MUJIE 慕杰®
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标准超声波传感器MCSB系列
Standard ultrasonic sensor mcsb series

全金属M30安装螺纹套管，恶劣环境中使用，数字量RS485,MODBUS标准协议通讯

All metal M30 installation threaded sleeve, used in harsh environments, digital quantity RS485, MODBUS standard protocol communication

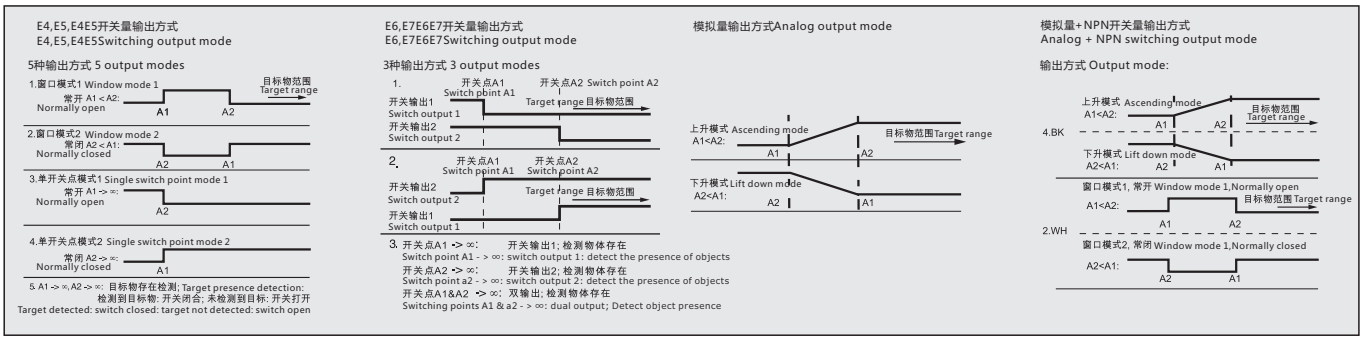
▶ 型号说明Model Explanation

MCS	B	350	-30	M	-E6	-V15	-□
基本型号Model M:型号代码 Model code M□: 特殊型号定义 Speciall definition	系列Series B:圆柱基体型系列 Cylindrical basic series C:紧凑型系列 Compact series KF:标准系列，抗化学腐蚀 Standard series, chemical resistant D:定制系列 Custom series SZ:(A/C)双张检测（根据材料厚度） Double sheet inspection (according to material thickness)	上限检测范围 Upper limit detection range 350:30-350 500:40-500 1000:60-1000 2000:180-2000 4000:200-4000 6000.:350-6000	外壳及安装尺寸 Housing and installation dimensions 12:圆柱形外壳，直径12mm Cylindrical shell, 12mm diameter 18:圆柱形外壳，直径18mm Cylindrical shell, diameter 18mm 30:圆柱形外壳，直径30mm Cylindrical shell, diameter 30mm U:方形外壳VariKont(u1,u9) Square housing varikont (U1, u9) FP:方形外壳FP(FP1,FP..) Square housing FP (FP1, FP) F42:方形外壳F42 Square housing F42	外壳材质 Shell material: M:金属Metal S:塑料 Plastic	电气输出 Electrical output E4/E5:单开关量npn输出或单开关量pnp输出 Single switch NPN output or single switch PNP output E4E5:普通双开关量输出npn+pnp Normal double on-off output (NPN + PNP) E6/E7:双开关量输出npn或双开关量输出pnp Double on-off output (NPN) or double on-off output (PNP) E6E7:双开关量推挽输出I:1模拟量电流4...20mA输出 Double on-off push-pull output I: 1 analog current 4... 20mA output V:1模拟量电压0....10V输出 1 analog voltage 0... 10V output IV:1模拟量电流4....20mA+1模拟量电压0.....10V 1 analog current 4.. 20mA + 1 analog voltage 0.. 10V IE4:1模拟量电流4....20mA输出+1开关量npn输出 1 analog current 4... 20mA output + 1 switching value NPN output R4:RS485接口输出 RS485 interface output CA:CAN总线输出 Can bus output	连接方式 Connection mode: V: 电缆 Cable V1:插头,4针m12x1 Plug, 4-pin M12x1 V3:指插头,3针m8x1 Finger plug, 3-pin m8x1 V4:插头,4针m8x1 Plug, 4-pin m8x1 V15:插头5针m12x1 Plug, 5-pin M12x1	客户定制 Customized informat

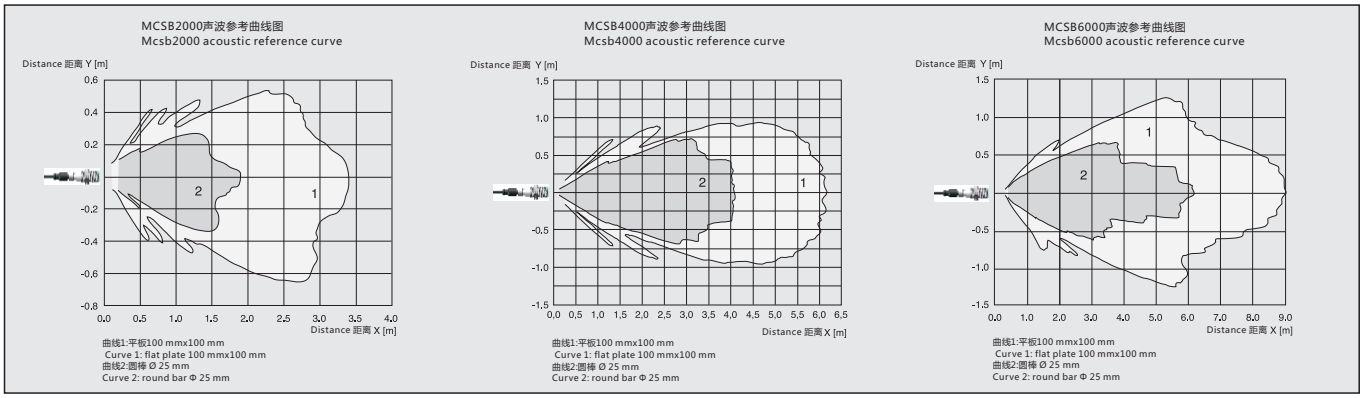
▶ 技术规格Specification

检测范围 Detection range:	30-350mm	40-500mm	60-1000mm
盲区 Blind area	0-30mm	0-40mm	0-60mm
分辨率 Resolving power	0.17mm	0.17mm	0.5mm
重复精度 Repeatability	0.3%满量程值 Full scale value	0.3%满量程值 Full scale value	0.3%满量程值 Full scale value
精度 Accuracy	0.05%/℃(内置温度补偿) Built in temperature compensation	0.05%/℃(内置温度补偿) Built in temperature compensation	0.05%/℃(内置温度补偿) Built in temperature compensation
响应时间 Response time	50ms	50ms	100ms
开关频率 Switching frequency	约40KHz	约200KHz	约200KHz
工作电压 Working voltage	12~30VDX,10%Vpp	12~30VDX,10%Vpp	12~30VDX,10%Vpp
LED红灯 Red light	常亮,未检测到目标闪烁,学习状态下未检测到目标 Normally on, no target detected flickers, no target detected in learning state	常亮,未检测到目标闪烁,学习状态下未检测到目标 Normally on, no target detected flickers, no target detected in learning state	学习状态下未检测到目标,常亮 the target is not detected in the learning state, and it is always on
LED蓝灯 Blue lamp			学习状态下未检测到标,闪烁 no target is detected in the learning state, flashing
LED黄灯 Yellow light	常亮,检测到目标在A1-A2范围内闪烁, 学习状态下检测到目标 It is always on, and it is detected that the target flickers in the range a1-a2, Target detected in learning state	常亮,检测到目标在A1-A2范围内闪烁, 学习状态下检测到目标 It is always on, and it is detected that the target flickers in the range a1-a2, Target detected in learning state	正常工作模式下,开关状态 under normal working mode, switch status
LED绿灯 Green light			电源指示灯,常亮 Power indicator, always on
过载保护 Overload protection	≤300Ω	≤300Ω	≤300Ω
空载电流 No load current	≤25mA	≤25mA	≤25mA
材质 texture of material	金属,塑料 Metal, plastic	金属,塑料 Metal, plastic	金属,塑料 Metal, plastic
保护等级 Protection level	IP67	IP67	IP67
环境温度 ambient temperature	-25℃~+70℃	-25℃~+70℃	-25℃~+70℃
储存温度 Storage temperature	-40℃~+85℃	-40℃~+85℃	-40℃~+85℃
检测范围 Detection range:	180-2000mm	200-4000mm	350-6000mm
盲区 Blind area	0-180mm	0-200mm	0-350mm
分辨率 Resolving power	0.17mm	3mm	0.17-2.5mm
重复精度 Repeatability	0.3%满量程值 Full scale value	2%满量程值 Full scale value	0.0.15%满量程值 Full scale value
精度 Accuracy	0.05%/℃(内置温度补偿) Built in temperature compensation	0.05%/℃(内置温度补偿) Built in temperature compensation	1%/℃(内置温度补偿) Built in temperature compensation
响应时间 Response time	100ms	300ms	232ms
开关频率 Switching frequency	约112KHz	约75KHz	约40KHz
工作电压 Working voltage	15~30VDX,10%Vpp	12~30VDX,10%Vpp	12~30VDX,10%Vpp
LED红灯 Red light	学习状态下未检测到目标,常亮 the target is not detected in the learning state, and it is always on	学习状态下未检测到目标,常亮 the target is not detected in the learning state, and it is always on	学习状态下未检测到目标,常亮 the target is not detected in the learning state, and it is always on
LED蓝灯 Blue lamp	学习状态下未检测到标,闪烁 no target is detected in the learning state, flashing	学习状态下未检测到标,闪烁 no target is detected in the learning state, flashing	学习状态下未检测到标,闪烁 no target is detected in the learning state, flashing
LED黄灯 Yellow light	正常工作模式下,开关状态 under normal working mode, switch status	正常工作模式下,开关状态 under normal working mode, switch status	正常工作模式下,开关状态 under normal working mode, switch status
LED绿灯 Green light	电源指示灯,常亮 Power indicator, always on	电源指示灯,常亮 Power indicator, always on	电源指示灯,常亮 Power indicator, always on
过载保护 Overload protection	≤1kΩ	≤300Ω	≤300
空载电流 No load current	≤25mA	≤25mA	≤30mA
材质 texture of material	金属,塑料 Metal, plastic	金属,塑料 Metal, plastic	金属,塑料 Metal, plastic
保护等级 Protection level	IP67	IP67	IP67
环境温度 ambient temperature	-25℃~+70℃	-25℃~+70℃	-25℃~+70℃
储存温度 Storage temperature	-40℃~+85℃	-40℃~+85℃	-40℃~+85℃

▶ 电路输出方式(示例) Example for output circuit



▶ 参考曲线图(示例) Reference graph (example)



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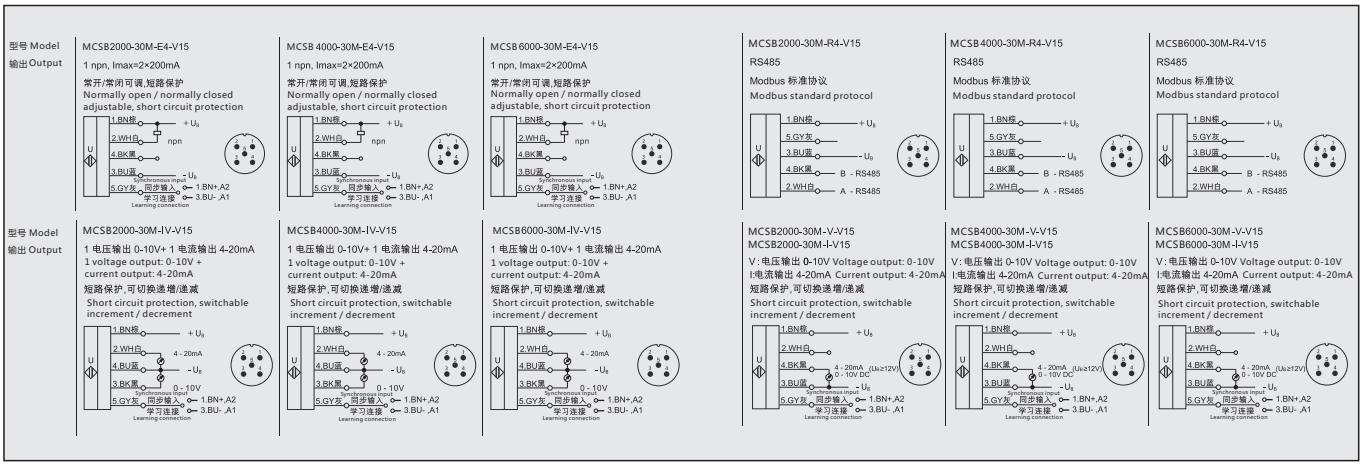
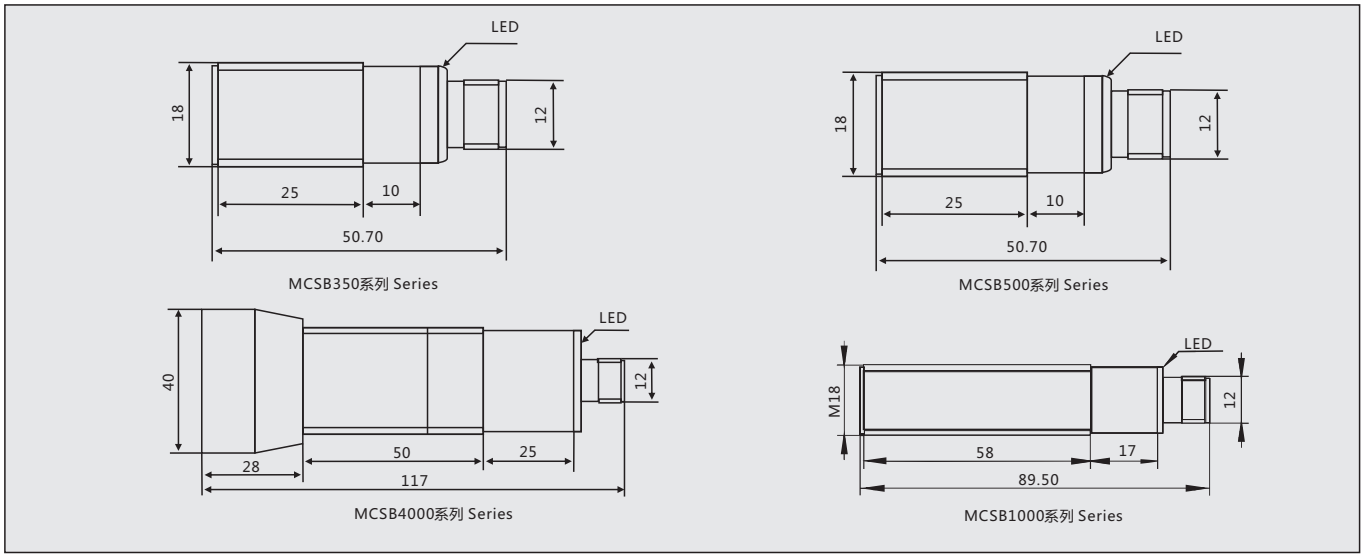
▶ 安装尺寸图（ 示例 ） Installation dimension drawing (example) (单位Unit:mm)