BOSCH
Invented for life

ZX55-IP Infrared Imager

- **High performance day/night camera for perimeter surveillance and critical asset monitoring**
- **Integrated Intelligent Video Analysis (IVA)**
- **Black Diamond Infrared Illumination Technology**
- **Long-range Classification and Recognition Level Performance**
- **Rugged All-Weather Construction**
- **Bosch BVIP MPEG-4 video encoder**

The ZX55-IP is an Infrared Imager for long range, critical outdoor Day/Night surveillance applications. The ZX55-IP features a 9-90 mm lens, powerful Black Diamond infrared illumination and a powerful processor for Intelligent Video Analysis (IVA). The ZX55-IP also provides night imaging up to 300 m (1000 ft) resulting in unparalleled performance for long range 24/7 surveillance applications.

To effectively monitor critical assets and long stretching perimeters, the ZX55-IP incorporates a 9-90 mm varifocal lens. Narrow or wide angle shots are possible for the preferred field of view, with the system capable of delivering identification-level performance to 100 m (330 ft), providing the ability to distinguish facial features.

This high level imaging is also delivered with lower network bandwidth impact than standard IP cameras.

The weather-rated ZX55-IP features top and side sunshields to reflect heat in applications that expose the unit to intense direct sunlight. The integral flow-through-vent also allows airflow to directly cool the high performance system and lower internal temperatures. The ZX55-IP is ideal for critical applications such as force protection, perimeter surveillance, and critical asset monitoring.

Functions

Intelligent Video Analysis (IVA)

- On-board video content analysis monitors scene activity and flags user-defined events such as alarms (additional license required)

Black Diamond Infrared IlluminationTechnology

- Black Diamond technology eliminates hotspot foregrounds and underexposed backgrounds
- Extended range infrared to deliver night imaging to 300 m (1000 ft)
- Reduces image noise and enables better compression, reducing bit rates and enhancing network stability
- Enables effective night-time performance of video analytics

Rugged All-Weather Construction

- Field-proven NEMA4X weather-sealed housing
- Cable-managed wall bracket
- Dedicated camera bay for easy-optical adjustments
- Sunshields on top and sides for optimal heat deflection
- Designed to survive 250 km/h (155 mph) wind loading

High Performance Video Encoder

- MPEG-4 and MJPEG at 30 fps, full resolution
- Tri-stream video allows for simultaneous high resolution viewing with high efficiency storage (or vice versa)
- Supported by a wide range of VMS and NVR solutions

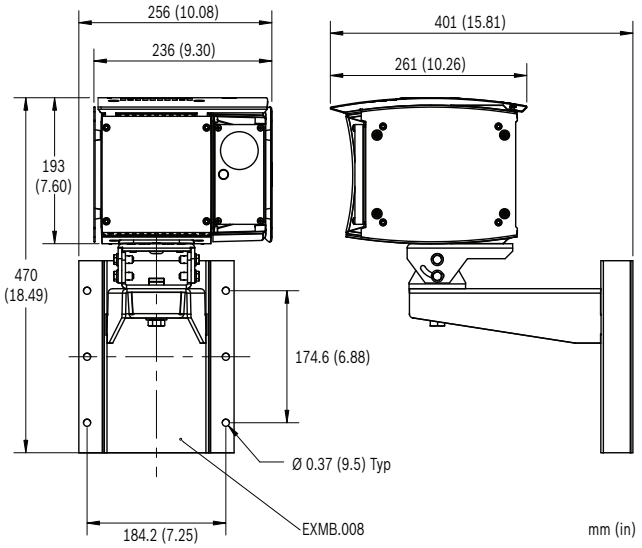
Precision Engineered Performance Optics

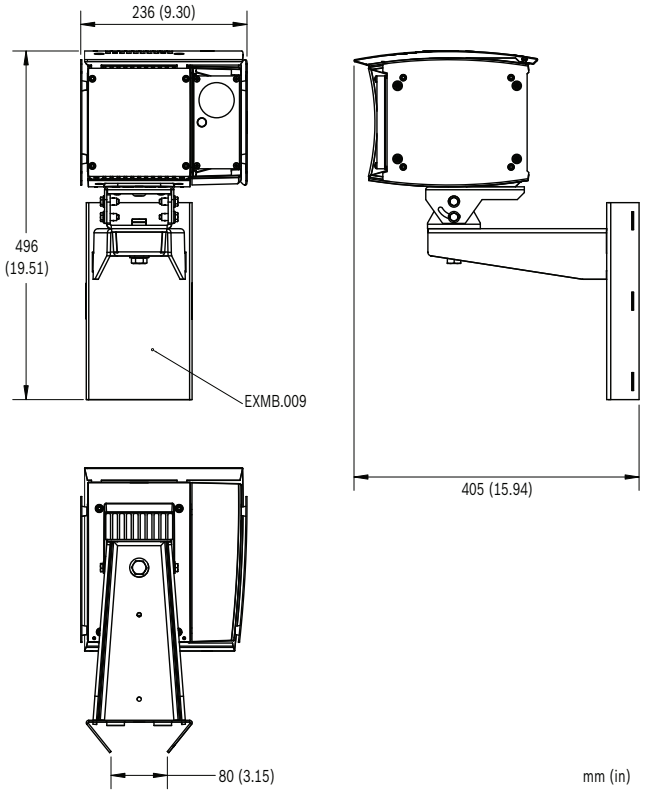
- 540 TVL hi-resolution day/night CCD for vivid daytime color and outstanding night vision

- 9-90 mm infrared-corrected lens delivers a wide DCRI surveillance range to 300 m (1000 ft) for maximum imaging versatility
- Infrared-corrected lens eliminates focus shift and infrared bleed

Installation/Configuration Notes

Dimensions





Technical Specifications

Video

	ZX55-IP Infrared Imager
Sensor	1/3-inch Day/Night CCD
Effective Pixels (H x V)	NTSC: 768 x 494
Effective Pixels (H x V)	PAL: 752 x 582
Resolution	540 TVL color / 540 TVL monochrome
Daytime Sensitivity	0.02 Lux at F1.4
Night time Sensitivity	0 Lux - works in total darkness
Lens	IR corrected 9 to 90 mm varifocal auto-iris, DC drive
Gamma	0.45
Video Output	1 Vpp, 75 ohm
Day-Night Switching	Photocell-controlled, automatic
Photocell	Automatic, sensitivity adjustable
Illumination	Black Diamond Infrared LED array, intensity adjustable
Wavelength	850 nm (semi-covert) or *940 nm (covert)

**(For 940 nm, 50-60% distance loss from stated distances at 850 nm)*

Range Specifications

	Night Vision	IR Horizontal Field of View (10° beam angle)
Detection	300 m (1000 ft)	45 m (150 ft)
Classification	250 m (820 ft)	35 m (120 ft)
Recognition	150 m (500 ft)	25 m (80 ft)
Identification	100 m (330 ft)	15 m (50 ft)

Interfaces

Ethernet	10/100 Base-T RJ45
Analog	PAL or NTSC BNC

IP

Protocols	Telnet, RTP, HTTP(S), ARP,TCP, UDP, IP, ICMP, DHCP, IGMPv2/v3, SNMP, 802.1x
Compression	MPEG-4 SP and MJPEG, up to 30 frames per second, tri-stream selectable
Frame Rate	1-30 FPS programmable (full motion)
Bandwidth	Configurable from 9.6 Kbps to 6 Mbps

Resolution and Frame Rates	PAL (H x V)	NTSC (H x V)
4CIF: 25/30 IPS	704 x 576	704 x 480
2CIF: 25/30 IPS	704 x 288	704 x 240
half D1: 25/30 IPS	352 x 576	352 x 480
CIF: 25/30 IPS	352 x 288	352 x 240
QCIF: 25/30 IPS	176 x 144	176 x 120

Electrical	
Voltage Supply	12 to 24 VDC or VAC
Power Consumption	58 W max
Mechanical	
Construction	Aluminum extrusion / polycarbonate / ABS alloy
Finish	Anodized housing / acrylic urethane paint for sun shield
Window	Injection molded 2.5 mm window
Bracket	Heavy duty cable managed bracket included
Dimensions (HxWxD)	296 x 236 x 377 mm (12 x 9 x 15 in)
Weight	8.6 kg (19 lb)
Environmental	
Operation Temperature Range	-50 °C to +50 °C (-58 °F to +122 °F)
Wind Load	Designed to survive 250 km/h (155 mph) wind loading
Environment	Certified to CSA Type 4X outdoor weather rating. Designed to IP67

Ordering Information

NEI-558V90-21BS IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 850 nm Black Diamond, NTSC, black, wall mount	**NEI-558V90-21BS**
NEI-558V90-11BS IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 850 nm Black Diamond, PAL, black, wall mount	**NEI-558V90-11BS**
NEI-559V90-21BS IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 940 nm Black Diamond, NTSC, black, wall mount	**NEI-559V90-21BS**
NEI-559V90-11BS IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 940 nm Black Diamond, PAL, black, wall mount	**NEI-559V90-11BS**
NEI-558V90-21BP IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 850 nm Black Diamond, NTSC, black, pole mount	**NEI-558V90-21BP**
NEI-558V90-11BP IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 850 nm Black Diamond, PAL, black, pole mount	**NEI-558V90-11BP**
NEI-559V90-21BP IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 940 nm Black Diamond, NTSC, black, pole mount	**NEI-559V90-21BP**
NEI-559V90-11BP IP IR Imager Long range IP IR Imager, Day/night, 9-90 mm, 940 nm Black Diamond, PAL, black, pole mount	**NEI-559V90-11BP**

Ordering Information

Accessories	
ALTV244220 230 VAC Power Supply 230 VAC, 50 Hz, 84 VA out, wall mount	**ALTV244220**
ALTV244UL 120 VAC Power Supply 120 VAC, 60 Hz, 84 VA out, wall mount	**ALTV244UL**
Software Options	
NEA-IP200B-FS3 Extreme-Series IVA 3.0 VCA software license	**NEA-IP200B-FS3**

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