



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

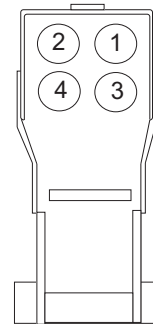
With the introduction of true day/night cameras, CCTV cameras have become more versatile -- and now lenses must match the wide range of light conditions covered by those cameras. (Infrared) corrected lenses provide fully adjusted and sharp focused images in daylight and at night when used in conjunction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

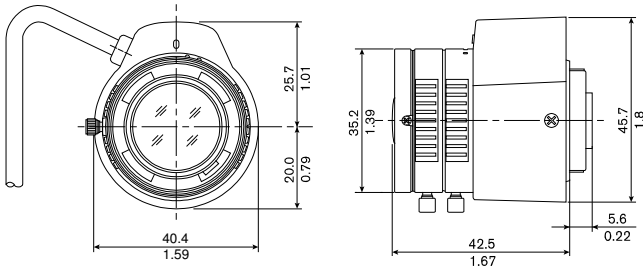
The mechanical construction is robust enough to withstand frequent control operations of the iris, zoom, and focus functions.



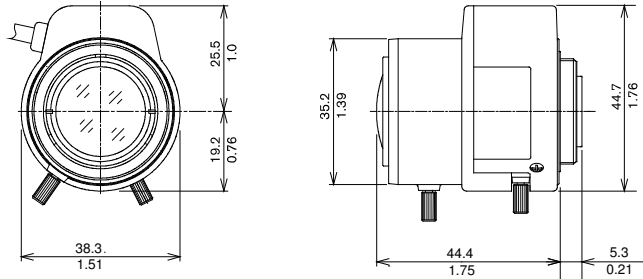
Auto iris Connector (Solder side view)

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

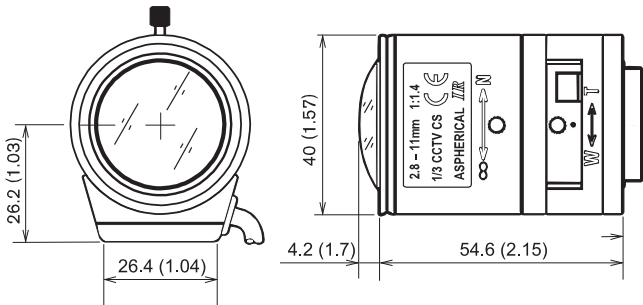
Installation/Configuration Notes



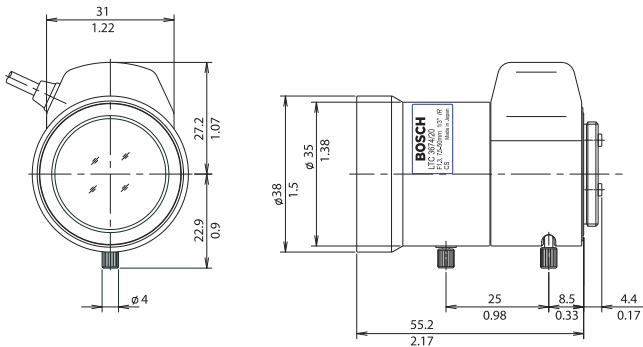
Dimensions LTC 3364/21



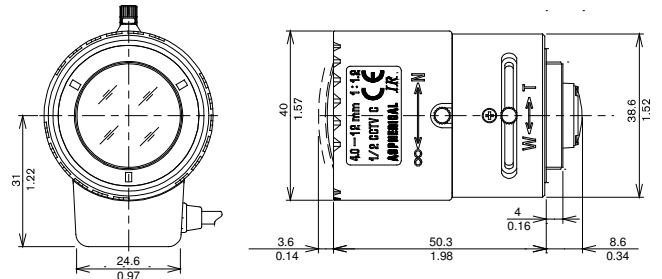
Dimensions LTC 3664/30



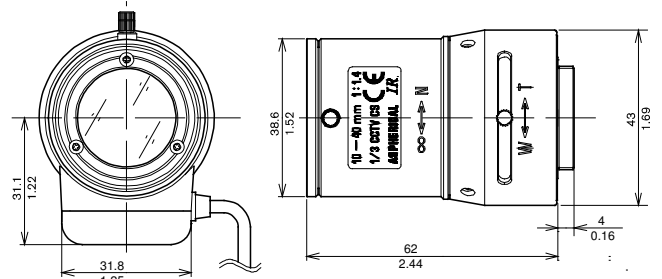
Dimensions LTC 3664/40



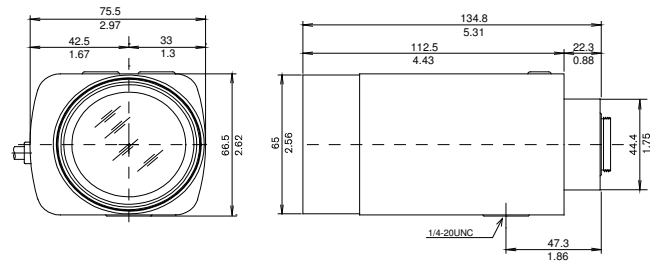
Dimensions LTC 3674/20



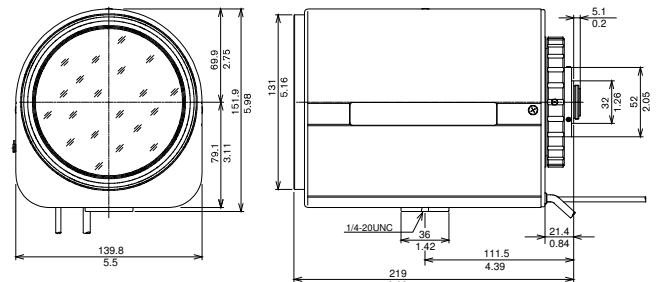
Dimensions LTC 3764/20



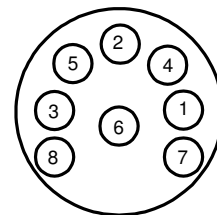
Dimensions LTC 3774/40



Dimensions LTC 3783/50



Dimensions LTC 3793/50



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	LTC3674/20
LTC 3764/20 Varifocal Lens IR corrected 1/2-inch, 4 – 12 mm, DC-iris, C-mount, F1.2-360, 4-pin	LTC3764/20
LTC 3774/30 Varifocal Lens IR corrected 1/2-inch, 10 – 40 mm, DC-iris, C-mount, F1.4-360, 4-pin	LTC3774/30
LTC 3783/50 Zoom Lens IR corrected 1/2-inch, 8.5 – 85 mm, Video-iris, C-mount F1.6-360, 4-pin	LTC3783/50
LTC 3793/50 Zoom Lens IR corrected 1/2-inch, 8 – 144 mm, Video-iris, C-mount, F1.6-360, 4-pin	LTC3793/50

Accessories

S1374 Adapter converts C mount lens to CS mount camera	S1374
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IR-Corrected Varifocal Lenses



LTC3364/21



LTC3664/30



LTC3664/40



LTC3674/20

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



LTC3674/20

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



LTC3764/20



LTC3774/30



LTC3783/50



LTC3793/50

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 – 144 mm
Iris range Color	F1.2 to 360	F1.4 to 360	F1.6 to 360	F1.6 to 360
Iris range IR	F1.2 to 64	F1.4 to 64	F1.6 to 180	F1.6 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	C-mount	C-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°	34.1° x 26.0°
1/3 in. tele (HxV)	23.4° x 17.5°	7.0° x 5.2°	3.28° x 2.47°	1.94° x 1.47°
½ in. wide (HxV)	93.6° x 68.9°	37.5° x 27.5°	41.5° x 31.3°	45.1° x 34.1°
½ in. tele (HxV)	31.2° x 23.4°	9.2° x 7.0°	4.34° x 3.28°	2.6° x 1.94°
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
Focus Specs.				

IR-Corrected Varifocal Lenses

**LTC3764/20****LTC3774/30****LTC3783/50****LTC3793/50**

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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