

# BL860Z1IR

Network bullet camera, 3-9 mm AF zoom, 3MP, H.264/MJPEG, P-Iris, IR, WDR, IP66

- ✓ 1/2.8" CMOS
- ✓ 3MP @ 30 fps
- ✓ Auto-Focus 3-9 mm zoom lens
- ✓ 120 dB WDR
- ✓ Quad-stream H.264 and MJPEG video
- ✓ Built-in IR illuminator
- ✓ IP66 Ingress protection
- ✓ IK10 impact rating
- ✓ 24 Vac, 24 Vdc, 12 Vdc, 802.3at PoE
- ✓ ONVIF Profile S conformant



## Description

The BL860Z1IR is a 3MP HD bullet camera with built-in IR illumination providing clear images under any lighting condition. With its cable-managed bracket, IP66 construction, IK10 vandal resistant housing and auto focus zoom lens, installation is fast and easy, and remote adjustment is simple.

## Multistream high definition

The camera has quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. 3 Mpixel resolution is available at 30 fps, 2 Mpixel at 60 fps. A full-HD 1080p stream at 60 fps can be combined with a HD 720 stream at 30 fps. Each selected resolution-frame rate combination can be freely set to a stream number.

## Open standards

Multiple options are available to easily integrate the BL860Z1IR to a video management system. In support of open standards, the camera is compliant with the ONVIF Profile S specification.

## Image optimisation

The BL860Z1IR provides automatic day/night functionality with configurable thresholds and built-in IR illuminator, for use in low-light situations. Backlight compensation enhances image visibility in difficult lighting situations. The BL860Z1IR provides two modes for wide dynamic range. The first mode uses different gain ratios for different illuminated areas to bring details in the darker areas of an image without saturation in the brighter parts. The second mode uses a 2 shutter mechanism which applies two different exposure settings to capture both darker and lighter areas with excellent details. The resulting image is the optimal aggregation of both exposures. The available image optimisation methods ensure quality pictures at all times.

## Power source choices

The BL860Z1IR can be powered by 12 Vdc, 24 Vdc, 24 Vac, or over the network with 802.3at-compliant PoE sources.

## Privacy masks

Privacy masks cover sections of the image. This feature is often requested for such situations as city centre surveillance and point of sale keypads.

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## Technical specifications

Camera	
Image sensor	1/2.8" CMOS, 3 Megapixel
Effective pixels	2048 (H) x 1536 (V)
Minimum scene illumination	0.04 Lux @ F1.7 color, 0.002 Lux@F1.7 (b/w), 0 lux with IR (IRE30)
Shutter speed	1 ~ 1/10.000 sec
Lens	3 ~ 9 mm, F1.7
Lens type	Auto-Focus-Zoom Module, P-Iris
Horizontal field of view	107° (Wide) ~ 38° (Tele)
Functions	
Privacy masks	5
Text and picture overlay	Date, time, date & time, 5x subtitle (16 characters each), text string (25 characters), image, image transparency
Video motion detection	On, Off, By schedule
Video motion detection alarm	Alarm output, record video clip, send alarm message, upload image
Network failure detection	On, Off, By schedule
Network failure detection alarm	Alarm output, record video clip, send alarm message, upload image
Tamper detection	On, Off, By schedule
Tamper detection alarm	Alarm output, record video clip, send alarm message, upload image
Time laps	On/Off
Time laps action	Upload image
Recording	On, Off, By schedule
Recording destination	SD card/ Network share
Audio detection	On, Off, By schedule
Audio detection alarm	Alarm output, record video clip, send alarm message, upload image
Image control	
Wide dynamic range	On/Off
- WDR value	120 dB
Exposure	Auto, Manual
White balance	Auto, ATW, Manual, One push
Contrast	Manual
Brightness	Manual
Saturation	Manual
Hue	Manual
Sharpness	Manual
Day/Night function	Auto, Night, Day, Light sensor, Configurable day/ night threshold levels, IR light compensation
Noise reduction	Off, 3DNR (low, medium, high), 2DNR (On/Off), ColorNR (low, medium, high)
Backlight compensation	On/Off
Digital zoom	10x
Image rotation	Normal, Flip, Mirror, 90° clockwise, 90° counterclockwise, 180° Rotate

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## Technical specifications

Video				
Compression algorithm(s)	H.264 (baseline / main / high profile); MJPEG			
Number of compression instances	Quad stream. Any combination of H.264 streams with possibly one MJPEG stream.			
Output streams	Any output stream can be freely configured to one of the resolution/frame rate formats.			
Supported resolutions	2048x1536, 1920x1080, 1280x1024, 1280x720, 1024x768, 800x600, 720x480, 640x480, 352x240			
Compression capabilities	(indication, other combinations possible)			
Resolution format	format 1	format 2	format 3	format 4
H.264 instances in 50/60fps	1920x1080	-	-	-
	1920x1080	720x480	-	-
	1280x1024	1280x720	352x240	-
	1280x720	1024x768	800x600	352x240
H.264 instances in 25/30fps	2048x1536	-	-	-
	2048x1536	1280x1024	-	-
	2048x1536	1280x1024	720x480	-
	2048x1536	1280x1024	640x480	352x240
MJPEG	One of the above resolution formats in each instance can be MJPEG instead of H.264 if the resolution is lower than or equal to 1920x1080			
Compression bit rate control	Constant bit rate (CBR), variable bit rate (VBR), LBR			
Output bit rate (per H.264 stream)	Up to 20480 kbit/s			
Total H.264 output	26624 kbit/s			
Number of video output streams	Up to 20 (RTSP)			
Total output data rate (max)	50000 kbit/s			
Video frame rate	1 to 60 fps / 1 to 50 fps			
Analogue video output	PAL/NTSC			
Connector type	BNC (1.0 Vpp in 75 Ω) on breakout cable			
Audio				
Two-way audio	Line in, Line out			
Compression	G.711 (μ-law, a-law) / G.726			
Bit rate	G.711: 64 Kbps			
	G.726: 16 Kbps, 24 Kbps, 32 Kbps, 40 Kbps			
Sample rate	G.711: 8 KHz / G.726: 8 KHz			
Input level, Output level	Adjustable gain			
Connector type	Female phone jack, ø 3.5 mm on breakout cable			
Alarm inputs/output				
Input	0 - 5 V, 10 kΩ pull-up			
Output	Photo relay output 300 Vdc/ac			
Operational modes	Normally open; normally closed			
Connector type	5 pin terminal block on breakout cable			
Storage				
Storage options	Supports up to 128 GB capacity of SD/SDHC/SDXC memory (fat32)			
Network storage	NAS			

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## Technical specifications

### Network

Interface(s)	10/100 Ethernet
Network protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, IGMP, PNAC (IEEE 802.1x), QoS
Connector type	RJ-45 on breakout cable

### Management

Supported browsers	Internet Explorer (6.0+), Chrome, Firefox, Safari
Security	HTTPS, IP Filter, PNAC (IEEE 802.1x)
Protocols	UPnP, SNMP, ONVIF Profile S
Password levels	User and Administrator
User accounts	20

### Powering

Power consumption	Max. 13.4 W
Power	24 Vac / 24 Vdc / 12 Vdc / 802.3at PoE+
Connector type	2 pin terminal block on breakout cable

### Environmental

Start-up temperature	-55 °C (-67°F)
Operating temperature	-55 °C to +55 °C (-67°F to 131°F)
Relative humidity	10% to 90%, no condensation

### Mechanical

Dimensions	95 x 274 mm (3.74 x 10.79 In)
Weight	940 g (2.1 lbs)
Color	RAL 9003 (Signal white)
Built-in IR illuminator	
- Working distance	Up to 50 m
- Wavelength	850 nm
- Number of LEDs	6
Ingress protection	IP66
Impact rating	IK10

### Ordering information

BL860Z1IR	Network bullet camera, 3-9 mm AF zoom, 3MP, H.264/MJPEG, P-Iris, IR, WDR, IP67
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### Accessories

JB07/BL



Junction box for BL8xx

PM09B/BL

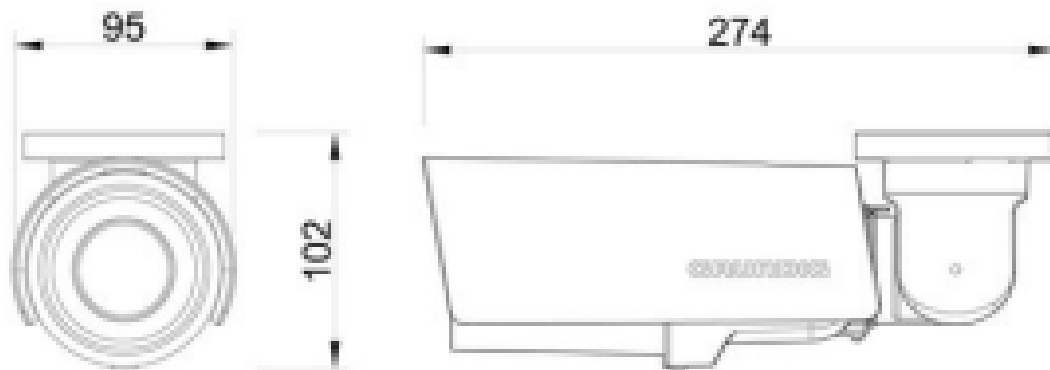


Pole mount junction box for BL8xx

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## Technical specifications

### Dimensions



The quality management system used in the development, production, sales, and support of this product is ISO 9001 certified by LRQA.

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