- Lossless forensic zoom for post-event investigations
- Enables optimal performance of video detection and video analytic software
- Greater remote control over image acquisition parameters
- Easily scalable and expandable, with lower installation and long-term ownership costs

Night Vision, Compression and Bit Rate

	Without Infrared Illumination	With Black Diamond Infrared Illumination
AGC Strength	High	None
Effect on Image	Low SN ratio, snow, graininess	Even-illumination, high SN ratio
Effect on Compression	Poor compression performance	Good compression performance
Effect on Bit Rate	High bit rates	Low bit rates
Effect on Network	Strained bandwidth, system instability	Low bandwidth requirements, uncompromised image quality

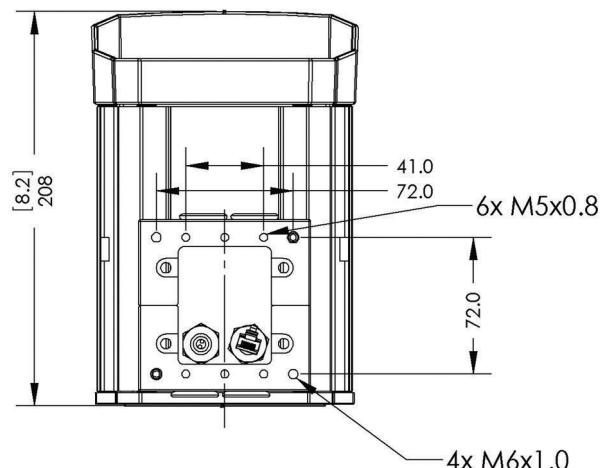
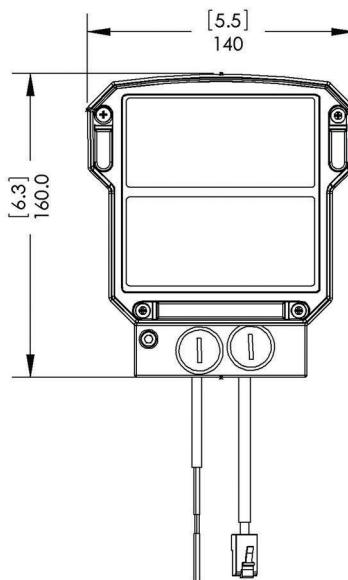
DCRI Performance Parameters

Detection	128 m (420 ft)
Classification	98 m (320 ft)
Recognition	76 m (250 ft)
Identification	45 m (150 ft)

Certifications and approvals

Region	Certification
Europe	CE

Installation/configuration notes



Technical specifications

Camera

Daytime Color Sensor	3.1 megapixel (2048H x 1536V), 1/2 in sensor (resolution greater than 1000 TVL)
Night Time Mono Sensor	1.3 megapixel (1280H x 1024V), 1/2 in sensor (resolution greater than 1000 TVL)
Night Time Sensitivity	Zero lux (works in complete darkness)
Frame Rate	Color: 20 fps at 1920x1200 Monochrome: 30 fps at 1280x1024
Day/Night Switching	Automatic, adjustable via API
SNR	45 dB or greater

Dynamic Range	60 dB
Lens type	8, 12, 25 or 50 mm fixed megapixel lenses
Zoom	Always-on digital zoom, available simultaneously with overview image
Range of focus	5 m to infinity
Motion Detection	On-camera motion detection or with NVR/VMS integration
Compression	Motion JPEG with over 20 quality settings
Bit rate	Bit-Reduce image processing with fully dynamic adjustment capability
Viewer	User interface supplied
Network Interface	Ethernet 100 Base-T
Connector	RJ45
Application Protocol	TFTP / HTTP
Network Protocol	IP
Data Link Transmission	Ethernet over UTP or STP
Firmware Upgradeability	Available via application manager
Programmability (via software interface)	Compression, auto-exposure, white balance, flicker control, picture size, cropping, brightness, sharpness, saturation, Day/Night switching point, frame rate, image rotation, snapshot, dynamic bandwidth allocation, motion detection

IP Infrared Imaging

Infrared Type	Black Diamond infrared illumination	
Wavelength	850 nm	
Night Vision Ranges	Detection	128 m (420 ft)
	Classification	98 m (320 ft)
	Recognition	76 m (250 ft)
	Identification	45 m (150 ft)

Environmental

Weight	2.3 kg (5 lb)
Operation Temperature Range	-40 °C to +50 °C (-40 °F to +122 °F)
Bracket	Basic cable-managed wall bracket included
Environment	IP67 compliant

Electrical

Voltage supply	12 to 24 VAC or VDC
Power Consumption	Day: 4.5 W max, Night: 36 W max

Ordering information

EX85D8IP08B Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 8 mm lens, 850 nm Black Diamond, Black
Order number **EX85D8IP08B**

EX85D8IP12B Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 12 mm lens, 850 nm Black Diamond, Black
Order number **EX85D8IP12B**

EX85D8IP25B Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 25 mm lens, 850 nm Black Diamond, Black
Order number **EX85D8IP25B**

EX85D8IP50B Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 50 mm lens, 850 nm Black Diamond, Black
Order number **EX85D8IP50B**

EX85D8IP08W Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 8 mm lens, 850 nm BlackDiamond, White
Order number **EX85D8IP08W**

EX85D8IP12W Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 12 mm lens, 850 nm BlackDiamond, White
Order number **EX85D8IP12W**

EX85D8IP25W Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 25 mm lens, 850 nm BlackDiamond, White
Order number **EX85D8IP25W**

EX85D8IP50W Megapixel IP IR Imager

Megapixel 1/2 in CMOS Day/Night 3.1/1.3 dual sensor, 50 mm lens, 850 nm BlackDiamond, White
Order number **EX85D8IP50W**

Accessories

EXPS.009 VAC Power Supply

Power supply 24 VAC, 2500 mA RoHS
Order number **EXPS.009**

EXMB.015B Pole Mount Adapter Bracket

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

EXMB.015W Pole Mount Adapter

Pole Mount Adapter, White
Order number **EXMB.015W**

EXMB.017B Wall Mount Adapter Bracket

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

EXMB.017W Wall Mount Adapter Bracket

Wall Mount Adapter, White
Order number **EXMB.017W**

EXMB.061 Pole Top Bracket

Stainless Pole Top Bracket

Order number **EXMB.061**

EXSH.01B Sunhood

Sunhood, black

Order number **EXSH01B**

EXSH.01W Sunhood

Sunhood, white

Order number **EXSH01W**

PSU-230-24 Power Supply

Power Supply, 230 VAC / 24 VAC, 50 W

Order number **PSU-230-24**

EXMB.029B Ceiling Mount Bracket

Ceiling Mount Bracket, Black

Order number **EXMB.029B**

EXMB.029W Ceiling Mount Bracket

Ceiling Mount Bracket, white

Order number **EXMB.029W**

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