液态变焦镜头系列

双翌可调焦镜头具备丰富的功能和多种类的外形，可在数秒内完成调焦，有着坚固可靠的机身设计，能完成数十亿次快速调焦。搭配变倍镜头可完美实现自动变倍变焦功能。

● 自动对焦　● 定档功能　● 测距功能　● 景深融合

● 主要特点

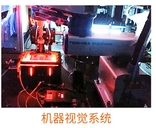
● 快速对焦：快速完成焦距调整，速度远超传统机械变焦

● 定位精度高：水平零状态，确保精准对焦

● 严格机械公差：满足高精度工业要求

● 体积小巧：结构比传统光学镜片更紧凑

● 应用领域



机器视觉系统

显微成像应用

工业自动化应用

产品质量检测

综合验光设备

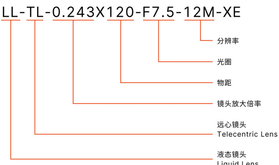
微光夜视仪器

液态镜头系列

液态远心镜头

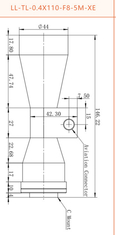
在相机镜头组位置固定的情况下，通过液态镜片曲率变化，来改变对焦距离。远心镜头内置液态镜片，适用于有高低差、需要改变对焦位置的检测需求，替代传统电机移动对焦方式。

型号说明



规格说明

LL-TL-0.4X110-F8-5M-XE



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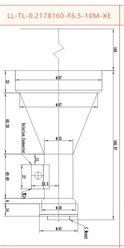

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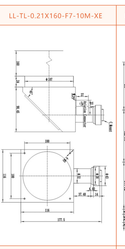

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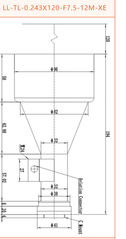

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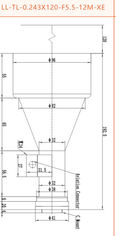

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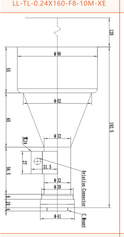

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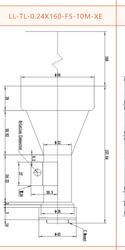

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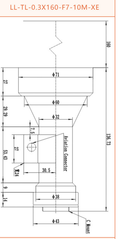

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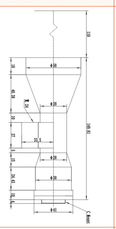

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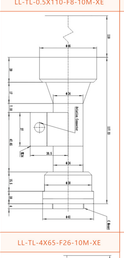

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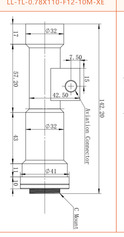

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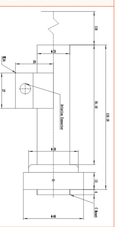
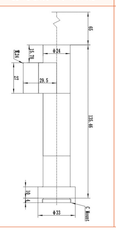
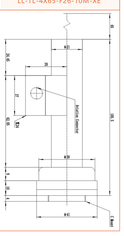


LL-TL-2X6S-F16-10M-XE



LL-TL-4X6S-F26-10M-XE



镜头型号	倍率 (x)	靶面	分辨率	像面 (mm)	光圈	景深 (mm)	物距 (mm)	对角范围 (mm)	镜头接口	长度 (mm)	直径 (mm)
LL-TL-0.4X110-F8-5M-XE	0.4	2/3"	5MP	11	F8	3	110	20-170	C接口	146.22	44
LL-TL-0.217X160-F6.5-10M-XE	0.217	1.1"	10MP	18.4	F6.5	4	160	20-280	C接口	166.87	97
LL-TL-0.21X160-F7-10M-XE	0.21	1.1"	10MP	18.5	F7	/	160	/	C接口	177.5	45
LL-TL-0.243X120-F7.5-12M-XE	0.243	1.1"	12MP	18.4	F7.5	8	120	80-210	C接口	196	90
LL-TL-0.243X120-F5.5-12M-XE	0.243	1.1"	12MP	18.4	F5.5	6	120	80-200	C接口	182.5	86
LL-TL-0.24X160-F8-10M-XE	0.24	1.1"	10MP	17.6	F8	3	160	130-195	C接口	149.81	58
LL-TL-0.24X160-F5-10M-XE	0.24	1.1"	10MP	17.6	F5	3	160	80-240	C接口	149.81	58
LL-TL-0.3X160-F7-10M-XE	0.3	1.1"	10MP	18.5	F7	3	160	80-240	C接口	149.81	58
LL-TL-0.4X110-F8-10M-XE	0.4	1.1"	10MP	18.5	F8	3	110	20-180	C接口	149.81	58
LL-TL-0.5X110-F8-10M-XE	0.5	1.1"	10MP	18.5	F8	3	110	70-140	C接口	117.33	46
LL-TL-0.78X110-F12-10M-XE	0.78	1.1"	10MP	18.5	F12	1.2	110	50-150	C接口	142.2	33
LL-TL-1X110-F10.6-10M-XE	1	1.1"	10MP	18.5	F10.6	2	110	70-140	C接口	110.18	25
LL-TL-2X6S-F16-10M-XE	2	1.1"	10MP	17.6	F16	1.5	65	40-90	C接口	139.46	33
LL-TL-4X6S-F26-10M-XE	4	1.1"	10MP	18.5	F26	/	65	/	C接口	155.5	41

配套线材

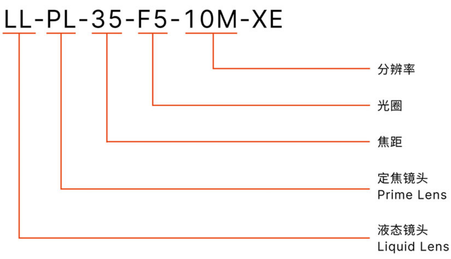
线缆	型号	长度
液态镜头232通讯线缆	Rb-232-7M	7M

液态镜头系列

液态定焦镜头

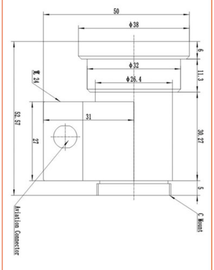
液态定焦镜头通过电场控制液态镜片曲率变化，无需机械移动即可动态调整焦距。其远心光路结构支持对高低差目标的快速聚焦切换，适用有高度差的检测场景（如多层物料识别）。相较传统电机驱动对焦方案，该技术实现无机械磨损、毫秒级响应和微米级对焦精度。

型号说明

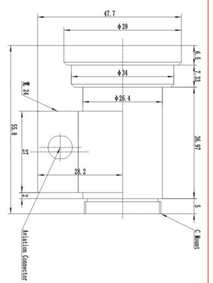


规格说明

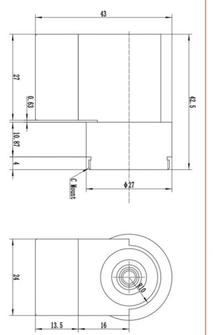
LL-PL-12-F3.6-5M-XE



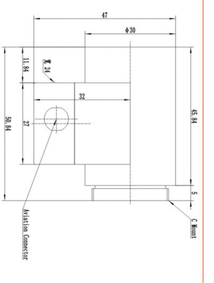
LL-PL-16-F4.2-5M-XE



LL-PL-25-F9-5M-XE



LL-PL-25-F4.4-5M-XE



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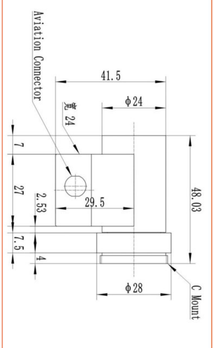
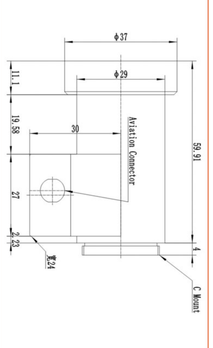


LL-PL-16-F4.8-10M-XE



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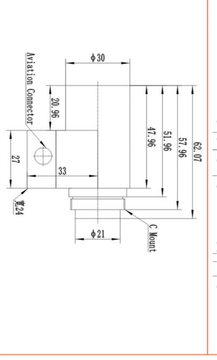

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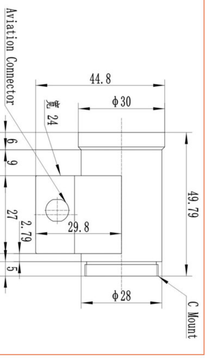

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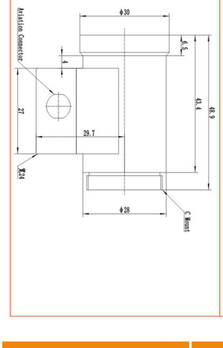

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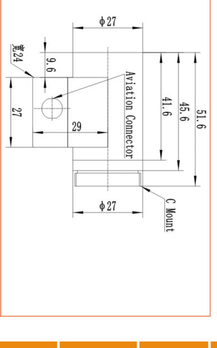


镜头型号	焦距 (mm)	兼容靶面	分辨率	最大像圆 (mm)	光圈	镜头接口	长度 (mm)	直径 (mm)
LL-PL-12-F3.6-5M-XE	12	2/3"	5MP	11	F3.6	C接口	52.57	26.4
LL-PL-16-F4.2-5M-XE	16	2/3"	5MP	11	F4.2	C接口	55.8	26.4
LL-PL-25-F9-5M-XE	25	2/3"	5MP	11	F9	C接口	42.5	43
LL-PL-25-F4.4-5M-XE	25	2/3"	5MP	11	F4.4	C接口	50.84	30
LL-PL-50-F6-5M-XE	50	2/3"	5MP	11	F6	C接口	48.03	24
LL-PL-16-F4.8-10M-XE	16	1.1"	10MP	18.5	F4.8	C接口	59.91	37
LL-PL-16-F5.2-10M-XE	16	1.1"	10MP	18.5	F5.2	C接口	62.07	30
LL-PL-25-F5-10M-XE	25	1.1"	10MP	18.5	F5	C接口	49.79	30
LL-PL-35-F5-10M-XE	35	1.1"	10MP	18.5	F5	C接口	48.9	27
LL-PL-35-F7.1-10M-XE	35	1.1"	10MP	18.5	F7.1	C接口	51.6	27

配套线材

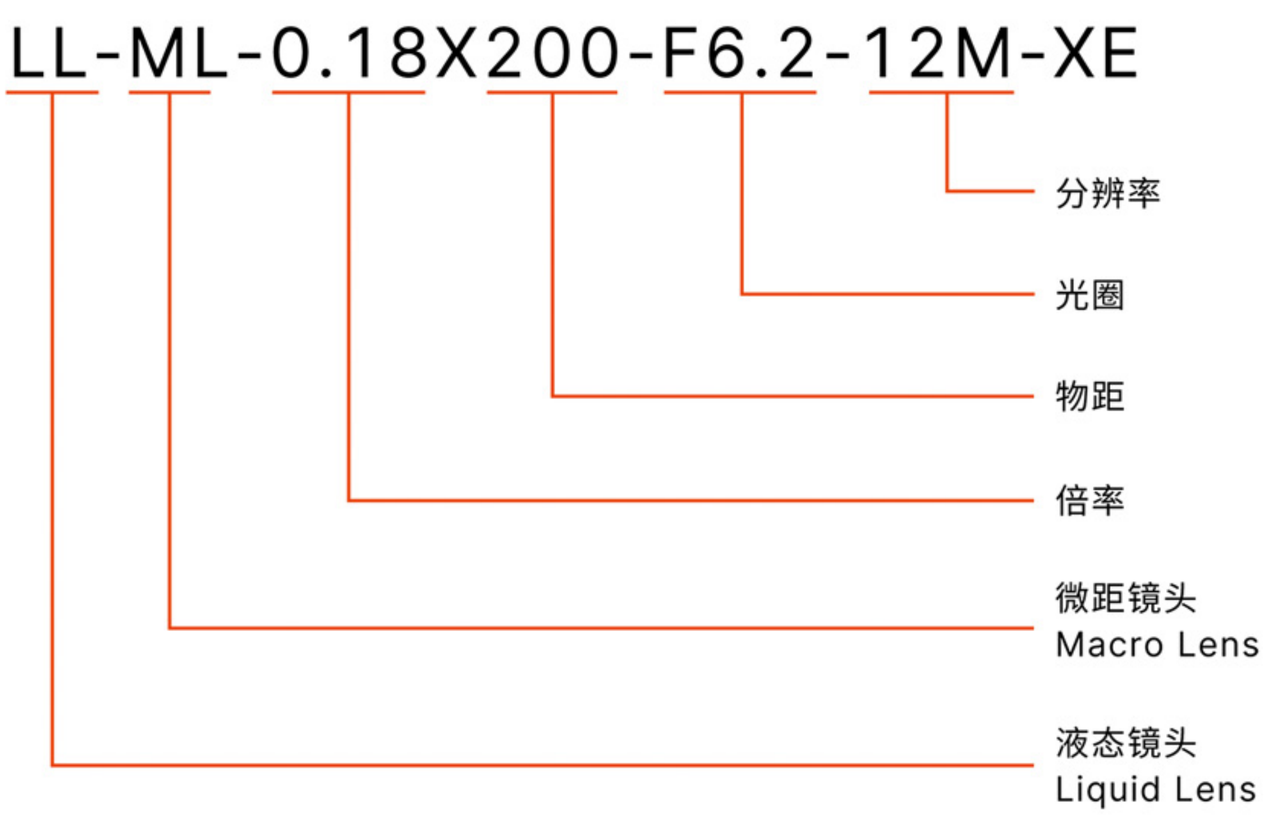
线缆	型号	长度
液态镜头232通讯线缆	Rb-232-7M	7M

液态镜头系列

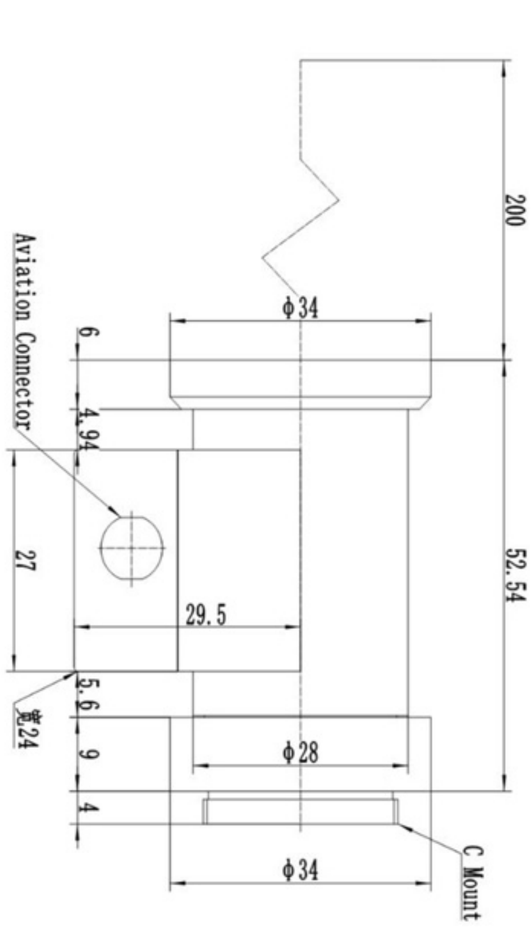
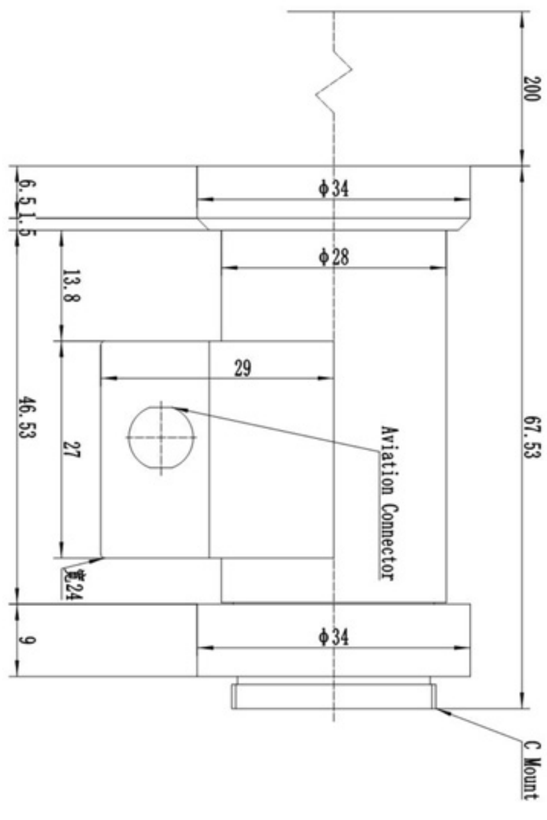
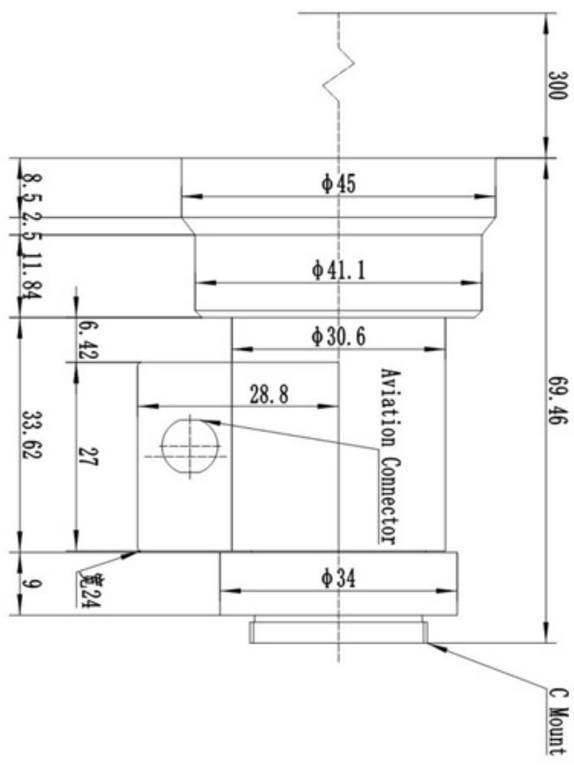
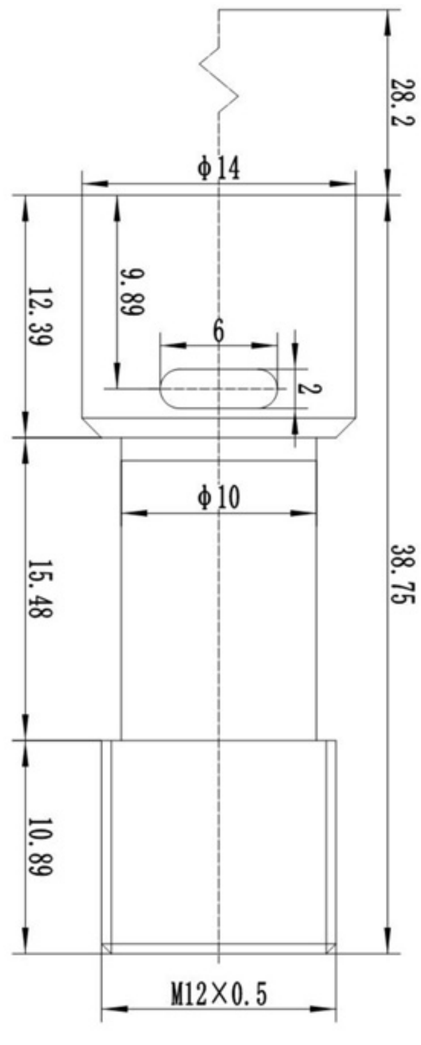
液态微距镜头

液态微距镜头采用电控形变液态光学聚合物，通过微米级曲率调整实现无级调焦。相较于传统机械微距镜头，该技术无需物理位移即可完成复杂曲面追踪，同步集成光学防抖补偿，在精密领域展现突破性应用价值。

型号说明



规格说明

LL-ML-0.18X200-F6.2-12M-XE	LL-ML-0.117X200-F6-12M-XE	LL-ML-0.07X300-F5.4-12M-XE	LL-ML-1.868X30-F17.6-2M-XE
			

镜头型号	倍率 (X)	靶面	分辨率	像圆 (mm)	光圈	物距 (mm)	镜头接口	长度 (mm)	直径 (mm)
LL-ML-0.18X200-F6.2-12M-XE	0.18	1.1"	12MP	18.5	F6.2	200	C接口	52.54	34
LL-ML-0.117X200-F6-12M-XE	0.117	1.1"	12MP	18.5	F6	200	C接口	65.53	34
LL-ML-0.07X300-F5.4-12M-XE	0.07	1.1"	12MP	18.5	F5.4	300	C接口	69.46	45
LL-ML-1.868X30-F17.6-2M-XE	1.868	1.1"	2MP	6.7	F17.6	30	M12	38.75	14

配套线材

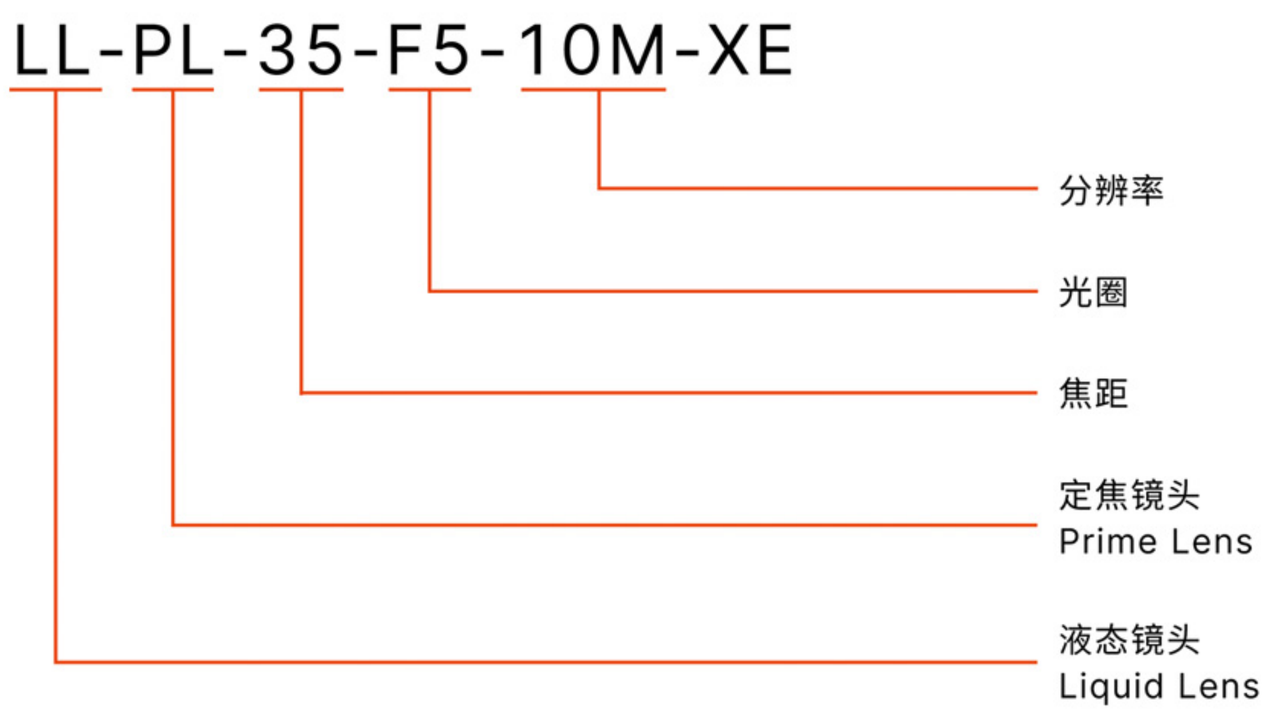
线缆	型号	长度
液态镜头232通讯线缆	Rb-232-7M	7M

液态镜头系列

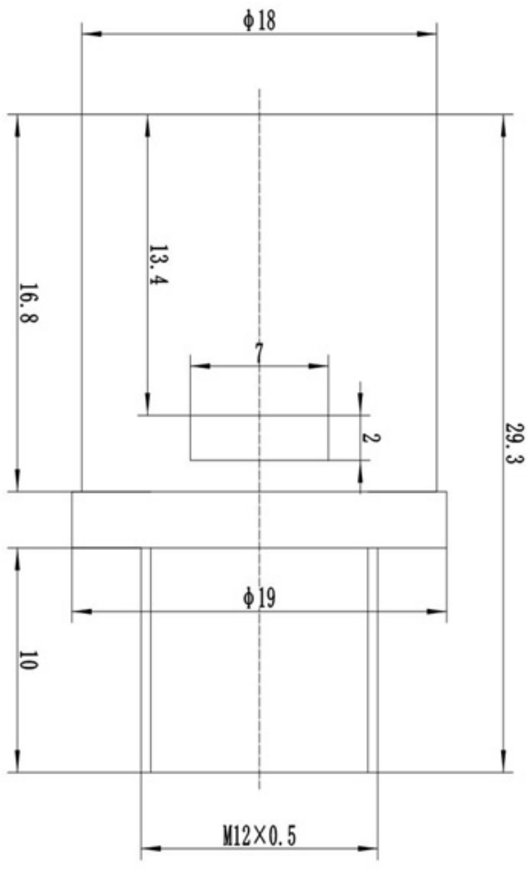
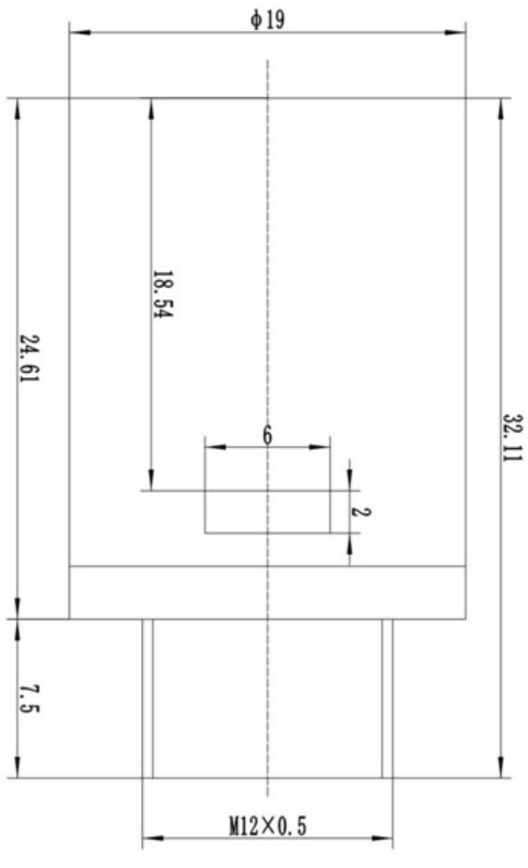
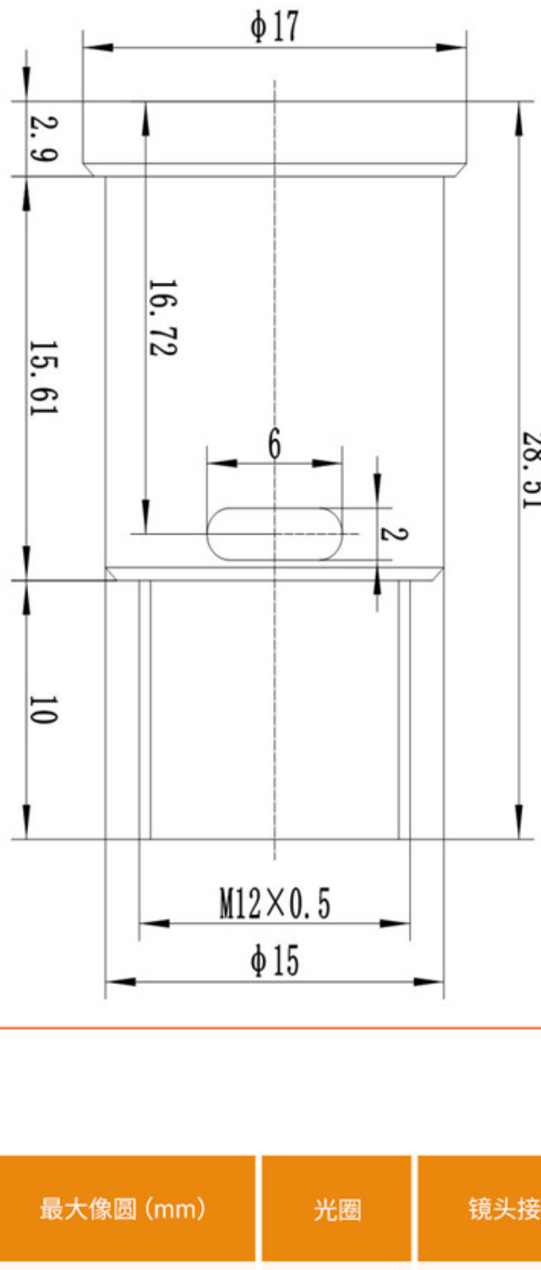
液态扳机镜头

液态扳机镜头利用电压调控液态镜片曲率，无需机械移动即可实现焦点切换。其内置动态调焦模块，可从远距到微距的精准对焦，适配电子元件检测、曲面材料分析等有高度差的工业场景。

型号说明



规格说明

LL-BL-6-F2.9-20M-XE	LL-BL-8-F3.2-20M-XE	LL-BL-50-F6.6-20M-XE
		

镜头型号	焦距 (mm)	兼容靶面	分辨率	最大像圆 (mm)	光圈	镜头接口	长度 (mm)	直径 (mm)
LL-PL-12-F3.6-5M-XE	12	2/3"	5MP	11	F3.6	C接口	52.57	26.4
LL-PL-16-F4.2-5M-XE	16	2/3"	5MP	11	F4.2	C接口	55.8	26.4
LL-PL-25-F9-5M-XE	25	2/3"	5MP	11	F9	C接口	42.5	43

配套线材

线缆	型号	长度
液态镜头232通讯线缆	Rb-232-7M	7M