



MG RELAY CO.,LTD.  
www.mgrelay.com

ML19

磁保持继电器  
Magnetic holding relay



**特性 Features :**

- 16切换大容量 ( 16A switching capacity )
- 永久磁铁保持继电器Permanent magnet holding relay
- 双线圈保持Double Coil hold
- 自我保持的设置和重置线圈，在没有电源的情况下，保持最后的位置  
Self-hold settings and reset the coil, in the absence of power, to maintain the last position
- 镀金触点型Gold plated contact type
- 2C可选择灭弧磁铁 2C OPTIONAL ARC suppression magnet
- 环保产品RoHS和REACH

**性能参数 Coil parameter**

触点型式Contact type	一组转换/二组转换/三组转换 (1C/2C/3C)	
接触电阻 Contact Resistance	≤50mΩ	
触点材料 Contact Material	AgSnO2	
阻性负载 Resistive load	16A @28VDC , 120/240/277VAC	
马达负载 Motor load	1/2hp @240VAC,1/3hp@120VAC	
最大切换电压 Max. Switching Voltage	28VDC,277VAC	
最大切换电流 Max. Switching Current	16A	
最大切换功率 Max. Switching Power	448W,4432VA	
绝缘电阻 Insulation resistance	1000MΩ /500VDC	
介质耐压 Dielectric strength	同极触点间 Between open contact	1000VAC,1Min
	异极触点间 Between different pole	1500VAC,1Min
	线圈触点间 Between contact and coil	1500VAC,1Min
动作时间 Operate time	AC≤30ms,DC≤20ms	
释放时间 Release time	AC≤30ms,DC≤20ms	
冲击稳定性 Stability of shock resistance	98m/s <sup>2</sup>	
冲击强度 Shock strength	980m/s <sup>2</sup>	
环境温度 Ambient temperature	-45°C ~ +70°C (AC) -45°C ~ +70°C (DC) (无结冰、无结露 No ICE, no dew )	
环境湿度 Ambient Humidity	5%RH ~ 85%RH	
振动 Vibration	10Hz ~ 55Hz, Double amplitude 1.0mm	
机械寿命 Mechanical life	1000,0000 ops	
电气寿命 Electrical life	10,0000 ops	

额定线圈功率 Rated coil power	直流 ( DC ) : 1.2-1.64W , 交流 ( AC ) : 2.0VA
重量 Weight	≤93g
体积Volume	35mm×38mm ×47.6mm
配套插座或连接器 Matching socket or connector	S2 teminal : BTA3-11A
产品应用领域Product application area	机床、工业控制设备、电梯电控设备、安防控制领域、电源控制等 Machine tool、Industrial Control Equipment、Elevator control equipment、Field of security control、Power Control
产品应用场合Applications	电源、焊接设备、自动贩卖机、通信设备、防灾设备、测量仪器、娱乐机器、 Power supply、Welding equipment、Vending machine、Communication equipment、Disaster Prevention equipment、Measuring Instrument、Entertainment Machine
同行参考Peer Reference	P&B:KU11 MAG : 285/388ML系列(285/388ML series)

### 线圈规格表 Coil Versions (环境温度+ 23℃ The ambient temperature is 23℃)

额定电压 ( V ) Rated oltage		工作电压 ( V ) Operate voltage	释放电压 ( V ) Release voltage	最大电压(V) MAX.voltage	线圈电阻(Ω) Coil sistance
DC双线圈 DC Double Coil ( 1C/2C )	6VDC	≤75%	≤75%	110%	22/22±10%
	12VDC				90/90±10%
	24VDC				350/350±10%
	48VDC				1400/1400±10%
	110VDC				9000/9000±10%
AC单线圈 AC single coil ( 1C/2C/3C )	6VAC	≤80%	≤80%	110%	32±10%
	12VAC				120±10%
	24VAC				472±10%
	48VAC				1800±10%
	120VAC				10000±10%
	240VAC				40000±10%
DC单线圈 DC single coil ( 1C/2C )	6VDC	≤75%	≤75%	110%	32±10%
	12VDC				120±10%
	24VDC				472±10%
	48VDC				1800±10%
	110VDC/125VDC				9000±10%

备注：最大电压是指继电器在短时间内能够承受的最大电压值。

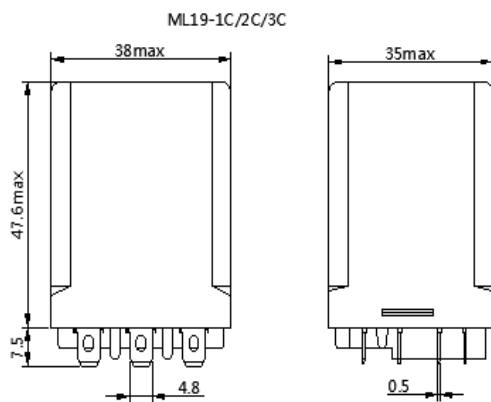
Note: The maximum voltage is the maximum that the relay can withstand in a short period of time.

## 订货标记示例 Order mark example

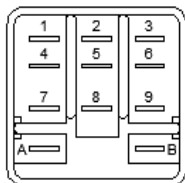
<b>编号说明</b>	<b>ML19</b>	<b>-2C</b>	<b>()</b>	<b>-S2</b>	<b>-C</b>	<b>LS</b>	<b>-120VAC</b>
系列Series ML19							
触点形式Contact form 1C:SPDT 2C:DPDT 3C:DPDT							
触点负载Contact rating 空白Blank:10A 16:16A							
引出端形式Terminal style 空白Blank : 标准型 Standard type S2:4.8*0.5mm / S1:4.8*0.8mm							
外壳样式Cover style C:标准型普通外壳Standard case C1:侧面法兰外壳Side flange housing C3:顶端法兰外壳Top flange housing							
选配Options L: 单向红色 Single-Polar Red LED(for AC), 双向绿色Bi-Polar GreenLED (for DC) S : S单线圈 S Single Coil      D:双线圈 D: Double Coil							
线圈电压Coil voltage A: AC交流 DC: DC直流							

## 外形尺寸图 Dimension drawing

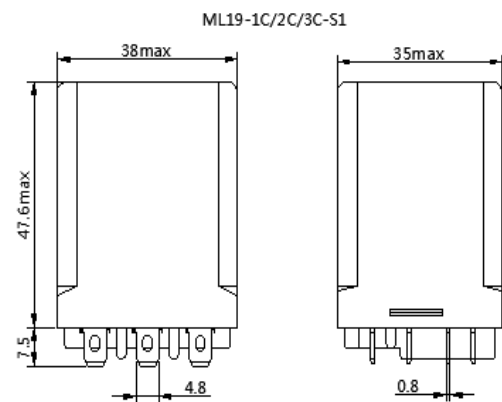
标准型  
(Standard type)



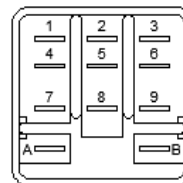
底视图  
Bottom view



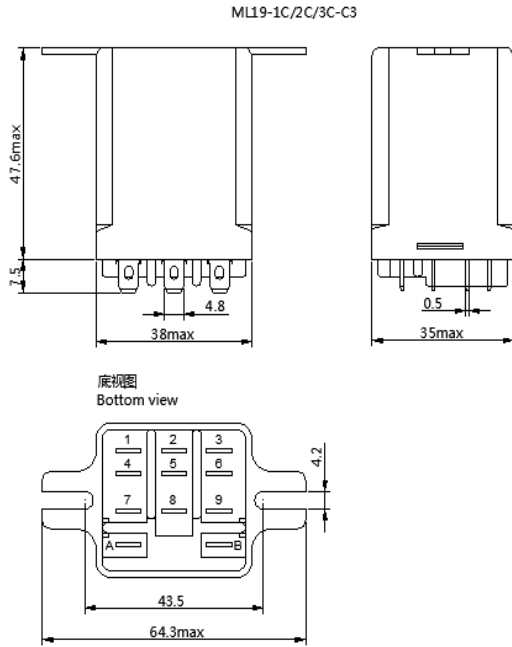
Terminal type (S1)



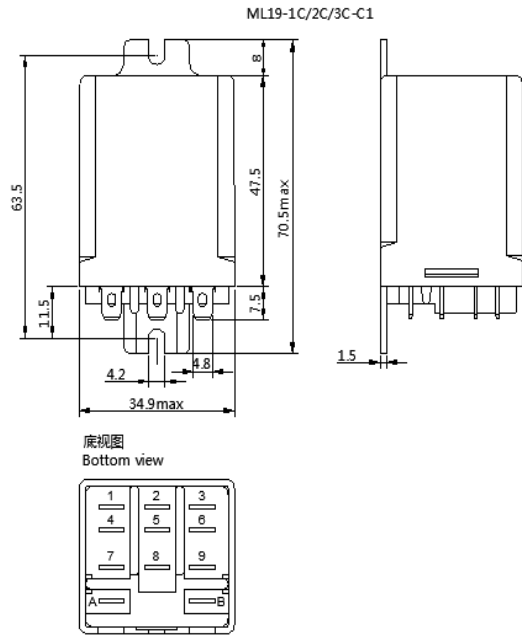
底视图  
Bottom view



顶端附耳外壳  
Top flange cover (C3)

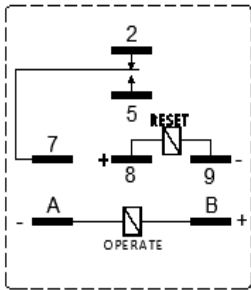


侧面附耳外壳 (C1)  
Side flange cover (C1)

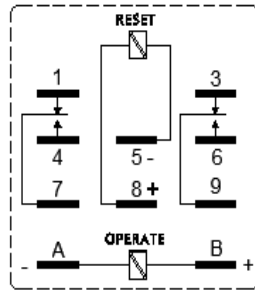


内部接线图 Wiring diagrams

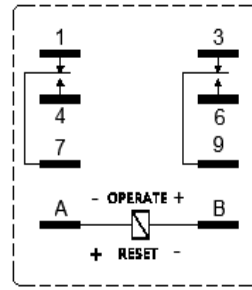
直流双线圈 1C  
DC Dual wound SPDT



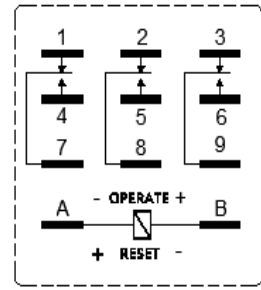
直流双线圈 2C  
DC Dual wound DPDT



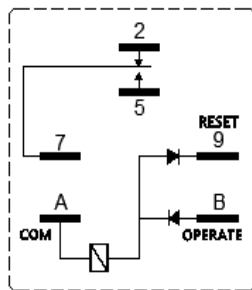
直流单线圈 2C  
DC Single wound DPDT



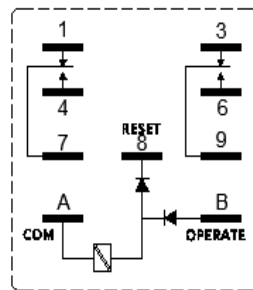
直流单线圈 3C  
DC Single wound 3PDT



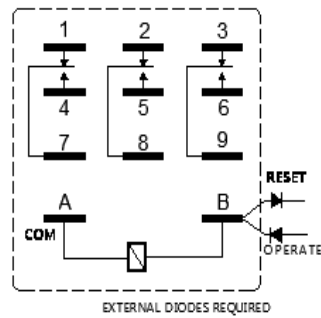
交流单线圈 1C  
AC Single wound SPDT



交流单线圈 2C  
AC Single wound DPDT



交流单线圈 3C  
AC Single wound 3PDT



注：1，对于DC规格，请在确认线圈极性后正确接线。

For DC specifications, please connect correctly after confirming coil-level performance.

2，动作指示灯显示线圈通电情况，并非根据触点动作进行显示

the action indicator shows the current status of the coil, not according to the action of the contact

## 继电器配套插座:Relay socket (另售Resell)

插座型號 Socket type	連接繼電器型號 Type of connecting relay	型狀 SHAPE	安裝方式 Installation mode	材質 Material Quality
BTA3-11A	MR19 (S2)		1. 兩側螺絲孔安裝; 2. 導軌安裝	PA

## 插座性能Socket performance

插座型號 Socket type	負載電流Load current	負載電壓 Load voltage	介質耐壓Dielectric strength		外連接導線External connecting conductor		螺釘扭矩 Screw Torque	防護等級 Protection level
			線圈及觸點間 Between Coil and contact	觸點間 Contact Point	AWG	mm <sup>2</sup>		
			V/S	V/S				
BTA3-11A	12A	240VAC	1500	1500	20-16	0.5-1.5	0.7Nm	/

## 注意事項Points to note

### 关于使用: About using

对于动作指示灯内置型, 请在确认线圈极性后正确接线 (DC操作)

For Action Indicator built-in type, please connect correctly after confirming coil polarity (DC operation)

### 关于安装: About installation

无安装方向限制, 请尽量避免接点移动方向易受振动、冲击的安装方式

No installation direction limit, please try to avoid contact moving direction susceptible to vibration, impact of the installation

### 关于继电器的更换: ON REPLACEMENT OF RELAYS:

因维护等原因更换继电器时, 为防止继电器的误动作及触电事故, 请务必切断负载侧和继电器线圈的电源。

When changing the relay for maintenance and other reasons, please cut off the power supply of the load side and the relay coil in order to prevent misoperation and electric shock of the relay.