

APT & VS-TC Series

标准型 远心镜头

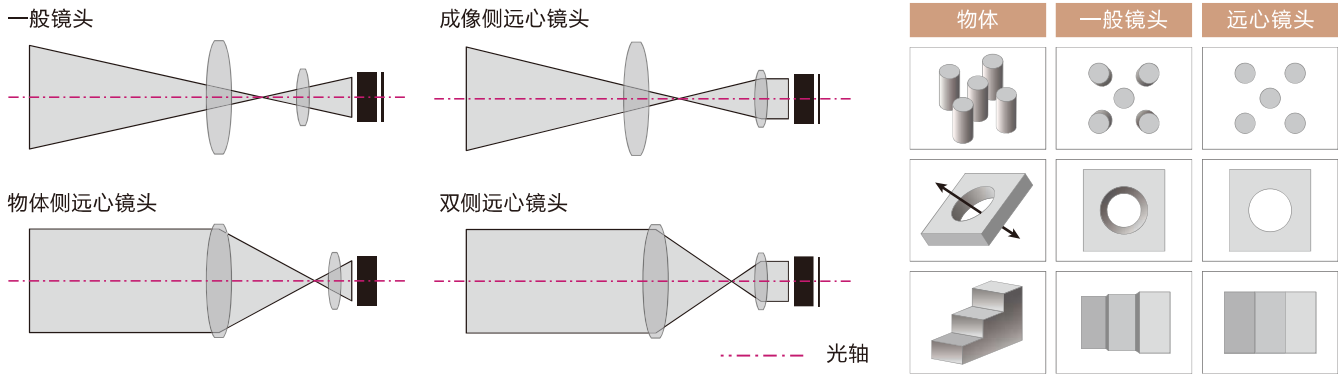
2/3" 1/1.8"

- 光学倍率可满足从0.5 x ~ 10.0 x、WD40mm ~ 340mm 等多种机种
- 性能方面大幅度的提高了失真与对比度



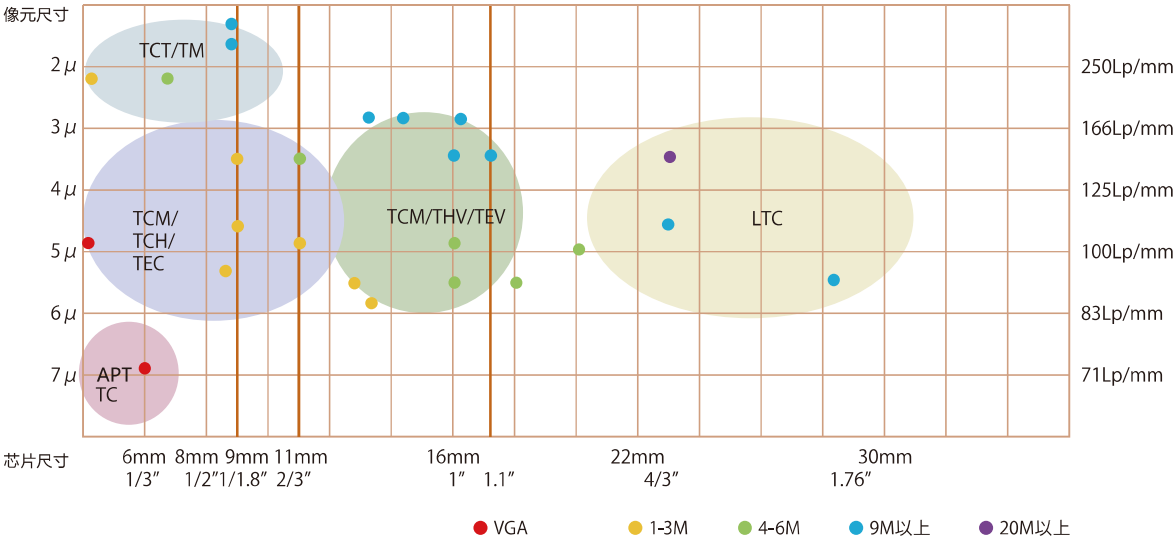
远心镜头

头的主光线与镜头的光轴成平行且非常适合同轴照明。适用于高度的物体的尺寸计算，或高精度的测量。物体的成像大小，不受工作距离的影响



远心镜头系列

近几年，影像传感器发生了很大的变化，其中像素单元尺寸的极小化和芯片尺寸的大型化为二大主流。从而可以应付更高的分辨率得到更清晰的画面。像素单元尺寸变小了，在同样的大小芯片尺寸的情况下，像素的个数会增加。单个像素的受光面积也会减少，为了镜头能够集光到像素单元上，需要解析度更高的镜头。
另一种，像素单元尺寸的大小不变，通过增加像素的数量来加大芯片尺寸，此时需要加大镜头的像圈。
这两种，虽然在说法上都是增大了芯片尺寸，但其实有着完全不同的意义。「像素单元尺寸与芯片尺寸」针对这两种情况，我司都有相对应的产品线。



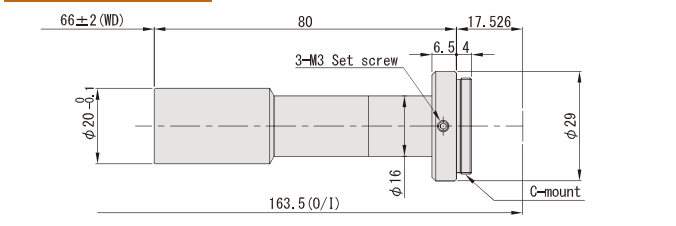
APT & TC	标准远心镜头；倍率和工作距离选择性大。
TCH	高分辨率远心镜头；倍率范围 0.5x~6x 工作距离 65mm/110mm。
TCM	高分辨率远心镜头；应市场发展需求而新增的系列。
THV	对应1"芯片的远心镜头；可以完全发挥出1"芯片的解析能力。
TCT	对应1.67um像元的远心镜头；目前业内镜头解像力的巅峰。
TM	远心显微镜镜头；显微镜镜头同等解像力、高NA。
TEC	远心变倍镜头。
TEV	对应1"芯片的远心变倍镜头。
LTC	线扫远心镜头。



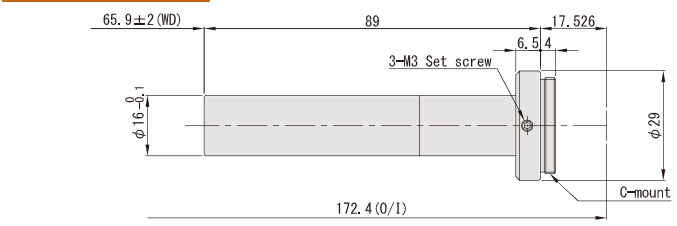
APT Series 2/3" 1/1.8"

WD:65mm

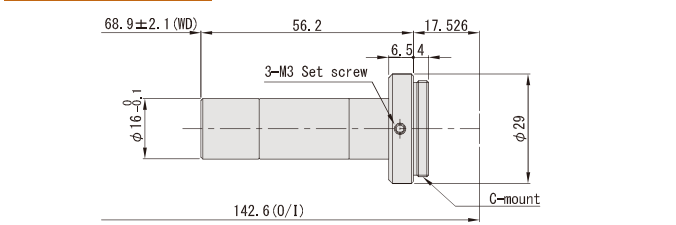
APT08-65



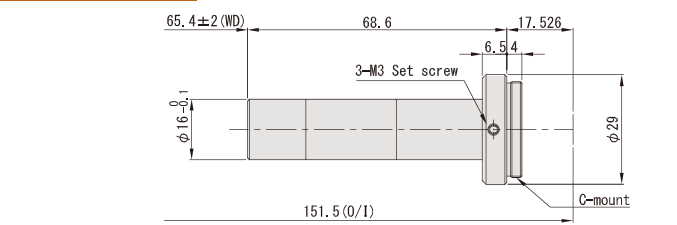
APT1-65



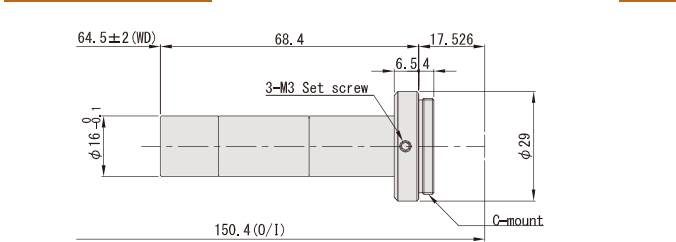
APT1.5-65



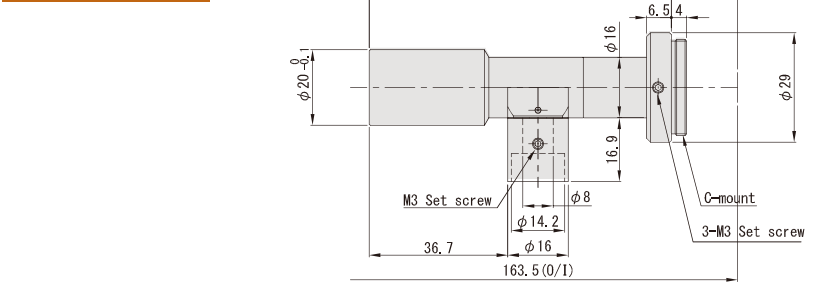
APT2-65



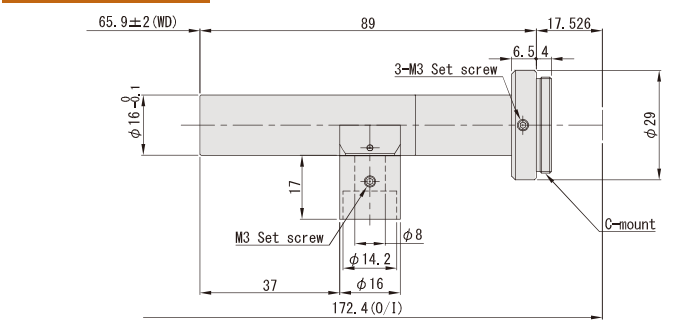
APT4-65



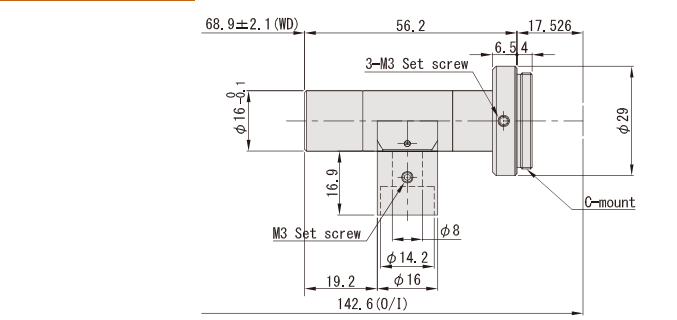
APT08-65C



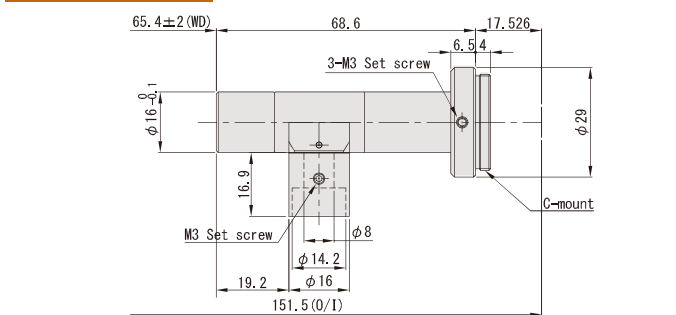
APT1-65C



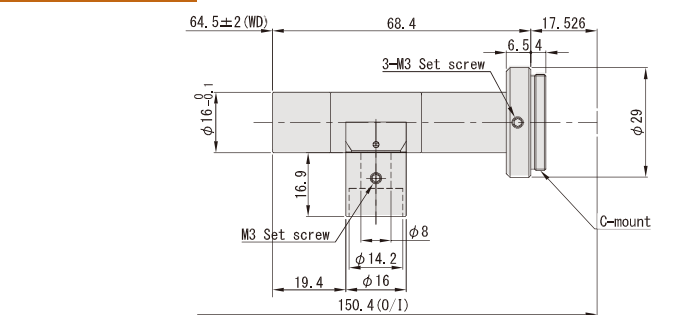
APT1.5-65C



APT2-65C



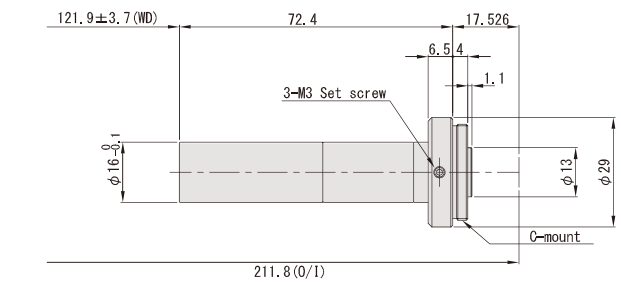
APT4-65C



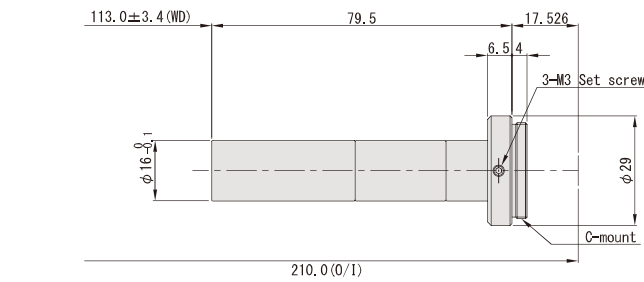
规格	APT08-65	APT1-65	APT1.5-65	APT2-65	APT4-65	APT08-65C	APT1-65C	APT1.5-65C	APT2-65C	APT4-65C
光学倍率	0.8x ± 5%	1.0x ± 5%	1.5x ± 5%	2.0x ± 5%	4.0x ± 5%	0.8x ± 5%	1.0x ± 5%	1.5x ± 5%	2.0x ± 5%	4.0x ± 5%
视野	2/3"	—	—	—	1.35 x 1.78	—	—	—	—	1.35 x 1.78
	1/1.8"	6.6 x 8.8	5.28 x 7.04	2.64 x 3.52	1.78 x 2.10	6.6 x 8.8	5.28 x 7.04	2.64 x 3.52	2.64 x 3.52	1.78 x 2.10
	1/2"	6.0 x 8.0	4.8 x 6.4	3.2 x 4.3	1.2 x 1.6	6.0 x 8.0	4.8 x 6.4	3.2 x 4.3	2.4 x 3.2	1.2 x 1.6
	1/3"	4.5 x 6.0	3.6 x 4.8	2.4 x 3.2	0.9 x 1.2	4.5 x 6.0	3.6 x 4.8	2.4 x 3.2	1.8 x 2.4	0.9 x 1.2
WD	66.0mm ± 2	65.9mm ± 2	68.9mm ± 2.1	65.4mm ± 2	64.5mm ± 2	66.0mm ± 2	65.9mm ± 2	68.9mm ± 2.1	65.4mm ± 2	64.5mm ± 2
物像间距离	163.5	172.4	142.6	151.5	150.4	163.5	172.4	142.6	151.5	150.4
实效F	9.6	12.1	25	25	28.9	9.6	12.1	25	25	28.9
NA	0.042	0.041	0.030	0.040	0.069	0.042	0.041	0.030	0.040	0.069
景深	1.2	1.0	0.9	0.5	0.1	1.2	1.0	0.9	0.5	0.1
TV失真	-0.01%	0.01%	0.008%	-0.010%	0.014%	-0.01%	0.01%	0.008%	-0.01%	0.014%
适合芯片	1/1.8"	1/1.8"	1/1.8"	1/1.8"	2/3"	1/1.8"	1/1.8"	1/1.8"	1/1.8"	2/3"
同轴照明方式	—	—	—	—	—	Built-in	Built-in	Built-in	Built-in	Built-in
重量	42	39	33	37	35	47	44	39	42	40

WD: 110 - 120 mm

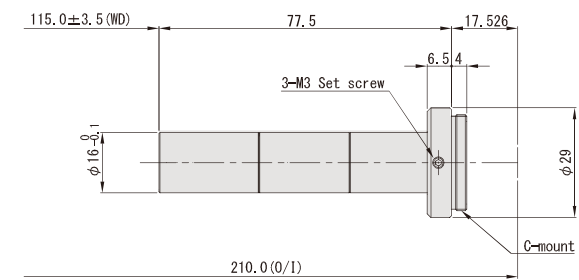
APT08-120



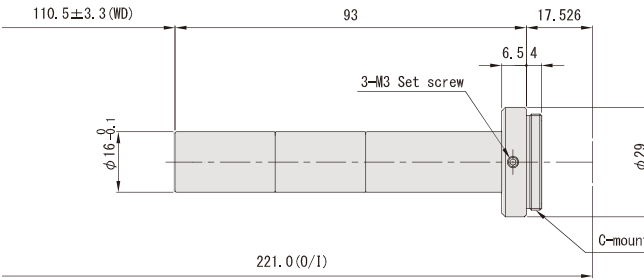
APT1-110



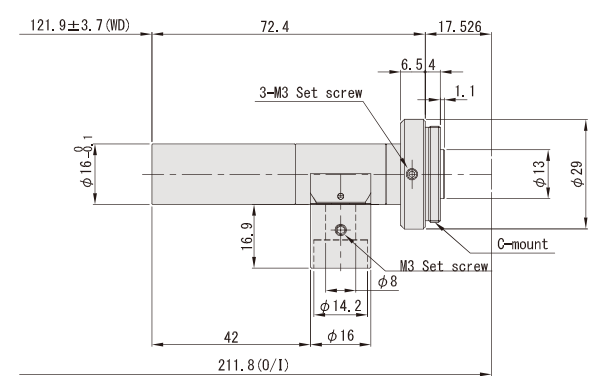
APT1.5-110



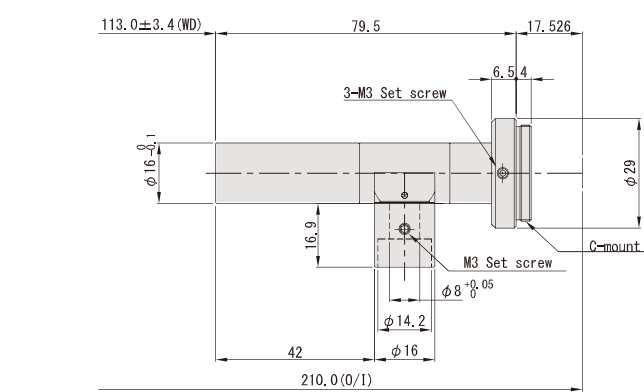
APT2-110



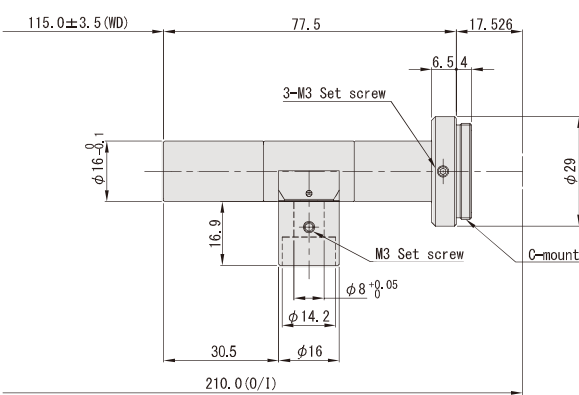
APT08-120C



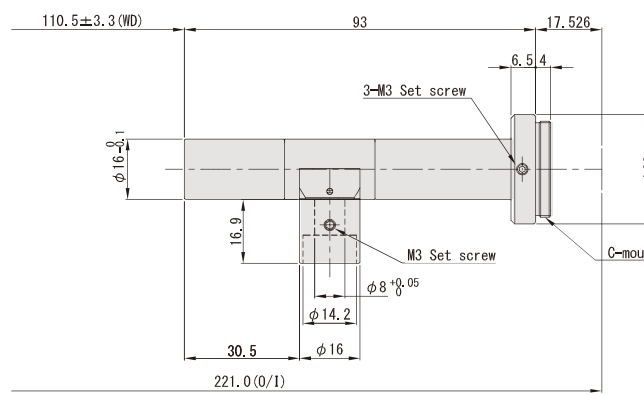
APT1-110C



APT1.5-110C

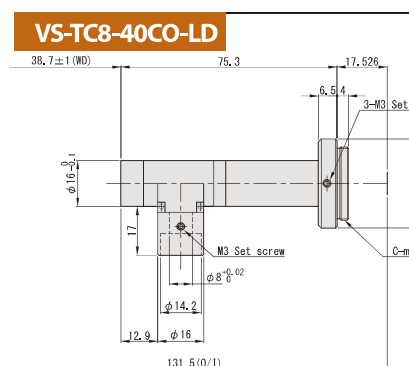
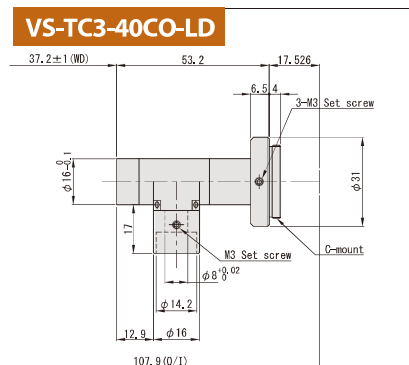
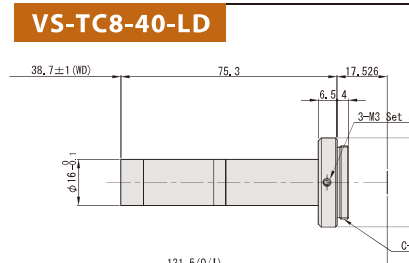
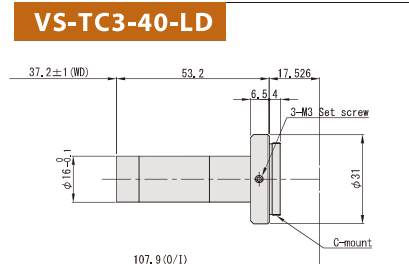


APT2-110C



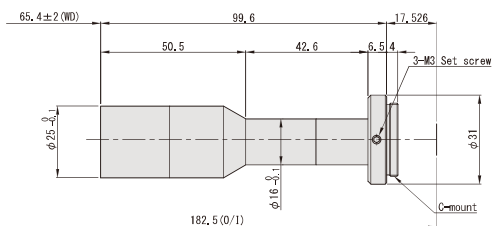
规格	APT08-120	APT1-110	APT1.5-110	APT2-110	APT08-120C	APT1-110C	APT1.5-110C	APT2-110C
光学倍率	0.8x ± 5%	1.0x ± 5%	1.5x ± 5%	2.0x ± 5%	0.8x ± 5%	1.0x ± 5%	1.5x ± 5%	2.0x ± 5%
视野	1/1.8"	—	2.64 x 3.52	3.52 x 4.69	—	2.64 x 3.52	3.52 x 4.69	2.64 x 3.52
	1/2"	6.0 x 8.0	4.8 x 6.4	3.2 x 4.3	2.4 x 3.2	6.0 x 8.0	4.8 x 6.4	3.2 x 3.2
	1/3"	4.5 x 6.0	3.6 x 4.8	2.4 x 3.2	1.8 x 2.4	4.5 x 6.0	3.6 x 4.8	2.4 x 3.2
WD	121.9 ± 3.7	113.0 ± 3.4	115.0 ± 3.5	110.5 ± 3.3	121.9 ± 3.7	113.0 ± 3.4	115.0 ± 3.5	110.5 ± 3.3
物像间距离	211.8	210	210	221	211.8	210	210	221
实效F	17.5	22.7	18.7	24.9	17.5	22.7	18.7	24.9
NA	0.023	0.022	0.040	0.040	0.023	0.022	0.040	0.040
景深	2.2	1.8	0.7	0.5	2.2	1.8	0.7	0.5
TV失真	0.017%	0.002%	0.004%	-0.002%	0.017%	0.002%	0.004%	-0.002%
适合芯片	1/2"	1/1.8"	1/1.8"	1/1.8"	1/2"	1/1.8"	1/1.8"	1/1.8"
同轴照明方式	—	—	—	—	Built-in	Built-in	Built-in	Built-in
重量	36	37	34	37	42	42	39	42

WD:40mm

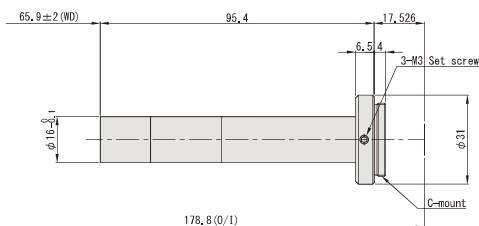
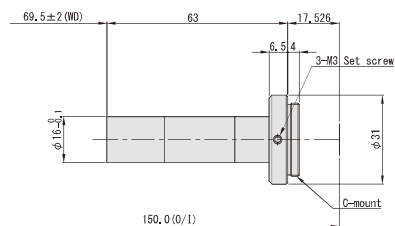


规格		VS-TC1.5-40CO	VS-TC2-40CO	VS-TC3-40CO-LD	VS-TC4-40CO	VS-TC6-40CO-LD	VS-TC8-40CO-LD
光学倍率		1.5x ±5 %	2.0x ±5 %	3.0x ±5 %	4.0x ±5 %	6.0x ±5 %	8.0x ±5 %
视野 (VxH)	2/3"	—	—	—	—	—	—
	1/2"	3.2 x 4.3 mm	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.6 mm	0.8 x 1.1 mm	0.6 x 0.8 mm
	1/3"	2.4 x 3.2 mm	1.8 x 2.4 mm	1.2 x 1.6 mm	0.9 x 1.2 mm	0.6 x 0.8 mm	0.5 x 0.6 mm
WD		39.3 mm ±1	39.5 mm ±1	37.2 mm ±1	39.6 mm ±1	39.0 mm ±1	38.7 mm ±1
物像间距离		113.8 mm	96.0 mm	107.9 mm	103.0 mm	117.2 mm	131.5 mm
实效F		11.2	15.0	23.5	29.4	43.3	57.0
NA		0.067	0.067	0.064	0.068	0.069	0.070
景深 允许波动量±0.04mm		0.4 mm	0.3 mm	0.2 mm	0.1 mm	0.1 mm	0.07 mm
TV失真		0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
周边光亮 (Y=4)		69 %	84 %	100 %	100 %	100 %	100 %
适合芯片		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
同轴照明方式		Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
重量		42 g	35 g	39 g	38 g	42 g	45 g

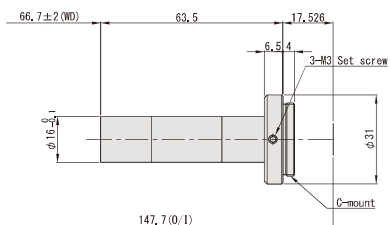
■WD:65-70mm

VS-TC08-65

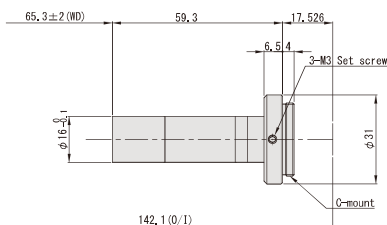
VS-TC1-65-16

**VS-TC1.5-70**

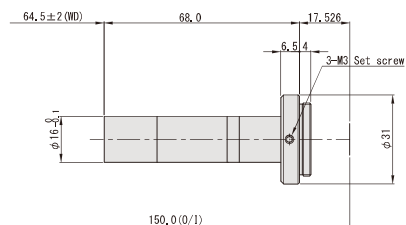
VS-TC2-65



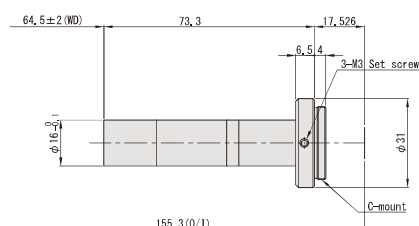
VS-TC3-65



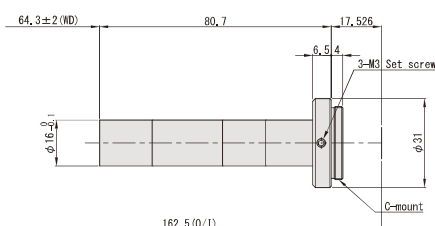
VS-TC4-65



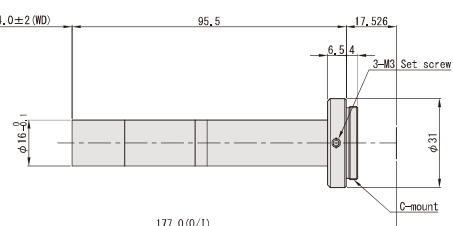
VS-TC5-65



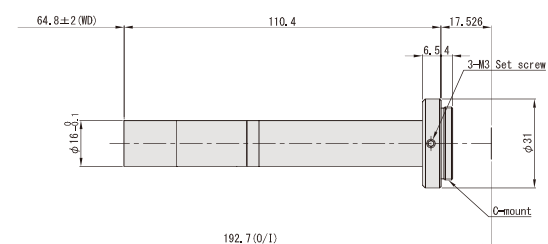
VS-TC6-65



VS-TC8-65



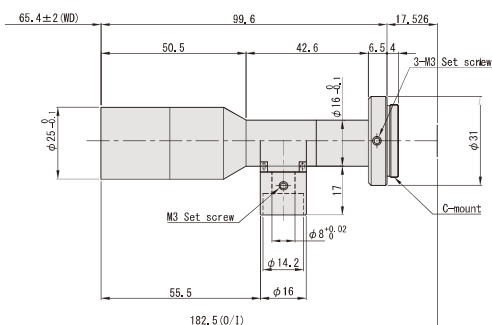
VS-TC10-65



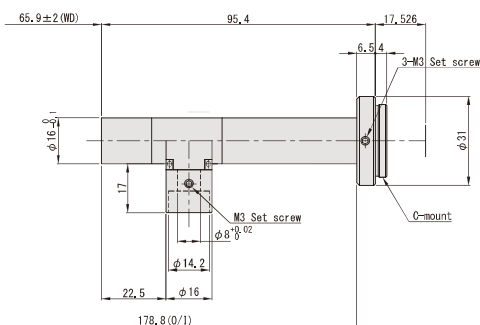
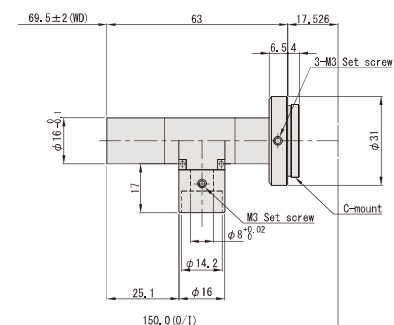
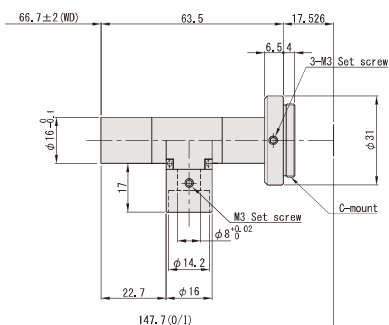
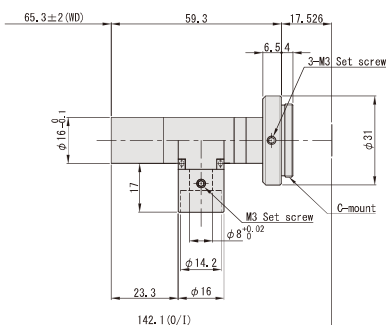
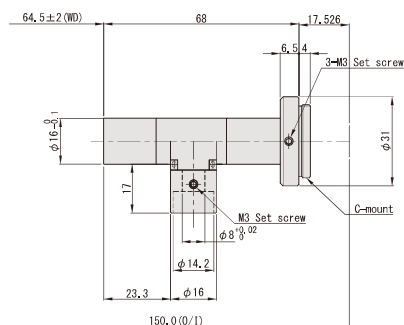
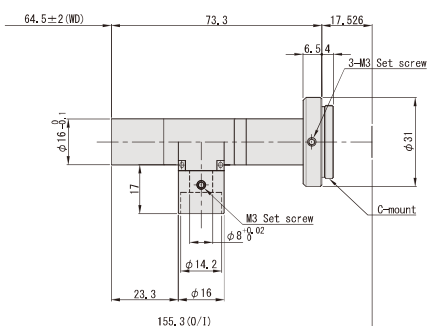
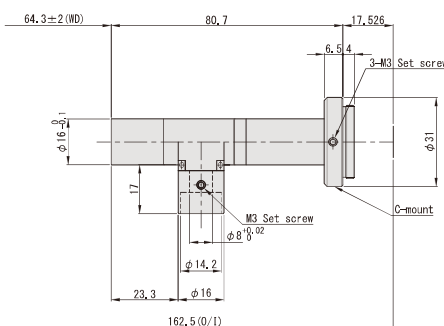
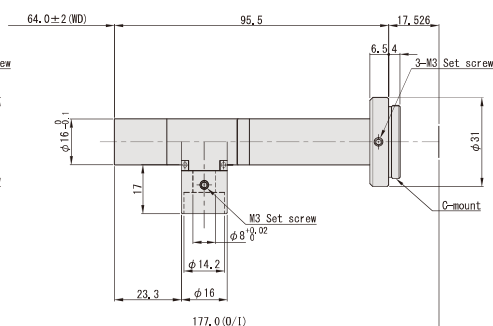
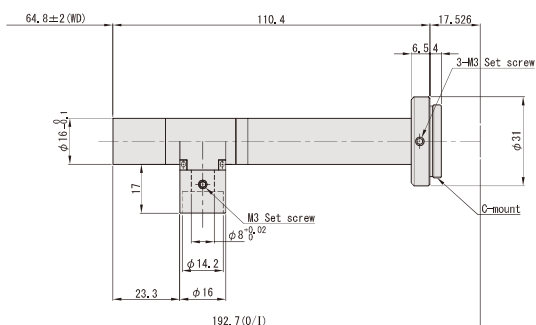
规格		VS-TC08-65	VS-TC1-65-16	VS-TC1.5-70
光学倍率		0.8x ± 5 %	1.0x ± 5 %	1.5x ± 5 %
视野 (VxH)	2/3"	—	—	4.7 x 5.6 mm
	1/2"	6.0 x 8.0 mm	4.8 x 6.4 mm	3.2 x 4.3 mm
	1/3"	4.5 x 6.0 mm	3.6 x 4.8 mm	2.4 x 3.2 mm
WD		65.4 mm ± 2	65.9 mm ± 2	69.5 mm ± 2
物像间距离		182.5 mm	178.8 mm	150.0 mm
实效F		10.0	14.2	15.6
NA		0.040	0.035	0.048
景深 允许值(±)0.04mm		1.3 mm	1.1 mm	0.6 mm
TV失真		0.05 %	0.10 %	0.10 %
周边光亮 (Y=4)		100 %	90 %	90 %
适合芯片		1/2"	1/2"	2/3"
同轴照明方式		—	—	—
重量		72 g	48 g	37 g

规格		V5-TC2-65	V5-TC3-65	V5-TC4-65	V5-TC5-65	V5-TC6-65	V5-TC8-65	V5-TC10-65
光学倍率		2.0x ±5 %	3.0x ±5 %	4.0x ±5 %	5.0x ±5 %	6.0x ±5 %	8.0x ±5 %	10.0x ±5 %
视野 (VxH)	2/3"	3.6 x 4.2 mm	2.4 x 2.8 mm	1.8 x 2.1 mm	1.4 x 1.7 mm	1.2 x 1.4 mm	0.9 x 1.1 mm	0.7 x 0.8 mm
	1/2"	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.6 mm	1.0 x 1.3 mm	0.8 x 1.1 mm	0.6 x 0.8 mm	0.5 x 0.6 mm
	1/3"	1.8 x 2.4 mm	1.2 x 1.6 mm	0.9 x 1.2 mm	0.7 x 1.0 mm	0.6 x 0.8 mm	0.5 x 0.6 mm	0.4 x 0.5 mm
WD		66.7 mm ±2	65.3 mm ±2	64.5 mm ±2	64.5 mm ±2	64.3 mm ±2	64.0 mm ±2	64.8 mm ±2
物像间距离		147.7 mm	142.1 mm	150.0 mm	155.3 mm	162.5 mm	177.0 mm	192.7 mm
实效F		15.6	22.0	29.1	36.2	43.1	57.1	73.2
NA		0.064	0.068	0.069	0.069	0.070	0.070	0.068
景深 允许误差值±0.04mm		0.3 mm	0.2 mm	0.1 mm	0.1 mm	0.1 mm	0.07 mm	0.06 mm
TV失真		0.04 %	0.04 %	-0.01 %	0.00 %	0.00 %	0.00 %	0.00 %
周边光亮 (Y=4)		90 %	98 %	100 %	100 %	100 %	100 %	100 %
适合芯片		2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式		—	—	—	—	—	—	—
重量		40 g	38 g	38 g	41 g	43 g	48 g	54 g

Telecentric Lens VS-TC Series

VS-TC08-65CO

VS-TC1-65CO-16

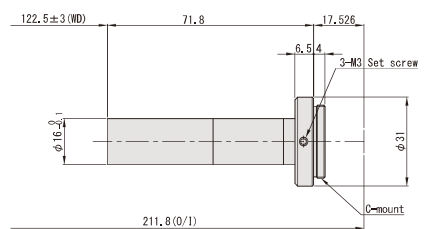
**VS-TC1.5-70CO****VS-TC2-65C0****VS-TC3-65C0****VS-TC4-65CO****VS-TC5-65C0****VS-TC6-65C0****VS-TC8-65CO****VS-TC10-65CO**

规格	VS-TC08-65C0	VS-TC1-65C0-16	VS-TC1.5-70C0
光学倍率	0.8x ± 5 %	1.0x ± 5 %	1.5x ± 5 %
视 野	—	—	4.7 × 5.6 mm
(V x H)	6.0 × 8.0 mm	4.8 × 6.4 mm	3.2 × 4.3 mm
	4.5 × 6.0 mm	3.6 × 4.8 mm	2.4 × 3.2 mm
WD	65.4 mm ± 2	65.9 mm ± 2	69.5 mm ± 2
物像间距离	182.5 mm	178.8 mm	150.0 mm
实效F	10.0	14.2	15.6
NA	0.040	0.035	0.048
景深 允许误差(φ0.04mm)	1.3 mm	1.1 mm	0.6 mm
TV失真	0.05 %	0.10 %	0.10 %
周边光亮 (Y=4)	100 %	90 %	90 %
适合芯片	1/2"	1/2"	2/3"
同轴照明方式	Built-in	Built-in	Built-in
重量	78 g	56 g	44 g

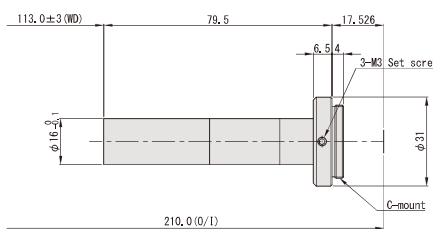
规格		V5-TC2-65CO	V5-TC3-65CO	V5-TC4-65CO	V5-TC5-65CO	V5-TC6-65CO	V5-TC8-65CO	V5-TC10-65CO
光学倍率		2.0x ± 5 %	3.0x ± 5 %	4.0x ± 5 %	5.0x ± 5 %	6.0x ± 5 %	8.0x ± 5 %	10.0x ± 5 %
视 野 (V x H)	2/3"	3.6 x 4.2 mm	2.4 x 2.8 mm	1.8 x 2.1 mm	1.4 x 1.7 mm	1.2 x 1.4 mm	0.9 x 1.1 mm	0.7 x 0.8 mm
	1/2"	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.6 mm	1.0 x 1.3 mm	0.8 x 1.1 mm	0.6 x 0.8 mm	0.5 x 0.6 mm
	1/3"	1.8 x 2.4 mm	1.2 x 1.6 mm	0.9 x 1.2 mm	0.7 x 1.0 mm	0.6 x 0.8 mm	0.5 x 0.6 mm	0.4 x 0.5 mm
WD		66.7 mm ± 2	65.3 mm ± 2	64.5 mm ± 2	64.5 mm ± 2	64.3 mm ± 2	64.0 mm ± 2	64.8 mm ± 2
物像间距离		147.7 mm	142.1 mm	150.0 mm	155.3 mm	162.5 mm	177.0 mm	192.7 mm
实效F		15.6	22.0	29.1	36.2	43.1	57.1	73.2
NA		0.064	0.068	0.069	0.069	0.070	0.070	0.068
景深 允许模糊圈φ0.04mm		0.3 mm	0.2 mm	0.1 mm	0.1 mm	0.1 mm	0.07 mm	0.06 mm
TV失真		0.04 %	0.04 %	-0.01 %	0.00 %	0.00 %	0.00 %	0.00 %
周边光亮 (Y=5.5)		90 %	98 %	100 %	100 %	100 %	100 %	100 %
适合芯片		2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式		Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
重量		46 g	42 g	45 g	47 g	54 g	58 g	

WD:110-170mm

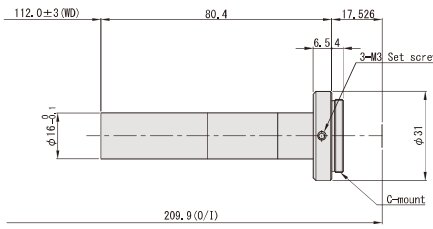
VS-TC08-120



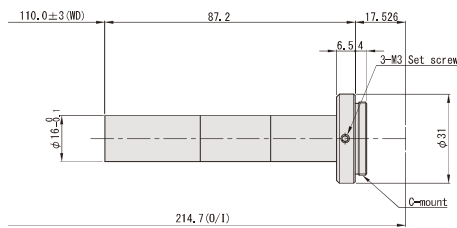
VS-TC1-110



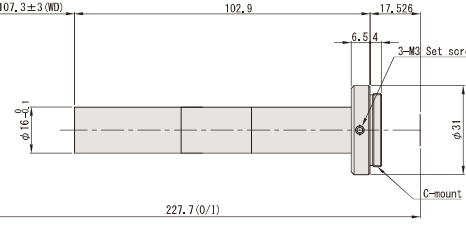
VS-TC1.5N-110



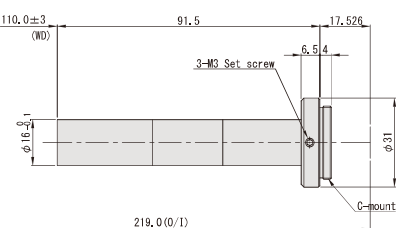
VS-TC2-110-LD



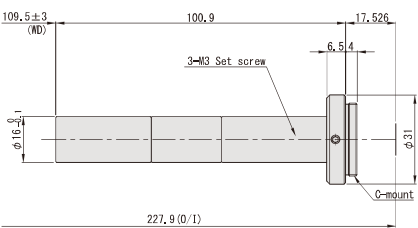
VS-TC3-110



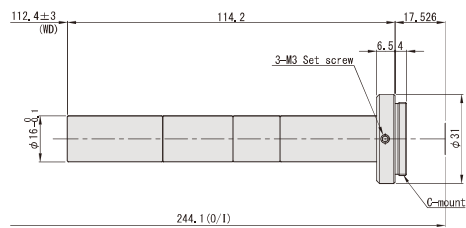
VS-TC4-110-LD



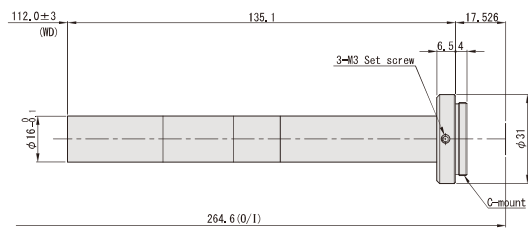
VS-TC5-110



VS-TC6-110-LD



VS-TC8-110-LD

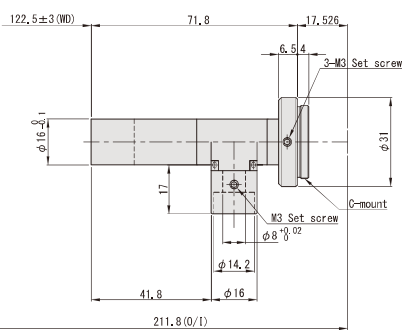


规格	VS-TC08-120	VS-TC1-110	VS-TC1.5N-110	VS-TC2-110-LD	VS-TC3-110
光学倍率	0.8x ±5 %	1.0x ±5 %	1.5x ±5 %	2.0x ±5 %	3.0x ±5 %
视野 (VxH)	2/3"	—	—	—	2.4 x 2.8 mm
	1/2"	6.0 x 8.0 mm	4.8 x 6.4 mm	2.4 x 3.2 mm	1.6 x 2.1 mm
	1/3"	4.5 x 6.0 mm	3.6 x 4.8 mm	1.8 x 2.4 mm	1.2 x 1.6 mm
WD	122.5 mm ±3	113.0 mm ±3	112.0 mm ±3	110.0 mm ±3	107.3 mm ±3
物像间距离	211.8 mm	210.0 mm	209.9 mm	214.7 mm	227.7 mm
实效F	18.0	20.0	18.8	24.9	37.5
NA	0.022	0.025	0.040	0.040	0.040
景深 允许误差±0.04mm	2.3 mm	1.6 mm	0.7 mm	0.5 mm	0.3 mm
TV失真	0.10 %	0.00 %	0.02 %	0.00 %	0.10 %
周边光亮 (Y=4)	90 %	97 %	91 %	100 %	90 %
适合芯片	1/2"	1/2"	1/2"	1/2"	2/3"
同轴照明方式	—	—	—	—	—
重量	40 g	42 g	42 g	46 g	48 g

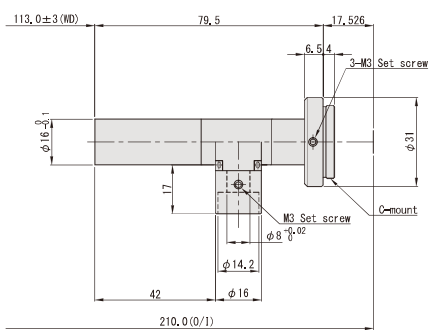
规格	VS-TC4-110-LD	VS-TC5-110	VS-TC6-110-LD	VS-TC8-110-LD
光学倍率	4.0x ±5 %	5.0x ±5 %	6.0x ±5 %	8.0x ±5 %
视野 (VxH)	2/3"	1.8 x 2.1 mm	—	0.9 x 1.1 mm
	1/2"	1.2 x 1.6 mm	1.2 x 1.4 mm	0.8 x 1.1 mm
	1/3"	0.9 x 1.2 mm	0.8 x 1.1 mm	0.6 x 0.8 mm
WD	110.0 mm ±3	109.5 mm ±3	112.4 mm ±3	112.0 mm ±3
物像间距离	219.0 mm	227.9 mm	244.1 mm	264.6 mm
实效F	41.7	51.8	67.3	89.3
NA	0.048	0.048	0.045	0.045
景深 允许误差±0.04mm	0.2 mm	0.2 mm	0.1 mm	0.1 mm
TV失真	0.00 %	0.00 %	0.00 %	0.00 %
周边光亮 (Y=5.5)	100 %	100 %	100 %	100 %
适合芯片	2/3"	1/2"	2/3"	2/3"
同轴照明方式	—	—	—	—
重量	49 g	52 g	54 g	60 g

Telecentric Lens VS-TC Series

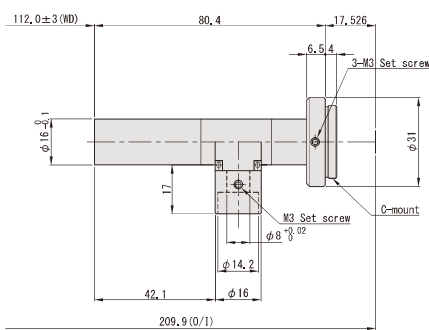
VS-TC08-120CO



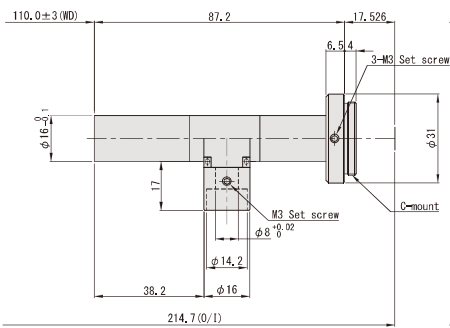
VS-TC1-110CO



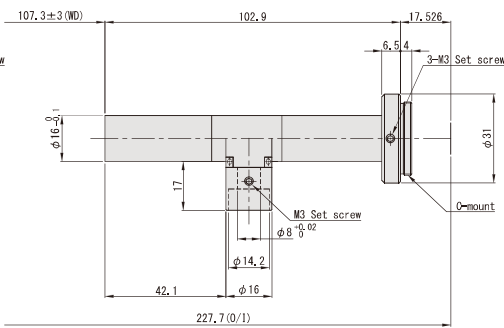
VS-TC1.5N-110CO



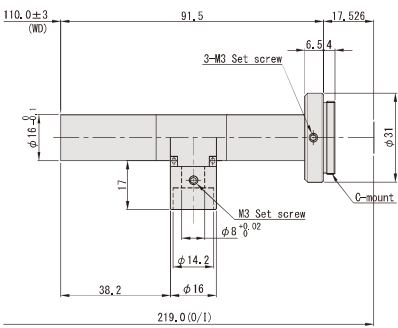
VS-TC2-110CO-LD



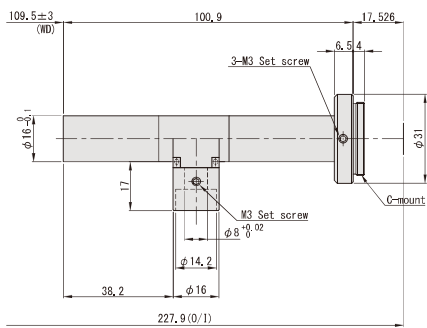
VS-TC3-110CO



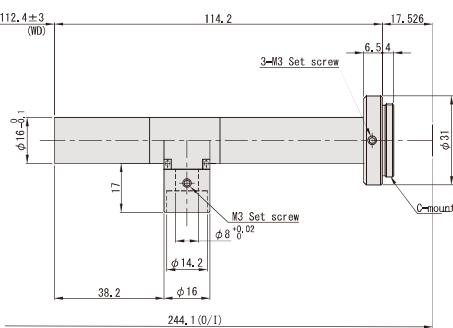
VS-TC4-110CO-LD



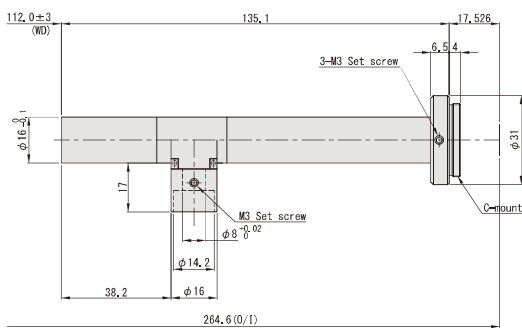
VS-TC5-110CO



VS-TC6-110CO-LD



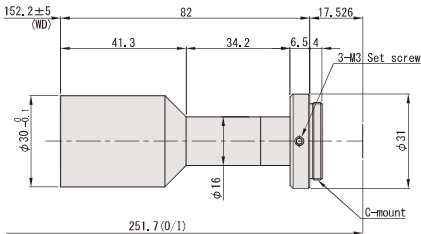
VS-TC8-110CO-LD



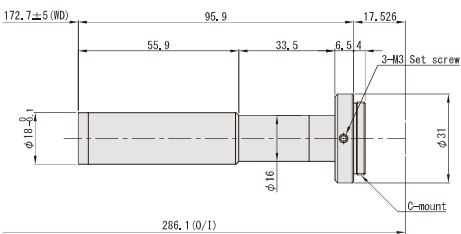
规格	VS-TC08-120CO	VS-TC1-110CO	VS-TC1.5N-110CO	VS-TC2-110CO-LD	VS-TC3-110CO
光学倍率	0.8x ±5 %	1.0x ±5 %	1.5x ±5 %	2.0x ±5 %	3.0x ±5 %
视野 (VxH)	2/3"	—	—	—	2.4 x 2.8 mm
1/2"	6.0 x 8.0 mm	4.8 x 6.4 mm	3.2 x 4.3 mm	2.4 x 3.2 mm	1.6 x 2.1 mm
1/3"	4.5 x 6.0 mm	3.6 x 4.8 mm	2.4 x 3.2 mm	1.8 x 2.4 mm	1.2 x 1.6 mm
WD	122.5 mm ±3	113.0 mm ±3	112.0 mm ±3	110.0 mm ±3	107.3 mm ±3
物像间距离	211.8 mm	210.0 mm	209.9 mm	214.7 mm	227.7 mm
实效F	18.0	20.0	18.8	24.9	37.5
NA	0.022	0.025	0.040	0.040	0.040
景深 允许错乱度φ0.04mm	2.3 mm	1.6 mm	0.7 mm	0.5 mm	0.3 mm
TV失真	0.10 %	0.00 %	0.02 %	0.00 %	0.10 %
周边光亮 (Y=4)	90 %	97 %	91 %	100 %	90 %
适合芯片	1/2"	1/2"	1/2"	1/2"	2/3"
同轴照明方式	Built-in	Built-in	Built-in	Built-in	Built-in
重量	46 g	48 g	49 g	52 g	56 g

规格	VS-TC4-110CO-LD	VS-TC5-110CO	VS-TC6-110CO-LD	VS-TC8-110CO-LD
光学倍率	4.0x ±5 %	5.0x ±5 %	6.0x ±5 %	8.0x ±5 %
视野 (VxH)	2/3"	—	—	—
1/2"	1.8 x 2.1 mm	1.0 x 1.3 mm	1.2 x 1.4 mm	0.9 x 1.1 mm
1/3"	1.2 x 1.6 mm	0.7 x 1.0 mm	0.8 x 1.1 mm	0.6 x 0.8 mm
WD	110.0 mm ±3	109.5 mm ±3	112.4 mm ±3	112.0 mm ±3
物像间距离	219.0 mm	227.9 mm	244.1 mm	264.6 mm
实效F	41.7	51.8	67.3	89.3
NA	0.048	0.048	0.045	0.045
景深 允许错乱度φ0.04mm	0.2 mm	0.2 mm	0.1 mm	0.1 mm
TV失真	0.00 %	0.00 %	0.00 %	0.00 %
周边光亮 (Y=5.5)	100 %	100 %	100 %	100 %
适合芯片	2/3"	1/2"	2/3"	2/3"
同轴照明方式	Built-in	Built-in	Built-in	Built-in
重量v	54 g	58 g	60 g	66 g

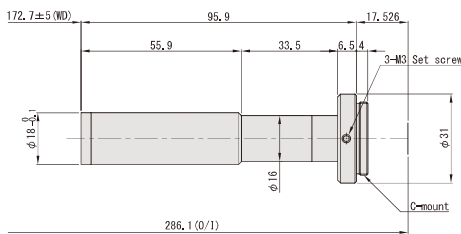
VS-TC05-150



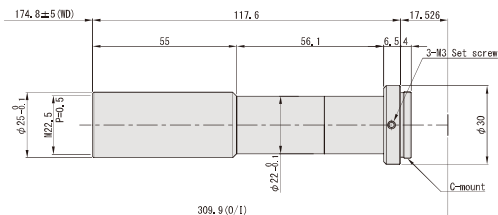
VS-TC06-170



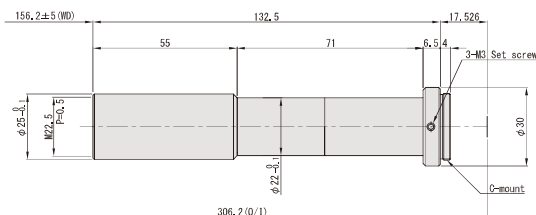
VS-TC06-170-F15



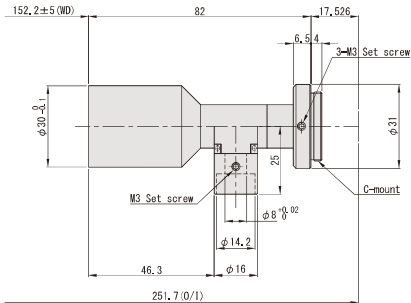
VS-TC08-170



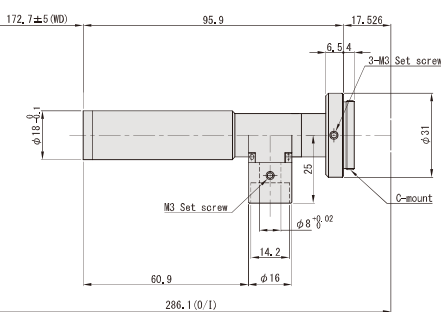
VS-TC1-150



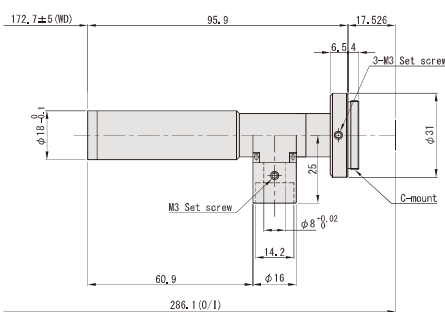
VS-TC05-150CO



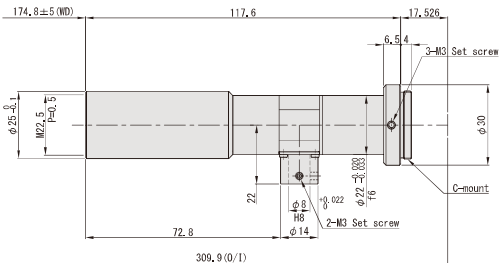
VS-TC06-170CO



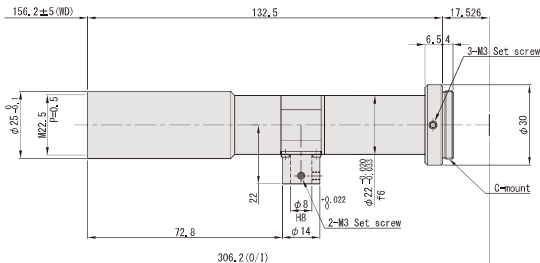
VS-TC06-170CO-F15



VS-TC08-170CO



VS-TC1-150CO



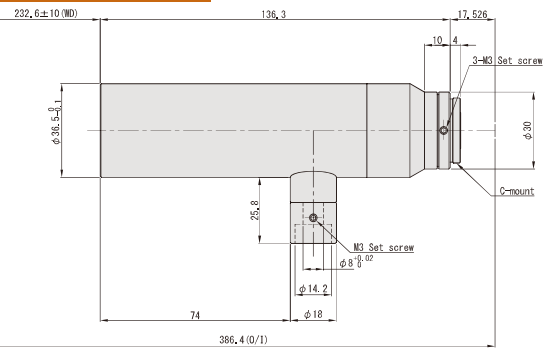
规格	VS-TC05-150	VS-TC06-170	VS-TC06-170-F15	VS-TC08-170	VS-TC1-150
光学倍率	0.5x ± 5 %	0.6x ± 5 %	0.6x ± 5 %	0.8x ± 5 %	1.0x ± 5 %
视野 (VxH)	2/3"	—	—	—	—
	1/2"	9.6 x 12.8 mm	—	6.0 x 8.0 mm	4.8 x 6.4 mm
	1/3"	7.2 x 9.6 mm	6.0 x 8.0 mm	4.5 x 6.0 mm	3.6 x 4.8 mm
WD	152.2 mm ± 5	172.7 mm ± 5	172.7 mm ± 5	174.8 mm ± 5	156.2 mm ± 5
物像间距离	251.7 mm	286.1 mm	286.1 mm	309.9 mm	306.2 mm
实效F	12.5	30.0	15.0	13.9	13.0
NA	0.020	0.010	0.020	0.029	0.038
景深 允许错乱值±0.04mm	4.0 mm	6.7 mm	3.3 mm	1.7 mm	1.0 mm
TV失真	0.10 %	0.10 %	0.10 %	0.02 %	0.01 %
周边光亮 (Y=3)	90 %	95 %	95 %	99 %	99 %
适合芯片	1/2"	1/3"	1/3"	1/2"	1/2"
同轴照明方式	—	—	—	—	—
重量	76 g	48 g	47 g	72 g	78 g

规格	VS-TC05-150CO	VS-TC06-170CO	VS-TC06-170CO-F15	VS-TC08-170CO	VS-TC1-150CO
光学倍率	0.5x ± 5 %	0.6x ± 5 %	0.6x ± 5 %	0.8x ± 5 %	1.0x ± 5 %
视野 (VxH)	2/3"	—	—	—	—
	1/2"	9.6 x 12.8 mm	—	6.0 x 8.0 mm	4.8 x 6.4 mm
	1/3"	7.2 x 9.6 mm	6.0 x 8.0 mm	4.5 x 6.0 mm	3.6 x 4.8 mm
WD	152.2 mm ± 5	172.7 mm ± 5	172.7 mm ± 5	174.8 mm ± 5	156.2 mm ± 5
物像间距离	251.7 mm	286.1 mm	286.1 mm	309.9 mm	306.2 mm
实效F	12.5	30.0	15.0	13.9	13.0
NA	0.020	0.010	0.020	0.029	0.038
景深 允许错乱值±0.04mm	4.0 mm	6.7 mm	3.3 mm	1.7 mm	1.0 mm
TV失真	0.10 %	0.10 %	0.10 %	0.02 %	0.01 %
周边光亮 (Y=4)	90 %	95 %	95 %	99 %	99 %
适合芯片	1/2"	1/3"	1/3"	1/2"	1/2"
同轴照明方式	Built-in	Built-in	Built-in	Built-in	Built-in
重量	82 g	54 g	54 g	78 g	82 g

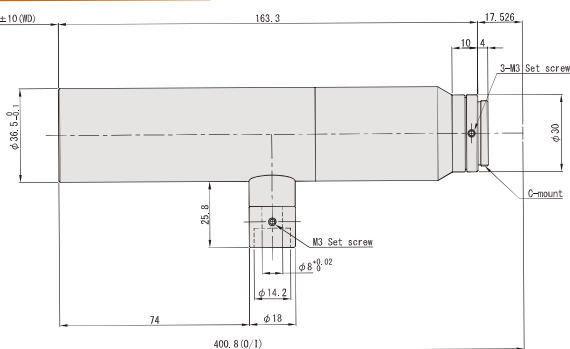
Telecentric Lens VS-TC Series

WD:220mm

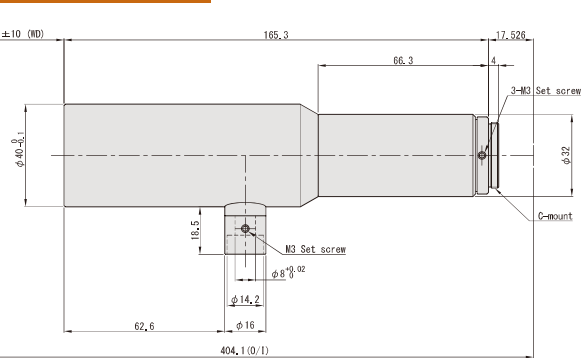
VS-TC08-220CO



VS-TC2-220CO



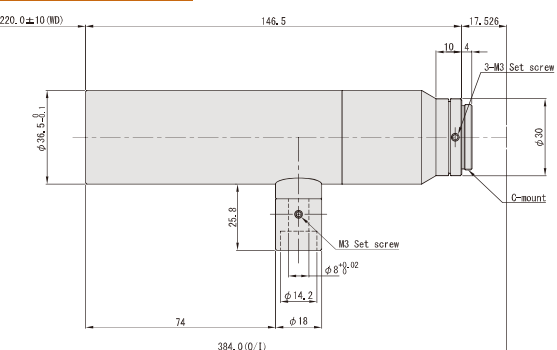
VS-TC6-220CO



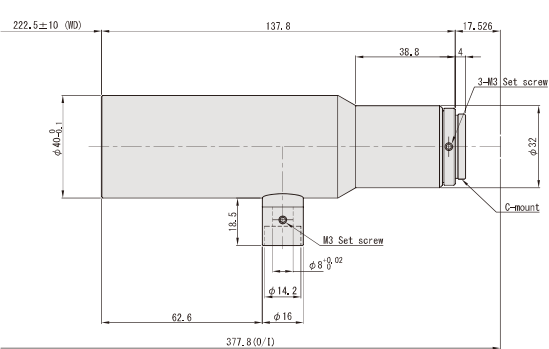
规格	VS-TC08-220CO	VS-TC1-220CO
光学倍率	0.8x ± 5 %	1.0x ± 5 %
视野 (VxH)	2/3"	—
	1/2"	6.0 x 8.0 mm
	1/3"	4.5 x 6.0 mm
WD	232.6 mm ± 10	220.0 mm ± 10
物像间距离	386.4 mm	384.0 mm
实效F	8.0	10.0
NA	0.050	0.050
景深 允许错乱度0.04mm	1.0 mm	0.8 mm
TV失真	-0.15 %	0.10 %
周边光亮 (Y=4)	85 %	90 %
适合芯片	1/2"	1/2"
同轴照明方式	Built-in	Built-in
重量	225 g	245 g

规格	VS-TC2-220CO	VS-TC4-220CO	VS-TC6-220CO	VS-TC8-220CO	VS-TC10-220CO
光学倍率	2.0x ± 5 %	4.0x ± 5 %	6.0x ± 5 %	8.0x ± 5 %	10.0x ± 5 %
视野 (VxH)	2/3"	—	—	—	—
	1/2"	2.4 x 3.2 mm	1.2 x 1.6 mm	0.6 x 0.8 mm	0.5 x 0.6 mm
	1/3"	1.8 x 2.4 mm	0.9 x 1.2 mm	0.5 x 0.6 mm	0.4 x 0.5 mm
WD	220.0 mm ± 10	222.5 mm ± 10	221.3 mm ± 10	220.8 mm ± 10	218.4 mm ± 10
物像间距离	400.8 mm	377.8 mm	404.1 mm	431.2 mm	457.3 mm
实效F	20.0	29.4	44.1	58.8	73.5
NA	0.050	0.068	0.068	0.068	0.068
景深 允许错乱度0.04mm	0.4 mm	0.1 mm	0.1 mm	0.07 mm	0.06 mm
TV失真	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %
周边光亮 (Y=5.5)	90 %	90 %	90 %	90 %	90 %
适合芯片	1/2"	1/2"	1/2"	1/2"	1/2"
同轴照明方式	Built-in	Built-in	Built-in	Built-in	Built-in
重量	270 g	330 g	360 g	390 g	420 g

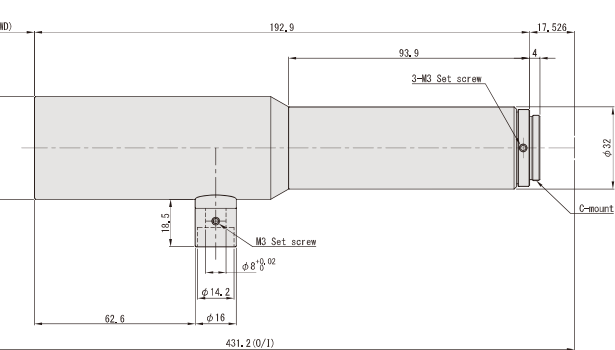
VS-TC1-220CO



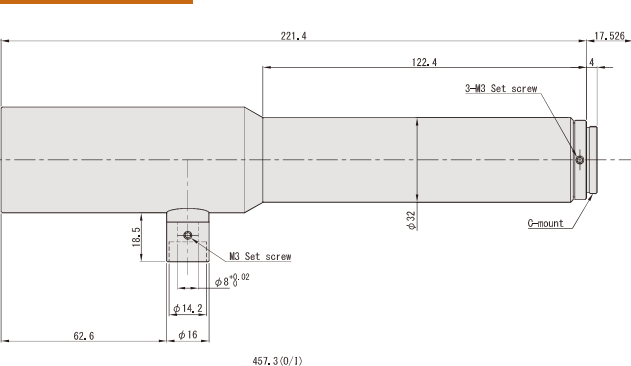
VS-TC4-220CO



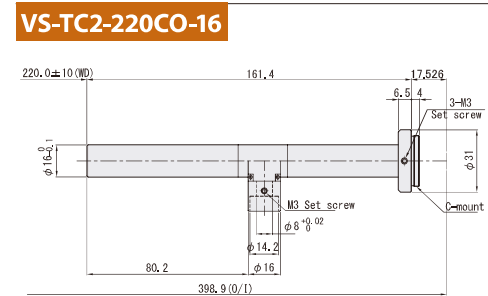
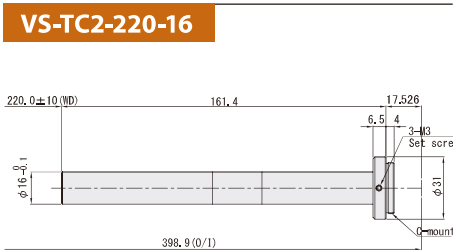
VS-TC8-220CO



VS-TC10-220CO

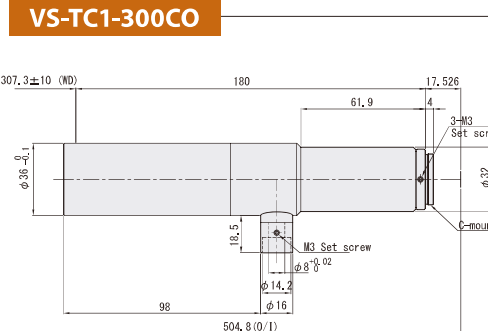
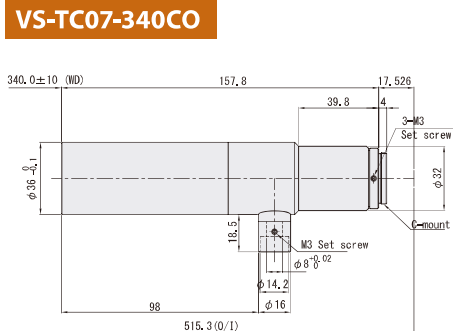


WD:220mmφ16シリーズ



规格	VS-TC2-220-16	VS-TC2-220CO-16
光学倍率	2.0x ± 5 %	2.0x ± 5 %
视野 (VxH)	2/3"	—
	1/2"	2.4 x 3.2 mm
	1/3"	1.8 x 2.4 mm
WD	222.0 mm ± 10	220.0 mm ± 10
物像间距离	389.9 mm	398.9 mm
实效F	43.5	43.5
NA	0.023	0.023
景深 允许错乱度φ0.04mm	0.9 mm	0.9 mm
TV失真	0.10 %	0.10 %
周边光亮 (Y=4)	90 %	90 %
适合芯片	1/2"	1/2"
同轴照明方式	—	Built-in
重量	66 g	70 g

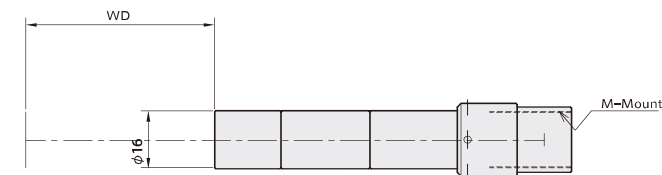
WD:300-340mm



规格	VS-TC07-340CO	VS-TC1-300CO
光学倍率	0.7x ± 5 %	1.0x ± 5 %
视野 (VxH)	2/3"	—
	1/2"	6.9 x 9.1 mm
	1/3"	5.1 x 6.9 mm
WD	340.0 mm ± 10	307.3 mm ± 10
物像间距离	515.3 mm	504.8 mm
实效F	10.9	15.6
NA	0.032	0.032
景深 允许错乱度φ0.04mm	1.8 mm	1.2 mm
TV失真	0.10 %	0.10 %
周边光亮 (Y=)	100 %	100 %
适合芯片	1/2"	1/2"
同轴照明方式	Built-in	Built-in
重量	235 g	265 g

供分离型相机型号 (M15.5 P0.5 接口)

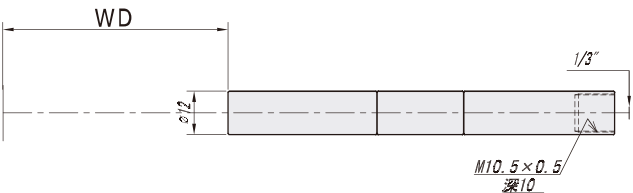
φ 16mm 非同轴光型号



光学倍率	0.8x	1.0x	1.5x	2.0x	3.0x	4.0x	5.0x	6.0x	8.0x	10.0x
WD40系列			○	○	○	○		○	○	
WD65系列		○	○	○	○	○	○	○	○	○
WD110系列	○	○	○	○	○	○	○	○	○	

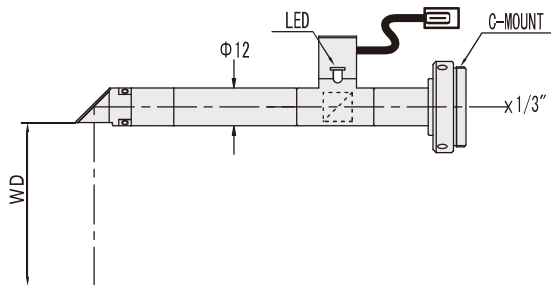
定制细小直径各式镜头也可以提供。例如分离型CCD镜头供M10.5 P0.5或是C接口镜头连小巧棱镜和同轴光LED。请与我们销售部联系。

供分离型相机型号 (M10.5 P0.5 接口)

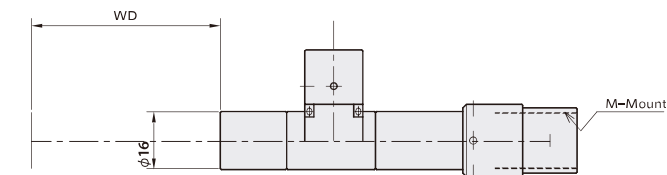


以供定制样品款式

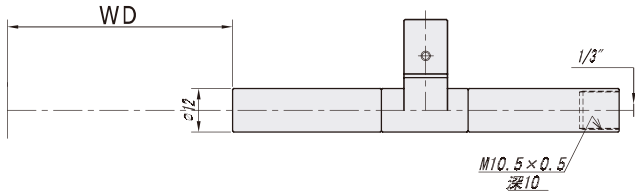
φ 12mm镜头90度C接口型号



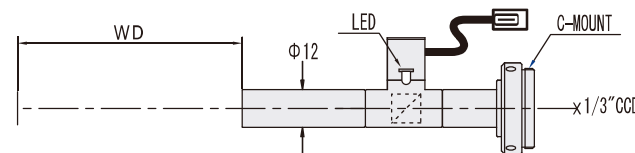
φ 16mm 内置同轴光型号



同轴光型号供M10.5 P0.5



φ 12mm镜头接口型号

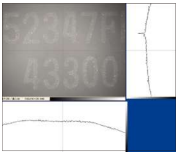


* LED光源 : 0.3A/12V

VS-TCH Series 2/3"

高对比度

其他产品



VS-TCH系列

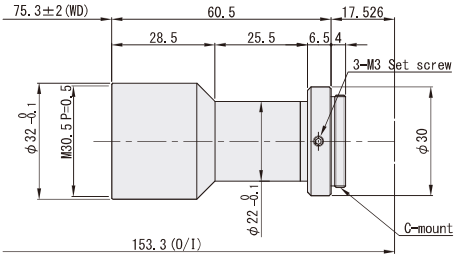


将TC系列的WD65, 110mm的镜头转化为百万像素的高解像度的新远心镜头系列。

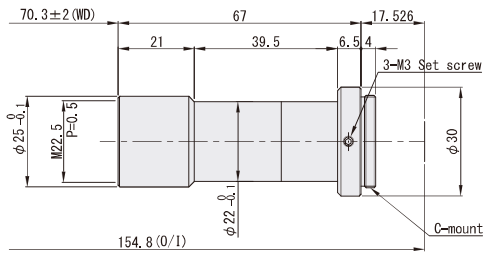
此系列的最大特征为能够对应近几年的百万像素相机、彻底提高失真和对比度、实现全部画面无失真、无光量差异、可以取得高品质的画像。

WD:65-75mm

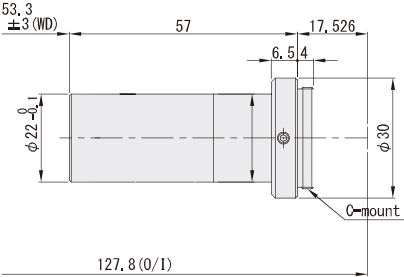
VS-TCH05-65



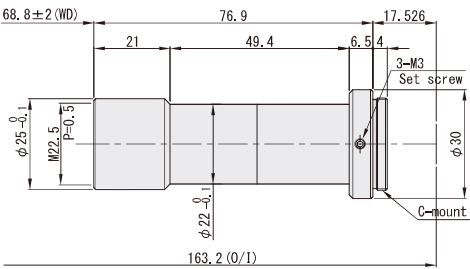
VS-TCH08-65



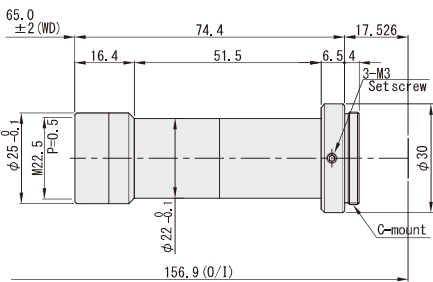
VS-TCH1-50



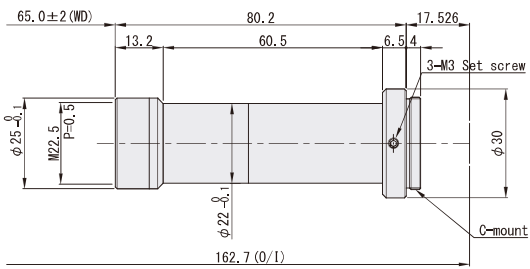
VS-TCH1-65



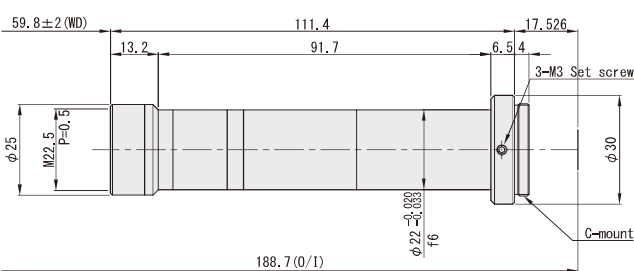
VS-TCH1.5-65



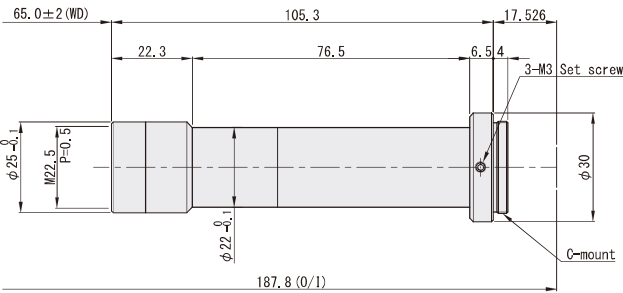
VS-TCH2-65



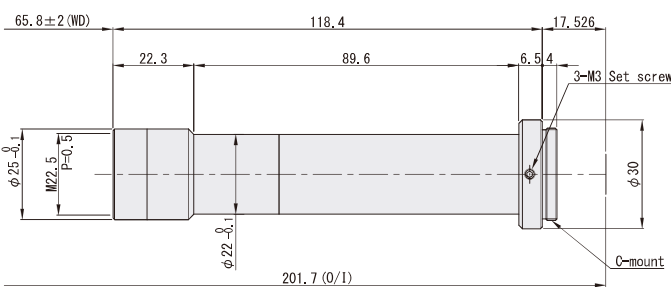
VS-TCH3-60



VS-TCH4-65

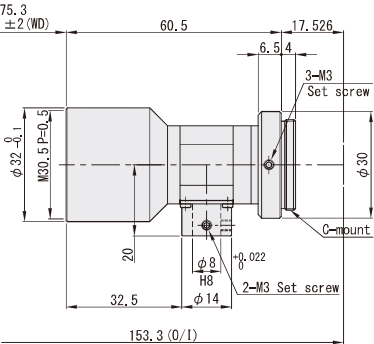


VS-TCH6-65

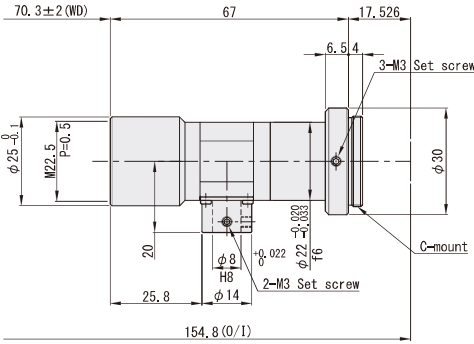


规格	VS-TCH05-65	VS-TCH08-65	VS-TCH1-50	VS-TCH1-65	VS-TCH1.5-65	VS-TCH2-65	VS-TCH3-60	VS-TCH4-65	VS-TCH6-65
光学倍率	0.5x ± 5 %	0.8x ± 5 %	1.0x ± 5 %	1.0x ± 5 %	1.5x ± 5 %	2.0x ± 5 %	3.0x ± 5 %	4.0x ± 5 %	6.0x ± 5 %
视野 (VxH)	2/3"	14.2 x 16.8 mm	8.9 x 10.5 mm	7.1 x 8.4 mm	7.1 x 8.4 mm	4.7 x 5.6 mm	3.6 x 4.2 mm	2.4 x 2.8 mm	1.8 x 2.1 mm
	1/2"	9.6 x 12.8 mm	6.0 x 8.0 mm	4.8 x 6.4 mm	4.8 x 6.4 mm	3.2 x 4.3 mm	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.4 mm
WD	1/3"	7.2 x 9.6 mm	4.5 x 6.0 mm	3.6 x 4.8 mm	3.6 x 4.8 mm	2.4 x 3.2 mm	1.8 x 2.4 mm	1.2 x 1.6 mm	0.8 x 1.1 mm
		75.3 mm ± 2	70.3 mm ± 2	53.3 mm ± 3	68.8 mm ± 2	65.0 mm ± 2	65.0 mm ± 2	59.8 mm ± 2	65.0 mm ± 2
物像间距离O/I		153.3 mm	154.8 mm	127.8 mm	163.2 mm	156.9 mm	162.7 mm	188.7 mm	201.7 mm
实效F		9.4	9.6	9.9	9.9	11.8	13.6	20.5	17.9
NA		0.027	0.042	0.050	0.050	0.064	0.074	0.073	0.112
景深 允许错乱值φ0.04mm		3.0 mm	1.2 mm	0.8 mm	0.8 mm	0.4 mm	0.3 mm	0.2 mm	0.09 mm
TV失真 (2/3")		0.02 %	0.01 %	0.02 %	0.01 %	0.01 %	0.03 %	0.01 %	0.02 %
周边光亮 (Y=5.5)		94 %	98 %	99 %	99 %	100 %	98 %	99 %	85 %
适合芯片		2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式		—	—	—	—	—	—	—	—
滤镜口径		M 30.5 P=0.5	M 22.5 P=0.5	—	M 22.5 P=0.5	M 22.5 P=0.5	M 22.5 P=0.5	M 22.5 P=0.5	M 22.5 P=0.5
重量		62 g	58 g	47 g	60 g	60 g	58 g	72 g	80 g

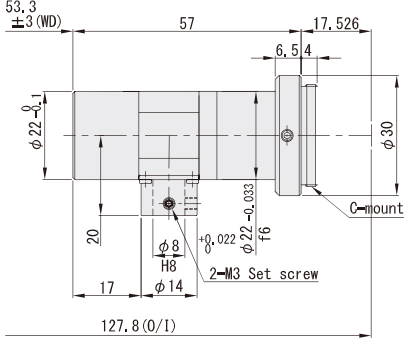
VS-TCH05-65CO



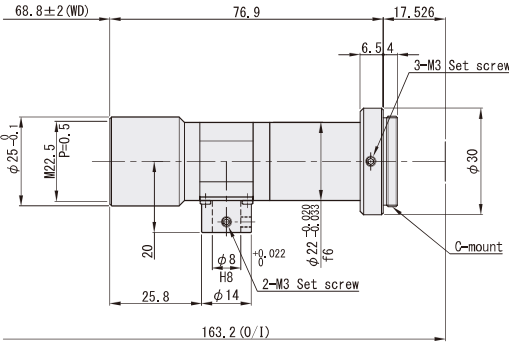
VS-TCH08-65CO



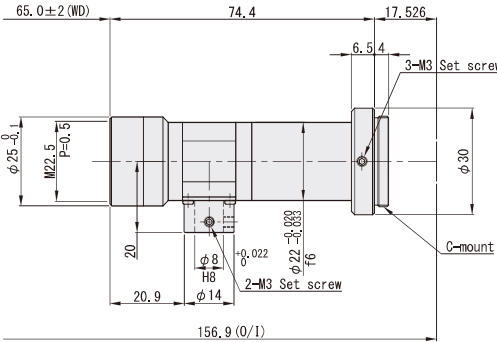
VS-TCH1-50CO



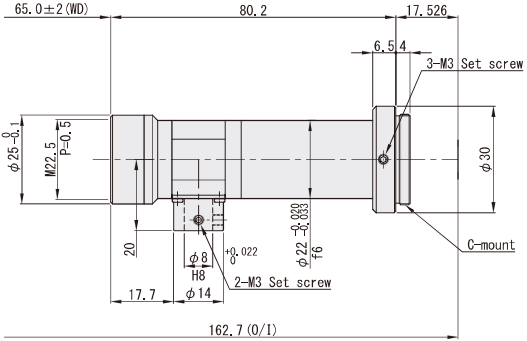
VS-TCH1-65CO



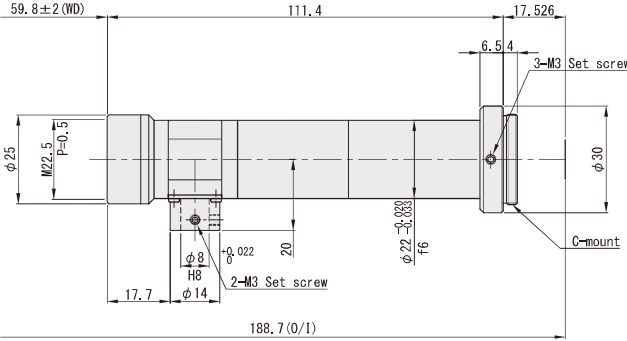
VS-TCH1.5-65CO



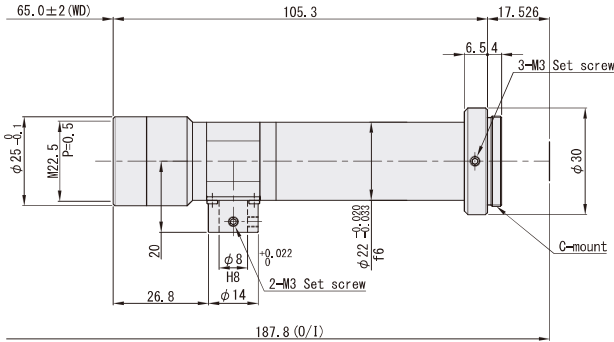
VS-TCH2-65CO



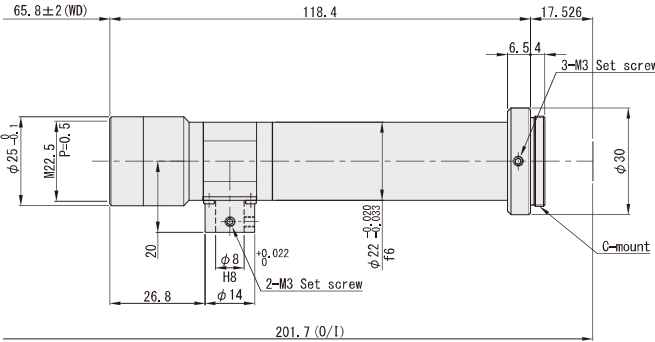
VS-TCH3-60CO



VS-TCH4-65CO



VS-TCH6-65CO

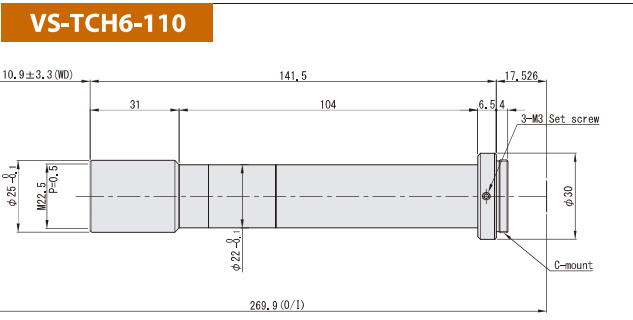
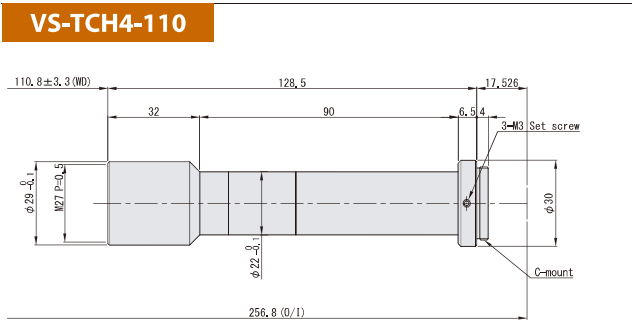
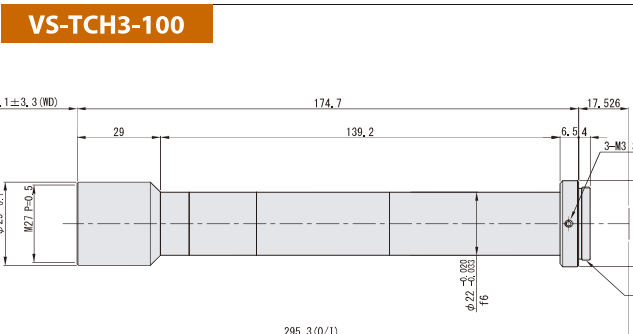
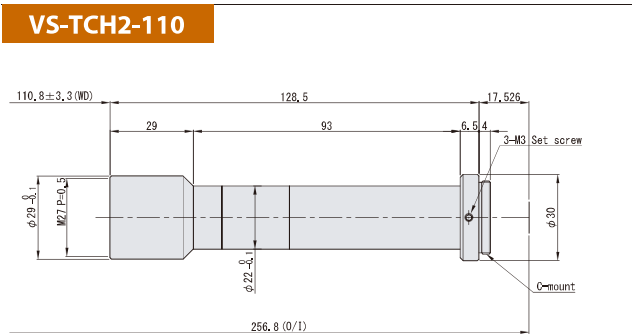
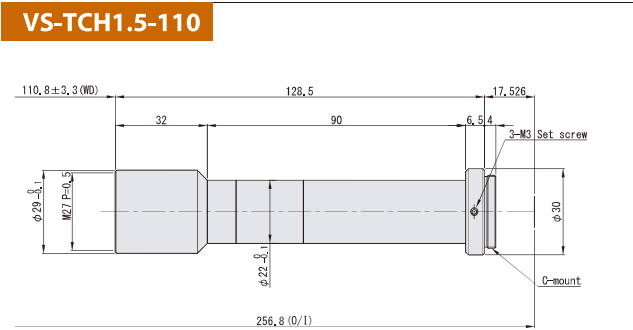
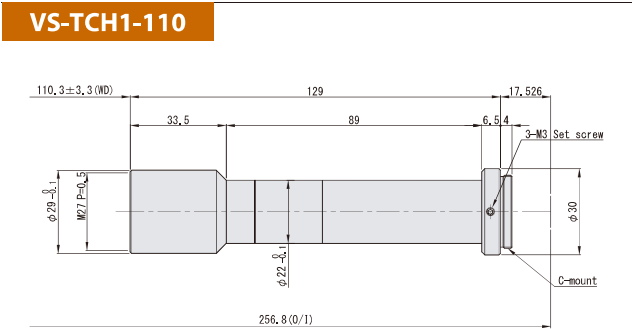
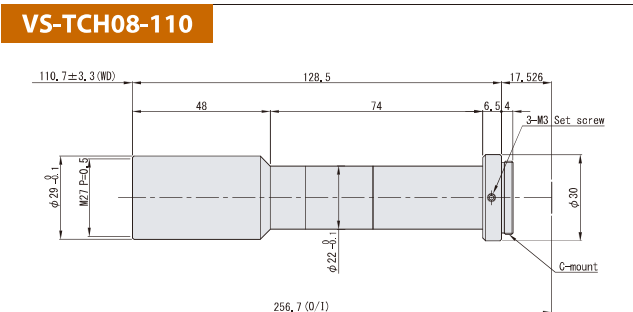
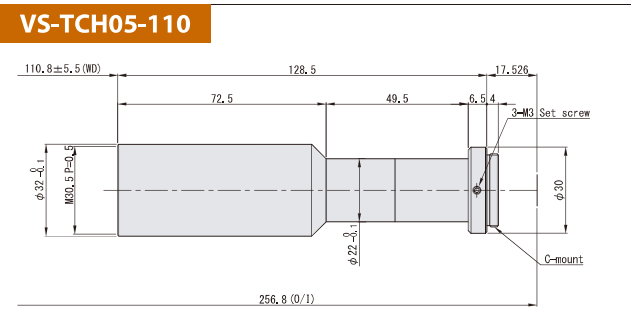


规格	VS-TCH05-65CO	VS-TCH08-65CO	VS-TCH1-50CO	VS-TCH1-65CO	VS-TCH1.5-65CO	VS-TCH2-65CO	VS-TCH3-60CO	VS-TCH4-65CO	VS-TCH6-65CO
光学倍率	0.5x $\pm 5\%$	0.8x $\pm 5\%$	1.0x $\pm 5\%$	1.0x $\pm 5\%$	1.5x $\pm 5\%$	2.0x $\pm 5\%$	3.0x $\pm 5\%$	4.0x $\pm 5\%$	6.0x $\pm 5\%$
视野 (VxH)	2/3"	14.2 x 16.8 mm	8.9 x 10.5 mm	7.1 x 8.4 mm	7.1 x 8.4 mm	4.7 x 5.6 mm	3.6 x 4.2 mm	2.4 x 2.8 mm	1.8 x 2.1 mm
	1/2"	9.6 x 12.8 mm	6.0 x 8.0 mm	4.8 x 6.4 mm	4.8 x 6.4 mm	3.2 x 4.3 mm	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.6 mm
	1/3"	7.2 x 9.6 mm	4.5 x 6.0 mm	3.6 x 4.8 mm	3.6 x 4.8 mm	2.4 x 3.2 mm	1.8 x 2.4 mm	1.2 x 1.6 mm	0.9 x 1.2 mm
WD	75.3 mm ± 2	70.3 mm ± 2	53.3 mm ± 3	68.8 mm ± 2	65.0 mm ± 2	65.0 mm ± 2	59.8 mm ± 2	65.0 mm ± 2	65.8 mm ± 2
物像间距离O/I	153.3 mm	154.8 mm	127.8 mm	163.2 mm	156.9 mm	162.7 mm	188.7 mm	187.8 mm	201.7 mm
实效F	9.4	9.6	9.9	9.9	11.8	13.6	20.5	17.9	27.0
NA	0.027	0.042	0.050	0.050	0.064	0.074	0.073	0.112	0.111
景深 允许模糊值 $\phi 0.04$ mm	3.0 mm	1.2 mm	0.8 mm	0.8 mm	0.4 mm	0.3 mm	0.2 mm	0.09 mm	0.06 mm
TV失真 (2/3")	0.02 %	0.01 %	0.02 %	0.01 %	0.01 %	0.03 %	0.01 %	0.02 %	0.02 %
周边光亮 (Y=5.5)	94 %	98 %	99 %	99 %	100 %	98 %	99 %	85 %	84 %
适合芯片	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
滤镜口径	M 30.5 P = 0.5	M 22.5 P = 0.5		M 22.5 P = 0.5	M 22.5 P = 0.5	M 22.5 P = 0.5	M 22.5 P = 0.5	M 22.5 P = 0.5	M 22.5 P = 0.5
重量	66 g	62 g	52 g	64 g	64 g	62 g	76 g	84 g	92 g

High Resolution Telecentric Lens

VS-TCH Series

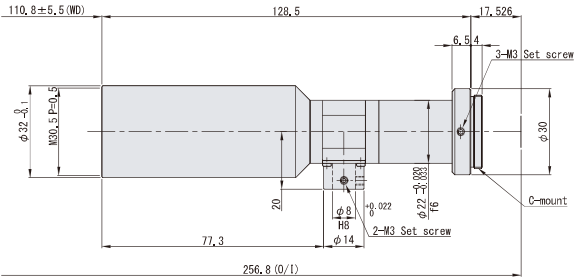
WD:110mm



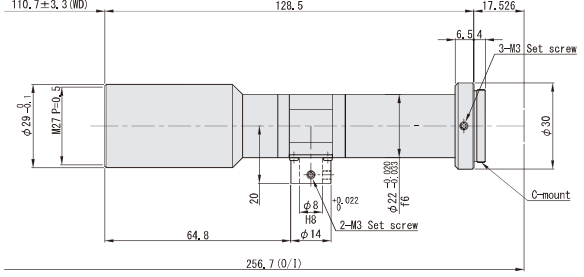
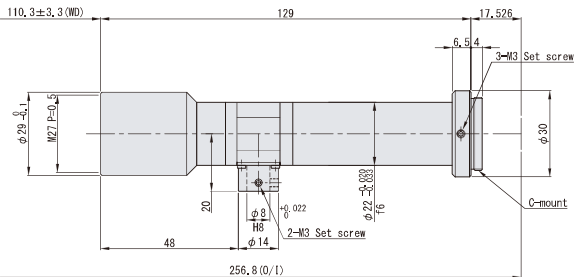
规格	VS-TCH05-110	VS-TCH08-110	VS-TCH1-110	VS-TCH1.5-110	VS-TCH2-110	VS-TCH3-100	VS-TCH4-110	VS-TCH6-110
光学倍率	0.5x ±5 %	0.8x ±5 %	1.0x ±5 %	1.5x ±5 %	2.0x ±5 %	3.0x ±5 %	4.0x ±5 %	6.0x ±5 %
视野 (VxH)	2/3''	14.2 x 16.8 mm	8.9 x 10.5 mm	7.1 x 8.4 mm	4.7 x 5.6 mm	3.6 x 4.2 mm	2.4 x 2.8 mm	1.8 x 2.1 mm
	1/2''	9.6 x 12.8 mm	6.0 x 8.0 mm	4.8 x 6.4 mm	3.2 x 4.3 mm	2.4 x 3.2 mm	1.6 x 2.1 mm	1.2 x 1.6 mm
	1/3''	7.2 x 9.6 mm	4.5 x 6.0 mm	3.6 x 4.8 mm	2.4 x 3.2 mm	1.8 x 2.4 mm	1.2 x 1.6 mm	0.9 x 1.2 mm
WD	110.8 mm ±5.5	110.7 mm ±3.3	110.3 mm ±3.3	110.8 mm ±3.3	110.8 mm ±3.3	103.1 mm ±3.3	110.8 mm ±3.3	110.9 mm ±3.3
物像间距离O/I	256.8 mm	256.7 mm	256.8 mm	256.8 mm	256.8 mm	295.3 mm	256.8 mm	269.9 mm
实效F	9.5	11.0	10.5	12.0	13.5	20.9	22.2	39.3
NA	0.026	0.036	0.048	0.063	0.074	0.072	0.090	0.076
景深 允许模糊值φ0.04mm	3.0 mm	1.4 mm	0.8 mm	0.4 mm	0.3 mm	0.2 mm	0.1 mm	0.09 mm
TV失真 (2/3'')	0.02 %	0.02 %	0.02 %	0.02 %	0.03 %	0.01 %	0.03 %	0.03 %
周边光亮 (Y=5.5)	98 %	99 %	99 %	99 %	95 %	99 %	87 %	87 %
适合芯片	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式	—	—	—	—	—	—	—	—
滤镜口径	M 30.5 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 22.5 P = 0.5
重量	92 g	92 g	92 g	84 g	88 g	110 g	90 g	90 g

High Resolution Telecentric Lens **VS-TCH Series**

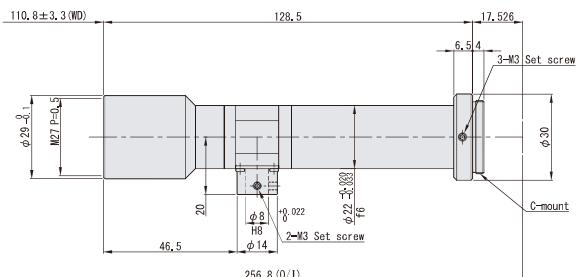
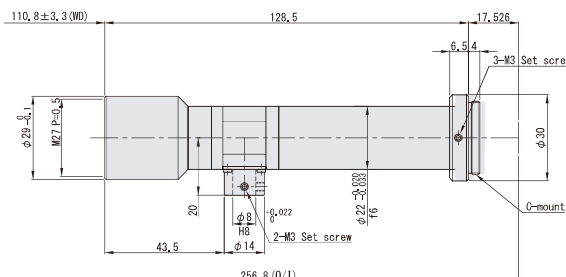
VS-TCH05-110CO



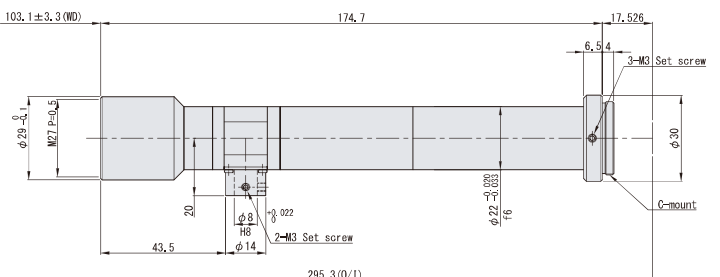
VS-TCH08-110CO

**VS-TCH1-110CO**

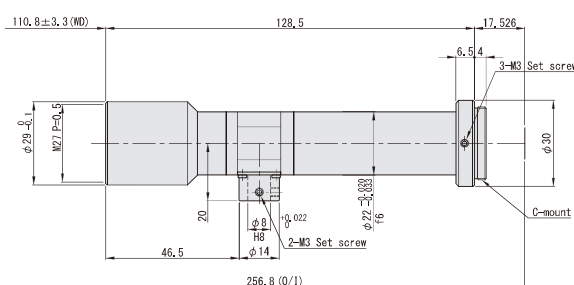
VS-TCH1.5-110CO

**VS-TCH2-110CO**

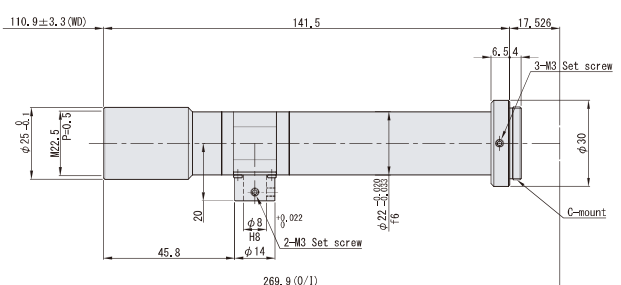
VS-TCH3-100CO



VS-TCH4-110CO



VS-TCH6-110CO



规格		VS-TCH05-110CO	VS-TCH08-110CO	VS-TCH1-110CO	VS-TCH1.5-110CO	VS-TCH2-110CO	VS-TCH3-100CO	VS-TCH4-110CO	VS-TCH6-110CO
光学倍率		0.5x ± 5%	0.8x ± 5%	1.0x ± 5%	1.5x ± 5%	2.0x ± 5%	3.0x ± 5%	4.0x ± 5%	6.0x ± 5%
视野 (V×H)	2/3"	14.2 × 16.8 mm	8.9 × 10.5 mm	7.1 × 8.4 mm	4.7 × 5.6 mm	3.6 × 4.2 mm	2.4 × 2.8 mm	1.8 × 2.1 mm	1.2 × 1.4 mm
	1/2"	9.6 × 12.8 mm	6.0 × 8.0 mm	4.8 × 6.4 mm	3.2 × 4.3 mm	2.4 × 3.2 mm	1.6 × 2.1 mm	1.2 × 1.6 mm	0.8 × 1.1 mm
	1/3"	7.2 × 9.6 mm	4.5 × 6.0 mm	3.6 × 4.8 mm	2.4 × 3.2 mm	1.8 × 2.4 mm	1.2 × 1.6 mm	0.9 × 1.2 mm	0.6 × 0.8 mm
WD		110.8 mm ± 5.5	110.7 mm ± 3.3	110.3 mm ± 3.3	110.8 mm ± 3.3	110.8 mm ± 3.3	103.1 mm ± 3.3	110.8 mm ± 3.3	110.9 mm ± 3.3
物像间距离O/I		256.8 mm	256.7 mm	256.8 mm	256.8 mm	256.8 mm	295.3 mm	256.8 mm	269.9 mm
实效F		9.5	11.0	10.5	12.0	13.5	20.9	22.2	39.3
NA		0.026	0.036	0.048	0.063	0.074	0.072	0.090	0.076
景深 允许偏差值±0.04mm		3.0 mm	1.4 mm	0.8 mm	0.4 mm	0.3 mm	0.2 mm	0.1 mm	0.09 mm
TV失真 (2/3")		0.02 %	0.02 %	0.02 %	0.02 %	0.03 %	0.01 %	0.03 %	0.03 %
周边光晕 (Y=5.5)		98 %	99 %	99 %	99 %	95 %	99 %	87 %	87 %
适合芯片		2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式		Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
滤镜口径		M 30.5 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 27 P = 0.5	M 22.5 P = 0.5
重量		98 g	98 g	96 g	88 g	94 g	114 g	96 g	94 g

-

Technical drawing of the C-mount adapter showing dimensions in mm. The drawing includes a side view and a cross-section view. Key dimensions include: total length 64.8 ± 0.1, mounting hole diameter 16.4 ± 0.1, front flange diameter 48, front flange thickness 3.6, rear flange diameter 22, rear flange thickness 1.6, and various internal diameters and lengths. A 3-M3 Set screw is shown securing the rear flange. The adapter is labeled 'C-mount'.

[illegible]

Technical drawing of the C-mount adapter (169.7.0/1) showing dimensions and components. The drawing includes the following dimensions and labels:

- Overall length: $66,3 \pm 2$ (MD)
- Distance from front face to start of iris ring: 35,5
- Distance from start of iris ring to end of C-mount: 50,4
- Distance from end of C-mount to end of adapter: 17,526
- Distance from front face to end of C-mount: 85,9
- Front diameter: $\varnothing 28$
- Back diameter: $\varnothing 36$
- Components labeled: M2,6 Set screw, 3-M3 Set screw, Iris ring, C-mount

Technical drawing of the C-mount assembly showing dimensions and components. The drawing includes the following labels and dimensions:

- Top dimensions: $65.0 \pm 2 (WD)$, 17, 49.8, 29, 4, 17.526, 95.8
- Left side dimensions: $\phi 38$, $\phi 32$
- Right side dimensions: $\phi 32$
- Components labeled: M2.6 Set screw, Iris ring, 3-M3 Set screw, C-mount
- Bottom dimension: 178.3 (0/1)

Technical drawing of the front view of a lens assembly. The drawing shows a cylindrical lens with a central iris ring. Dimensions include: total width 65.0 ± 2 (WD), lens diameter 17.526, iris ring diameter 14.2, and various mounting hole diameters and positions. Labels include 'M2.6 Set screw', '3-M3 Set screw', 'Iris ring', and 'Mount'.

Technical drawing of the 178,3 (0/1) camera module. The drawing shows a side view of the module with the following dimensions and components:

- Overall length: $95,8$
- Distance from mounting hole to lens center: 17
- Distance from lens center to C-mount: $49,8$
- Distance from C-mount to mounting hole: 29
- Distance from mounting hole to end of module: $17,526$
- Mounting hole diameter: $\phi 32$
- Module diameter: $\phi 32$
- Components: M2,6 Set screw, Iris ring, C-mount, 3-M3 Set screw

Technical drawing of the front view of a lens assembly. The drawing shows a cylindrical lens with a central iris ring. Dimensions include overall length 178.3 (0/1), total diameter 65.0 ± 2 (WD), and various internal diameters and lengths. Callouts identify 'M2.6 Set screw', 'Iris ring', '0-mount', and '3-M3 Set screw'.

WD:110-335mm

Technical drawing of the C-mount adapter showing dimensions and assembly details:

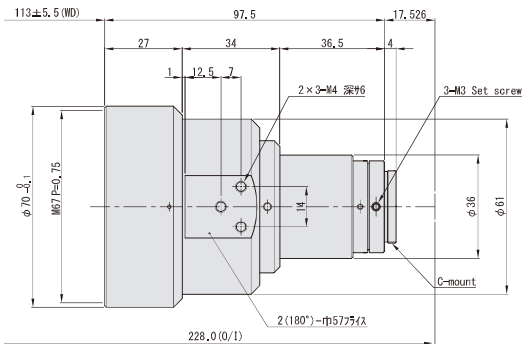
- Overall length: 183.5 ± 0.10 (MM)
- Distance from front flange to start of taper: 56.5
- Distance from start of taper to end of adapter: 132.5
- Distance from end of adapter to C-mount flange: 17.526
- Flange thickness: 4
- Front flange diameter: $\phi 170$
- Front flange thickness: $M12 P=1.0$
- Adapter body diameter: $\phi 104$
- Assembly details:
 - 4-M4 P-0.7 深6 (4x M4 P-0.7 6mm deep)
 - 3-M2.6 Set screw (3x M2.6 Set screw)
 - M2 Lock screw (M2 Lock screw)
 - 3-M3 Set screw (3x M3 Set screw)
 - C-mount (C-mount)
- Overall diameter of C-mount flange: $\phi 96$
- Flange thickness: 0.99

规格		VS-TCM01-180/S
光学倍率		0.1x ± 5 %
视 野 (VxH)	1/1.8"	54.0 x 71.0 mm
	1/2"	48.0 x 64.0 mm
	1/3"	36.0 x 48.0 mm
WD		183.5 mm ± 6
物像间距离O/I		390.0 mm
实效F		5.6
NA		0.009
景深 允许模糊圈Φ0.04mm		44.8 mm
TV失真 (1/1.8")		0.01 %
适合芯片		1/1.8"
照明方式		—
滤镜口径		M 112 P = 1.0
重量		940 g

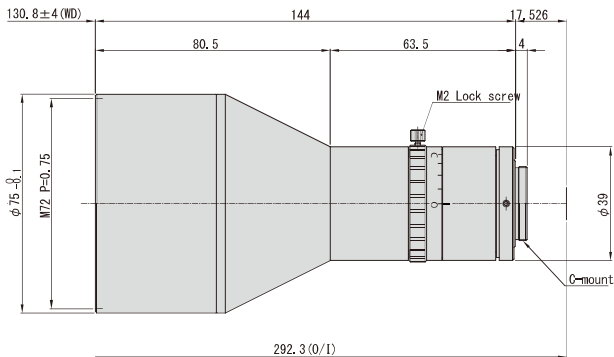
[illegible]

WD:110-335mm

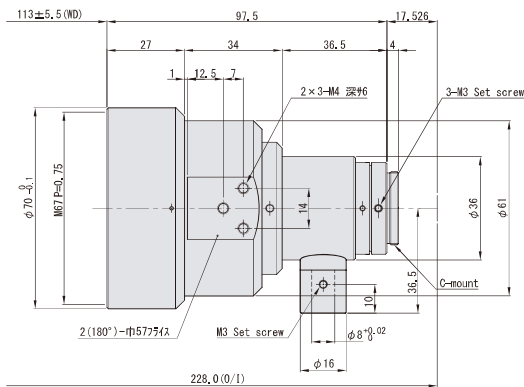
VS-TCM017-110



VS-TCM019-130/S

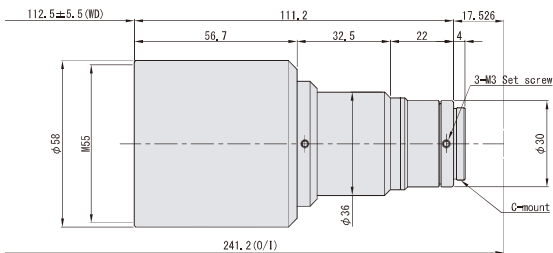


VS-TCM017-110CO

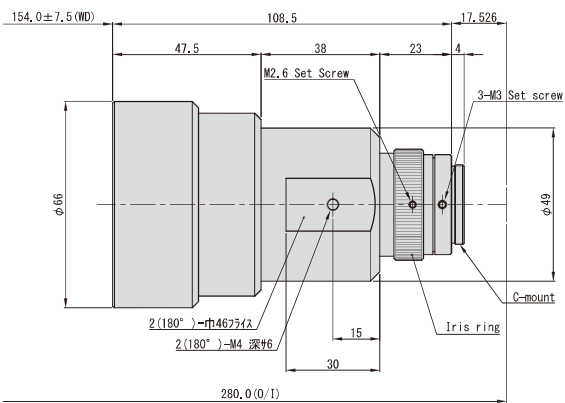


规格	VS-TCM017-110	VS-TCM017-110CO	VS-TCM019-130/S
光学倍率	0.17x ± 5 %	0.17x ± 5 %	0.19x ± 5 %
视野 (VxH)	2/3"	—	37.4 x 44.2 mm
	1/1.8"	31.8 x 41.8 mm	28.4 x 37.4 mm
	1/2"	28.2 x 37.6 mm	25.3 x 33.7 mm
	1/3"	21.2 x 28.2 mm	18.9 x 25.3 mm
WD	113.0 mm ± 5.5	113.0 mm ± 5.5	130.8 mm ± 4
物像间距离O/I	228.0 mm	228.0 mm	292.3 mm
实效F	4.0	4.0	4.3
NA	0.021	0.021	0.022
景深 允许误差±0.04mm	11.1 mm	11.1 mm	9.5 mm
TV失真 (1/1.8")	0.02 %	0.02 %	-0.01 %
适合芯片	1/1.8"	1/1.8"	2/3"
照明方式	—	Built-in	—
滤镜口径	M 67 P = 0.75	M 67 P = 0.75	M 72 P = 0.75
重量	380 g	390 g	410 g

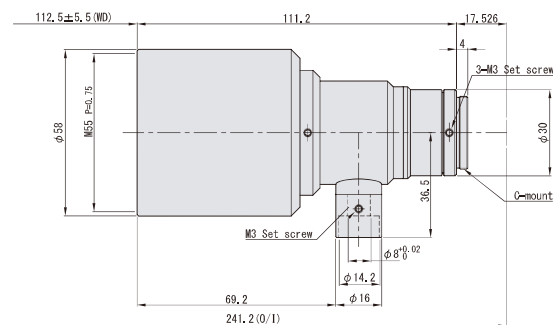
VS-TCM022-110-1/1.8"



VS-TCM022-150/S



VS-TCM022-110CO-1/1.8"

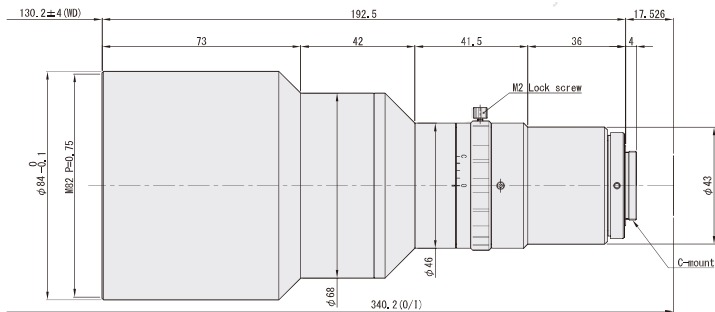


规格	VS-TCM 022-110-1/1.8"	VS-TCM 022-110CO-1/1.8"	VS-TCM022-150/S
光学倍率	0.22x ± 5 %	0.22x ± 5 %	0.22x ± 5 %
视野 (VxH)	2/3"	—	32.3 x 38.2 mm
	1/1.8"	24.5 x 32.3 mm	24.5 x 32.3 mm
	1/2"	21.8 x 29.1 mm	21.8 x 29.1 mm
	1/3"	16.4 x 21.8 mm	16.4 x 21.8 mm
WD	112.5 mm ± 5.5	112.5 mm ± 5.5	154.0 mm ± 7.5
物像间距离O/I	241.2 mm	241.2 mm	280 mm
实效F	5.6	5.6	5.5
NA	0.020	0.020	0.020
景深 允许误差±0.04mm	9.3 mm	9.3 mm	9.1 mm
TV失真 (1/1.8")	0.05 %	0.05 %	0.02 %
适合芯片	1/1.8"	1/1.8"	2/3"
照明方式	—	Built-in	—
滤镜口径	M 55 P = 0.75	M 55 P = 0.75	—
重量	380 g	380 g	360 g

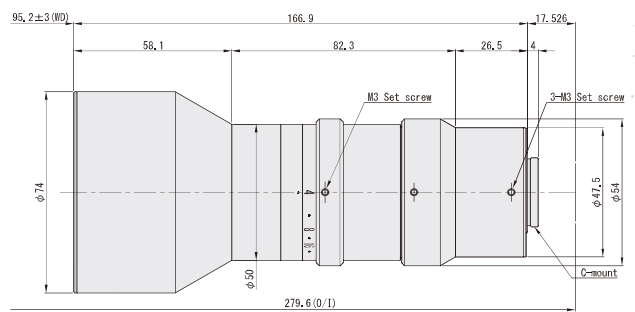
■ 1.1" (大像圈版本)

VS-TCM03-130/S

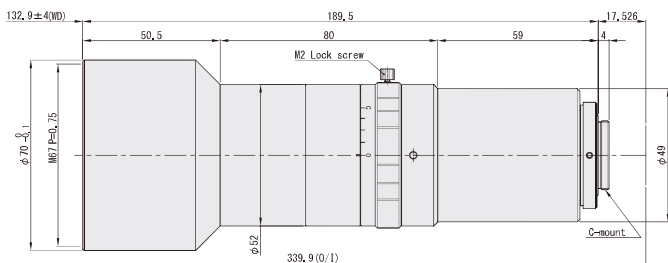
双侧远心镜头

**VS-TCM04-100/S**

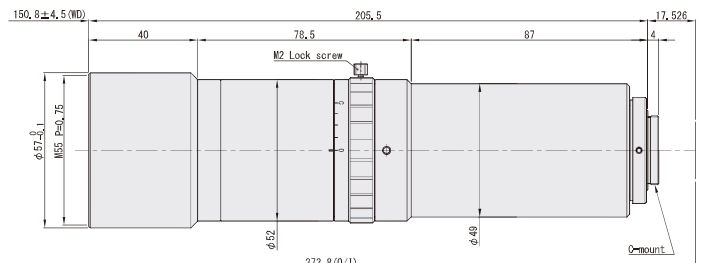
双侧远心镜头

**VS-TCM05-130/S**

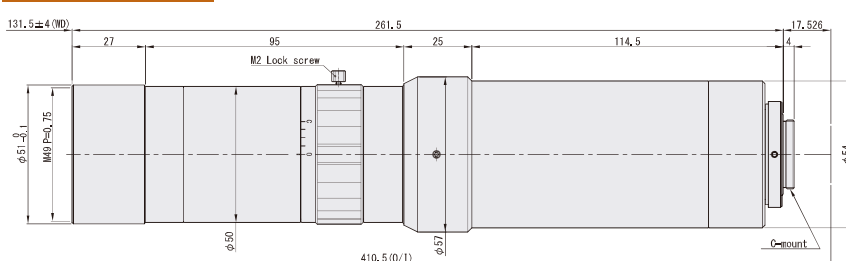
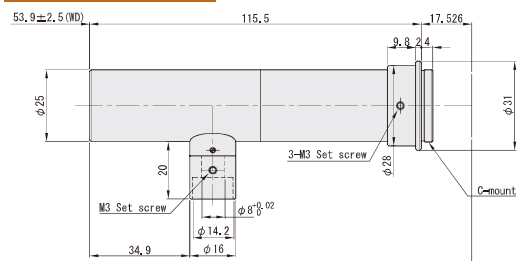
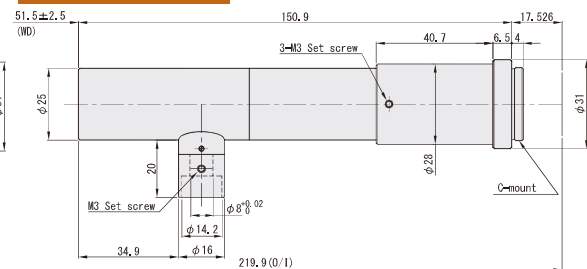
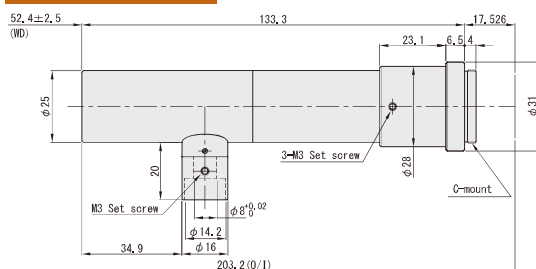
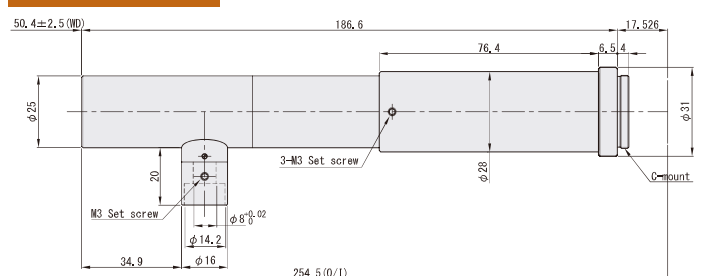
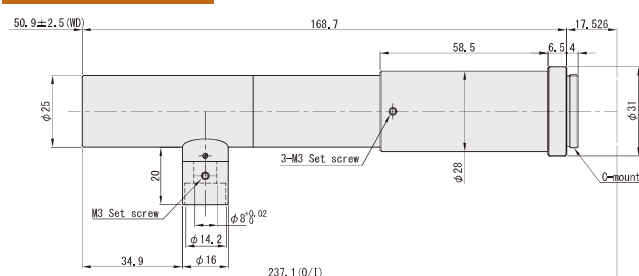
双侧远心镜头

**VS-TCM07-150/S**

双侧远心镜头

**VS-TCM1-130/S**

双侧远心镜头

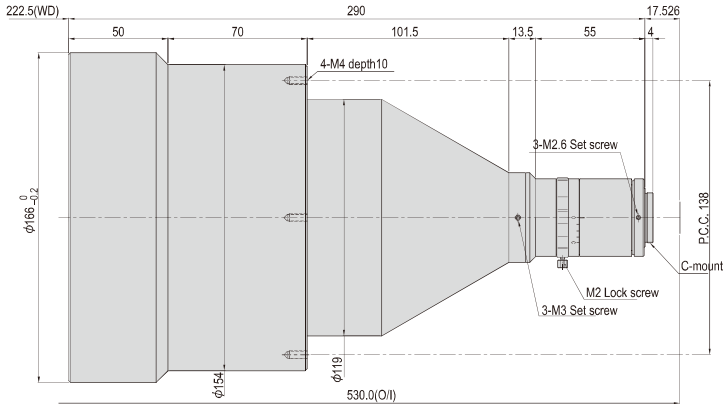
**VS-TCM3-50CO****VS-TCM4-50CO****VS-TCM5-50CO****VS-TCM6-50CO****VS-TCM7-50CO**

规格	VS-TCM03-130/S	VS-TCM04-100/S	VS-TCM05-130/S	VS-TCM07-150/S	VS-TCM1-130/S	VS-TCM3-50CO	VS-TCM4-50CO	VS-TCM5-50CO	VS-TCM6-50CO	VS-TCM7-50CO
光学倍率	0.3x ± 5 %	0.4x ± 5 %	0.5x ± 5 %	0.7x ± 5 %	1.0x ± 5 %	3.0x ± 5 %	4.0x ± 5 %	5.0x ± 5 %	6.0x ± 5 %	7.0x ± 5 %
视野 (VxH)	1''	37.5 × 37.5 mm	28.2 × 28.2 mm	22.5 × 22.5 mm	16.1 × 16.1 mm	11.3 × 11.3 mm	3.8 × 2.8 mm	2.8 × 2.3 mm	1.9 × 1.9 mm	1.6 × 1.6 mm
	2/3''	23.7 × 28.0 mm	17.8 × 21.0 mm	14.2 × 16.8 mm	10.1 × 12.0 mm	7.1 × 8.4 mm	2.4 × 2.8 mm	1.8 × 2.1 mm	1.4 × 1.7 mm	1.2 × 1.4 mm
	1/2''	16.0 × 21.3 mm	12.0 × 16.0 mm	9.6 × 12.8 mm	6.9 × 9.1 mm	4.8 × 6.4 mm	1.6 × 2.1 mm	1.2 × 1.6 mm	1.0 × 1.3 mm	0.8 × 1.1 mm
WD	130.2 mm ± 4	95.2 mm ± 3	132.9 mm ± 4	150.8 mm ± 4.5	131.5 mm ± 4	53.9 mm ± 2.5	52.4 mm ± 2.5	51.5 mm ± 2.5	50.9 mm ± 2.5	50.4 mm ± 2.5
物像间距离O/I	340.2 mm	279.6 mm	339.9 mm	373.8 mm	410.5	186.9 mm	203.2 mm	219.9 mm	237.1 mm	254.5 mm
实效F	5,8	4,0	4,6	5,3	6,3	15,0	20,0	25,0	30,0	35,0
NA	0,026	0,050	0,055	0,066	0,080	0,100	0,100	0,100	0,100	0,100
景深 允许误差±0.04mm	5.1 mm	2.0 mm	1.5 mm	0.9 mm	0.5 mm	0.1 mm	0.1 mm	0.08 mm	0.07 mm	0.06 mm
TV失真(1'')	0.01 %	0.02 %	-0.02%	0.01%	0.00%	0.32 %	0.09 %	0.03 %	0.00 %	0.00 %
像圈	φ20 mm	φ16 mm	φ18 mm	φ18 mm	φ18 mm	φ18.5 mm	φ22 mm	φ22 mm	φ22 mm	φ22 mm
同轴照明方式	—	—	—	—	—	Built-in	Built-in	Built-in	Built-in	Built-in
滤镜口径	M 82 P = 0.75	—	M 67 P = 0.75	M 55 P = 0.75	M 49 P = 0.75	—	—	—	—	—
重量	940 g	680 g	720 g	580 g	610 g	120 g	132 g	148 g	155 g	160 g

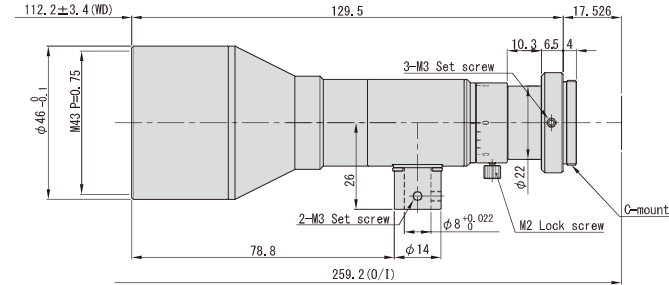
VS-THV Series 1" 1/1.2"

4~9百万像素对应1"相机芯片远心镜头，通过可变光圈将物体的景深和对比度调节至平衡，有直筒式和带同轴光的二种商品阵容，画面全体采用低失真设计，紧凑型模式。

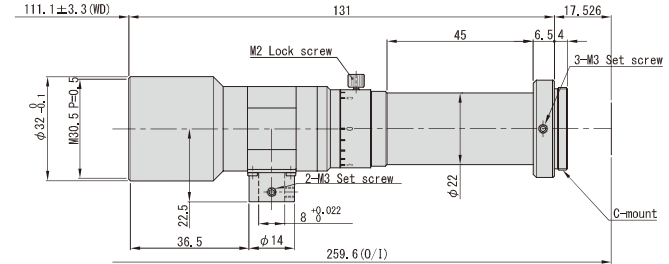
VS-THV011-220/S



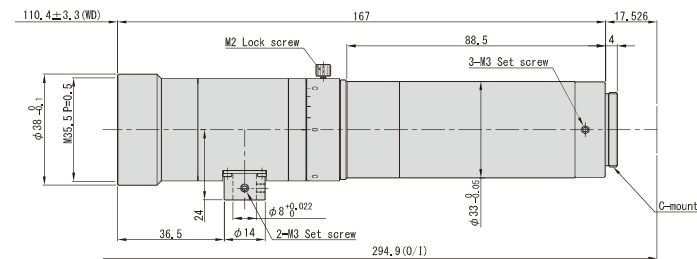
VS-THV05-110CO/S



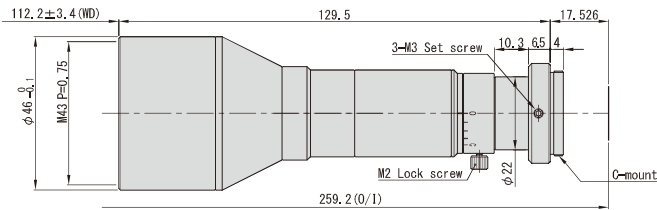
VS-THV1-110CO/S



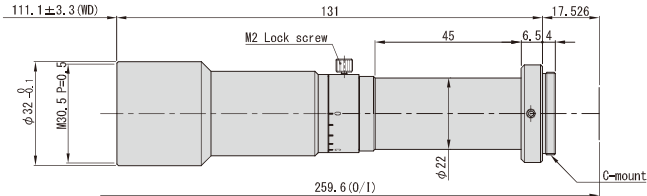
VS-THV2-110CO/S



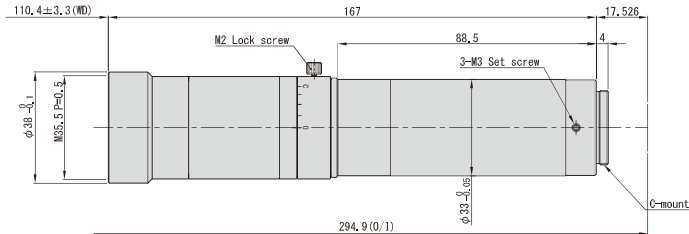
VS-THV05-110/S



VS-THV1-110/S

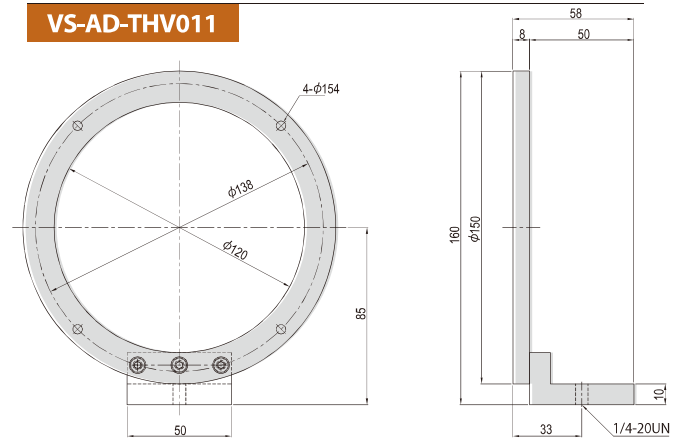


VS-THV2-110/S



VS-THV011-220用固定支架

VS-AD-THV011



规格	VS-THV011-220/S	VS-THV05-110/S	VS-THV05-110CO/S	VS-THV1-110/S	VS-THV1-110CO/S	VS-THV2-110/S	VS-THV2-110CO/S
光学倍率	0.11x $\pm$ 5 %	0.5x $\pm$ 5 %	0.5x $\pm$ 5 %	1.0x $\pm$ 5 %	1.0x $\pm$ 5 %	2.0x $\pm$ 5 %	2.0x $\pm$ 5 %
视野 (VxH)	1" 102.4 x 102.4 mm	22.5 x 22.5 mm	22.5 x 22.5 mm	11.3 x 11.3 mm	11.3 x 11.3 mm	5.6 x 5.6 mm	5.6 x 5.6 mm
	2/3" 64.5 x 76.4 mm	14.2 x 16.8 mm	14.2 x 16.8 mm	7.1 x 8.4 mm	7.1 x 8.4 mm	3.6 x 4.2 mm	3.6 x 4.2 mm
	1/3" 43.6 x 58.2 mm	9.6 x 12.8 mm	9.6 x 12.8 mm	4.8 x 6.4 mm	4.8 x 6.4 mm	2.4 x 3.2 mm	2.4 x 3.2 mm
WD	222.5 mm	112.2 mm $\pm$ 3.4	112.2 mm $\pm$ 3.4	111.1 mm $\pm$ 3.3	111.1 mm $\pm$ 3.3	110.4 mm $\pm$ 3.3	110.4 mm $\pm$ 3.3
物像间距离O/I	530.0 mm	259.2 mm	259.2 mm	259.6 mm	259.6 mm	294.9 mm	294.9 mm
实效F*光圈全开	5.6	10.0	10.0	10.5	10.5	10.0	10.0
NA	0.010	0.025	0.025	0.048	0.048	0.100	0.100
景深 允许模糊度 ϕ 0.04mm	37.0 mm	3.2 mm	3.2 mm	0.8 mm	0.8 mm	0.2 mm	0.2 mm
TV失真 (1')	0.01 %	-0.02 %	-0.02 %	0.02 %	0.02 %	0.02 %	0.02 %
适合芯片	1"	1"	1"	1"	1"	1"	1"
同轴照明方式	—	—	Built-in	—	Built-in	—	Built-in
滤镜口径	—	M 43 P = 0.75	M 43 P = 0.75	M 30.5 P = 0.5	M 30.5 P = 0.5	M 35.5 P = 0.5	M 35.5 P = 0.5
重量	2460 g	146 g	155 g	124 g	128 g	235 g	240 g

1.1" Telecentric Lens / 对应1.1" 相机芯片远心镜头

支持12MP 1.1" 3.45um 相机
全部倍率采用一个O/I设计

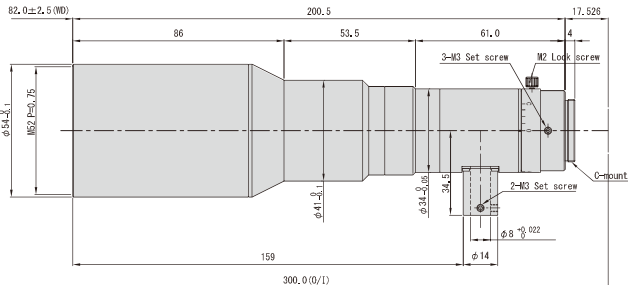
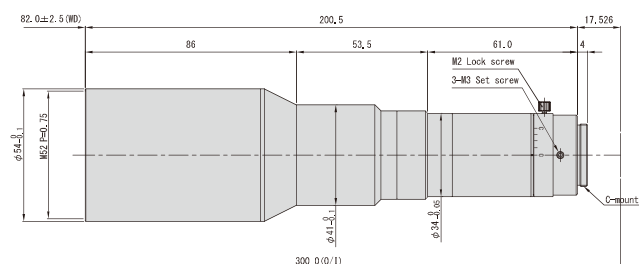
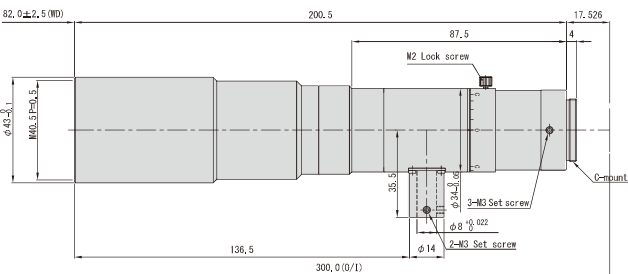
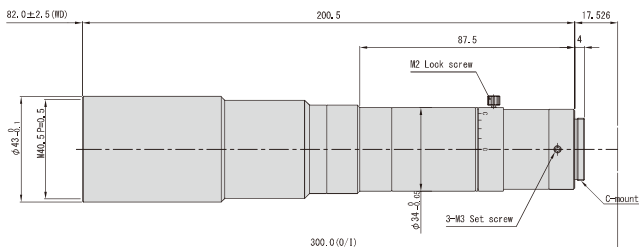
3.45 μm

- 三个倍率可选择0.5x / 0.8x / 1.0x / 2.0x
- 该系列镜头全部一个O/I设计
- 有内同轴款可配套选择
- 可调光圈

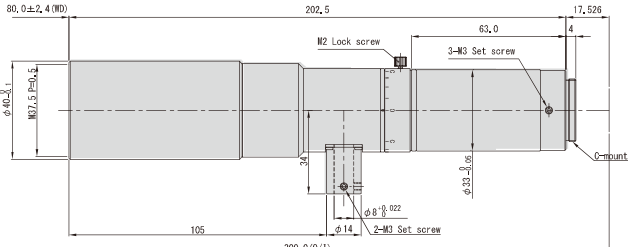
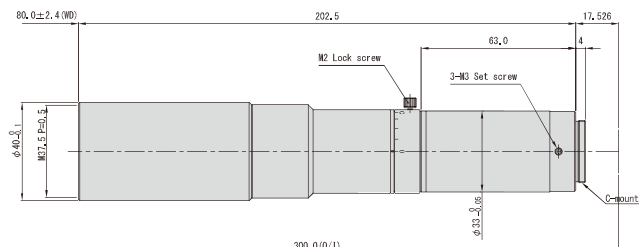
WD : 80mm



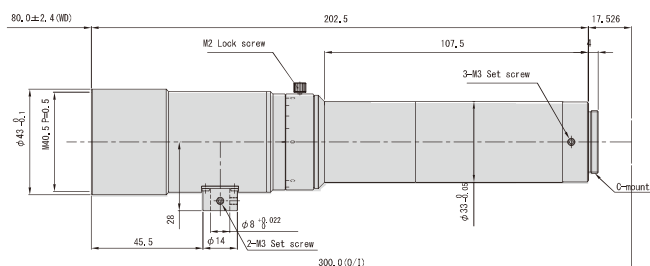
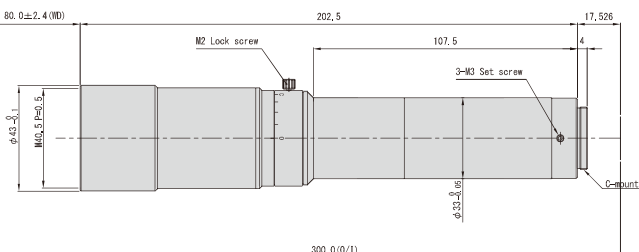
VS-THV05-80CO/S

**VS-THV08-80CO/S**

VS-THV1-80CO/S



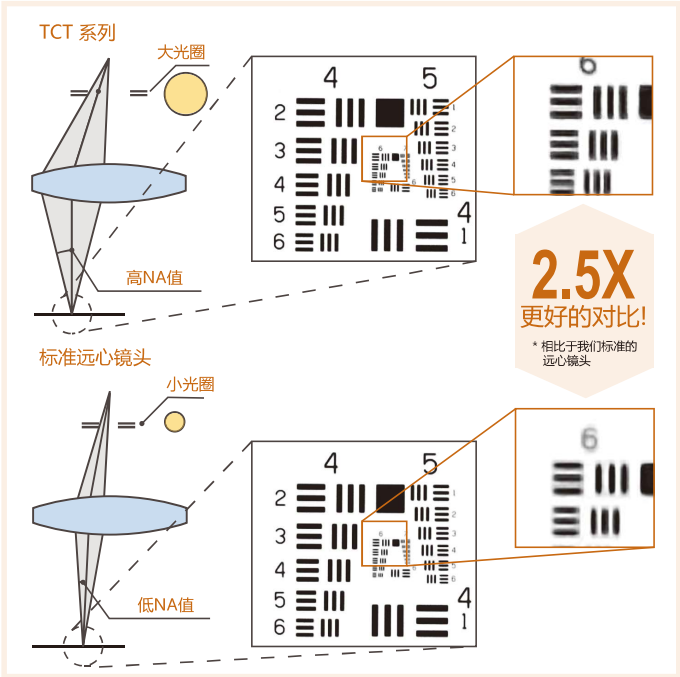
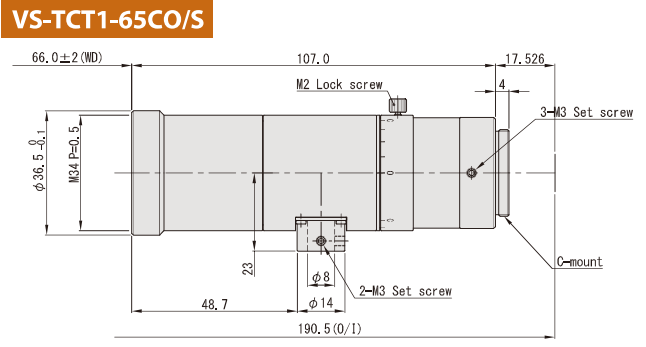
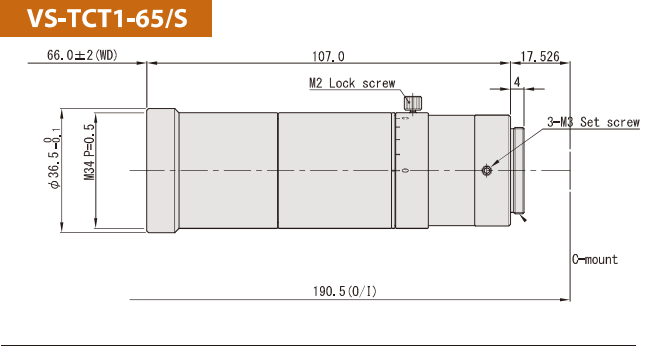
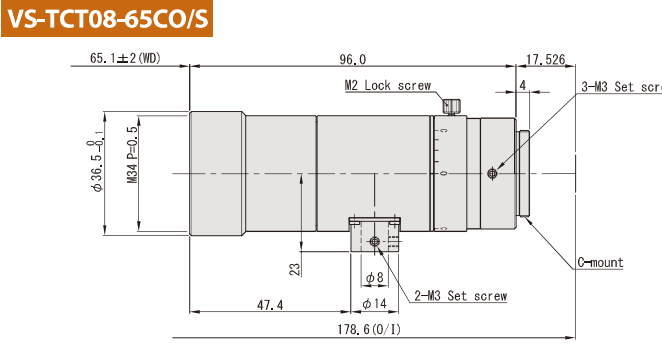
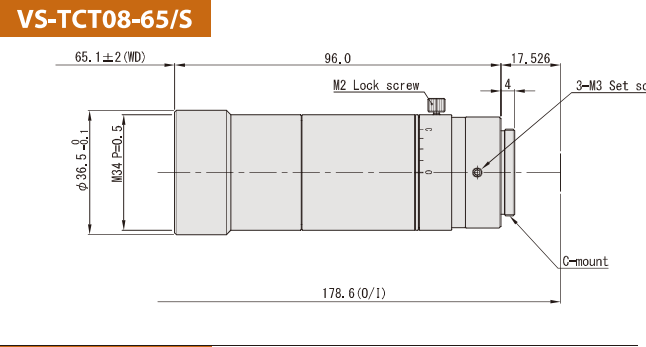
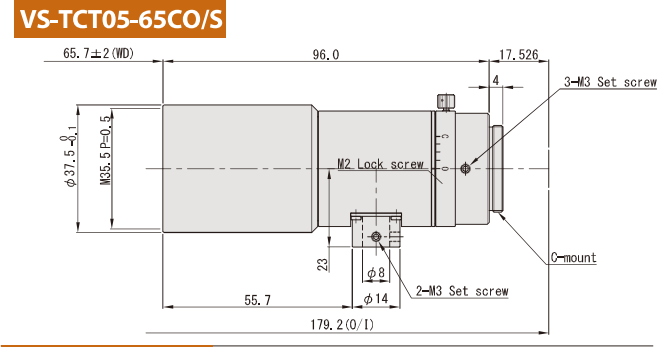
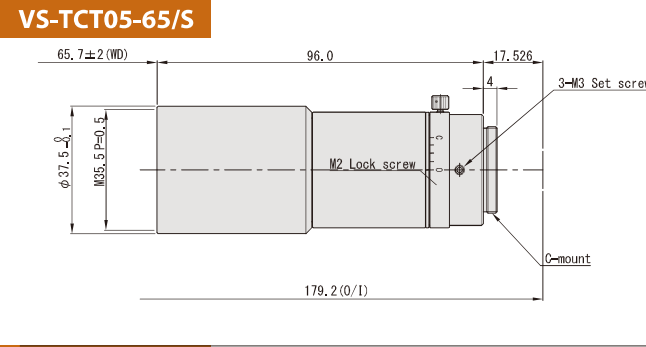
VS-THV2-80CO/S



规格		VS-THV05-80/S	VS-THV05-80CO/S	VS-THV08-80/S	VS-THV08-80CO/S	VS-THV1-80/S	VS-THV1-80CO/S	VS-THV2-80/S	VS-THV2-80CO/S
光学倍率		0.5x ± 5%	0.5x ± 5%	0.8x ± 5%	0.8x ± 5%	1.0x ± 5%	1.0x ± 5%	2.0x ± 5%	2.0x ± 5%
视野 (VxH)	1.1"	20.6 × 28.2 mm	20.6 × 28.2 mm	12.9 × 17.6 mm	12.9 × 17.6 mm	10.3 × 14.1 mm	10.3 × 14.1 mm	5.2 × 7.1 mm	5.2 × 7.1 mm
	1"	22.5 × 22.5 mm	22.5 × 22.5 mm	14.1 × 14.1 mm	14.4 × 14.4 mm	11.3 × 11.3 mm	11.3 × 11.3 mm	5.6 × 5.6 mm	5.6 × 5.6 mm
	2/3"	14.2 × 16.8 mm	14.2 × 16.8 mm	8.9 × 10.5 mm	8.9 × 10.5 mm	7.1 × 8.4 mm	7.1 × 8.4 mm	3.6 × 4.2 mm	3.6 × 4.2 mm
WD		80.2mm ± 2.5	80.2mm ± 2.5	80.2mm ± 2.5	80.2mm ± 2.5	80.0mm ± 2.4	80.0mm ± 2.4	80.0mm ± 2.4	80.0mm ± 2.4
物像间距离O/I		300.0mm	300.0mm	300.0mm	300.0mm	300mm	300mm	300mm	300mm
实效F*光圈全开		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
NA		0.033	0.033	0.053	0.053	0.067	0.067	0.133	0.133
景深 允许乱焦距0.04mm		2.4mm	2.4mm	0.9mm	0.9mm	0.6mm	0.6mm	0.2mm	0.2mm
TV失真 (1'')		0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.04%	0.04%
适合芯片		1.1"	1.1"	1.1"	1.1"	1.1"	1.1"	1.1"	1.1"
同轴照明方式		—	Built-in	—	Built-in	—	Built-in	—	Built-in
滤镜口径		M52 P=0.75	M52 P=0.75	M40.5 P=0.5	M40.5 P=0.5	M37.5 P=0.5	M37.5 P=0.5	M40.5 P=0.5	M40.5 P=0.5
重量		370 g	370 g	360 g	360 g	310 g	310 g	380 g	380 g

VS-TCT Series 2/3" 1/1.8"

可完全发挥出1.67um相机像元的分解能力。
适合高精度要求的检测项目。



规格		VS-TCT05-65/S	VS-TCT05-65CO/S	VS-TCT08-65/S	VS-TCT08-65CO/S	VS-TCT1-65/S	VS-TCT1-65CO/S
光学倍率		0.5x ±5 %	0.5x ±5 %	0.8x ±5 %	0.8x ±5 %	1.0x ±5 %	1.0x ±5 %
视野 (VxH)	2/3"	14.2 x 16.8 mm	14.2 x 16.8 mm	8.9 x 10.5 mm	8.9 x 10.5 mm	7.1 x 8.4 mm	7.1 x 8.4 mm
	1/2"	9.6 x 12.8 mm	9.6 x 12.8 mm	6.0 x 8.0 mm	6.0 x 8.0 mm	4.8 x 6.4 mm	4.8 x 6.4 mm
	1/3"	7.2 x 9.6 mm	7.2 x 9.6 mm	4.5 x 6.0 mm	4.5 x 6.0 mm	3.6 x 4.8 mm	3.6 x 4.8 mm
WD		65.7 mm ±2	65.7 mm ±2	65.1 mm ±2	65.1 mm ±2	66.0 mm ±2	66.0 mm ±2
物像间距离O/I		179.2 mm	179.2 mm	178.6 mm	178.6 mm	190.5 mm	190.5 mm
实效F *光圈全开		4.5	4.5	4.5	4.5	4.5	4.5
NA		0.056	0.056	0.089	0.089	0.111	0.111
景深 允许模糊圈0.04mm		1.4 mm	1.4 mm	0.6 mm	0.6 mm	0.4 mm	0.4 mm
TV失真 (2/3")		0.00%	0.00%	0.00 %	0.00 %	0.00 %	0.00 %
适合芯片		2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
同轴照明方式		—	Built-in	—	Built-in	—	Built-in
滤镜口径		M 35.5 P = 0.5	M 35.5 P = 0.5	M 34 P = 0.5	M 34 P = 0.5	M 34 P = 0.5	M 34 P = 0.5
重量		205 g	205 g	200 g	200 g	215 g	215 g