

Telecentric Lens

DTTL Series Telecentric Lens

Model No:

32mm Chip Support



DTTL Series

32mm Chip Support

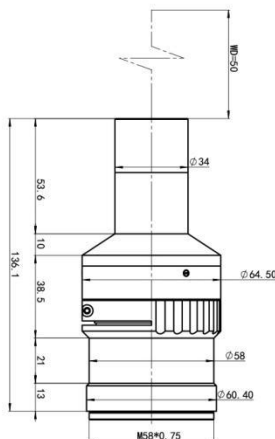
Target camera



- Professional customization of multiples and depth of field
- Dual telecentric design High definition Standard F interface
- Can be equipped with a dedicated parallel light
- For high-precision detection and measurement

Lens Model	Mag	WD	DOF	Telecen-t	Optical	Aperture	Mtf>0.3	Mount	4/3'(18.1*13.6)mm	2'	2'
			mm	ricity	distortion	F/#	(lp/mm)		(22.6mm)	(23.04*23.04)mm	(24.58*18.43)mm
DTTL50-1.6X30	1.6X	50	0.6	<0.1	<0.1	20	40	M58	11.3*8.5	14.4*14.4	15.4*11.5
DTTL69-1.2X30	1.2X	69	0.9	<0.1	<0.1	16	42	F	15.1*11.3	19.2*19.2	20.5*15.4
DTTL50-0.97X30	0.97X	50	0.7	<0.1	<0.1	8	100	F	18.7*14	23.8*23.8	25.3*19
DTTL136-0.89X30	0.89X	136	1.5	<0.1	<0.1	14	54	F	20.3*15.3	25.9*25.9	27.6*20.7
DTTL110-0.73X30	0.73X	110	2.0	<0.1	<0.1	13	60	M58	24.8*18.6	31.6*31.6	33.7*25.2
DTTL122-0.68X30	0.68X	122	2.2	<0.1	<0.1	12	75	F	26.6*20	33.9*33.9	36.1*27.1
DTTL105-0.55X30	0.55X	105	3.3	<0.1	<0.1	12	64	F	32.9*24.7	41.9*41.9	44.7*33.5
DTTL216-0.5X30	0.5X	216	4.1	<0.1	<0.1	13	60	F	36.2*27.2	46.1*46.1	49.2*36.9
DTTL187-0.46X30	0.46X	187	4.7	<0.1	<0.1	12	72	F	39.3*29.6	50.1*50.1	53.4*40.1
DTTL150-0.42X30	0.42X	150	4.1	<0.1	<0.1	9	99	F	43.1*32.4	54.9*54.9	58.5*43.9
DTTL220-0.4X30	0.4X	220	7.4	<0.1	<0.1	14	60	F	45.3*34	57.6*57.6	61.5*46.1
DTTL200-0.36X30	0.36X	200	5.2	<0.1	<0.1	8	100	F	50.3*37.8	64*64	68.3*51.2
DTTL250-0.33X30	0.33X	250	6.6	<0.1	<0.1	9	103.5	F	54.8*41.2	69.8*69.8	74.5*55.8
DTTL290-0.3X30	0.3X	290	9.2	<0.1	<0.1	10	80	M58	60.3*45.3	76.8*76.8	81.9*61.4
DTTL220-0.29X30	0.29X	220	9.5	<0.1	<0.1	10	88	F	62.4*46.9	79.4*79.4	84.8*63.6
DTTL260-0.243X30	0.243X	260	14.2	<0.1	<0.1	10	80	F	74.5*56	94.8*94.8	101.2*75.8
DTTL360-0.193X30	0.193X	360	21.4	<0.1	<0.1	10	98	F	93.7*70.47	119.38*119.38	127.36*95.49
DTTL310-0.163X30	0.163X	310	25.3	<0.1	<0.1	8	120	F	111*83.4	141.3*141.3	150.8*113.1
DTTL300-0.152X30	0.152X	300	27.1	<0.1	<0.1	7	120	F	119.1*89.5	151.6*151.6	161.7*121.3
DTTL430-0.125X30	0.125X	430	38.4	<0.1	<0.1	7	130	F	44.8*108.8	184.32*184.32	196.64*147.44
DTTL380-0.1X30	0.1X	380	75.0	<0.1	<0.1	9	96	F	181*136	230.4*230.4	245.8*184.3

DTTL50-1.6X30



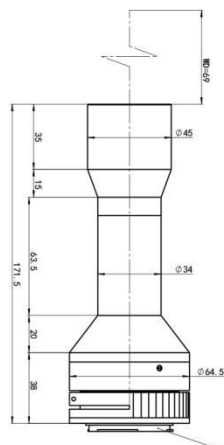
Main parameters

Mag	1.6X
WD	50
DOF(mm)	0.6
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	20
MTF>0.3(lp/mm)	40
Mount	M58

Field of view

4/3'(18.1*13.6)mm (22.6mm)	11.3*8.5
2'(23.04*23.04)mm	14.4*14.4
2'(24.58*18.43)mm	15.4*11.5

DTTL69-1.2X30



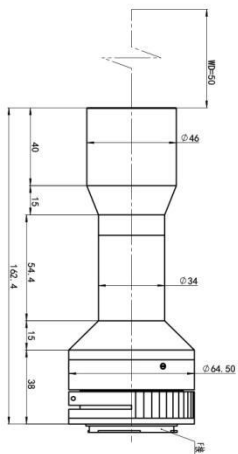
Main parameters

Mag	1.2X
WD	69
DOF(mm)	0.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	16
MTF>0.3(lp/mm)	42
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	15.1*11.3
2'(23.04*23.04)mm	19.2*19.2
2'(24.58*18.43)mm	20.5*15.4

DTTL50-0.97X30



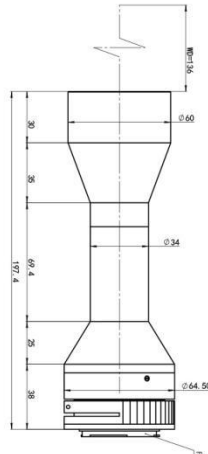
Main parameters

Mag	0.97X
WD	50
DOF(mm)	0.7
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	100
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	18.7*14
2'(23.04*23.04)mm	23.8*23.8
2'(24.58*18.43)mm	25.3*19

DTTL136-0.89X30



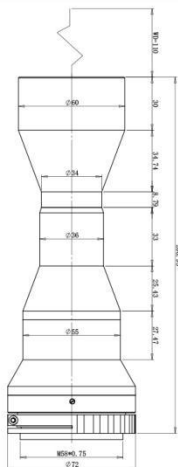
Main parameters

Mag	0.89X
WD	136
DOF(mm)	1.5
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	14
MTF>0.3(lp/mm)	54
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	20.3*15.3
2'(23.04*23.04)mm	25.9*25.9
2'(24.58*18.43)mm	27.6*20.7

DTTL110-0.73X30



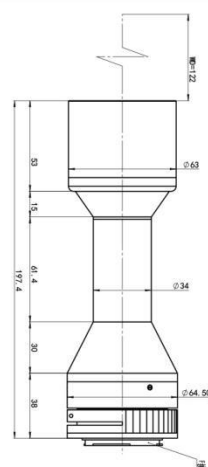
Main parameters

Mag	0.73X
WD	110
DOF(mm)	2.0
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	13
MTF>0.3(lp/mm)	60
Mount	M58

Field of view

4/3'(18.1*13.6)mm (22.6mm)	24.8*18.6
2'(23.04*23.04)mm	31.6*31.6
2'(24.58*18.43)mm	33.7*25.2

DTTL122-0.68X30



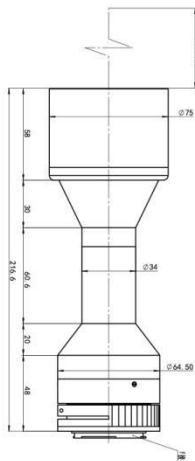
Main parameters

Mag	0.68X
WD	122
DOF(mm)	2.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	12
MTF>0.3(lp/mm)	75
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	26.6*20
2'(23.04*23.04)mm	33.9*33.9
2'(24.58*18.43)mm	36.1*27.1

DTTL105-055X30



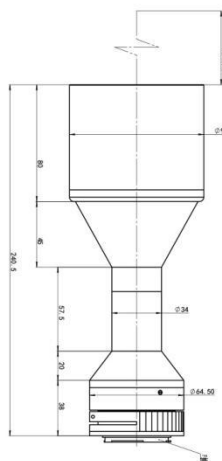
Main parameters

Mag	0.55X
WD	105
DOF(mm)	3.3
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	12
MTF>0.3(lp/mm)	64
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	32.9*24.7
2'(23.04*23.04)mm	41.9*41.9
2'(24.58*18.43)mm	44.7*33.5

DTTL216-05X30



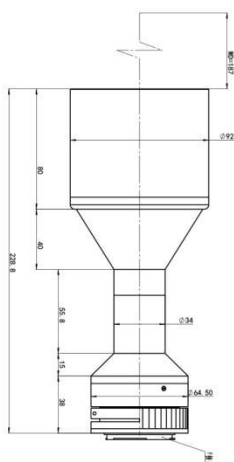
Main parameters

Mag	0.5X
WD	216
DOF(mm)	4.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	13
MTF>0.3(lp/mm)	60
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	36.2*27.2
2'(23.04*23.04)mm	46.1*46.1
2'(24.58*18.43)mm	49.2*36.9

DTTL187-046X30



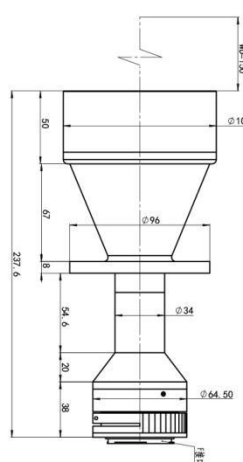
Main parameters

Mag	0.46X
WD	187
DOF(mm)	4.7
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	12
MTF>0.3(lp/mm)	72
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	39.3*29.6
2'(23.04*23.04)mm	50.1*50.1
2'(24.58*18.43)mm	53.4*40.1

DTTL150-042X30



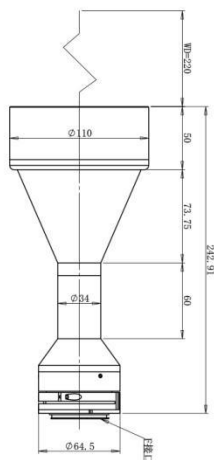
Main parameters

Mag	0.42X
WD	150
DOF(mm)	4.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	99
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	43.1*32.4
2'(23.04*23.04)mm	54.9*54.9
2'(24.58*18.43)mm	58.5*43.9

DTTL220-04X30



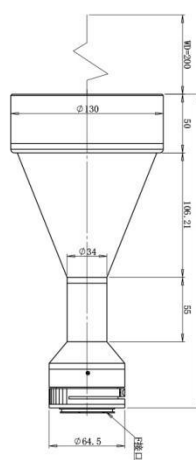
Main parameters

Mag	0.4X
WD	220
DOF(mm)	7.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	14
MTF>0.3(lp/mm)	60
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	45.3*34
2'(23.04*23.04)mm	57.6*57.6
2'(24.58*18.43)mm	61.5*46.1

DTTL200-036X30



Main parameters

Mag	0.36X
WD	200
DOF(mm)	5.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	100
Mount	F

Field of view

4/3'(18.1*13.6)mm (22.6mm)	50.3*37.8
2'(23.04*23.04)mm	64*64
2'(24.58*18.43)mm	68.3*51.2

[illegible]

4/3'(18.1*13.6)mm (22.6mm)	54.8*41.2
2'(23.04*23.04)mm	69.8*69.8
2'(24.58*18.43)mm	74.5*55.8

Technical drawing of a mechanical part showing dimensions in mm:

- Total height: 80 ± 0.2
- Top section diameter: Ø 28
- Section height: 45
- Transition section diameter: Ø 26
- Transition section height: 34 ± 2
- Flange thickness: 12 ± 1
- Neck diameter: Ø 29
- Neck length: 7 ± 0.2
- Lower neck diameter: Ø 24
- Lower neck length: 20
- Base diameter: Ø 36
- Base length: 40 ± 0.2
- Bottom flange diameter: Ø 50
- Bottom flange thickness: 5
- Internal hole diameter: Ø 10
- Overall base width: M50 ± 0.75
- Base diameter: Ø 72

4/3'(18.1*13.6)mm (22.6mm)	60.3*45.3
2'(23.04*23.04)mm	76.8*76.8
2'(24.58*18.43)mm	81.9*61.4

Technical drawing of a 100W/250V incandescent lamp. The drawing shows a cross-section of the lamp with various dimensions. The top part is a wide cylindrical section with a diameter of 46mm. Below this is a tapered section with a diameter of 45mm. The base section has a diameter of 34mm and a total height of 73mm. The overall height of the lamp is 200mm. The drawing is labeled '100W/250V' and 'E27'.

4/3'(18.1*13.6)mm (22.6mm)	62.4*46.9
2'(23.04*23.04)mm	79.4*79.4
2'(24.58*18.43)mm	84.8*63.6

Technical drawing of the 'Kryukovskiy' probe, showing a cross-section with dimensions: top diameter 75, middle diameter 70, bottom diameter 64.5, and various height segments (100.7, 93.92, 42.53, 10.7, 20.9).

4/3'(18.1*13.6)mm (22.6mm)	74.5°56
2'(23.04*23.04)mm	94.8°94.8
2'(24.58*18.43)mm	101.2°75.8

Technical drawing of a lamp with dimensions in mm. The drawing shows a side view of a lamp with a conical shade. Dimensions include: total height 548.5, top diameter 215, top flange diameter 200, middle flange diameter 128, bottom flange diameter 74, base diameter 64.5, and various segment heights: 86, 117, 56.6, 100.66, 62, and 30. A label "Lamp" points to the base.

4/3'(18.1*13.6)mm (22.6mm)	93.7*70.47
2'(23.04*23.04)mm	119.38*119.38
2'(24.58*18.43)mm	127.36*95.49

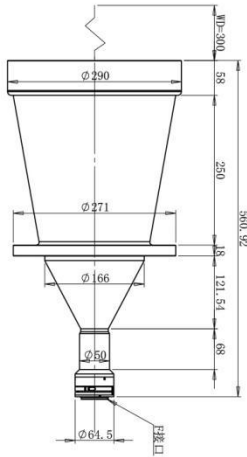
Technical drawing of a tapered container with dimensions in mm. The drawing shows a cross-section of a container with a flange at the top. Dimensions include: total height 400, flange thickness 53, top diameter 240, diameter at 138mm height 227, diameter at 191mm height 136, diameter at 251mm height 50, and bottom diameter 64.5. A break line is shown in the upper part of the container.

4/3'(18.1*13.6)mm (22.6mm)	111*83.4
2'(23.04*23.04)mm	141.3*141.3
2'(24.58*18.43)mm	150.8*113.1

DTL300-0152X30

Technical drawing of the DTL300-0152X30 lamp showing dimensions:

- Top diameter: $\varnothing 290$
- Top section height: 300
- Cap thickness: 55
- Conical section height: 250
- Base diameter: $\varnothing 271$
- Base thickness: 18
- Base height: 121.54
- Base diameter: $\varnothing 66$
- Base height: 68
- Base diameter: $\varnothing 64.5$
- Thread: M12x1
- Total height: 560.92

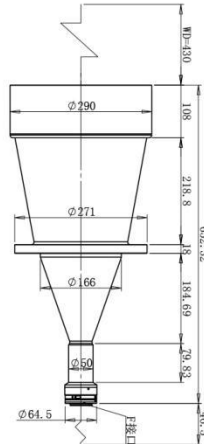


Main parameters	
Mag	0.152X
WD	300
DOF(mm)	27.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	120
Mount	F

Mag	0.152X
WD	300
DOF(mm)	27.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	120
Mount	F

Field of view	
4/3"(18.1*13.6)mm (22.6mm)	119.1*89.5
2"(23.04*23.04)mm	151.6*151.6
2"(24.58*18.43)mm	161.7*121.3

4/3'(18.1*13.6)mm (22.6mm)	119.1*89.5
2'(23.04*23.04)mm	151.6*151.6
2'(24.58*18.43)mm	161.7*121.3

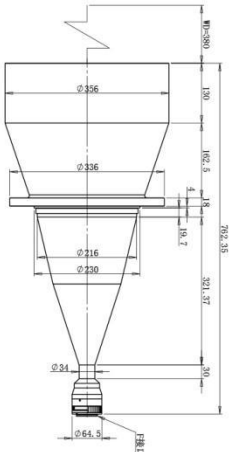


Main parameters	
Mag	0.125X
WD	430
DOF(mm)	38.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	130
Mount	F

Mag	0.125X
WD	430
DOF(mm)	38.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	130
Mount	F

Field of view	
4/3'(18.1*13.6)mm (22.6mm)	144.8°108.8
2'(23.04*23.04)mm	184.32°184.32
2'(24.58*18.43)mm	196.64°147.44

4/3(18.1*13.6)mm (22.6mm)	144.8*108.8
2'(23.04*23.04)mm	184.32*184.32
2'(24.58*18.43)mm	196.64*147.44



Main parameters	
Mag	0.1X
WD	380
DOF(mm)	75.0
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	96
Mount	F

Mag	0.1X
WD	380
DOF(mm)	75.0
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	96
Mount	F

Field of view	
4/3'(18.1°*13.6)mm (22.6mm)	181°*136
2'(23.04°*23.04)mm	230.4°*230.4
2'(24.58°*18.43)mm	245.8°*184.3

4/3'(18.1*13.6)mm (22.6mm)	181*136
2'(23.04*23.04)mm	230.4*230.4
2'(24.58*18.43)mm	245.8*184.3