

# LTC 0495 Series DinionXF Day Night Cameras



- ▶ 15-bit DSP Technology
- ► High sensitivity
- Mechanically switching IR filter for IR sensitivity at night
- ► XF-Dynamic for unsurpassed wide dynamic range
- ► Bilinx Communication for remote set-up and control
- ► Default Shutter eliminates motion blurring
- ► Four area video motion detection
- ► 540 TVL resolution

The LTC 0495 High Performance 1/3-inch Digital CCD Day/ Night Camera ensures the highest image quality possible at any time. Depending on the available light the camera will automatically switch from color to monochrome. A unique combination of 15-bit digital video processing that enhances sensitivity and XF-Dynamic which extends the dynamic range provides a sharper, more detailed image with outstanding accuracy in color reproduction. All Dinion cameras are supplied ready to operate. Simply attach and focus the lens, then connect power. No tools are required for back focus and power connection. 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 side of the camera and On-screen Display (OSD). The camera automatically detects the lens type. The Lens Wizard ensures accurate back-focusing for perfectly sharp pictures at all times.

# **Functions**

# XF-Dynamic

The highly accurate 15-bit digital signal is automatically processed to optimally capture the detail in both the high and low light areas of the scene simultaneously, maximizing the information visible in the picture.

## **Bilinx Technology**

Bilinx is a bidirectional communication capability embedded in the video signal of all Bosch Dinion cameras. Technicians can check status, change camera settings and even update firmware from virtually anywhere along the video cable. Bilinx reduces service and installation time, provides for more accurate set-up and adjustment, and improves overall performance. In addition, Bilinx uses the standard video cable to transmit alarm and status messages, providing superior performance without additional installation steps.

#### Video Motion Detection

The built-in video motion detector allows you to select up to four fully programmable areas with individual thresholds. The global scene change detector minimizes false alarms caused by sudden lighting condition changes, such as switching on or off the indoor or security lighting. When motion is detected alarms may be displayed in the video signal while the output relay can be closed in addition to alarm message transmission on Bilinx.

#### **Auto Black**

The automatic black level feature enhances contrast by compensating for reduced contrast (i.e. glare, fog, mist).

#### **Default Shutter**

The LTC 0495 features a fast, default shutter speed in sufficient lighting conditions to capture moving objects. When light levels fall and other adjustments have been exhausted, the shutter speed reverts to the standard setting to maintain sensitivity.

#### **Back Light Compensation (BLC)**

Offering a fully programmable BLC area of interest, and a variable BLC level, the camera can be easily set up for even the most challenging entrance applications.

#### Lens Wizard

The Lens Wizard automatically detects the lens type and helps focus the lens at the maximum opening to ensure proper focus is maintained throughout the 24-hour cyle. No special tools or filters are required.

#### **Programmable Modes**

Three independent, preprogrammed operating modes support typical applications, but are fully programmable for individual situations. Switching between modes is easy via Bilinx or the external alarm input.

## Day/Night Mode

The Day/Night Mode LTC 0495 provides enhanced night viewing by increasing the IR sensitivity. The IR filter can switch from color to monochrome automatically by either sensing the illumination level or via the alarm input. The filter can be switched manually via the alarm input, through the camera menu or via the Bilinx coaxial control interface. An internal through the lens IR detector enhances the monochrome mode stability, as it prevents reverting to the color mode when IR illumination is dominant.

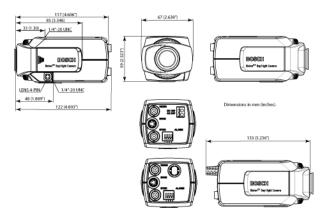
#### SensUp

By increasing the integration time on the CCD up to 10 times, the effective sensitivity is dramatically enhanced. This is especially useful when relying only on moonlight for illumination.

# **Certifications and Approvals**

| Electro Magnetic Compatibility |  |  |
|--------------------------------|--|--|
| Emission                       | EN55022 class B, FCC class B part 15                         |  |
| Immunity                       | EN50130-4 Alarm Systems, Part 4                              |  |
| Vibration                      | Camera with 500 gr (1.1 lbs) lens according to IEC60068-2-27 |  |
| Safety                         |  |  |
| LTC 0495/11 and LT             | TC 0495/51: EN60065  |  |
| LTC 0495/21 and LT             | TC 0495/61: UL6500, cUL CAN/CSA E60065-00                    |  |

## **Installation/Configuration Notes**



Dimensions in mm (inches)

#### **Parts Included**

| Quantity | Component   |
|----------|---|
| 1        | LTC 0495 Series Dinion <sup>XF</sup> Day\Night Camera |
| 1        | C/CS – mount conversion ring                          |
| 1        | Spare male 4 – pin lens connector                     |

Lens not included

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|--|---|--|--|
| Electrical                               |   |  |  |
| Model No.                                | Rated Voltage   |  |  |
| LTC 0495/11                              | 12 - 28 VAC<br>11 - 39 VDC  | 45 - 65 Hz                             |  |
| LTC 0495/21                              | 12 - 28 VAC<br>11 - 39 VDC  | 45 - 65 Hz                             |  |
| LTC 0495/51                              | 110 - 240 VAC   | 45 - 65 Hz                             |  |
| LTC 0495/61                              | 110 - 240 VAC   | 45 - 65 Hz                             |  |
| Power Consumption                        | 4 W   |  |  |
| CCD Type                                 | 1/3-inch interline  |  |  |
| Active Pixels                            |   |  |  |
| PAL Model:                               | 752 x 582   |  |  |
| NTSC Model                               | 768 x 492   |  |  |
| Sensitivity (3200 k)                     |   |  |  |
| Sensitivity<br>Full video) <sup>1)</sup> | 2.4 lux (0.24 fc)   |  |  |
| Sensitivity<br>50 IRE <sup>1)</sup>      | 0.59 lux / 0.08 lux (Monochrome mode)                               |  |  |
| Minimum<br>Ilumination <sup>1)</sup>     | 0.24 lux / 0.038 lux (Monochrome mode)                              |  |  |
| Minimum Illumination with<br>Sens Up     | 0.024 lux / 0.0038 lux (Monochrome mode)                            |  |  |
| Horizontal Resolution                    | 540 TVL   |  |  |
| Signal-to-Noise Ratio                    | > 50 dB   |  |  |
| ideo Output                              | 1 Vpp, 75 ohm   |  |  |
| //C Output                               | Y: 1 Vpp / C: 0.3 Vpp   |  |  |
| Synchronization                          | Internal, Line Lock, HV-lock and Genlock<br>(Burst lock) selectable |  |  |
| Shutter                                  | Auto (1/60 (1/50) to 1/500000), fixed, flickerless, default         |  |  |
| Sensitivity up                           | Off, Automatic continuous up to 10x                                 |  |  |
| uto Black                                | On, Off selectable  |  |  |
| Range                                    | 32x dynamic range enhancement                                       |  |  |
| Dynamic Noise<br>Reduction               | Auto, Off selectable  |  |  |
| Contour                                  | Sharpness enhanceme   | Sharpness enhancement level selectable |  |
| BLC                                      | Off, Area and Level sel   | ectable                                |  |
| Gain                                     | Auto (maximum level selectable to 28 dB) or fixed level selectable  |  |  |
| ens Mount                                | CS (max lens protrusio  | on 5 mm, 0.2 inch)                     |  |
| White Balance                            | ATW (2500 - 10000 K), AWB hold, Manual WB selectable                |  |  |
| VMD                                      | 4 area, sensitivity selectable                                      |  |  |
| Alarm Output                             | VMD or Bilinx   |  |  |
| Alarm Input<br>(TTL)                     | Profile switching, +5 V nominal, +40 VDC max                        |  |  |
| Alarm Output Relay                       | max. 30 VAC or +40 VDC, Max 0,5 A continu-                          |  |  |

ous, 10 VA

**Technical Specifications** 

| Model No.                            | Rated Voltage  |
|--------------------------------------|--|
| External Synchronal Input            | 75 ohm or High Impedance selectable  |
| Cable<br>Compensation                | Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with coaxial communication)                         |
| Camera ID                            | 16 character editable string, position selectable  |
| Lens Types                           | Manual, DC- and Video-Iris auto-detect with override DC-iris drive: max. 50 mA continuous Video-iris: $11.5\pm0.5$ VDC, max 50 mA continuous |
| Remote Control                       | Bilinx coaxial communication   |
| 1) F/1.2, 89% reflection, SenseUp of | off  |

# **Mechanical**

| Dimensions<br>(H x W x L) | 59 x 67 x 122 mm<br>(2.28 x 2.6 x 4.8 inch)<br>without lens |
|---------------------------|---|
| Weight                    | 450 g (0.99 lbs) without lens                               |
| Tripod Mount              | Bottom (isolated) and top 1/4-inch 20 UNC                   |
| Controls                  | OSD with softkey operation                                  |

### **Environmental**

| Operating Temperature | -20°C to +50°C (-4°F to 122°F)   |
|-----------------------|----------------------------------|
| Storage Temperature   | -25°C to +70°C (-13°F to +158°F) |
| Operating Humidity    | 20% to 93% RH                    |
| Storage Humidity      | up to 98% RH                     |

| Ordering Informati | ion |
|--------------------|-----|
|--------------------|-----|

| LTC 0495/11 DinionXF Day Night Camera<br>1/3-inch, high performance, 540 TVL, PAL,<br>DSP, 12 – 28 VAC/11 – 39 VDC, 50 Hz  | LTC0495/11               |
|--|--------------------------|
| LTC 0495/21 DinionXF Day Night Camera<br>1/3-inch, high performance, 540 TVL,<br>NTSC, DSP, 12 – 28 VAC/11 – 39 VDC,<br>60 Hz  | LTC0495/21               |
| LTC 0495/51 DinionXF Day Night Camera<br>1/3-inch, high performance, 540 TVL, PAL,<br>DSP, 110 – 240 VAC, 50 Hz  | LTC0495/51               |
| LTC 0495/61 DinionXF Day Night Camera<br>1/3-inch, high performance, 540 TVL,<br>NTSC, DSP, 12 – 28 VAC, 60 Hz   | LTC0495/61               |
|  |                          |
| Accessories  |                          |
| Accessories  LTC 3364/21 Varifocal Lens IR corrected 1/3-inch, 2.8 – 6 mm, DC-iris, CS-mount F1.4-200, 4-pin   | LTC3364/21               |
| LTC 3364/21 Varifocal Lens IR corrected<br>1/3-inch, 2.8 – 6 mm, DC-iris, CS-mount   | LTC3364/21<br>LTC3764/20 |
| LTC 3364/21 Varifocal Lens IR corrected 1/3-inch, 2.8 – 6 mm, DC-iris, CS-mount F1.4-200, 4-pin  LTC 3764/20 Varifocal Lens IR corrected 1/2-inch, 4 –12 mm, DC-iris, C-mount, | ,                        |

| Ordering Information   |             |
|--|-------------|
| LTC 3783/50 Zoom Lens IR corrected<br>1/2-inch, 8.5 – 85 mm, Video-iris, C-mount<br>F1.6-360, 4-pin    | LTC3783/50  |
| LTC 3793/50 Zoom Lens IR corrected<br>1/2-inch, 8 – 144 mm, Video-iris, C-mount,<br>F1.6-360, 4-pin    | LTC3793/50  |
| LTC 3664/40 Varifocal Lens IR corrected<br>1/3-inch, 2.8 – 11 mm, DC-iris, CS-mount<br>F1.4-360, 4-pin | LTC3664/40  |
| LTC 3664/30 Varifocal Lens IR corrected<br>1/3-inch, 3.0 – 8 mm, DC-iris, CS-mount<br>F1.0-360, 4-pin  | LTC3664/30  |
| TC 120PS Power Supply Unit<br>110-120 VAC/15 VDC, 50/60 Hz, 300mA                                      | TC120PS     |
| TC 220PS Power Supply Unit<br>230 VAC/12 VDC, 50 Hz, 10 VA   | TC220PS     |
| TC 220PSX-24 Power Supply Unit<br>230 VAC/20 VAC, 50 Hz, 20 VA   | TC220PSX-24 |
| TC 1334 Power Supply Unit<br>120 VAC/24 VAC, 60 Hz, 30 VA  | TC1334      |
| Software Options   |             |
| VP-CFGSFT Configuration Software<br>for cameras using Bilinx, includes VP-USB<br>Adaptor               | VP-CFGSFT   |