



# Essentials Gen4 2MP Varifocal IP Bullet Camera



## Key Features

- 2MP (1080p) resolution for HD quality images
- Manage bandwidth resources with H.264 and H.265 dual-stream encoding
- Up to 30 frames per second for seamless video streaming
- 2.7-13.5mm varifocal lens with motorized zoom
- One-touch auto-focus
- IR Illuminators deliver clear video when viewing dark scenes
- IP67 environmental rating to protect against dust and water
- True Day/Night functionality for low light conditions
- WDR to simultaneously view high-contrasting areas

## Meet a Variety of Recording Requirements at a Low Cost

The Illustra Essentials Gen4 Varifocal Bullet camera offers resolutions up to 1080p with IR illumination to manage low light scenes. The affordable cameras capture video in a variety of lighting conditions with features such as True Day/Night and Wide Dynamic Range to fulfill security operators' expectations, all while maintaining a lower price point.

The camera includes the latest compression technologies by supporting both H.265 and H.264 codecs resulting in reduced bandwidth and storage requirements. To aid ease of setup all Essentials Gen4 models support one-touch auto-focus, and the varifocal models provide motorized zoom.

Rated IP67 for an additional degree of environmental protection, the Varifocal Bullet exceeds previous generations of Illustra Essentials cameras.

The Essential Gen4 Varifocal Bullet also features corridor mode which allows cameras to maximize video surveillance in narrow vertical situations. Ideal for hallways, retail aisles, and tunnels this mode creates a unique high quality, vertical video.

## Record Video with Low Light Clarity

Poor low-light performance by megapixel cameras hampers some of the most important tasks security professionals need to perform. Cameras that fail in low light clarity negatively impact both the necessary functions of security and cost of ownership.

The sensitive processor and sensor combination on the Essentials 2MP Varifocal Bullet switches the camera automatically between color and black and white mode in a feature known as True Day/Night. Regardless of the ambient illumination level, the camera is able to maintain crystal clear images in low light scenarios.

## Balance Images with Wide Dynamic Range

The difference in extreme lighting within a scene is known as dynamic range. Cameras with the Wide Dynamic Range functionality have special software that allows them to balance foreground and background lighting for one clear image. This makes them ideal for recording areas like store entrances where the contrast between the sunshine outside and the dim lighting inside can be extremely difficult to record.

The Illustra Essentials 2MP Varifocal Bullet camera takes advantage of the latest pixel-by-pixel dynamic range offered today. Maintain facial details with whole scene clarity by working within the megapixel lens to enhance the precision of the images for a high-resolution HD solution that excels in an array of challenging lighting conditions.

## Specifications

| Operational                |                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------|
| Resolution & Aspect Ratio  | 1920 x 1080 (1080p) 16:9                                                                                   |
| Max Frame Rate             | 30fps                                                                                                      |
| Video Compression          | H.264, H.265, MJPEG                                                                                        |
| Video Streams              | Dual Stream with both streams at a maximum of 1080p @ 30ips                                                |
| Imager                     | 1/2.8", Sony CMOS                                                                                          |
| S/N Ratio                  | More than 50dB                                                                                             |
| Image Orientation Settings | Off, flip, mirror, both                                                                                    |
| Lens Type                  | f2.7mm~13.5mm                                                                                              |
| Focus Control              | Remote On-Push Focus and Remote Manual Adjustment                                                          |
| Aperture                   | F1.4~2.8                                                                                                   |
| Focal Length               | 2.7 - 13.5mm                                                                                               |
| Field of View (H/V)        |                                                                                                            |
| Wide Angle                 | 100°/53°                                                                                                   |
| Telephoto                  | 34°/20°                                                                                                    |
| Shutter Speed              | 1/2~1/10,000s (Manual:default NTSC=1/30s, PAL=1/25s) /<br>(Shutter-priority:default NTSC=1/60s, PAL=1/50s) |
| Minimum Illumination       |                                                                                                            |
| Color                      | 0.08 Lux (50IRE)   0.03 Lux (30IRE)                                                                        |
| B/W                        | 0.05 Lux (50IRE)   0.02 Lux (30IRE)                                                                        |
| With IR                    | 0.0 Lux                                                                                                    |
| Day/Night                  | True Day/Night with ICR                                                                                    |
| IR LEDs                    | Yes                                                                                                        |
| IR Distance                | 30m                                                                                                        |
| Noise Reduction            | 3D                                                                                                         |
| Wide Dynamic Range         | True WDR 120dB                                                                                             |
| ONVIF-Compliant            | Profile S/G/Q                                                                                              |
| Motion Detection Zones     | 3                                                                                                          |
| Blur Detection Zones       | Yes                                                                                                        |
| Privacy Zones              | 8                                                                                                          |
| Image Rotation             | Corridor                                                                                                   |
| Analog Video Output        | No                                                                                                         |
| Audio                      | No                                                                                                         |
| Simultaneous Users         | 5                                                                                                          |

| Network                  |                                                                                                                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet Interface       | IEEE 802.3, 10/100 Base-T/TX, auto sensing, 1 x RJ45                                                                                                                                             |
| Supported Protocols      | TCP/IP, IPv4, IPv6, TCP, UDP, HTTP, FTP, DHCP, WS-Discovery, DNS, DDNS, RTP, TLS, Unicast, NTP, SMTP, WSSecurity, IEEE 802.1x, PEAP, SSH, HTTPS, SSL, SOAP, WSAddressing, SNMP, UPnP, RTSP, LLDP |
| Configuration Management |                                                                                                                                                                                                  |
| Web Browser              | IE 11 or above, Firefox, Chrome, Safari, Microsoft Edge                                                                                                                                          |
| Security                 | Enhanced Security                                                                                                                                                                                |
| Onboard Storage          |                                                                                                                                                                                                  |
| Card Support             | SDXC up to 256GB                                                                                                                                                                                 |
| Pre-Alarm Recording      | 1-10 sec                                                                                                                                                                                         |
| Recording Format         | AVI                                                                                                                                                                                              |
| Recording Trigger        | Bur Detection, Motion Detection                                                                                                                                                                  |
| VideoEdge TrickleStor    | No                                                                                                                                                                                               |
| Electrical               |                                                                                                                                                                                                  |
| Power Input              | DC12V; PoE IEEE 802.3af Class 3                                                                                                                                                                  |
| Maximum Power Draw       | 9.9W                                                                                                                                                                                             |
| Physical                 |                                                                                                                                                                                                  |
| Dimensions (HxWxH)       | 77mm x 84mm x 176mm<br>(3.03in x 3.3in x 6.92in)                                                                                                                                                 |
| Weight                   | 0.58kg (1.28 lbs)                                                                                                                                                                                |
| Housing Color            | White RAL 9003                                                                                                                                                                                   |
| Operating Temperature    | Cold Start Temperature: -20° C to 60° C (-4° F to 140° F)<br>Operating Temperature: -30° C to 60° C (-22° F to 140° F)                                                                           |
| Storage Temperature      | -40°C to 60°C (-40°F to 140°F)                                                                                                                                                                   |
| Relative Humidity        | 10% to 90% (non-condensing)                                                                                                                                                                      |
| Vandal Resistant         | N/A                                                                                                                                                                                              |
| Outdoor Rating           | IP67                                                                                                                                                                                             |
| Regulatory               |                                                                                                                                                                                                  |
| Safety                   | UL 62368-1, IEC 62368-1, EN 62338-1, IEC 62471                                                                                                                                                   |
| Emissions                | FCC CFR 47, Part 15 Class A, EN 55032                                                                                                                                                            |
| Immunity                 | EN 50130-4, EN 61000-3-2, EN 61000-3-3                                                                                                                                                           |
| Environment              | RoHS, Reach, WEEE                                                                                                                                                                                |



## Ordering Information

| Model          | Description                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| IES02-B12-BI04 | Illustra Essentials Gen4 2MP Bullet VF - 2.7-13.5mm motorised varifocal lens with remote focus, white, True D/N with IR, True WDR, PoE/12VDC |

## About Johnson Controls

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our 120,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat.

For additional information, please visit [www.illustracameras.com](http://www.illustracameras.com) or follow Illustra on LinkedIn, Twitter, and Facebook.