

MZDH0850 高分辨率连续变倍单筒视频显微系列

High-Resolution Zoom Monocular Video Micro Series

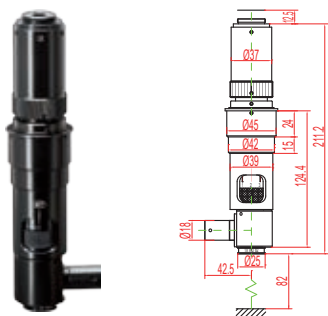
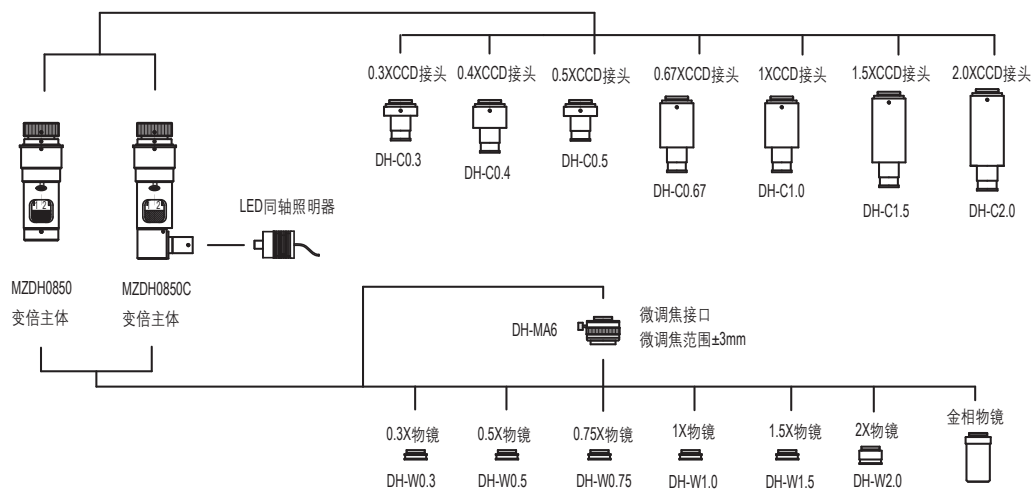


※ 本系列含4项国家专利授权
This series have obtained 4 pieces national patents

- 采用无限远光学系统和同轴照明光学系统
 - 具有高分辨率和高清晰度品质
 - 可使用LED或光纤冷光源同轴照明，满足观察不同物体的需要
 - 适用于电子设备、半导体、LCD、LED等领域的数码成像观察、检测和测量
- ◆ Infinite farness and coaxial illuminate optical systems
 - ◆ High-resolution and high definition
 - ◆ Available to observe different objects by using LED coaxial illumination or fiber optic illumination.
 - ◆ Wildly used in electric equipments, semi-conductor, LCD, LED and etc. for digital image observation, inspection and measurement



主机分解示意图 Main Body Diagram



MZDH0850C

C:同轴照明
Coaxial illumination

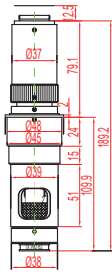
- 出色的同轴照明效果，特别适合于LCD的加工及检验以及反光物体的观察。
- ◆ Excellent coaxial illumination, especially suitable for manufacture, inspection of LCD and observation of reflective objects .

※本系列产品已获得国家专利授权，受相关国家法律法规保护。
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MZDH0850 series



MZDH0850 series

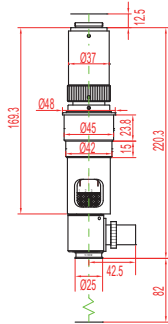


MZDH0850-D

D:定格定倍
Pre-set stops at integer magnification with detent in zoom course

(专利号/Patent number: ZL 2011 2 0131083.X)

- 在变倍过程中，可实现倍率的反复准确定位，特别适合于二维，三维检测
- ◆ Magnification positioned repeatedly and exactly with detents in zoom course, especially suitable for planar & three-dimensional inspection.

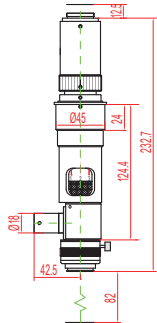


MZDH0850C-PL

PL:同轴照明带偏光
Coaxial illumination with polarizing lens

(专利号/Patent number: ZL 2011 2 0131048.8)

- 加上偏光可显著改善视频输出的对比度，得到最好的图像。特别适用于晶体检测。
- ◆ Polarizing lens is used to improve the contrast of video output and get the best contrast photograph. Especially suitable for the crystal inspection.

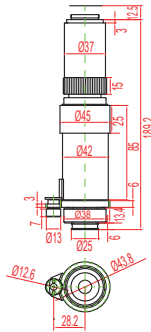


MZDH0850C-MA

MA:带微调装置
With fine-adjustable device

(专利号/Patent number: ZL 2011 2 0107476.7)

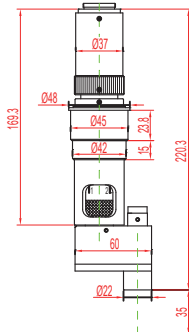
- 加带微调装置，可实现对不同焦面快速微调焦。
- ◆ Attached with fine-adjustable device to focus finely rapidly at different focal plane.



MZDH0850-AZ

AZ:电动变倍
Automatic magnification

- 配接驱动电路与伺服电机(由客户自己配)，可实现系统的电动变倍功能。
- ◆ Equipped with serve motor and drive electrocircuit (Need to be prepared on client side), for automatic magnification.



MZDH0850C-SA

SA:光路180°转向
Light path 180° transition

(专利号/Patent number: ZL 2011 2 0140263.4)

- 方便特殊空间的观察或微型物体上两点之间的狭窄间距的观测。
- ◆ Available to observe special interspace conveniently or observe straitness distance mark between two points on subminiature objects.

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MZDH0850 系列配置对照表 MZDH0850 series configuration form

名称 Part	规格 Specification	MZDH 0850	MZDH 0850C	MZDH 0850-D	MZDH 0850C-PL	MZDH 0850C-MA	MZDH 0850C-SA	MZDH 0850-AZ
变倍主体 Zoom body	连续变倍 Zoom range 0.75X~5X	●	●	●	●	●	●	●
物镜 Objectives	0.3X	○	○	○	○	○	○	○
	0.5X	○	○	○	○	○	○	○
	0.75X	○	○	○	○	○	○	○
	1X	●	●	●	●	●	●	●
	1.5X	○	○	○	○	○	○	○
	2X	○	○	○	○	○	○	○
CCD接头 (摄像适配器) CCD adapters	0.3X	○	○	○	○	○	○	○
	0.4X	○	○	○	○	○	○	○
	0.5X	○	○	○	○	○	○	○
	0.67X	○	○	○	○	○	○	○
	1X	●	●	●	●	●	●	●
	1.5X	○	○	○	○	○	○	○
	2X	○	○	○	○	○	○	○
照明光源 Illuminators	同轴照明 Coaxial illuminator: MLC1000	X	●	X	●	●	●	X
	可调光LED Adjustable LED illuminator: MLR25	○	○	○	○	○	X	○
测微接头 Micrometer adapters	带分划板1X接头 1X stage micrometer adapter	○	○	○	○	○	○	○
其它功能 Others	整数倍定位 With detents at integer position	○	○	●	○	○	○	○
	带偏光 With polarizer lens	○	○	○	●	○	○	○
	带微调焦装置 With fine-adjustable device	○	○	○	○	●	X	○
	光路180° 转向 Light path 180° transition	○	○	○	○	○	●	○
	电动变倍 Electromotion zoom	○	○	X	○	○	○	●
支架与主机配合尺寸 Holder and main body matching dimension	Φ45mm	●	●	●	●	●	●	●
标准螺纹无穷远金相镜头 Standard thread infinite farness metallographic lens	Nikon、Olympus、Mitutoyo	○	○	○	○	○	○	○

注 / NOTES: 1. ● 标准配置 standard outfit ○ 选配件 optional accessories X 无配置 no configuration
2. CCD(CMOS)接口型式为CS. / CS mount for CCD(CMOS).

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主要光学参数 Optical Specifications

倍率 mag.	数值孔径NA	景深 DOF	分辨率 Resolution	TV失真 Distortion on TV
0.75X	0.03	1.8mm	11.2μm	0.26%
2.0X	0.067	0.30mm	5.0μm	0.31%
5.0X	0.097	0.08mm	3.5μm	0.12%

安装尺寸 / Mounting dimension: $\Phi 45\text{mm}$
 最大兼容相机 / Max compatible camera: 1/2"
 CCD螺纹接口 / Screw mount: 1英寸32扣
 1 inch 32 button

MZDH0850 series

物镜 Objectives	项目 Specification	CCD接头 / CCD adapter						
		0.3X	0.4X	0.5X	0.67X	1X	1.5X	2X
0.3X WD:293mm	光学放大倍率 Optical. Mag.	0.07X~0.45X	0.09X~0.6X	0.11X~0.75X	0.15X~1X	0.225X~1.5X	0.34X~2.25X	0.45X~3X
	视场范围 FOV(mm)	51.4X68.6~ 8X10.67	40X53.33~ 6X8	32.7X43.6~ 4.8X6.4	24X32~ 3.6X4.8	16X21.3~ 2.4X3.2	10.6X14.12~ 1.6X2.13	8X10.67~ 1.2X1.6
0.5X WD:175mm	光学放大倍率 Optical. Mag.	0.11X~0.75X	0.15X~1X	0.19X~1.25X	0.25X~1.675X	0.375X~2.5X	0.56X~3.75X	0.75X~5X
	视场范围 FOV(mm)	32.7X43.6~ 4.8X6.4	24X32~ 3.6X4.8	18.9X25.3~ 2.88X3.84	14.4X19.2~ 2.15X2.9	9.6X12.8~ 1.44X1.92	6.4X8.6~ 0.96X1.28	4.8X6.4~ 0.72X0.96
0.75X WD:117mm	光学放大倍率 Optical. Mag.	0.17X~1.125X	0.225X~1.5X	0.28X~1.875X	0.4X~2.5X	0.56X~3.75X	0.84X~5.625X	1.125X~7.5X
	视场范围 FOV(mm)	21.2X28.2~ 3.2X4.27	16X21.33~ 2.4X3.2	12.9X17.1~1.92 X2.56	9X12~1.44 X1.92	6.4X8.6~ 0.96X1.28	4.3X5.7~ 0.64X0.85	3.2X4.27~ 0.48X0.64
1X WD:82mm	光学放大倍率 Optical. Mag.	0.225X~1.5X	0.3X~2X	0.375X~ 2.5X	0.5X~3.35X	0.75X~5X	1.125X~7.5X	1.5X~10X
	视场范围 FOV(mm)	16X21.3~ 2.4X3.2	12X16~ 1.8X2.4	9.6X12.8~ 1.44X1.92	7.2X9.6~ 1.07X1.4	4.8X6.4~ 0.72X0.96	3.2X4.27~ 0.48X0.64	2.4X3.2~ 0.36X0.48
1.5X WD:54mm	光学放大倍率 Optical. Mag.	0.34X~2.25X	0.45X~3X	0.5625X~3.75X	0.75X~5X	1.125X~7.5X	1.6875X~11.25X	2.25X~15X
	视场范围 FOV(mm)	10.6X14.1~ 1.6X2.13	8X10.67~ 1.2X1.6	6.4X8.53~ 0.96X1.28	4.8X6.4~ 0.72X0.96	3.2X4.27~ 0.48X0.64	2.13X2.84~ 0.32X0.43	1.6X2.13~ 0.24X0.32
2X WD:35mm	光学放大倍率 Optical. Mag.	0.45X~3X	0.6X~4X	0.75X~5X	1X~6.7X	1.5X~10X	2.25X~15X	3X~20X
	视场范围 FOV(mm)	8X10.7~1.2X1.6	6X8~0.9X1.2	4.8X6.4~ 0.72X0.96	3.6X4.8~ 0.54X0.72	2.4X3.2~ 0.36X0.48	1.6X2.1~ 0.24X0.32	1.2X1.6~ 0.18X0.24
5X WD:10.1mm	光学放大倍率 Optical. Mag.	1.125X~7.5X	1.5X~10X	1.875X~12.5X	2.5X~16.75X	3.75X~25X	5.625X~37.5X	7.5X~50X
	视场范围 FOV(mm)	3.2X4.27~ 0.48X0.64	2.4X3.2~ 0.36X0.48	1.92X2.56~ 0.288X0.384	1.44X1.92~ 0.21X0.3	0.96X1.28~ 0.144X0.192	0.64X0.85~ 0.096X0.128	0.48X0.64~ 0.072X0.096

变倍主体连续变倍范围/Zoom body magnification range: 0.75X~5X