

Telecentric Lens

DTTL-X Series Telecentric Lens

Model No:

Measuring lens



Measuring lens

Professional customization of multiples and depth of field



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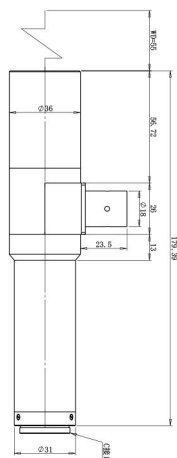
High definition High resolution

Dual telecentric optical path design

Customizable double magnification lens

Lens Model	Mag	WD	DOF	Telecen-	Optical	Aperture	MTF>0.3	Mount	2/3"CCD	1"CCD	1.1"CCD
			mm	tricity	distortion	F/#	(lp/mm)		(8.4*7.1)mm	(12.8*9.6)mm	(14*10.3)mm
DTTL55-100T40-23HR	10X	55	0.02	<0.1	<0.1	22	35	C	0.8*0.7	NA	NA
DTTL103-0109X10-HR	0.109X	103	54.1	<0.1	<0.1	8	108	C	77*65.1	117.4*88.1	NA
DTTL120-0088X23HR	0.088X	120	45.8	<0.1	<0.1	6	200	C	95.4*80.6	NA	NA
DTTL120-016X20	0.16X	120	21.9	<0.1	<0.1	10	180	C	52.5*44.3	80*60	87.5*64.4
DTTL120-02X20	0.2X	120	22.7	<0.1	<0.1	5	120	C	42*35.5	64*48	70*51.5
DTTL180-016X10	0.16X	180	20.9	<0.1	<0.1	7	130	C	52.5*44.3	80*60	NA
DTTL220-012X10-W	0.12X	220	57.3	<0.1	<0.1	5	160	C	70*59.1	106.7*80	NA
DTTL240-0088X23	0.088X	240	51.1	<0.1	<0.1	6	160	C	95.4*80.6	NA	NA
DTTL280-016X10	0.16X	280	20.9	<0.1	<0.1	5	180	C	52.5*44.3	80*60	NA
DTTL330-0083X10	0.083X	330	77.8	<0.1	<0.1	6	150	C	101.2*85.5	54.2*115.7	NA
DTTL400-0068X10HR	0.068X	400	116.0	<0.1	<0.1	4	220	C	123.5*104.4	188*141	NA

Lens Model		Mag	WD	DOF	Telecen-	Optical	Aperture	MTF>0.3	Mount	2/3"CCD	1"CCD	1.1"CCD
				mm	tricity	distortion	F/#	(lp/mm)		(8.4*7.1)mm	(12.8*9.6)mm	(14*10.3)mm
DTTL110-1.5-0.5	Large multiples	1.5X	110	0.4	<0.1	<0.1	13	75	C	5.6*4.7	8.5*6.4	NA
	Small multiples	0.5X	110	2.6	<0.1	<0.1	8	100	C	16.8*14.2	φ22	NA
DTTL120-0088-0.3	Large multiples	0.3X	120	9.7	<0.1	<0.1	11	72	C	28*23.6	42.7*32	46.7*34.3
	Small multiples	0.088X	120	45.8	<0.1	<0.1	4	200	C	95.4*80.6	φ100	NA
DTTL120-0088-016	Large multiples	0.16X	120	19.3	<0.1	<0.1	10	180	C	52.5*44.3	80*60	87.5*64.4
	Small multiples	0.088X	120	45.8	<0.1	<0.1	4	200	C	95.4*80.6	φ100	NA
DTTL120-0088-043	Large multiples	0.43X	120	5.9	<0.1	<0.1	13	60	C	19.5*16.5	29.8*22.3	NA
	Small multiples	0.088X	120	45.8	<0.1	<0.1	4	200	C	95.4*80.6	φ100	NA
DTTL220-03-03X20	Large multiples	0.3X	220	6.8	<0.1	<0.1	8	130	C	28*23.6	42.7*32	46.7*34.3
	Small multiples	0.3X	220	6.8	<0.1	<0.1	8	130	C	28*23.6	42.7*32	46.7*34.3

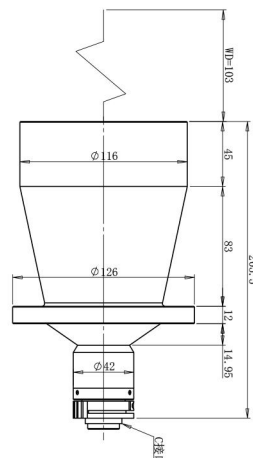


Main parameters

Mag	10X
WD	55
DOF(mm)	0.02
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	22
MTF>0.3(lp/mm)	35
Mount	C

Field of view

2/3"CCD(8.4*7.1)mm	0.8*0.7
1"CCD(12.8*9.6)mm	NA
1.1"CCD(14*10.3)mm	NA

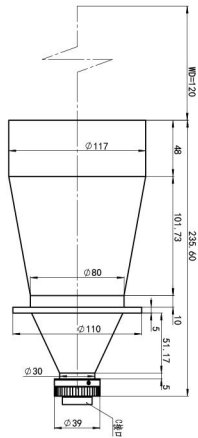


Main parameters

Mag	0.109X
WD	103
DOF(mm)	54.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	108
Mount	C

Field of view

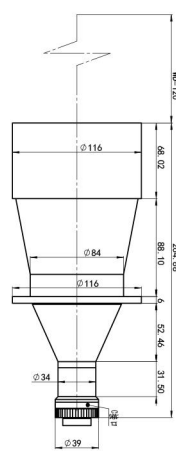
2/3"CCD(8.4*7.1)mm	77*65.1
1"CCD(12.8*9.6)mm	117.4*88.1
1.1"CCD(14*10.3)mm	NA

DTTL120-0088X23HR**Main parameters**

Mag	0.088X
WD	120
DOF(mm)	45.8
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	200
Mount	C

Field of view

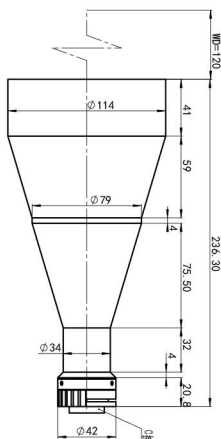
2/3"CCD(8.4*7.1)mm	95.4*80.6
1"CCD(12.8*9.6)mm	NA
1.1"CCD(14*10.3)mm	NA

DTTL120-016X20**Main parameters**

Mag	0.16X
WD	120
DOF(mm)	21.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	10
MTF>0.3(lp/mm)	180
Mount	C

Field of view

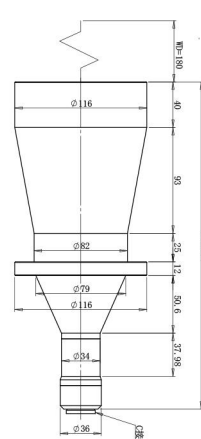
2/3"CCD(8.4*7.1)mm	52.5*44.3
1"CCD(12.8*9.6)mm	80*60
1.1"CCD(14*10.3)mm	87.5*64.4

DTTL120-02X20**Main parameters**

Mag	0.2X
WD	120
DOF(mm)	22.7
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	5
MTF>0.3(lp/mm)	120
Mount	C

Field of view

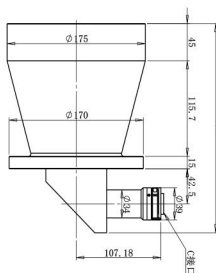
2/3"CCD(8.4*7.1)mm	42*35.5
1"CCD(12.8*9.6)mm	64*48
1.1"CCD(14*10.3)mm	70*51.5

DTTL180-016X10**Main parameters**

Mag	0.16X
WD	180
DOF(mm)	20.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	130
Mount	C

Field of view

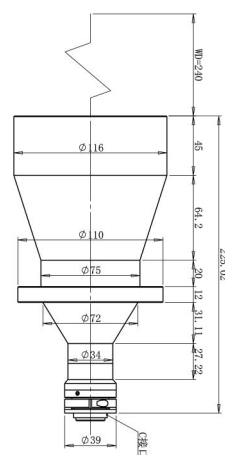
2/3"CCD(8.4*7.1)mm	52.5*44.3
1"CCD(12.8*9.6)mm	80*60
1.1"CCD(14*10.3)mm	NA

DTTL220-012X10-W**Main parameters**

Mag	0.12X
WD	220
DOF(mm)	57.3
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	5
MTF>0.3(lp/mm)	160
Mount	C

Field of view

2/3"CCD(8.4*7.1)mm	70*59.1
1"CCD(12.8*9.6)mm	106.7*80
1.1"CCD(14*10.3)mm	NA

DTTL240-0088X23**Main parameters**

Mag	0.088X
WD	240
DOF(mm)	51.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	160
Mount	C

Field of view

2/3"CCD(8.4*7.1)mm	95.4*80.6
1"CCD(12.8*9.6)mm	NA
1.1"CCD(14*10.3)mm	NA

Mag	0.16X
WD	280
DOF(mm)	20.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	5
MTF>0.3(lp/mm)	180
Mount	C

2/3"CCD(8.4*7.1)mm	52.5*44.3
1"CCD(12.8*9.6)mm	80*60
1.1"CCD(14*10.3)mm	NA

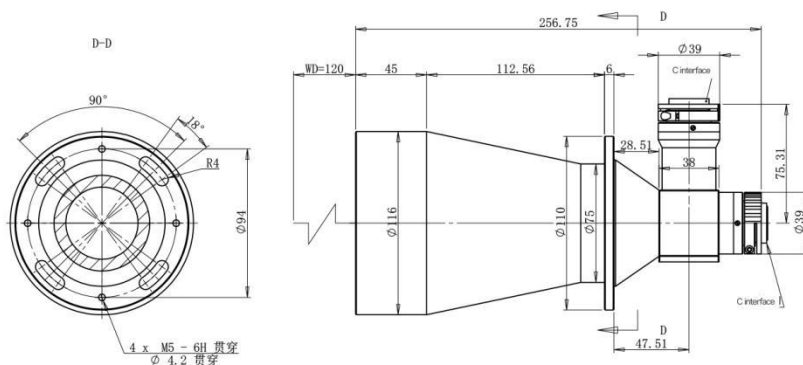
Technical drawing of a tapered shaft with dimensions in mm. The shaft has a total length of 586.0. Key diameters include 240 mm at the top, 227 mm, 136 mm, 90 mm, and 54 mm. Tapers are specified as 1:38 and 1:13.22. A 30x1.6x85 thread is shown at the bottom, with a 34.49 mm dimension for the threaded section. A break symbol is present on the left side.

Mag	0.083X
WD	330
DOF(mm)	77.8
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	150
Mount	C

2/3"CCD(8.4*7.1)mm	101.2*85.5
1"CCD(12.8*9.6)mm	154.2*115.7
1.1"CCD(14*10.3)mm	NA

Mag	0.068X
WD	400
DOF(mm)	116.0
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	4
MTF>0.3(lp/mm)	220
Mount	C

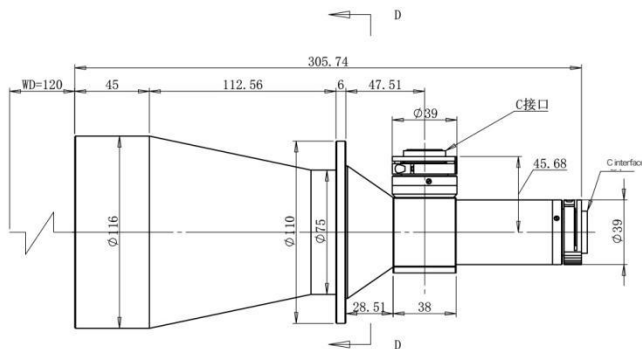
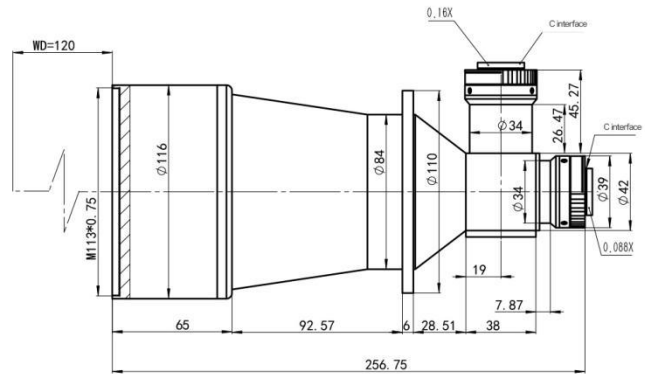
2/3"CCD(8.4*7.1)mm	123.5*104.4
1"CCD(12.8*9.6)mm	188*141
1.1"CCD(14*10.3)mm	NA



DTTL120-0088-016

Main parameters	Large multiples	Small multiples
Mag	0.16X	0.088X
WD	120	120
DOF(mm)	19.3	45.8
Telecentricity	<0.1	<0.1
Optical distortion	<0.1	<0.1
Aperture(F/#)	10	4
MTF>30(lp/mm)	180	200
Mount	C	C

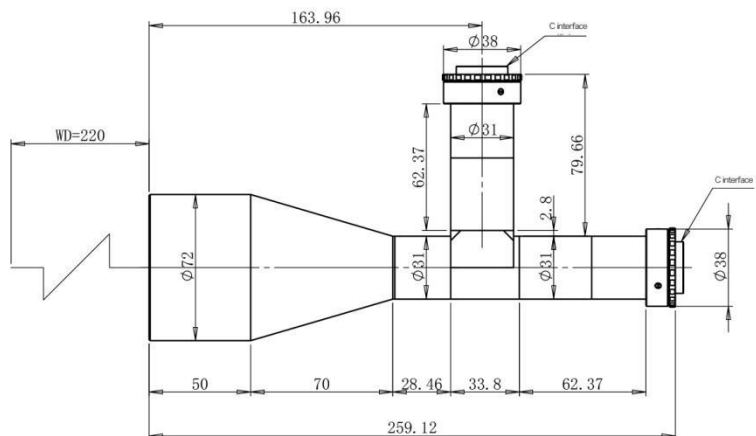
Field of view	Large multiples	Small multiples
2/3"CCD(8.8*6.6)	52.5*44.3	95.4*80.6
1"CCD(12.8*9.6)	80*60	φ 100
1.1"CCD(14*10.3)	87.5*64.4	NA



DTTL120-0088-043

Main parameters	Large multiples	Small multiples
Mag	0.43X	0.088X
WD	120	120
DOF(mm)	5.9	45.8
Telecentricity	<0.1	<0.1
Optical distortion	<0.1	<0.1
Aperture(F/#)	13	4
MTF>30(lp/mm)	60	200
Mount	C	C

Field of view	Large multiples	Small multiples
2/3"CCD(8.8*6.6)	19.5*16.5	95.4*80.6
1"CCD(12.8*9.6)	29.8*22.3	φ 100
1.1"CCD(14*10.3)	NA	NA



DTTL220-03-03X20

Main parameters	Large multiples	Small multiples
Mag	0.3X	0.3X
WD	220	220
DOF(mm)	6.8	6.8
Telecentricity	<0.1	<0.1
Optical distortion	<0.1	<0.1
Aperture(F/#)	8	8
MTF>30(lp/mm)	130	130
Mount	C	C

Field of view	Large multiples	Small multiples
2/3"CCD(8.8*6.6)	28*23.6	28*23.6
1"CCD(12.8*9.6)	42.7*32	42.7*32
1.1"CCD(14*10.3)	46.7*34.3	46.7*34.3

