

使用机床专用耐油耐磨线，延长使用寿命，应对机床工作环境抗干扰性能强，光同步技术，安装快捷，可定制户外抗光型产品

Use the special oil-resistant and wear-resistant wire for the machine tool to prolong the service life, cope with the working environment of the machine tool, and have strong anti-interference performance. With optical synchronization technology, the installation is fast, and outdoor anti light products can be customized

区域传感器ML系列

Area sensor ML series



型号说明 Model Explanation

M	L	-20	T6	N	-□	-JC	-□
基本型号Model M:常规圆柱形 Cylindrical proximity sensor M□: 特殊型号定义 Speciall definition	传感器类别: L:区域传感器 Area Sensor	光轴间距 Optical axis spacing: 20:20mm 40:40mm	光轴数 Number of beams : 4:4个 6:6个 12:12个 18:18个 24:24个等	输出方式Output configuration : N:NPN输出 DC 3-wire,NPN P:PNP输出 DC 3-wire,PNP M:继电器输出 Relay DC 5-wire	线缆长度 Cable length (标配2米 Standard Cable length is 2m) 5 : 5m	产品等级 Product grade:	客户定制 Customized informat

产品种类 Product Category

型号 Model	形状 Appearance	检测距离 Sensing distance	输出规格 Output configuration	连接方式 Connection mode
ML-20T6		3m 10m	N:NPN输出 DC 3-wire,NPN P:PNP输出 DC 3-wire,PNP M:继电器输出 Relay DC 5-wire	导线引出/航插 Cable line/Plug

技术规格 Specification

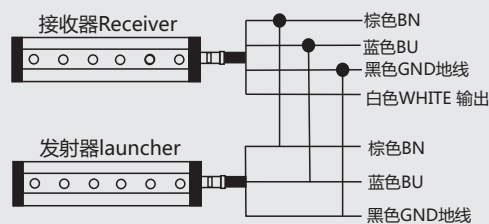
型号Type	
电源电压 Voltage	直流DC:10-30VDC/12-240V
检测距离 Sensing distance	3m
负载电流 Load current	<200mA
压降 Drop	<0.5V
消耗电流 Consumption of current	<100mA
重复精度 Repetition precisionload	<5%
光源 Light source	红外 LED(880nm)
输出 Output	NPN/PNP/
响应时间 Response time	15ms max.
输出/电源指示 Output/Power indication	红色LED Red LED / 绿色 Green LED
极性保护 Polarity protection	Yes
抗光干扰 Resist light interference	太阳光Sunlight:10000Lux
环境温度 Ambient temperature	动作时Operating:-10~+40°C,保存时Storage:-25~+55°C(不结冰with no icing)
环境湿度 Ambient humidity	工作时/保存时 Operating/Storage:35~85%RH/Storage:35~95%RH(不结露with no condensation)
振动(耐久)Vibration resistance	10~55Hz复振幅1.5mmX, Y, Z各方向2h double amplitude for 2 hours each in X, Y and Z directions
冲击(耐久)Shock resistance	500m/s²X, Y, Z各方向10次 500m/s² 10 times each X, Y and Z directions
防护等级 Degree of protection	IEC IP64
外壳 Case	铝合金Aluminium alloy

电路输出方式(示例) Example for output circuit

- 发射端和接收端棕色线连接一起为电源正极12-24V。
The brown wires at the transmitting end and the receiving end are connected together as the positive pole of the power supply 12-24V.
- 发射端和接收端蓝色线连接一起为电源负极0V。
The blue wires of the transmitting end and the receiving end are connected together as the negative pole 0V of the power supply.
- 发射端和接收端黑色线连接一起为GND电源接地。
The black wires at the transmitting end and the receiving end are connected together to ground the GND power supply.
- 接收端白色线为信号线，可PC。
The white line at the receiving end is the signal line, which can be PC.

晶体管NPN/PNP输出NPN/PNP output

Transistor NPN/PNP output NPN/PNP



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

1. 发射端和接收端棕色线连接一起为电源正极12-24V。
The brown wires at the transmitting end and the receiving end are connected together as the positive pole of the power supply 12-24V.

2. 发射端和接收端蓝色线连接一起为电源负极0V。
The blue wires of the transmitting end and the receiving end are connected together as the negative pole 0V of the power supply.

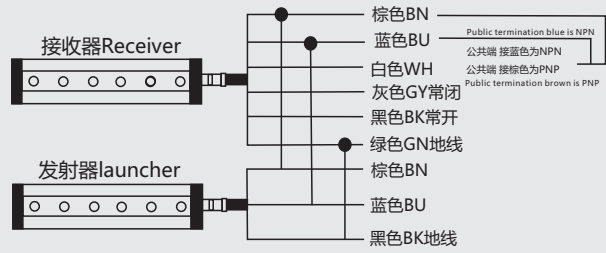
3. 发射端黑色和接收端绿色线连接一起为GND电源接地。
The black wire at the transmitting end and the green wire at the receiving end are connected together to ground the GND power supply.

4. 接收端白色线为公共端：A,白色公共端接蓝色为NPN输出。
B,白色公共端接棕色为PNP输出。
The white line at the receiving end is the common terminal:
A, and the white common terminal is NPN output.
B. White common termination brown is PNP output.

5. 接收端黑色线为常开信号线。 The black line at the receiving end is normally open signal line.

6. 接收端灰色线为常闭信号线。 The gray line at the receiving end is a normally closed signal line.

继电器输出
Relay output



► 光栅选型，保护高度，总高度 Grating selection, protection height, total height

光轴间距Beam pitch(20mm)							
规格型号 Specification and model	04-20	06-20	08-20	10-20	12-20	14-20	16-20
光栅高度 Grating height (mm)	144	184	224	264	304	344	384
保护高度 Protection height (mm)	60	100	140	180	220	260	300
光束数量 Number of beams(n)	4	6	8	10	12	14	16

光轴间距Beam pitch(20mm)							
规格型号 Specification and model	18-20	20-20	22-20	24-20	26-20	28-20	30-20
光栅高度 Grating height (mm)	424	464	504	544	584	624	664
保护高度 Protection height (mm)	340	380	420	460	500	540	580
光束数量 Number of beams(n)	18	20	22	24	26	28	30

光轴间距Beam pitch(40mm)							
规格型号 Specification and model	04-20	06-20	08-20	10-20	12-20	14-20	16-20
光栅高度 Grating height (mm)	204	284	364	444	524	604	684
保护高度 Protection height (mm)	120	200	280	360	440	520	600
光束数量 Number of beams(n)	4	6	8	10	12	14	16

光轴间距Beam pitch(40mm)							
规格型号 Specification and model	18-20	20-20	22-20	24-20	26-20	28-20	30-20
光栅高度 Grating height (mm)	764	844	924	1004	1084	1164	1244
保护高度 Protection height (mm)	680	760	840	920	1000	1080	1160
光束数量 Number of beams(n)	18	20	22	24	26	28	30

安全警告：安全光幕光栅通电，必须要有专业操作人员持证上岗，非专业人员请勿操作。本安全光幕光栅使用电流为直流12-30VDC，不能在交流电使用。
Safety warning: When the safety light curtain grating is powered on, professional operators must work with certificates, and non-professionals are not allowed to operate. The current of the safety light curtain grating is DC 12-30vdc, which cannot be used in AC.

警告1：在感应器及危险区域间，必须保持安全距离300MM。
Warning 1: A safe distance of 300mm must be kept between the sensor and the dangerous area.

警告2：不可使用于无立即停止电子控制式的机器。
Warning 2: It cannot be used in machines without immediate stop electronic control.

警告3：安装时，考虑是否有其它会导致机能故障的反射物。
Warning 3: When installing, consider whether there are other reflectors that may cause functional failure.

► 技术参数 technical parameter

型号 Model	光点数 Number of light points	H=光轴间距 Beam pitch	C=保护高度 Protection height	A=上端盖高度 Height of upper end cover	B=盲区 Blind area	D=盲区 Blind area	E=下端盖高度 Height of aviation plug	F=航空插头高度 Height of aviation plug	G=光栅总高度 Total height of grating
60-40	6	40	200	10	20	30	10	14	284
60-20	6	20	200	10	20	30	10	14	184

► 安装尺寸图 Mounting Dimensions(单位Unit:mm)

