

# AN bullet 4000

www.boschsecurity.com



**BOSCH**

Invented for life



- ▶ Ultra high resolution 960H (1/3") DS sensor
- ▶ True Wide Dynamic Range (WDR)
- ▶ Enhanced digital noise reduction
- ▶ Integrated IR LEDs for 100 m of night vision
- ▶ Vandal and water resistant enclosure

These Wide Dynamic Range (WDR) outdoor IR bullet cameras are compact, stylish surveillance cameras that offer excellent resolution in variable lighting conditions. The high performance 960H 1/3-inch Double Scan (DS) CCD sensor provides a resolution of 720TVL. The WDR function ensures the best image performance under difficult (high contrast) lighting conditions. The water resistant (IP66 rated) and vandal resistant (IK08 rated) housing ensures reliable video surveillance in a variety of indoor and outdoor applications.

## System overview

The camera is supplied ready to operate. For especially challenging situations where fine tuning or special settings are required, the camera parameters can be individually set using the control buttons on the camera and an On-Screen Display (OSD).

## Functions

### Detail in extreme lighting

In harsh lighting, the difference between the brightest and the darkest parts of a scene can be extreme. To produce a clear picture in these conditions, the CCD sensor in the camera generates two images; one long

exposure to resolve details in the scene's darkest areas, and one short exposure to resolve details in the scene's brightest areas. The camera combines these dual shutter images, mixing pixels from each exposure to produce the most detailed image possible.

### Built-in IR illuminator

This integrated IR camera has 10 infrared LEDs providing up to 100 m (330 ft) of night vision. The IR light pattern is optimized using special LED lenses to significantly improve the light performance at the sides and in the corners of the image.

### Day/Night mode

The true day/night feature provides enhanced night viewing. The mechanical IR filter switches from color to monochrome automatically by sensing the illumination level.

### Ideal picture performance

There are many settings available to help fine-tune the picture performance to match your installation environment. These include:

- BLC – automatically and dynamically compensates for strong backlight
- HLC – reduces glare from highlight areas
- True wide dynamic range – extends dynamic range to see bright and dark details simultaneously

- Contrast and sharpness – enhance details in bright or misty scenes
- Dynamic noise reduction – dynamically reduces noise in the picture

### Privacy masking

Fifteen different privacy zones allow specific parts of a scene to be blocked. Pre-program any part of the scene to be masked.

### Video Motion Detection

The built-in video motion detector allows you to select four programmable areas with sensitivity thresholds. When motion is detected, alarms can be displayed in the video signal.

### Typical applications:

- Museums and art galleries
- Shopping centers
- Offices
- Schools, colleges and universities
- Petrol/gas stations

## Certifications and approvals

FCC	ANSI C 63.4:2003 FCC Part 15 Subpart B Class A
UL	UL 60065, 7th Edition, 2007-12-11 CAN/CSA-C22.2 No. 60065-03, 1st Edition, 2006-04 + A1:2006
EU	EN55022:2010 EN50130-4:2011 EN61000-3-3:2008
LVD	LVD 2006/95/EC EN 60065:2002+A1+A2+A11+A12
IP	IP 66 KS C IEC 60529:2006

Region	Certification
Europe	CE

## Technical specifications

Image Sensor	960H, 1/3" DS CCD, sensor resolution 720TVL
System	PAL or NTSC
Total pixels (H x V)	1020 x 596 (PAL) 1020 x 508 (NTSC)
Effective pixels (H x V)	976 x 582 (PAL) 976 x 494 (NTSC)
Lens type	Varifocal auto Iris lens built-in
Focal length	5 to 50 mm
Lens aperture	F1.4 – 360
Lens adjustment	External
Day/Night switching	True Day/Night mechanical filter

Video Output	Composite: 1 Vpp, 75 Ohm
Supply Voltage	12 VDC or 24 VAC
Power Consumption	730 mA (12 VDC) 9.1 W max. (24 VAC)
Sync. System	Internal sync., Line-lock
S/N Ratio (AGC off)	50 dB min.
Sensitivity (F1.4, 50IRE, AGC max.)	Color: 0.15 lx (DSS 0.0005 lx) B/W (with IR) 0.0 lx
Electronic shutter	1/50 – 1/10,000 (PAL) 1/60 – 1/10,000 (NTSC)
AGC	0 to 20
Digital Slow Shutter (DSS)	Off, 2x to 512x
Digital Noise Reduction (DNR)	Off, 2DNR, 3DNR
White Balance	ATW, Push, User1, User2, Anti CR, Manual, Push lock
Light compensation	OFF, BLC, HLC, WDR
WDR	54 dB
Day/Night	IREN, Auto, Color, B/W
Burst	On, Off
IR illumination	10 on-board IR LEDs, 850 nm
IR range	Up to 100 m (330 ft)
IR angle	39° / 24° (H/V)
Digital zoom	Off, 2x, 3x, 4x, 6x, 8x, 16x
Digital Image Stabilizer (DIS)	On, Off
Motion detection	On, Off (4 programmable zones)
Privacy	On, Off (15 programmable zones)
Mirror	Off, H-flip, V-flip, HV-flip
Sharpness	0 - 15
Gamma	0.38, 0.42, 0.45, 0.5, 0.55, 0.63, 0.71, 0.83
OSD language	English, Japanese, German, French, Russian, Portuguese, Spanish, Simplified Chinese
Mounting	Cable-managed mounting bracket included
Dimensions (Ø x L)	95 x 150 mm (3.74 x 5.9 in)
Weight (including bracket)	1.9 kg (4.19 lb)
Housing	Casted / machined aluminum
Color	Camera / bracket: Black RAL9017 Sunshield: Silver grey RAL9006

Water/dust protection	IP66
Impact resistance	IK08
Operating Temperature	-30 °C to +50 °C (-22 °F to +122 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Storage Humidity	20% to 90% RH

### Ordering information

#### AN bullet 4000

960H analog outdoor infrared bullet camera. IP66; IK08; 12VDC/24VAC; true day/night; WDR; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 5 to 50 mm lens; PAL  
Order number **VTI-4085-V511**

#### AN bullet 4000

960H analog outdoor infrared bullet camera. IP66; IK08; 12VDC/24VAC; true day/night; WDR; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 5 to 50 mm lens; NTSC  
Order number **VTI-4085-V521**

#### AN bullet 4000

960H analog outdoor infrared bullet camera. IP66; IK08; 12VDC/24VAC; true day/night; WDR; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 5 to 50 mm lens; PAL; Chinese plug  
Order number **VTI-4085-V511C**

#### 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