

Telecentric Lens

DTTL-X Series WD=110mm

Model No:

Maximum support

1.1' (18.5mm)



DTTL Series WD=110mm

Maximum support
1.1' (18.5mm)

Target camera



Professional customization
of multiples and depth of field

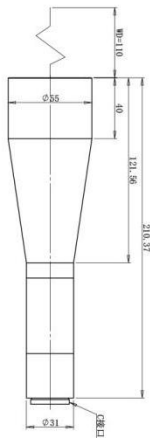
Dual telecentric design
High definition Standard C
interface

Can be equipped with a
dedicated parallel light
source

For high-precision
detection and measurement

Type	Lens Model	Mag	WD	DOF mm	Telecen -tricity	Optical distortion	Aperture F/#	Mtf>0.3 (lp/mm)	Mount	2/3"CCD (8.8*6.6)mm	1"CCD (12.8*9.6)mm	1.1"CCD (14*10.3)mm
Non-Coaxial	DTTL110-03X23	0.3X	110	7.79	<0.1	<0.1	5	170	C	29.3*22	NA	NA
	DTTL110-03X20H	0.3X	110	6.2	<0.1	<0.1	8	115	C	29.3*22	42.7*32	46.7*34.3
	DTTL110-04X23 HR	0.4X	110	5.7	<0.1	<0.1	7	120	C	22*16.5	NA	NA
	DTTL115-04X20	0.4X	115	3.8	<0.1	<0.1	7	110	C	22*16.5	32*24	35*25.6
	DTTL110-05X23	0.5X	110	3.6	<0.1	<0.1	6	140	C	17.6*13.2	NA	NA
	DTTL110-05X20HR	0.5X	110	3.6	<0.1	<0.1	6	135	C	17.6*13.2	25.6*19.2	28*20.6
	DTTL110-07X23	0.7X	110	0.8	<0.1	<0.1	18	120	C	12.5*9.4	NA	NA
	DTTL110-08X20	0.8X	110	1.4	<0.1	<0.1	9	80	C	11*8.3	16*12	17.5*12.9
	DTTL110-08X20 HR	0.8X	110	1.4	<0.1	<0.1	7	110	C	11*8.3	16*12	17.5*12.9
	DTTL110-10X20	1.0X	110	0.9	<0.1	<0.1	8	105	C	8.8*6.6	12.8*9.6	14*10.3
	DTTL110-10X20HR	1.0X	110	0.9	<0.1	<0.1	9	90	C	8.8*6.6	12.8*9.6	14*10.3
	DTTL110-15X20HR	1.5X	110	0.4	<0.1	<0.1	13	90	C	5.9*4.4	8.5*6.4	9.3*6.9
	DTTL100-20X20	2.0X	100	0.2	<0.1	<0.1	15	50	C	4.4*3.3	6.4*4.8	7*5.2
	DTTL110-20X20HR	2.0X	110	0.2	<0.1	<0.1	14	55	C	4.4*3.3	6.4*4.8	7*5.2
	DTTL100-25X20	2.5X	100	0.2	<0.1	<0.1	21	38	C	3.5*2.6	5.1*3.8	5.6*4.1
	DTTL110-30X20HR	3.0X	110	0.1	<0.1	<0.1	20	50	C	2.9*2.2	4.3*3.2	4.7*3.4
	DTTL110-35X20	3.5X	110	0.07	<0.1	<0.1	19	50	C	2.5*1.9	3.7*2.7	4*2.9
	DTTL110-40X20HR	4.0X	110	0.06	<0.1	<0.1	20	50	C	2.2*1.7	3.2*2.4	3.5*2.6
	DTTL110-45X20	4.5X	110	0.04	<0.1	<0.1	23	44	C	2*1.5	2.8*2.1	3.1*2.3
	DTTL105-5X20	5.0X	105	0.08	<0.1	<0.1	25	38	C	1.7*1.3	2.5*1.9	2.8*2.0
	DTTL110-60X20HR	6.0X	110	0.03	<0.1	<0.1	30	28	C	1.5*1.1	2.1*1.6	2.3*1.7
	DTTL110-80X20HR	8.0X	110	0.05	<0.1	<0.1	40	24	C	1.1*0.8	1.6*1.2	1.8*1.3

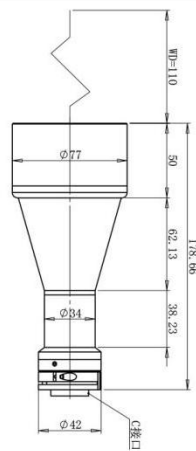
Type	Lens Model	Mag	WD	DOF mm	Telecen -tricity	Optical distortion	Aperture F/#	Mtf>0.3 (lp/mm)	Mount	2/3"CCD (8.8*6.6)mm	1"CCD (12.8*9.6)mm	1.1"CCD (14*10.3)mm
Coaxial	DTTL110-03T23HR	0.3X	110	10.1	<0.1	<0.1	5	170	C	29.3*22	NA	NA
	DTTL105-03T20	0.3X	105	6.9	<0.1	<0.1	8	115	C	29.3*22	42.7*32	46.7*34.3
	DTTL110-04T23HR	0.4X	110	5.7	<0.1	<0.1	7	120	C	22*16.5	NA	NA
	DTTL110-04T20	0.4X	110	3.8	<0.1	<0.1	7	110	C	22*16.5	32*24	35*25.6
	DTTL110-05T23	0.5X	110	3.6	<0.1	<0.1	6	140	C	17.6*13.2	NA	NA
	DTTL110-05T20HR	0.5X	110	2.2	<0.1	<0.1	6	135	C	17.6*13.2	25.6*19.2	28*20.6
	DTTL110-08T20	0.8X	110	1.4	<0.1	<0.1	7	110	C	11*8.3	16*12	17.5*12.9
	DTTL110-08T20HR	0.8X	110	1.4	<0.1	<0.1	9	80	C	11*8.3	16*12	17.5*12.9
	DTTL110-10T20	1.0X	110	09	<0.1	<0.1	8	105	C	8.8*6.6	12.8*9.6	14*10.3
	DTTL110-10T20HR	1.0X	110	0.9	<0.1	<0.1	9	90	C	8.8*6.6	12.8*9.6	14*10.3
	DTTL110-15T20HR	1.5X	110	0.4	<0.1	<0.1	13	90	C	5.9*4.4	8.5*6.4	9.3*6.9
	DTTL100-20T20	2.0X	100	0.2	<0.1	<0.1	15	50	C	4.4*3.3	6.4*4.8	7*5.2
	DTTL110-20T20HR	2.0X	110	0.2	<0.1	<0.1	14	55	C	4.4*3.3	6.4*4.8	7*5.2
	DTTL100-25T20	2.5X	100	0.2	<0.1	<0.1	21	38	C	3.5*2.6	5.1*3.8	5.6*4.1
	DTTL110-30T20HR	3.0X	110	0.1	<0.1	<0.1	20	50	C	2.9*2.2	4.3*3.2	4.7*3.4
	DTTL110-35T20HR	3.5X	110	0.07	<0.1	<0.1	19	50	C	2.5*1.9	3.7*2.7	4*2.9
	DTTL110-40T20HR	4.0X	110	0.06	<0.1	<0.1	20	50	C	2.2*1.7	3.2*2.4	3.5*2.6
	DTTL110-45T20HR	4.5X	110	0.04	<0.1	<0.1	23	44	C	2*1.5	2.8*2.1	3.1*2.3
	DTTL110-60T20HR	6.0X	110	0.03	<0.1	<0.1	30	28	C	1.5*1.1	2.1*1.6	2.3*1.7
	DTTL110-80T20HR	8.0X	110	0.05	<0.1	<0.1	40	24	C	1.1*0.8	1.6*1.2	1.8*1.3

DTTL110-03X23**Main parameters**

Mag	0.3X
WD	110
DOF(mm)	7.79
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	5
MTF>0.3(lp/mm)	170
Mount	C

Field of view

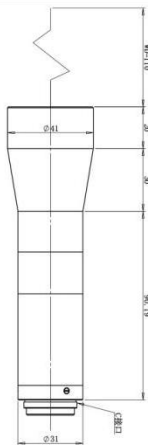
2/3" CCD(8.8*6.6)mm	29.3°22
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

DTTL110-03X20H**Main parameters**

Mag	0.3X
WD	110
DOF(mm)	6.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	115
Mount	C

Field of view

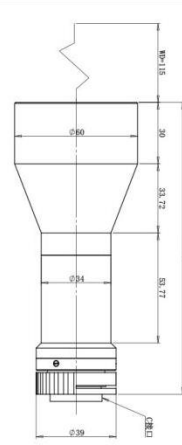
2/3" CCD(8.8*6.6)mm	29.3°22
1" CCD(12.8*9.6)mm	42.7°32
1.1" CCD(14*10.3)mm	46.7°34.3

DTTL110-04X23 HR**Main parameters**

Mag	0.4X
WD	110
DOF(mm)	5.7
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	120
Mount	C

Field of view

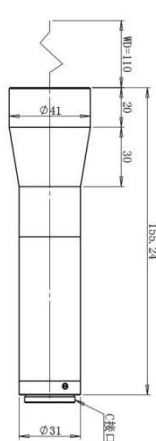
2/3" CCD(8.8*6.6)mm	22°16.5
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

DTTL115-04X20**Main parameters**

Mag	0.4X
WD	115
DOF(mm)	3.8
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	110
Mount	C

Field of view

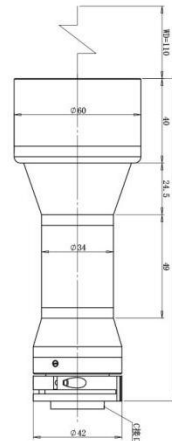
2/3" CCD(8.8*6.6)mm	22°16.5
1" CCD(12.8*9.6)mm	32°24
1.1" CCD(14*10.3)mm	35°25.6

DTTL110-05X23**Main parameters**

Mag	0.5X
WD	110
DOF(mm)	3.6
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	140
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	17.6°13.2
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

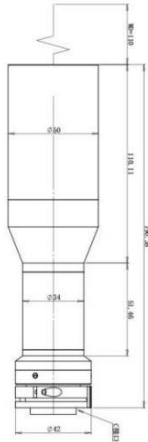
DTTL110-05X20HR**Main parameters**

Mag	0.5X
WD	110
DOF(mm)	3.6
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	135
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	17.6°13.2
1" CCD(12.8*9.6)mm	25.6°19.2
1.1" CCD(14*10.3)mm	28°20.6

DTTL110-07X23



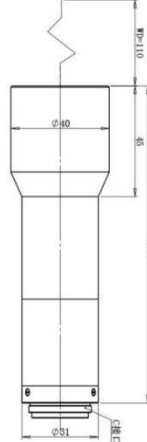
Main parameters

Mag	0.7X
WD	110
DOF(mm)	0.8
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	18
MTF>0.3(lp/mm)	120
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	12.5*9.4
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

DTTL110-08X20



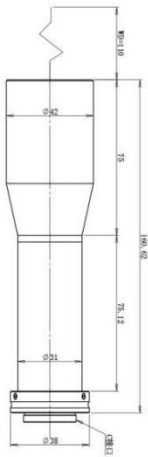
Main parameters

Mag	0.8X
WD	110
DOF(mm)	1.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	80
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	11*8.3
1" CCD(12.8*9.6)mm	16*12
1.1" CCD(14*10.3)mm	17.5*12.9

DTTL110-08X20 HR



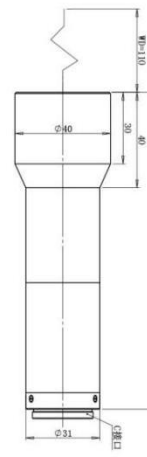
Main parameters

Mag	0.8X
WD	110
DOF(mm)	1.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	110
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	11*8.3
1" CCD(12.8*9.6)mm	16*12
1.1" CCD(14*10.3)mm	17.5*12.9

DTTL110-10X20



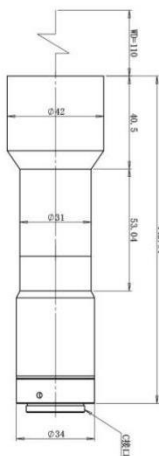
Main parameters

Mag	1.0X
WD	110
DOF(mm)	0.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	105
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	8.8*6.6
1" CCD(12.8*9.6)mm	12.8*9.6
1.1" CCD(14*10.3)mm	14*10.3

DTTL110-10X20HR



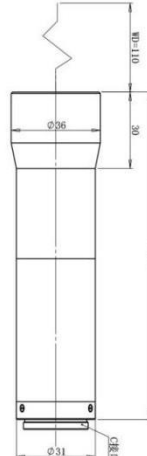
Main parameters

Mag	1.0X
WD	110
DOF(mm)	0.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	90
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	8.8*6.6
1" CCD(12.8*9.6)mm	12.8*9.6
1.1" CCD(14*10.3)mm	14*10.3

DTTL110-15X20HR



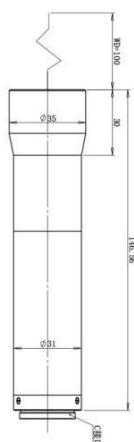
Main parameters

Mag	1.5X
WD	110
DOF(mm)	0.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	13
MTF>0.3(lp/mm)	90
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	5.9*4.4
1" CCD(12.8*9.6)mm	8.5*6.4
1.1" CCD(14*10.3)mm	9.3*6.9

DTTL100-20X20



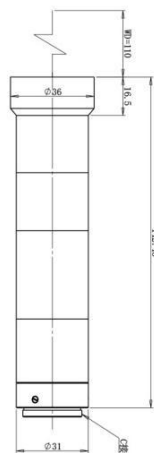
Main parameters

Mag	2.0X
WD	100
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	15
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	4.4*3.3
1" CCD(12.8*9.6)mm	6.4*4.8
1.1" CCD(14*10.3)mm	7*5.2

DTTL110-20X20HR



Main parameters

Mag	2.0X
WD	110
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	14
MTF>0.3(lp/mm)	55
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	4.4*3.3
1" CCD(12.8*9.6)mm	6.4*4.8
1.1" CCD(14*10.3)mm	7*5.2

DTTL100-25X20



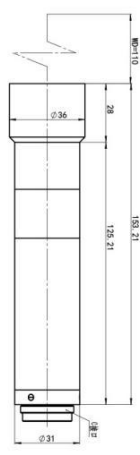
Main parameters

Mag	2.5X
WD	100
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	21
MTF>0.3(lp/mm)	38
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	3.5*2.6
1" CCD(12.8*9.6)mm	5.1*3.8
1.1" CCD(14*10.3)mm	5.6*4.1

DTTL110-30X20HR



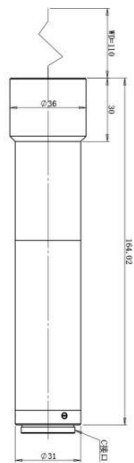
Main parameters

Mag	3.0X
WD	110
DOF(mm)	0.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	20
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.9*2.2
1" CCD(12.8*9.6)mm	4.3*3.2
1.1" CCD(14*10.3)mm	4.7*3.4

DTTL110-35X20



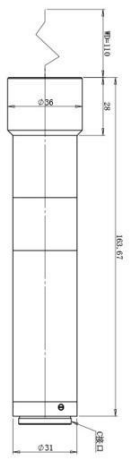
Main parameters

Mag	3.5X
WD	110
DOF(mm)	0.07
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	19
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.5*1.9
1" CCD(12.8*9.6)mm	3.7*2.7
1.1" CCD(14*10.3)mm	4*2.9

DTTL110-40X20HR



Main parameters

Mag	4.0X
WD	110
DOF(mm)	0.06
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	20
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.2*1.7
1" CCD(12.8*9.6)mm	3.2*2.4
1.1" CCD(14*10.3)mm	3.5*2.6

Main parameters	
Mag	4.5X
WD	110
DOF(mm)	0.04
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	23
MTF>0.3(lp/mm)	44
Mount	C

Field of view	
2/3" CCD(8.8*6.6)mm	2*1.5
1" CCD(12.8*9.6)mm	2.8*2.1
1.1" CCD(14*10.3)mm	3.1*2.3

Technical drawing of a DTTL105-5X20 screw. The drawing shows a side view of the screw with dimensions: 105.20 for the total length, 35 for the hex head height, 10.5 for the hex head width, and 16.5 for the thread length. The thread is labeled M10.

Main parameters	
Mag	5.0X
WD	105
DOF(mm)	0.08
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	25
MTF>0.3(lp/mm)	38
Mount	C

Field of view	
2/3" CCD(8.8*6.6)mm	1.7*1.3
1" CCD(12.8*9.6)mm	2.5*1.9
1.1" CCD(14*10.3)mm	2.8*2.0

Main parameters	
Mag	6.0X
WD	110
DOF(mm)	0.03
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	30
MTF>0.3(lp/mm)	28
Mount	C

Main parameters	
Mag	8.0X
WD	110
DOF(mm)	0.05
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	40
MTF>0.3(lp/mm)	24
Mount	C

Field of view	
2/3" CCD(8.8*6.6)mm	1.1*0.8
1" CCD(12.8*9.6)mm	1.6*1.2
1.1" CCD(14*10.3)mm	1.8*1.3

Technical drawing of a DTTL110-03T23HR ball bearing. The drawing shows the bearing's profile with the following dimensions (in mm):

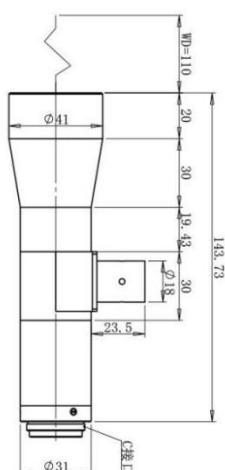
- Outer diameter: 110
- Inner diameter: 55
- Width: 23
- Internal diameter (near inner ring): 53.5
- Internal diameter (near outer ring): 52.18
- Internal diameter (near outer ring): 50.35
- Internal diameter (near outer ring): 49.35
- Internal diameter (near outer ring): 48.35
- Internal diameter (near outer ring): 47.35
- Internal diameter (near outer ring): 46.35
- Internal diameter (near outer ring): 45.35
- Internal diameter (near outer ring): 44.35
- Internal diameter (near outer ring): 43.35
- Internal diameter (near outer ring): 42.35
- Internal diameter (near outer ring): 41.35
- Internal diameter (near outer ring): 40.35
- Internal diameter (near outer ring): 39.35
- Internal diameter (near outer ring): 38.35
- Internal diameter (near outer ring): 37.35
- Internal diameter (near outer ring): 36.35
- Internal diameter (near outer ring): 35.35
- Internal diameter (near outer ring): 34.35
- Internal diameter (near outer ring): 33.35
- Internal diameter (near outer ring): 32.35
- Internal diameter (near outer ring): 31.35
- Internal diameter (near outer ring): 30.35
- Internal diameter (near outer ring): 29.35
- Internal diameter (near outer ring): 28.35
- Internal diameter (near outer ring): 27.35
- Internal diameter (near outer ring): 26.35
- Internal diameter (near outer ring): 25.35
- Internal diameter (near outer ring): 24.35
- Internal diameter (near outer ring): 23.35
- Internal diameter (near outer ring): 22.35
- Internal diameter (near outer ring): 21.35
- Internal diameter (near outer ring): 20.35
- Internal diameter (near outer ring): 19.35
- Internal diameter (near outer ring): 18.35
- Internal diameter (near outer ring): 17.35
- Internal diameter (near outer ring): 16.35
- Internal diameter (near outer ring): 15.35
- Internal diameter (near outer ring): 14.35
- Internal diameter (near outer ring): 13.35
- Internal diameter (near outer ring): 12.35
- Internal diameter (near outer ring): 11.35
- Internal diameter (near outer ring): 10.35
- Internal diameter (near outer ring): 9.35
- Internal diameter (near outer ring): 8.35
- Internal diameter (near outer ring): 7.35
- Internal diameter (near outer ring): 6.35
- Internal diameter (near outer ring): 5.35
- Internal diameter (near outer ring): 4.35
- Internal diameter (near outer ring): 3.35
- Internal diameter (near outer ring): 2.35
- Internal diameter (near outer ring): 1.35
- Internal diameter (near outer ring): 0.35

Main parameters	
Mag	0.3X
WD	110
DOF(mm)	10.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	5
MTF>0.3(lp/mm)	170
Mount	C

[illegible]

Main parameters	
Mag	0.3X
WD	105
DOF(mm)	6.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	115
Mount	C

DTTL110-04T23HR



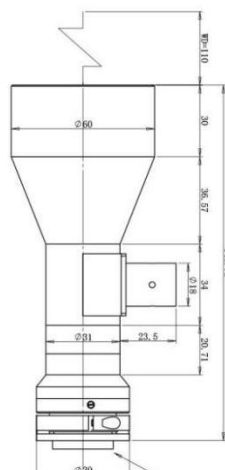
Main parameters

Mag	0.4X
WD	110
DOF(mm)	5.7
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	120
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	22°16.5
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

DTTL110-04T20



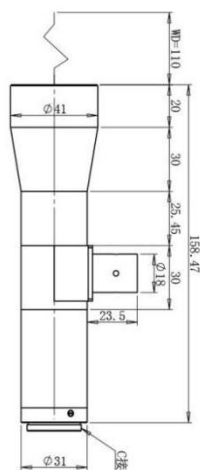
Main parameters

Mag	0.4X
WD	110
DOF(mm)	3.8
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	110
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	22°16.5
1" CCD(12.8*9.6)mm	32°24
1.1" CCD(14*10.3)mm	35°25.6

DTTL110-05T23



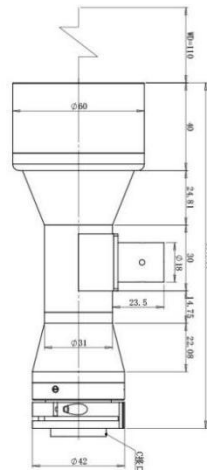
Main parameters

Mag	0.5X
WD	110
DOF(mm)	3.6
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	140
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	17.6°13.2
1" CCD(12.8*9.6)mm	NA
1.1" CCD(14*10.3)mm	NA

DTTL110-05T20HR



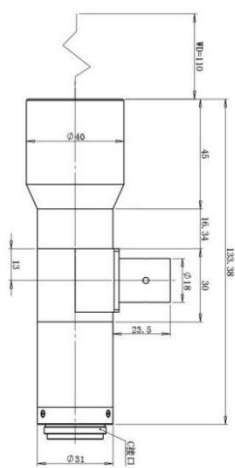
Main parameters

Mag	0.5X
WD	110
DOF(mm)	2.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	6
MTF>0.3(lp/mm)	135
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	17.6°13.2
1" CCD(12.8*9.6)mm	25.6°19.2
1.1" CCD(14*10.3)mm	28°20.6

DTTL110-08T20



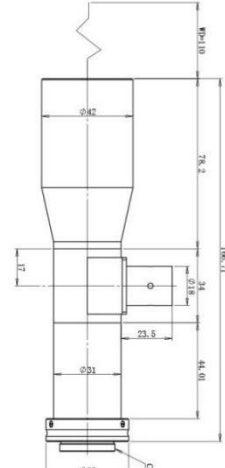
Main parameters

Mag	0.8X
WD	110
DOF(mm)	1.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	7
MTF>0.3(lp/mm)	110
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	11°8.3
1" CCD(12.8*9.6)mm	16°12
1.1" CCD(14*10.3)mm	17.5°12.9

DTTL110-08T20HR



Main parameters

Mag	0.8X
WD	110
DOF(mm)	1.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	80
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	11°8.3
1" CCD(12.8*9.6)mm	16°12
1.1" CCD(14*10.3)mm	17.5°12.9

[illegible]

Mag	1.0X
WD	110
DOF(mm)	0.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	8
MTF>0.3(lp/mm)	105
Mount	C

2/3" CCD(8.8*6.6)mm	8.8*6.6
1" CCD(12.8*9.6)mm	12.8*9.6
1.1" CCD(14*10.3)mm	14*10.3

Mag	1.0X
WD	110
DOF(mm)	0.9
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	9
MTF>0.3(lp/mm)	90
Mount	C

2/3" CCD(8.8*6.6)mm	8.8*6.6
1" CCD(12.8*9.6)mm	12.8*9.6
1.1" CCD(14*10.3)mm	14*10.3

[illegible]

Mag	1.5X
WD	110
DOF(mm)	0.4
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	13
MTF>0.3(lp/mm)	90
Mount	C

2/3" CCD(8.8*6.6)mm	5.9*4.4
1" CCD(12.8*9.6)mm	8.5*6.4
1.1" CCD(14*10.3)mm	9.3*6.9

Mag	2.0X
WD	100
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	15
MTF>0.3(lp/mm)	50
Mount	C

2/3" CCD(8.8*6.6)mm	4.4*3.3
1" CCD(12.8*9.6)mm	6.4*4.8
1.1" CCD(14*10.3)mm	7*5.2

Technical drawing of a mechanical part, likely a shaft or rod, showing dimensions and a cross-section. The drawing includes a side view and a cross-sectional view. Dimensions are given in millimeters (mm). The side view shows a total length of 250 mm, with segments of 16.5 mm, 24.85 mm, and 26 mm. The cross-section shows a diameter of 26 mm and a central hole with a diameter of 18 mm. A dimension of 23.5 mm is also indicated for the cross-section. A label 'CH' points to a feature on the side view.

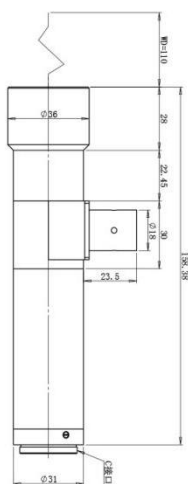
Mag	2.0X
WD	110
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	14
MTF>0.3(lp/mm)	55
Mount	C

2/3" CCD(8.8*6.6)mm	4.4*3.3
1" CCD(12.8*9.6)mm	6.4*4.8
1.1" CCD(14*10.3)mm	7*5.2

Mag	2.5X
WD	100
DOF(mm)	0.2
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	21
MTF>0.3(lp/mm)	38
Mount	C

2/3" CCD(8.8*6.6)mm	3.5*2.6
1" CCD(12.8*9.6)mm	5.1*3.8
1.1" CCD(14*10.3)mm	5.6*4.1

DTTL110-30T20HR



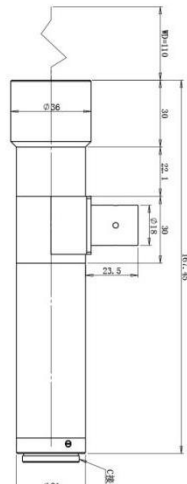
Main parameters

Mag	3.0X
WD	110
DOF(mm)	0.1
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	20
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.9*2.2
1" CCD(12.8*9.6)mm	4.3*3.2
1.1" CCD(14*10.3)mm	4.7*3.4

DTTL110-35T20HR



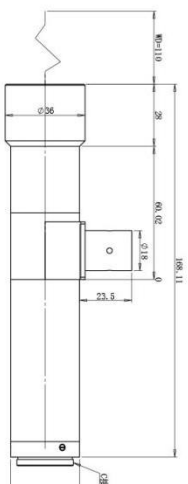
Main parameters

Mag	3.5X
WD	110
DOF(mm)	0.07
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	19
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.5*1.9
1" CCD(12.8*9.6)mm	3.7*2.7
1.1" CCD(14*10.3)mm	4*2.9

DTTL110-40T20HR



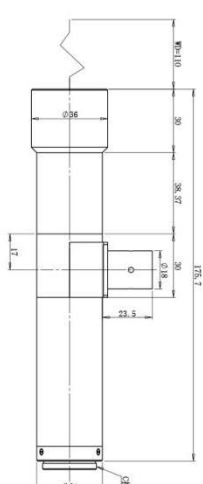
Main parameters

Mag	4.0X
WD	110
DOF(mm)	0.06
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	20
MTF>0.3(lp/mm)	50
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2.2*1.7
1" CCD(12.8*9.6)mm	3.2*2.4
1.1" CCD(14*10.3)mm	3.5*2.6

DTTL110-45T20HR



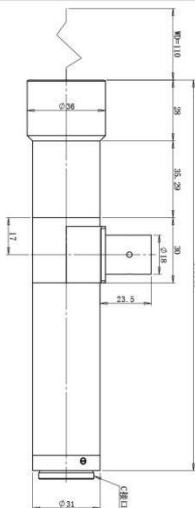
Main parameters

Mag	4.5X
WD	110
DOF(mm)	0.04
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	23
MTF>0.3(lp/mm)	44
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	2*1.5
1" CCD(12.8*9.6)mm	2.8*2.1
1.1" CCD(14*10.3)mm	3.1*2.3

DTTL110-60T20HR



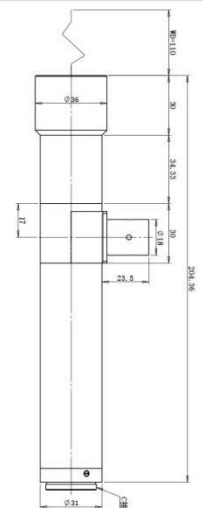
Main parameters

Mag	6.0X
WD	110
DOF(mm)	0.03
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	30
MTF>0.3(lp/mm)	28
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	1.5*1.1
1" CCD(12.8*9.6)mm	2.1*1.6
1.1" CCD(14*10.3)mm	2.3*1.7

DTTL110-80T20HR



Main parameters

Mag	8.0X
WD	110
DOF(mm)	0.05
Telecentricity	<0.1
Optical distortion	<0.1
Aperture(F/#)	40
MTF>0.3(lp/mm)	24
Mount	C

Field of view

2/3" CCD(8.8*6.6)mm	1.1*0.8
1" CCD(12.8*9.6)mm	1.6*1.2
1.1" CCD(14*10.3)mm	1.8*1.3