Lens Guide for Philips Cameras

- **Complete Line of Lenses**
- **Manual, DC-iris and Video-iris Lenses**
- **Lenses for Specialized Applications**
- **Complete Selection of Zoom Lenses**
- **CS-mount or C-mount**
- **Lens Accessory Items**

This publication lists lenses available for CCTV cameras. A variety of fixed focal length; motorized zoom; and manual or auto-iris types are available for 1/3-, 1/2-, 2/3-, and 1-inch image formats. Pre-position option capability is available on selected lenses.

The specialized lenses include 1/3-inch and 1/2-inch varifocal lenses which allow a customized field-of-view when needed. A 1/2-inch manual iris override zoom lens provides dual auto-iris or user controlled iris function. The wide selection offered assures a lens to meet most applications.

The comprehensive lens data is tabulated by format within each lens category for easy reference. Detailed data is given to aid in selecting lenses for various applications and camera housings. The operating temperature range for these lenses is –10 °C (14 °F) to +50 °C (+122 °F), except as noted. The Field-of-view Guide aids in selecting lenses for different image formats.

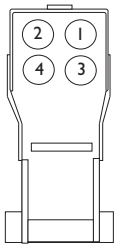
Philips Communication, Security & Imaging

PHILIPS

SPECIFICATIONS

Model No.	Note	Focal Length mm	Mount Style	Iris Range Max to Min f-Stop	Dimensions (D x l) or (W x H x L) mm (inches)	Lens Weight g (lb)	Iris Conn. Type	Filter Mount Dia x Pitch mm
FIXED FOCAL LENGTH/MANUAL IRIS								
1/3-inch Format								
LTC 3311/21	1, 2	2.8	CS	1.2 to Close	36.6 x 36.3 (1.44 x 1.42)	35 (0.08)	---	---
LTC 3331/21	1, 2	4	CS	1.2 to Close	36.6 x 33.8 (1.44 x 1.33)	32 (0.07)	---	---
LTC 3341/21	1, 2	8	CS	1.2 to Close	36.6 x 33.8 (1.44 x 1.33)	26 (0.06)	---	---
1/2-inch Format								
LTC 3211/20	1, 2	3.7	CS	1.6 to Close	32 x 35.7 (1.25 x 1.4)	34 (0.07)	---	30.5 x 0.50
LTC 3231/20	1, 2	6	CS	1.4 to Close	32 x 35.7 (1.25 x 1.4)	32 (0.07)	---	30.5 x 0.50
LTC 3241/20	1, 2	12	CS	1.4 to Close	32 x 35.7 (1.25 x 1.4)	26 (0.06)	---	30.5 x 0.50
FIXED FOCAL LENGTH/AUTO-IRIS								
1/3-inch Format								
LTC 3314/21	2, 3	2.8	CS	1.2 to 200	36.8 x 43.5 x 36.3 (1.45 x 1.71 x 1.42)	52 (0.12)	4-pin	---
LTC 3334/21	2, 3	4	CS	1.2 to 200	36.8 x 43.5 x 33.8 (1.45 x 1.71 x 1.33)	49 (1.08)	4-pin	---
LTC 3344/21	2, 3	8	CS	1.2 to 200	36.8 x 43.5 x 33.8 (1.45 x 1.71 x 1.33)	44 (0.10)	4-pin	---
1/2-inch Format								
LTC 3214/20	2, 3	3.7	CS	1.6 to 300	42.8 x 47.1 x 36.5 (1.68 x 1.85 x 1.43)	57 (0.12)	4-pin	34 x 0.5
LTC 3234/20	2, 3	6	CS	1.4 to 300	42.8 x 47.1 x 36.5 (1.68 x 1.85 x 1.43)	60 (0.13)	4-pin	34 x 0.5
LTC 3244/20	2, 3	12	CS	1.4 to 300	42.8 x 47.1 x 36.5 (1.68 x 1.85 x 1.43)	52 (0.12)	4-pin	34 x 0.5
2/3-inch Format								
LTC 3123/40	2,4	8	C	1.4 to 360	46.5 x 50.5 x 51.1 (1.83 x 1.99 x 2.01)	140 (0.31)	4-pin	43 x 0.75
LTC 3133/40	2,4	16	C	1.4 to 360	46.5 x 50.5 x 46.7 (1.83 x 1.99 x 1.84)	110 (0.24)	4-pin	43 x 0.75
1-inch Format								
LTC 3043/40	2,4	25	C	1.4 to 360	46.5 x 50.5 x 51.8 (1.83 x 1.99 x 2.04)	140 (0.31)	4-pin	43 x 0.75
LTC 3053/40	2,4	50	C	1.4 to 360	62 x 62 x 51 (2.44 x 2.44 x 2.01)	230 (0.51)	4-pin	43 x 0.75
VARIFOCAL LENSES/MANUAL IRIS								
1/3-inch Format								
LTC 3361/20	1,2	2.8–6	CS	1.2 to Close	45 x 64.05 (1.77 x 2.52)	83 (0.18)	---	---
LTC 3361/30	1,2	3.5–8	CS	1.4 to Close	35 x 51 (1.37 x 2.0)	48 (0.10)	---	---
LTC 3361/40	1,2	2.8–12	CS	1.4 to Close	44 x 59.2 (1.73 x 2.33)	72 (0.16)	---	---
LTC 3371/20	1,2	5–50	CS	1.4 to Close	41 x 59.2 (1.61 x 2.33)	85 (0.187)	---	---
1/2-inch Format								
LTC 3261/30	1, 2	4.5–10	CS	1.6 to Close	34 x 43.5 (1.34 x 1.71)	40 (0.09)	---	---
LTC 3271/40	1, 2	7.5–75	CS	2.2 to Cose	54 x 86 (2.12 x 3.38)	..215 (0.47)	---	52 x 0.75
VARIFOCAL LENSES/AUTO-IRIS								
1/3-inch Format								
LTC 3364/21	2, 3	2.8–6	CS	1.4 to 200	40.4 x 45.7 x 47.2 (1.59 x 1.8 x 1.86)	59 (0.13)	4-pin	---
LTC 3364/31	2, 3	3.5–8	CS	1.4 to 200	40.4 x 45.7 x 47.2 (1.59 x 1.8 x 1.86)	35 (0.12)	4-pin	30.5 x 0.5
LTC 3364/40	2, 3	2.8–12	CS	1.4 to 360	40 x 46.2 x 59.2 (1.57 x 1.82 x 2.33)	79 (0.17)	4-pin	---
LTC 3374/20	2, 3	5–50	CS	1.4 to 185	41 x 53.7 x 59.2 (1.61 x 2.11 x 2.33)	97 (0.213)	4-pin	---
1/2-inch Format								
LTC 3264/30	2, 3	4.5–10	CS	1.6 to 360	40 x 46.3 x 43.5 (1.57 x 1.82 x 1.71)	97 (0.213)	4-pin	---
LTC 3274/40	1, 2	7.5–75	CS	2.2 to 360	54 x 86 (2.12 x 3.38)	220 (0.48)	4-pin	52 x 0.75

Model No.	Note	Focal Length mm	Mount Style	Iris Range Max to Min f-Stop	Dimensions (D x l) or (W x H x L) mm (inches)	Lens Weight g (lb)	Iris Conn. Type	Filter Mount Dia x Pitch mm
ZOOM LENSES/AUTO-IRIS								
1/3-inch Format								
LTC 3384/20	3, 5	6–60	CS	1.4 to 360	65 x 77.9 x 106 (2.56 x 3.06 x 4.18)	480 (1.06)	4-pin	46 x 0.75
LTC 3384/50	3, 5, 7	6–60	CS	1.4 to 360	65 x 77.9 x 106 (2.56 x 3.06 x 4.18)	480 (1.06)	4-pin	46 x 0.75
LTC 3394/20	3, 5	5.5–90	CS	1.6 to 360	65 x 77.9 x 106 (2.56 x 3.06 x 4.18)	490 (1.08)	4-pin	49 x 0.75
LTC 3394/50	3, 5, 7	5.5–90	CS	1.6 to 360	65 x 77.9 x 106 (2.56 x 3.06 x 4.18)	490 (1.08)	4-pin	49 x 0.75
1/2-inch Format								
LTC 3283/20	4, 6	8–48	CS	1.4 to 360	58 x 63.5 x 78 (2.28 x 2.5 x 3.06)	400 (0.88)	4-pin	49 x 0.75
LTC 3283/40	4, 6	7.5–75	CS	1.4 to 360	67 x 75 x 112 (2.64 x 2.95 x 4.42)	580 (1.28)	4-pin	58 x 0.75
LTC 3283/50	4, 6, 7	7.5–75	CS	1.2 to 512	70 x 80.5 x 12 (2.75 x 3.17 x 4.77)	740 (1.63)	4-pin	58 x 0.75
LTC 3293/20	4, 6	8–120	C	1.6 to 1000	78 x 88.5 x 133.5 (3.07 x 3.49 x 5.26)	800 (1.76)	4-pin	62 x 0.75
LTC 3293/40	4, 6	12–240	C	1.6 to 720	116 x 135 x 206 (4.57 x 5.31 x 8.12)	2630 (5.79)	4-pin	95 x 1.0
LTC 3293/50	4, 6, 7	12–240	C	1.6 to 720	116 x 135 x 206 (4.57 x 5.31 x 8.12)	2630 (5.79)	4-pin	95 x 1.0
ZOOM LENS, AUTO-IRIS/MANUAL OVERRIDE								
1/2-inch Format								
LTC 3293/30	4 6, 7, 8	8–120	C	1.6 to 1000	78 x 88.5 x 133.5 (3.07 x 3.49 x 5.26)	800 (1.76)	4-pin	62 x 0.75



DC-iris 4-pin connection
Pin 1: Damping coil –
Pin 2: Damping coil +
Pin 3: Driving coil + (open)
Pin 4: Driving coil –

Video iris 4-pin connection
Pin 1: power
Pin 2: not used
Pin 3: video
Pin 4: ground

4-pin Connector (Solder Side View)

SPECIALITY ITEMS

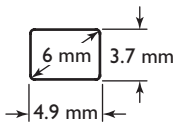
Model No.	Description	Application
S1374	5 mm Adapter Ring	Allows C-mount lenses to be used on CS-mount cameras
S1377	Lens Adapter Cable	Converts 8-pin lens connector to 6-pin camera iris connector
S1378	Lens Adapter Cable	Converts 4-pin round lens connector to 6-pin camera iris connector
S1381	Lens Adapter Cable	Converts 6-pin lens connector to 4-pin EIA-J camera iris connector
S1382	Lens Adapter Cable	Converts 6-pin lens connector to flying leads
S1394	Lens Adapter Cable	Converts 4-pin (EIA-J) lens connector to 6-pin camera iris connector

Notes:

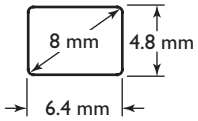
1. Recommended for use on cameras with electronic shutter feature.
2. Includes manual focus ring.
3. Direct drive iris, requires camera with DC iris drive (without EE amplifier).
4. Auto-iris, requires 8-12 VDC and video input signal (with EE amplifier).
5. Requires 6–12 VDC for zoom/focus control.
6. Requires 12 VDC for zoom/focus control.
7. Includes pre-position potentiometers.
8. Manual override activation via an enable line and control wire at 6 VDC to 12 VDC. To control iris open or closed a plus or minus voltage is required.

Field-of-view Guide

The Field-of-view Guide provides a horizontal angle-of-view (A.O.V) and a horizontal view at 100 feet. To obtain the vertical data for each lens, multiply the horizontal data by 0.75. To obtain view information for distances other than 100 feet, multiply (supplied data at 100 feet) by the [(new distance)/(100 feet)]. Example: The horizontal view for a 2.8 mm lens with a 1/3-inch imager is 175 feet at 100 feet. If the horizontal view at 50 feet is desired: (175) (50)/100 = 87.5. A 2.8 mm lens with a 1/3-inch imager provides a view of 87.5 feet at an object distance of 50 feet.



1/3-inch Image



1/2-inch Image

		1/3-inch Image		1/2-inch Image	
Focal Length (mm)	**Available Formats (in)**	**Horizontal A.O.V.**	**Horizontal View at 100 ft**	**Horizontal A.O.V.**	**Horizontal View at 100 ft**
2.8	1/3	82.4°	175	---	---
3.5	1/3 (Varifocal)	70°	140	---	---
3.7	1/2	67°	132	81.7°	173
4	1/3	63°	122	---	---
4.5	1/2 (Varifocal)	57.1°	108	70.8°	139
5.5	1/3 (Zoom)	48°	88	---	---
6	1/2	44.4°	82	56.1°	107
7.5	1/2 (Varifocal)	36.2°	65	46.2°	85
7.5	1/2 (Zoom)	36.2°	65	46.2°	85
8	1/3	34.1°	61	---	---
8	2/3	34.1°	61	43.6°	80
10	1/2 (Varifocal)	27.5°	49	35.5°	64
12	1/3 (Varifocal)	24.1°	43	---	---
12	1/2	23.1°	41	30°	53
16	2/3	17.4°	31	22.6°	40
25	1	11.2°	20	14.6°	26
48	1/2 (Zoom)	5.8°	10	7.6°	13
50	1/3 (Varifocal)	5.6°	10	---	---
50	1	5.6°	9	7.3°	13
60	1/3 (Zoom)	4.6°	8	---	---
75	1/2 (Varifocal)	3.7°	6	4.9°	9
75	1/2 (Zoom)	3.7°	6	5°	9
90	1/3 (Zoom)	3.1°	5	---	---
120	1/2 (Zoom)	2.3°	4	3.1°	5
240	1/2 (Zoom)	1.2°	2	1.5°	2.6

Note: The (---) indicates lens may not be used with the imager format designated. Nominal Field-of-view calculated per imager dimensions shown.

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