

Basler IP Cameras

Network Cameras Overview



- Premium Image Quality
- CCD and CMOS Sensors
- VGA to 5 Megapixels
- Multi-Streaming and Multi-Encoding
- MJPEG, MPEG-4, H.264

Basler IP Fixed Box Cameras

Small and versatile

Basler IP Fixed Box Cameras for security applications come in a wide range of resolutions from VGA to 5 megapixels. They are equipped with a CS-mount with DC iris drive as a standard feature, so you can choose from a wide range of camera lenses and integrate the most suitable one for your security needs.



An ultra-compact, all-metal housing with a 109.7 mm x 29 mm x 44 mm size and a weight of only 210 grams makes these the smallest IP cameras in their class. These characteristics contribute to their flexibility and ease of installation.



All components used in Basler IP Cameras are specifically selected to form a high quality, "made in Germany" product.

Please contact us for information about accessories available for Basler IP Fixed Box Cameras. We offer a wide variety of lenses and outdoor housings.

Basler IP Fixed Dome Cameras

Tough and flexible

Basler IP Fixed Dome Cameras are equipped either with a lightweight indoor housing or with a vandal-resistant aluminum housing, allowing video surveillance applications outdoors and under tough indoor conditions. With their built-in heater and fan, Basler Dome Cameras work at extreme operating temperatures from -40 °C to +50 °C (-40 °F to +122 °F).



Basler IP Fixed Dome Cameras are especially energy efficient. All camera functions, including the fan and heater, can be powered using standard PoE (Power over Ethernet IEEE 802.3af Class 0). Basler IP Fixed Dome Cameras are equipped with an audio function and a built-in microSDHC card slot that can be used for local file storage.

Basler Dome Cameras can be easily mounted to a wall or a ceiling, and an internal three-axis camera bracket allows complete flexibility when aiming the camera. For optimal mounting, our accessories portfolio includes a suspended ceiling kit and a wall bracket kit.



Specifications

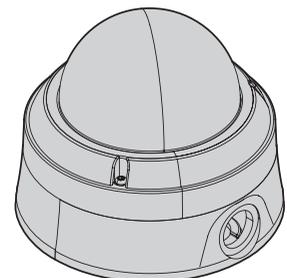
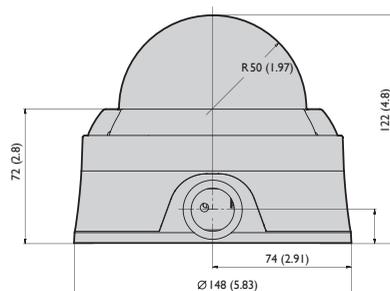
CMOS Sensor Cameras



| | BIP2-D1920c-dn (Indoor) / BIP2-D1920c-dn (Indoor,AF) | BIP2-D1920c-dn (Outdoor) / BIP2-D1920c-dn (Outdoor,AF) |
|-------------------------|---|---|
| Image Sensor | Progressive Scan CMOS | |
| Effective Pixels | 1920 (H) x 1440 (V) | |
| Frame Rate (max.) | MJPEG | MPEG-4 |
| Full Resolution: | 20 fps | 20 fps |
| Full HD (1920 x 1080): | 30 fps | 30 fps |
| Pixel Size | 2.2 μm x 2.2 μm | |
| Minimum Illumination | Color: 0.88 lux (F1.3/33ms), Day/Night: 0.15 lux (F1.3/33ms) | |
| Lens | Varifocal 2.8-10 mm, F1.3, DC iris, horizontal angle of view 25°-88°, removable IR-cut filter for day/night function | |
| Camera Angle Adjustment | Pan: 360°, tilt: 120°, rotation: ±180° | |
| Image Settings | Automatic gain, exposure area, backlight compensation, white balance, 180° image rotation, mirroring of images, anti-flicker; electronic PTZ via AOI (API), text overlay, privacy masks, motion detection, optional: auto focus | |
| Resolution | From 160 x 120 to 1920 x 1440 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | |
| Video Compression | Motion JPEG: Multiple compression levels MPEG-4: SP (Level 3) H.264 (MPEG-4 AVC): Baseline and high profile (levels up to 5.0) | |
| Video Streaming | Dual streaming for MJPEG, H.264, or MPEG-4, VBR and CBR for MJPEG and MPEG-4 VBR, CBR, and CVBR for H.264, multicast and unicast | |
| Audio | Bidirectional half-duplex audio streaming; mic-in/line-in, line-out; G.711 | |
| Alarm Management | Ring buffer for pre and post alarm images, microSDHC card slot for local storage Events triggered by motion detection or external input, image upload over FTP, e-mail, or HTTP | |
| Protocols | TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZEROCONF, QoS Layer 3, SNMP | |
| Processor/Memory | Multimedia Video Processor; FPGA, 256 MB RAM, 64 MB Flash | |
| Power | PoE (Power over Ethernet IEEE 802.3af Class 2) Power consumption typ. 5.5 W at 12 VDC | PoE (Power over Ethernet IEEE 802.3af Class 0) or 12 to 24VDC Power consumption typ. 5.5 W at 12 VDC (excl. heater) |
| Connectors | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex Push-in terminal for digital I/O and RS-485/422 | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex Push-in terminal for DC power, digital I/O, and RS-485/422 |
| Operating Conditions | -10 °C to 50 °C (14 °F to 122 °F) <90% relative humidity (non-condensing) | -40 °C to 50 °C (-40 °F to 122 °F) <90% relative humidity (non-condensing) |
| Standards | DIN EN 50130-4, FCC Class A, CE, RoHS, ONVIF | |
| Housing | Ø 148 mm x 122 mm (Ø 5.83" x 4.8") plastic chassis with polycarbonate dome bubble | Ø 148 mm x 122 mm (Ø 5.83" x 4.8") vandal-proof aluminum chassis with polycarbonate dome bubble, IP66 |
| Weight | ~0.6 kg | ~1.0 kg |

Specifications are subject to change without prior notice.

Dimensions in mm (inch)



Outdoor housing (Indoor housing differs slightly)

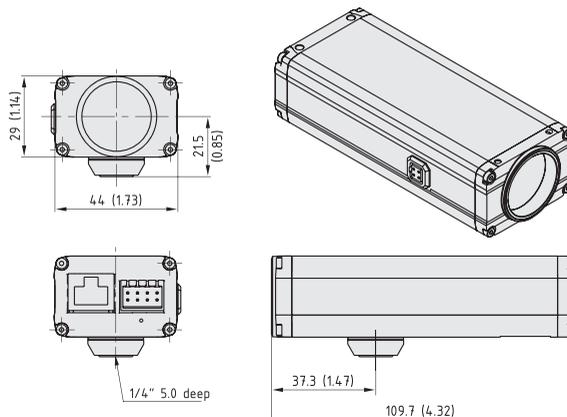
Specifications CCD Sensor Cameras



| | BIP2-640c/BIP2-640c-dn | BIP2-1000c/BIP2-1000c-dn |
|----------------------|---|--|
| Image Sensor | Progressive Scan CCD | Progressive Scan CCD |
| Effective Pixels | 640 (H) × 480 (V) | 1024 (H) × 768 (V) |
| Eff. Optical Format | 1/4" | 1/3" |
| Frame Rate (max.) | MJPEG MPEG-4 H.264 | MJPEG MPEG-4 H.264 |
| Full Resolution: | 60 fps 60 fps 100 fps | 30 fps 30 fps 30 fps |
| Pixel Size | 5.6 μm × 5.6 μm | 4.65 μm × 4.65 μm |
| Day/Night | Removable IR-Cut Filter (BIP2-640c-dn) | Removable IR-Cut Filter (BIP2-1000c-dn) |
| Minimum Illumination | Color: 0.1 lux (F1.0/33ms), Day/Night: 0.03 lux (F1.0/33ms) | Color: 0.38 lux (F1.0/33ms), Day/Night: 0.10 lux (F1.0/33ms) |
| Lens | CS-mount, DC iris drive (lens not included) | |
| Image Settings | Automatic gain, exposure area, backlight compensation, white balance, 180° image rotation, mirroring of images, anti-flicker, electronic PTZ via AOI (API), text overlay, privacy masks, motion detection | |
| Resolution | From 160 × 120 to 640 × 480 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | From 160 × 120 to 1024 × 768 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) |
| Video Compression | Motion JPEG: Multiple compression levels MPEG-4: SP (Level 3) H.264 (MPEG-4 AVC): Baseline and high profile (levels up to 5.0) | |
| Video Streaming | Multi-encoding and multi-streaming for MJPEG, H.264, and MPEG-4 VBR and CBR for MJPEG and MPEG-4, VBR, CBR, and CVBR for H.264, multicast and unicast | |
| Alarm Management | Ring buffer for pre and post alarm images Events triggered by motion detection or external input (real-time trigger) Image upload over FTP, e-mail, or HTTP | |
| Protocols | TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZEROCONF, QoS Layer 3, SNMP | |
| Processor/Memory | Multimedia Video Processor, FPGA, 256 MB RAM, 64 MB Flash | |
| Power | PoE (Power over Ethernet IEEE 802.3af Class 2) or 12 to 24VDC, power consumption typ. 3.3 W at 12VDC | PoE (Power over Ethernet IEEE 802.3af Class 2) or 12 to 24VDC, power consumption typ. 3 W at 12VDC |
| Connectors | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex 8-pin terminal for DC power, digital I/O, and RS-485 | |
| Operating Conditions | 0 °C to 50 °C (32 °F to 122 °F), <90% relative humidity (non-condensing) | |
| Standards | DIN EN 50130-4, FCC Class A, CE, RoHS, ONVIF | DIN EN 50130-4, FCC Class B, CE, RoHS, ONVIF |
| Housing | 109.7 mm × 29 mm × 44 mm (full metal casing) | |
| Weight | ~210 g | |

Specifications are subject to change without prior notice.

Dimensions in mm (inch)



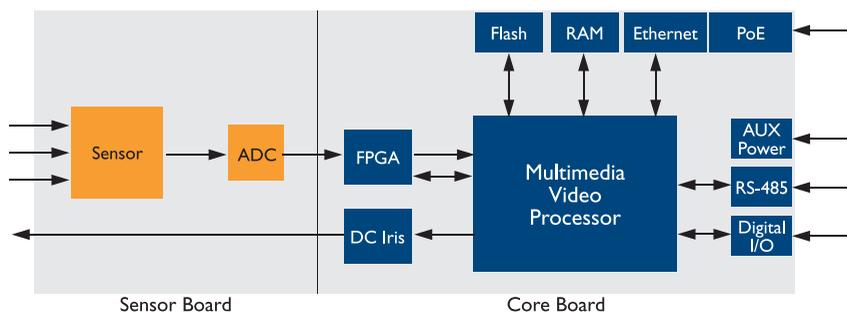
Specifications CCD Sensor Cameras



| | BIP2-1300c/BIP2-1300c-dn | BIP2-1600c/BIP2-1600c-dn |
|----------------------|---|--|
| Image Sensor | Progressive Scan CCD | Progressive Scan CCD |
| Effective Pixels | 1280 (H) x 960 (V) | 1600 (H) x 1200 (V) |
| Eff. Optical Format | 1/3" | 1/1.8" |
| Frame Rate (max.) | MJPEG MPEG-4 H.264 | MJPEG MPEG-4 H.264 |
| Full Resolution: | 30 fps 30 fps 30 fps | 12.5 fps 12.5 fps 12.5 fps 25 fps 25 fps 25 fps (BIP2-1600-25c/-dn) |
| Pixel Size | 3.75 μm x 3.75 μm | 4.4 μm x 4.4 μm |
| Day/Night | Removable IR-Cut Filter (BIP2-1300c-dn) | Removable IR-Cut Filter (BIP2-1600c-dn) |
| Minimum Illumination | Color: 0.34 lux (F1.2/33ms), Day/Night: 0.09 lux (F1.2/33ms) | Color: 0.4 lux (F1.4/33ms), Day/Night: 0.11 lux (F1.4/33ms) |
| Lens | CS-mount, DC iris drive (lens not included) | |
| Image Settings | Automatic gain, exposure area, backlight compensation, white balance, 180° image rotation, mirroring of images, anti-flicker; electronic PTZ via AOI (API), text overlay, privacy masks, motion detection | |
| Resolution | From 160 x 120 to 1280 x 960 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | From 160 x 120 to 1600 x 1200 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) |
| Video Compression | Motion JPEG: Multiple compression levels MPEG-4: SP (Level 3) H.264 (MPEG-4 AVC): Baseline and high profile (levels up to 5.0) | |
| Video Streaming | Multi-encoding and multi-streaming for MJPEG, H.264, and MPEG-4 VBR and CBR for MJPEG and MPEG-4, VBR, CBR, and CVBR for H.264, multicast and unicast | |
| Alarm Management | Ring buffer for pre and post alarm images Events triggered by motion detection or external input (real-time trigger) Image upload over FTP, e-mail, or HTTP | |
| Protocols | TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZEROCONF, QoS Layer 3, SNMP | |
| Processor/Memory | Multimedia Video Processor, FPGA, 256 MB RAM, 64 MB Flash | |
| Power | PoE (Power over Ethernet IEEE 802.3af Class 2) or 12 to 24 VDC, power consumption typ. 3.5 W max. at 12 VDC | PoE (Power over Ethernet IEEE 802.3af Class 2) or 12 to 24 VDC, power consumption typ. 3.4 W/4.6 W (BIP2-1600-25c/-dn) at 12 VDC |
| Connectors | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex 8-pin terminal for DC power, digital I/O, and RS-485 | |
| Operating Conditions | BIP2-1300c/-dn, BIP2-1600c/-dn: 0 °C to 50 °C (32 °F to 122 °F), <90% relative humidity (non-condensing) BIP2-1600-25c/-dn: 0 °C to 45 °C (32 °F to 113 °F), <90% relative humidity (non-condensing) | |
| Standards | DIN EN 50130-4, FCC Class A (BIP2-1600-25c/-dn), FCC Class B (BIP2-1300c/-dn, BIP2-1600c/-dn), CE, RoHS, ONVIF | |
| Housing | 109.7 mm x 29 mm x 44 mm (full metal casing) | |
| Weight | ~210 g | |

Specifications are subject to change without prior notice.

Architecture



Specifications

CMOS Sensor Cameras



| | BIP2-1280c / BIP2-1280c-dn | BIP2-1920c / BIP2-1920c-dn | BIP2-2500c / BIP2-2500c-dn |
|----------------------|---|---|---|
| Image Sensor | Progressive Scan CMOS | | |
| Effective Pixels | 1280 (H) x 720 (V) | 1920 (H) x 1080 (V) | 2560 (H) x 1920 (V) |
| Eff. Optical Format | 1/3" | | 1/2.5" |
| Frame Rate (max.) | MJPEG MPEG-4 H.264 | MJPEG MPEG-4 H.264 | MJPEG MPEG-4 H.264 |
| Full Resolution: | 30 fps 30 fps 30 fps | 30 fps 30 fps 30 fps | 9 fps 9 fps 9 fps 15 fps 15 fps 15 fps (3MP) |
| Pixel Size | 3.3 μm x 3.3 μm | | 2.2 μm x 2.2 μm |
| Day/Night | Removable IR-Cut Filter (BIP2-1280c-dn) | | Removable IR-Cut Filter (BIP2-2500c-dn) |
| Minimum Illumination | Color: 0.55 lux (F1.2/33ms), Day/Night: 0.13 lux (F1.2/33ms) | Color: 0.65 lux (F1.2/33ms), Day/Night: 0.15 lux (F1.2/33ms) | Color: 0.65 lux (F1.2/33ms), Day/Night: 0.15 lux (F1.2/33ms) |
| Lens | CS-mount, DC iris drive (lens not included) | | |
| Image Settings | Automatic gain, exposure area, backlight compensation, white balance, 180° image rotation, mirroring of images, anti-flicker, electronic PTZ via AOI (API), text overlay, privacy masks, motion detection | | |
| Resolution | From 160 x 120 to 1280 x 720 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | From 160 x 120 to 1920 x 1080 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | From 160 x 120 to 2560 x 1920 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) |
| Video Compression | Motion JPEG: Multiple compression levels MPEG-4: SP (Level 3) H.264 (MPEG-4 AVC): Baseline and high profile (levels up to 5.0) | | |
| Video Streaming | Multi-encoding and multi-streaming for MJPEG, H.264, and MPEG-4;VBR and CBR for MJPEG and MPEG-4;VBR, CBR, and CVBR for H.264, multicast and unicast | Dual streaming for MJPEG, H.264, or MPEG-4;VBR and CBR for MJPEG and MPEG-4;VBR, CBR, and CVBR for H.264, multicast and unicast | |
| Alarm Management | Ring buffer for pre and post alarm images Events triggered by motion detection or external input Image upload over FTP, e-mail, or HTTP | | |
| Protocols | TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZEROCONF, QoS Layer 3, SNMP | | |
| Processor/Memory | Multimedia Video Processor; FPGA, 256 MB RAM, 64 MB Flash | | |
| Power | PoE (Power over Ethernet IEEE 802.3af Class 2) or 12 to 24VDC, power consumption typ. 3.2 W at 12VDC | | |
| Connectors | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex 8-pin terminal for DC power, digital I/O, and RS-485 | | |
| Operating Conditions | 0 °C to 50 °C (32 °F to 122 °F), <90% relative humidity (non-condensing) | | |
| Standards | DIN EN 50130-4, FCC Class B, CE, RoHS, ONVIF | | |
| Housing | 109.7 mm x 29 mm x 44 mm (full metal casing) | | |
| Weight | ~210 g | | |

Specifications are subject to change without prior notice.

Specifications

CCD Sensor Cameras



| | BIP2-D1000c-dn | BIP2-D1300c-dn |
|-------------------------|---|---|
| Image Sensor | Progressive Scan CCD | Progressive Scan CCD |
| Effective Pixels | 1024 (H) x 768 (V) | 1280 (H) x 960 (V) |
| Frame Rate (max.) | MJPEG MPEG-4 H.264 | MJPEG MPEG-4 H.264 |
| Full Resolution: | 30 fps 30 fps 30 fps | 30 fps 30 fps 30 fps |
| Pixel Size | 4.65 μm x 4.65 μm | 3.75 μm x 3.75 μm |
| Minimum Illumination | Color: 0.53 lux (F1.3/33ms), Day/Night: 0.14 lux (F1.3/33ms) | Color: 0.42 lux (F1.3/33ms), Day/Night: 0.10 lux (F1.3/33ms) |
| Lens | Varifocal 2.8-10 mm, F1.3, DC iris, horizontal angle of view 28°-100°, removable IR-cut filter for day/night function | |
| Camera Angle Adjustment | Pan: 360°, tilt: 120°, rotation: ±180° | |
| Image Settings | Automatic gain, exposure area, backlight compensation, white balance, 180° image rotation, mirroring of images, anti-flicker; electronic PTZ via AOI (API), text overlay, privacy masks, motion detection | |
| Resolution | From 160 x 120 to 1024 x 768 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) | From 160 x 120 to 1280 x 960 (free scaling), 4:3, 16:9, multiple Areas of Interest (AOIs) |
| Video Compression | Motion JPEG: Multiple compression levels MPEG-4: SP (Level 3) H.264 (MPEG-4 AVC): Baseline and high profile (levels up to 5.0) | |
| Video Streaming | Multi-encoding and multi-streaming for MJPEG, H.264, and MPEG-4 VBR and CBR for MJPEG and MPEG-4, VBR, CBR, and CVBR for H.264, multicast and unicast | |
| Audio | Bidirectional half-duplex audio streaming: mic-in/line-in, line-out; G.711 | |
| Alarm Management | Ring buffer for pre and post alarm images, microSDHC card slot for local storage Events triggered by motion detection or external input (real-time trigger) Image upload over FTP, e-mail, or HTTP | |
| Protocols | TCP/IP, HTTP, UDP, FTP, ICMP, ARP, DHCP, NTP, RTP, RTSP, RTCP, SMTP, IGMP, ZEROCONF, QoS Layer 3, SNMP | |
| Processor/Memory | Multimedia Video Processor, FPGA, 256 MB RAM, 64 MB Flash | |
| Power | PoE (Power over Ethernet IEEE 802.3af Class 0) or 12 to 24VDC, power consumption typ. 5.5 W at 12VDC (excl. heater) | |
| Connectors | RJ-45 connector for 10/100 BASE-T Ethernet, full or half duplex Push-in terminal for DC power, digital I/O and RS-485/422 | |
| Operating Conditions | -40 °C to 50 °C (-40 °F to 122 °F), <90% relative humidity (non-condensing) | |
| Standards | DIN EN 50130-4, FCC Class A, CE, RoHS, ONVIF | DIN EN 50130-4, FCC Class B, CE, RoHS, ONVIF |
| Housing | Ø148 mm x 122 mm (Ø5.83" x 4.8") vandal-proof aluminum chassis with polycarbonate dome bubble, IP66 | |
| Weight | ~1.0 kg | |

Specifications are subject to change without prior notice.

Multi-Streaming & Multi-Encoding

Formats in any combination ■ MJPEG ■ MPEG-4 ■ H.264

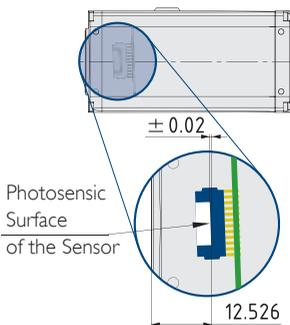


What Makes Basler Camera Quality So Special?

To ensure consistently high product quality, we employ several inspection procedures during manufacturing. The following list indicates two of the most important quality assurance tools we use to meet your highest requirements.

Camera Sensor Alignment Tool (CSAT):

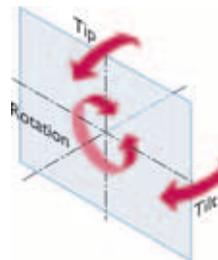
Due to higher resolutions and smaller pixels, depth of focus and the exact positioning of the imaging sensor in the camera are becoming more and more critical. An area scan sensor must be aligned in six degrees of freedom.



The back focal length on the camera is carefully measured and adjusted by our unique "CSAT" procedure. This guarantees an optimum distance between the lens flange and the sensor and ensures outstanding image quality based on compliance with optics standards.

Camera Test Tool (CTT+)

Our advanced Camera Test Tool (CTT+), the first fully automated inspection system for digital cameras, checks all of the significant quality aspects of each camera we produce. The CTT+ is a unique combination of optics, hardware, and software that can be quickly and efficiently used to calibrate a camera and to measure its performance against a set of standards. For defined sets of conditions, an automated software program examines the camera's output, makes any calibration adjustments necessary, and compares the output to a strictly defined set of performance criteria.



Basler customers get a 100% tested camera, all of the benefits that go along with 100% testing, and a much higher level of satisfaction. This is a definite win-win situation.

ONVIF Compliance



The Basler IP Camera series is ONVIF compliant. Under this global interface standard, our partners, distributors, and end users can harness the full potential of network video technology, and benefit from easy integration and reduced total costs.

RoHS Compliance



The Basler IP Camera series is RoHS compliant. This is especially important in applications where the end user requires strict RoHS compliance in all system components.



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