

# GVS1000 Long Range Imaging system

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Invented for life



- ▶ Integrated solution for long range day/night PTZ night vision
- ▶ 60x IR-corrected motor zoom lens with focal length of 12.5-750 mm extending to 25-1500 mm with doubler function
- ▶ High performance Dinion 2X CCD imaging core
- ▶ Dual ZX700 IR illuminators provide night vision performance to 1200 m (3900 ft) for Classification-level performance
- ▶ SLED10-8BD IR Illuminators for medium range night vision

The GVS1000 is a system designed for long range, day/night, pan-tilt-zoom surveillance. The system delivers 1 km of recognition-level performance and 1200 m (3900 ft) of classification-level performance in total darkness. The GVS1000 provides long range 24/7 imaging for critical applications such as port and maritime monitoring, transportation and airport surveillance, and border and extended perimeter security.

To effectively perform to such capabilities, the GVS1000 is equipped with an IR-corrected, long range lens capable of 60x optical zoom. With a focal length of 12.5-750 mm or 25-1500 mm (with doubler function engaged), the lens works together with the high performance Dinion 2X sensor to produce ultra-high quality images at far distances in day and night conditions.

System capability is greatly enhanced using active IR illumination. Two sets of illuminators are provided; one for long range and one for medium-to-short range night imaging. IR illumination can be controlled manually or put into automatic mode for auto on/off function via a photocell.

For control, the GVS1000 is compatible with Pelco P/D protocols via RS422/RS485 and Bosch Biphase.

## Functions

### Optics and IR

- IR-corrected 60x optical zoom for night vision beyond 1.2 km
- Best-in-class Dinion 2X imaging performance
- Long range ZX700 IR illumination
- Medium/short range IR provided by dual SLED10-8BD with 3D Diffuser and Constant Light technology

### PT Motor

- Variable speed and highly precise motor drive in pan and tilt
- Preset and tour functionality with hard and soft limits

### System / Installation and Maintenance

- Self-testing diagnostics function
- Indicator LEDs and voltage touch points for all maintenance requirements
- Hardened connectors and cables for long life
- External power indicator LED

**Night-time performance range (under optimal conditions)**

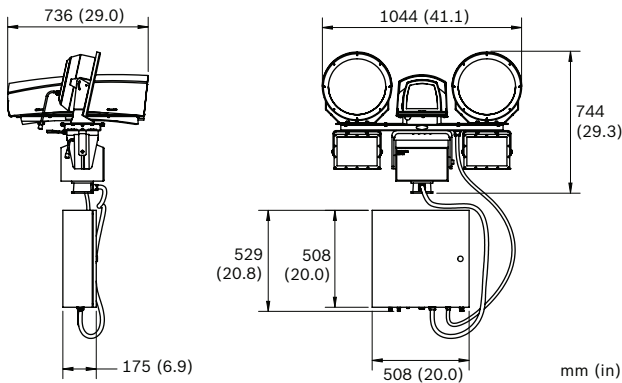
Level	Distance	Description
Classification	1,200 m (3,900 ft)	Performance level at which an object is determined to be human as opposed to an animal or other object.
Recognition	1000 m (3,300 ft)	Performance level at which a human-sized object is determined to be a threat or non-threat based on the type of clothing worn, equipment carried, etc. (friend or foe).
Identification	500 m (1,650 ft)	Performance level at which a human target can be identified as a specific individual.

**Certifications and approvals**

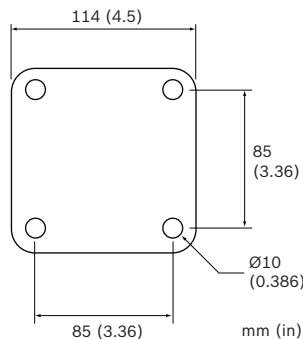
Region	Certification
USA	FCC
Canada	CSA

**Installation/configuration notes**

**Dimensions**



**Motor base mounting template**



**Technical specifications**

**Long-Range Illumination**

IR Illuminator	ZX700 IR
Wavelength	730 nm
Beam Pattern	2.5° spot beam with circular pattern
Bulb Life	Average 2,000 hours

**Medium-Range Illumination**

IR Illuminator	SLED10-8BD
Wavelength	850 nm
Beam Pattern	10° horizontal coverage, 3D Diffuser and Constant Light technology
LED Array	Surface Mounted LED Array (2x units used)
LED Life	> 5 years

**Optics**

Camera Type	Dinion 2X Day/Night Camera
TV System	NTSC or PAL
Resolution	540 TVL
Effective Pixels	NTSC: 768 (H) x 492 (V) PAL: 752 (H) x 582 (V)
S/N Ratio	Greater than 50dB
Gain Control	AGC
Lens Type	IR-Corrected 60x Motor Zoom Lens
Focal Length	12.5 mm to 750 mm 25 mm to 1500 mm with doubler
Magnification	60x optical
Zoom Operation	Motor drive (remote manual control)
Focus Operation	Motor drive (remote manual control)
Iris Operation	Automatic (remote manual control option)
Angle of View - Wide	28.4° horizontal x 21.4° vertical
Angle of View - Telephoto	0.29° horizontal x 0.22° vertical at 750 mm 0.15° horizontal x 0.11° vertical at 1500 mm
Focusing Range	5 m in front of lens to infinity
Wiper	Manual on/off control

**Pan/Tilt Motor**

Pan Range	± 215°
Tilt Range	± 90°
Pan Speed	0.3° to 8° per second

Tilt Speed	0.1° to 4.5° per second
Repeatability	0.25°
Motor Type	Permanent magnet
Drive Train	Steel gear and worm, ball and tapered roller bearing
Limit Switches	Adjustable hard limits, electronically adjustable soft limits
Backlash	Adjustable

### Mechanical

Construction	All-weather aluminum construction with stainless steel fastenings
Finish	Baked enamel finish, black standard
Bracket	Cable management included
Dimensions (motor assembly)	1044 x 736 x 744 mm (L x W x H) 41.1 x 29 x 29.3 in (L x W x H)
Dimensions (PSU)	508 x 175 x 529 mm (L x W x H) 20 x 6.9 x 20.8 in (L x W x H)
Weight (excluding PSU)	50 kg (110 lb)
IR Power Cable	7.5 m (25 ft)
PSU Weight	20 kg (45 lb)
PSU Composite Cable	6 m (20 ft)
System Mount	4-inch PCD

### Environmental

Operation Temperature Range	-20 °C to +50 °C (-4 °F to 122 °F)
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### System Control

Protocol	Pelco P / D (RS422 / RS485), Bosch Biphase
Presets	32 pan / tilt / zoom presets
Tours	3 pan / tilt / zoom tours with 63 presets per tour

### Electrical

Input Voltage	120 VAC or 230 VAC, 50/60 Hz
Power Requirements	800 W with full IR

### Ordering information

#### GVS1000-11-P Long Range Imaging System

Long range PTZ imaging platform, day/night, 60x optical zoom, 12.5 to 750 mm / 25 to 1500 mm with doubler, 730 nm long range IR, PAL, Pelco P/D supported, 120 to 230 VAC PSU included.  
Order number **GVS1000-11-P**

#### GVS1000-11-N Long Range Imaging System

Long range PTZ imaging platform, day/night, 60x optical zoom, 12.5 to 750 mm / 25 to 1500 mm with doubler, 730 nm long range IR, NTSC, Pelco P/D supported, 120 to 230 VAC PSU included.  
Order number **GVS1000-11-N**

#### GVS1000-12-P Long Range Imaging System

Long range PTZ imaging platform, day/night, 60x optical zoom, 12.5 to 750 mm / 25 to 1500 mm with doubler, 730 nm long range IR, PAL, Biphase supported, 120 to 230 VAC PSU included.  
Order number **GVS1000-12-P**

#### GVS1000-12-N Long Range Imaging System

Long range PTZ imaging platform, day/night, 60x optical zoom, 12.5 to 750 mm / 25 to 1500 mm with doubler, 730 nm long range IR, NTSC, Biphase supported, 120 to 230 VAC PSU included.  
Order number **GVS1000-12-N**

**Represented by:**

**Americas:**

Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Europe, Middle East, Africa:**

Bosch Security Systems B.V.  
P.O. Box 80002  
5617 BA Eindhoven, The Netherlands  
Phone: + 31 40 2577 284  
Fax: +31 40 2577 330  
emea.securitysystems@bosch.com  
www.boschsecurity.com

**Asia-Pacific:**

Robert Bosch (SEA) Pte Ltd, Security  
Systems  
11 Bishan Street 21  
Singapore 573943  
Phone: +65 6571 2808  
Fax: +65 6571 2699  
apr.securitysystems@bosch.com  
www.boschsecurity.asia

**China:**

Bosch (Shanghai) Security Systems Ltd.  
201 Building, No. 333 Fuquan Road  
North IBP  
Changning District, Shanghai  
200335 China  
Phone +86 21 22181111  
Fax: +86 21 22182398  
www.boschsecurity.com.cn

**America Latina:**

Robert Bosch Ltda Security Systems Division  
Via Anhanguera, Km 98  
CEP 13065-900  
Campinas, Sao Paulo, Brazil  
Phone: +55 19 2103 2860  
Fax: +55 19 2103 2862  
latam.boschsecurity@bosch.com  
www.boschsecurity.com