


BOSCH

Invented for life

IR-Corrected Zoom and Varifocal Lenses



- ▶ IR corrected for operation with high performance day/night and monochrome cameras
- ▶ 1/3-inch and 1/2-inch formats
- ▶ High-quality optics
- ▶ DC-iris and Video-iris models
- ▶ Varifocal and zoom lenses
- ▶ Zoom lenses with pre-positioning
- ▶ Reliable, robust construction

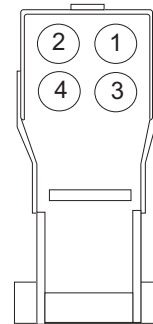
With the introduction of true day/night cameras, CCTV cameras have become more versatile -- and now lenses must match the wide range of light conditions covered by those cameras. (Infrared) corrected lenses provide fully adjusted and sharp focused images in daylight and at night when used in conjunction with IR illuminators. This makes IR lenses the best choice for high performance true day/night cameras.

The IR range includes 1/3-inch and 1/2-inch format lenses. The 1/3-inch lenses are used exclusively for 1/3-inch type cameras. The high design standards of the 1/2-inch lenses make them a perfect match for both 1/3-inch and 1/2-inch type cameras. When used with 1/3-inch type cameras, the 1/2-inch lenses provide a more "telephoto" effect.

For auto iris control, all lenses use the standard four-pin EIAJ connector, which fits directly into the camera's iris output. Varifocal lenses are DC iris direct drives, while zoom lenses have Video-iris drives.

For zoom focus and pre-position control, the lenses are fitted with an 8-pin DIN connector. The 18x zoom lens also features manual iris override. Impressive optical quality is a result of ED glass elements, aspherical lenses, and multi-layer coatings. These lenses maintain focus to IR wavelengths of 950 nm.

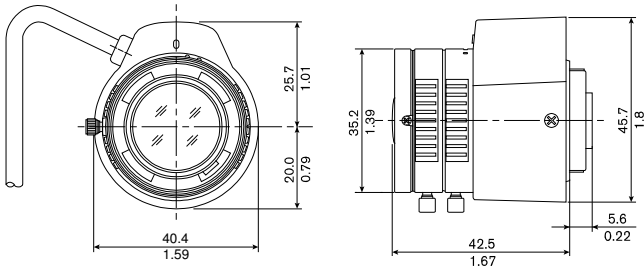
The mechanical construction is robust enough to withstand frequent control operations of the iris, zoom, and focus functions.



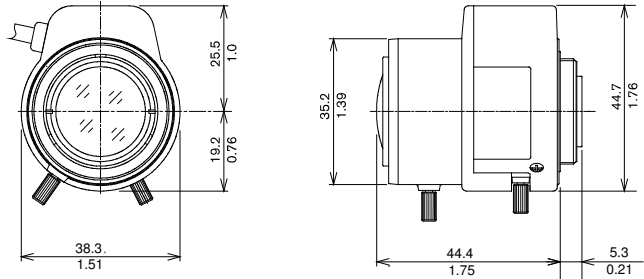
Auto iris Connector (Solder side view)

- | | |
|---|----------|
| 1 | Power |
| 2 | Not Used |
| 3 | Video |
| 4 | Ground |

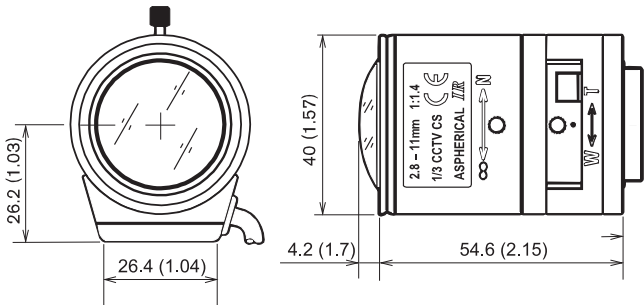
Installation/Configuration Notes



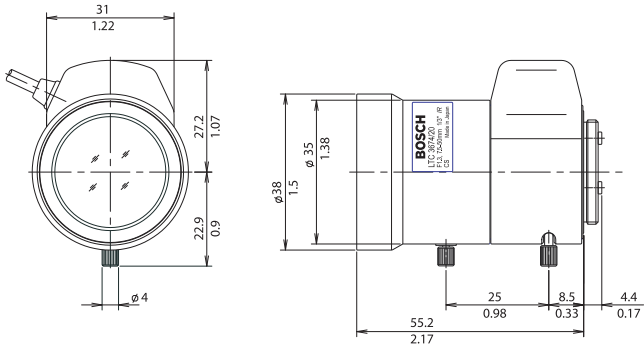
Dimensions LTC 3364/21



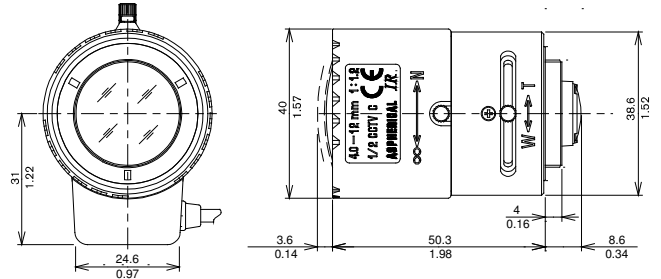
Dimensions LTC 3664/30



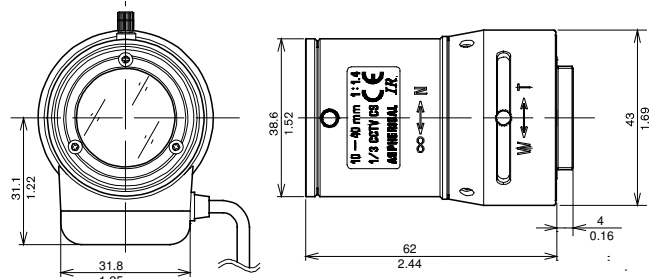
Dimensions LTC 3664/40



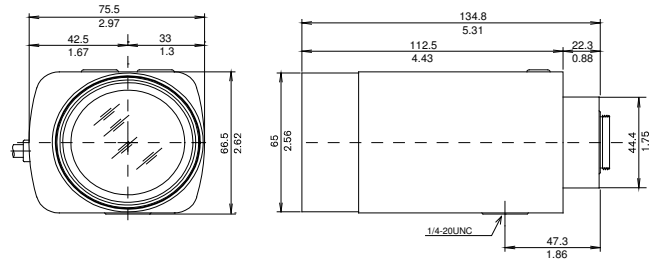
Dimensions LTC 3674/20



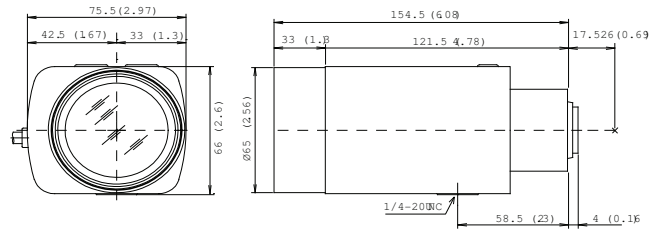
Dimensions LTC 3764/20



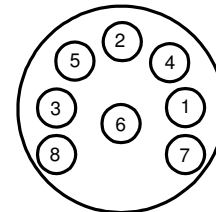
Dimensions LTC 3774/40



Dimensions LTC 3783/51



Dimensions LTC 3793/51



Zoom/Focus Connector (Solder side view)

| | |
|------------------------------|-------------------------------|
| 1 Pre-pos. Zoom Pot. Wiper | 5 Focus Motor Control (+near) |
| 2 Focus Motor Return | 6 Zoom Motor Return |
| 3 Pre-pos. Focus Pot. Wiper | 7 Pre-pos. Pot. Supply |
| 4 Zoom Motor Control (+tele) | 8 Pre-pos. Pot. Return |

Ordering Information

| | |
|---|--------------------|
| 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 3664/30 Varifocal Lens IR corrected 1/3-inch, 3.0 – 8 mm, DC-iris, CS-mount F1.0-360, 4-pin | LTC3664/30 |
| LTC 3664/40 Varifocal Lens IR corrected 1/3-inch, 2.8 – 11 mm, DC-iris, CS-mount F1.4-360, 4-pin | LTC3664/40 |
| LTC 3674/20 Varifocal Lens IR corrected 1/3-inch, 7.5 – 50 mm, DC-iris, CS-mount F1.3-360, 4-pin | LTC 3674/20 |
| LTC 3764/20 Varifocal Lens IR corrected 1/2-inch, 4 – 12 mm, DC-iris, C-mount F1.2-360, 4-pin | LTC 3764/20 |
| LTC 3774/30 Varifocal Lens IR corrected 1/2-inch, 10 – 40 mm, DC-iris, C-mount F1.4-360, 4-pin | LTC 3774/30 |
| LTC 3783/51 Zoom Lens IR corrected 1/2-inch, 8.5 – 85 mm, Video-iris, C-mount F1.6-360, 4-pin | LTC 3783/51 |
| LTC 3793/51 Zoom Lens IR corrected 1/2-inch, 8.6 – 154 mm, Video-iris, C-mount, F2.5-360, 4-pin | LTC 3793/51 |

Accessories

| | |
|--|--------------|
| S1374 Adapter converts C mount lens to CS mount camera | S1374 |
|--|--------------|

IR-Corrected Varifocal Lenses



LTC3364/21



LTC3664/30



LTC3664/40



LTC 3674/20

| | | | | |
|-----------------------------|---------------------|---------------------|---------------------|---------------------|
| Image format | 1/3 inch | 1/3 inch | 1/3 inch | 1/3 inch |
| Zoom Range | 2.1x Varifocal | 2.7x Varifocal | 3.9x Varifocal | 6.7x Varifocal |
| Focal length | 2.8-6 mm | 3-8 mm | 2.8-11 mm | 7.5-50 mm |
| Iris range Color | F1.4 to 300 | F1.0 to 360 | F1.4 to 360 | F1.3 to 360 |
| Iris range IR | F1.4 to 300 | F1.0 to 360 | F1.4 to 64 | F1.3 to 64 |
| Wavelength | 400 to 950 nm | 400 to 950 nm | 400 to 950 nm | 400 to 950 nm |
| Min. Object Distance | 0.30 m (1.0 ft) | 0.30 m (1.0 ft) | 0.35 m (1.1 ft) | 0.40 m (1.3 ft) |
| Back focus Distance | 7.5 mm (0.30 in) | 7.5 mm (0.30 in) | 8.6 mm (0.34 in) | 8.1 mm (0.32 in) |
| Lens mount | CS-mount | CS-mount | CS-mount | CS-mount |
| Flange back distance | 12.5mm | 12.5mm | 12.5mm | 12.5mm |
| Weight | 59 g (0.13 lb) | 60 g (0.13 lb) | 79 g (0.17 lb) | 68 g (0.15 lb) |
| Angle of view | | | | |
| 1/3 in. wide (HxV) | 96.9° x 72.5° | 93.2° x 69° | 97.4° x 72.4° | 36.6° x 27.4° |
| 1/3 in. tele (HxV) | 46.7° x 35.1° | 35.2° x 26.4° | 26.2° x 19.7° | 5.64° x 4.26 |
| ½ in. wide (HxV) | - | - | - | - |
| ½ in. tele (HxV) | - | - | - | - |
| Pre-Position | - | - | - | - |
| Iris Specs. | | | | |
| Iris Control | DC-iris | DC-iris | DC-iris | DC-iris |
| Op. Voltage | - | - | - | - |
| Response Speed | - | - | - | - |
| Op. Current | - | - | - | - |
| Input Signal | - | - | - | - |
| Impedance | - | - | - | - |
| Iris Accuracy | - | - | - | - |
| Sensitivity | | | | |
| Autoiris Override | - | - | - | - |
| Zoom Specs. | | | | |
| Zoom control | Manual | Manual | Manual | Manual |
| Zoom Speed | - | - | - | - |
| Op. Voltage | - | - | - | - |
| Op. Current | - | - | - | - |

IR-Corrected Varifocal Lenses



LTC3364/21



LTC3664/30



LTC3664/40



LTC 3674/20

| | | | | |
|--------------------------|---|---|---|---|
| Focus Specs. | | | | |
| Focus Control | Manual | Manual | Manual | Manual |
| Focus Speed | - | - | - | - |
| Op. Voltage | - | - | - | - |
| Op. Current | - | - | - | - |
| Temperature Range | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) |

IR-Corrected Varifocal Lenses



LTC 3764/20



LTC 3774/30



LTC 3783/51



LTC 3793/51

| | LTC 3764/20 | LTC 3774/30 | LTC 3783/51 | LTC 3793/51 |
|-----------------------------|---------------------|----------------------|--------------------------|--------------------------|
| Image format | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| Zoom Range | 3x Varifocal | 4x Varifocal | 10x Zoom | 18x Zoom |
| Focal length | 4-12 mm | 10-40 mm | 8.5 – 85 mm | 8.6 – 154 mm |
| Iris range Color | F1.2 to 360 | F1.4 to 360 | F1.6 to 360 | F2.5 to 360 |
| Iris range IR | F1.2 to 64 | F1.4 to 64 | F1.6 to 180 | F2.5 to 360 |
| Wavelength | 400 to 950 nm | 400 to 950 nm | 400 to 950 nm | 400 to 950 nm |
| Min. Object Distance | 0.30 m (1.0 ft) | 0.5 m (1.6 ft) | 1.5 m (5 ft) | 4 m (13 ft) |
| Back focus Distance | 9.0 mm (0.35 in) | 12.4 mm (0.49 in) | 14.65 mm (0.3 inch) | 13.75 mm (0.3 inch) |
| Lens mount | CS-mount | CS-mount | C-mount | C-mount |
| Flange back distance | 17.526mm | 17.526mm | 17.526mm | 17.526mm |
| Weight | 68 g (0.15 lb) | 87 g (0.19 lb) | 900 g (1.98 lb) | 3840 g (8.47 lb) |
| Angle of view | | | | |
| 1/3 in. wide (HxV) | 68.9° x 51.3° | 27.5° x 20.4° | 31.3° x 23.5° | 30.5° x 23.18° |
| 1/3 in. tele (HxV) | 23.4° x 17.5 | 7.0° x 5.2 | 3.28° x 2.47° | 1.82° x 1.37° |
| ½ in. wide (HxV) | 93.6° x 68.9° | 37.5° x 27.5° | 41.5° x 31.3° | 40.7° x 30.9° |
| ½ in. tele (HxV) | 31.2° x 23.4° | 9.2° x 7.0° | 4.34° x 3.28° | 2.42° x 1.82° |
| Pre-Position | - | - | Yes | Yes |
| Iris Specs. | | | | |
| Iris Control | DC-iris | DC-iris | 4-pin Video-iris | 4-pin Video-iris |
| Op. Voltage | - | - | 8 to 15 VDC | 8 to 15 VDC |
| Response Speed | - | - | approx. 2 sec | approx. 1.5 sec |
| Op. Current | - | - | 40 mA | 50 mA |
| Input Signal | - | - | VS or V | VS or V |
| Impedance | - | - | 5 kOhm | 5 kOhm |
| Iris Accuracy | - | - | +/- 20% of V-signal | +/- 20% of V-signal |
| Sensitivity | - | - | 0.5 - 1.0Vpp of V-signal | 0.5 - 1.0Vpp of V-signal |
| Autoiris Override | - | - | - | Yes |
| Zoom Specs. | | | | |
| Zoom control | Manual | Manual | Motor drive | Motor drive |
| Zoom Speed | - | - | 5 sec (adjustable) | 3.5 sec |
| Op. Voltage | - | - | 6 to 12 VDC | 6 to 12 VDC |
| Op. Current | - | - | 60 mA | 85 mA |

IR-Corrected Varifocal Lenses



LTC 3764/20



LTC 3774/30



LTC 3783/51



LTC 3793/51

| | | | | |
|--------------------------|---|---|---|---|
| Focus Specs. | | | | |
| Focus Control | Manual | Manual | Motor drive | Motor drive |
| Focus Speed | - | - | 5 sec (adjustable) | 4 sec |
| Op. Voltage | - | - | 6 to 12 VDC | 6 to 12 VDC |
| Op. Current | - | - | 60 mA | 50 mA |
| Temperature Range | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) | -10 °C to +50 °C (+14 °F to +122 °F) |

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