



特 性 FEATURES



- 一组 90A 常闭触点形式
- 线圈与触点介质耐压 4KV
- UL 绝缘等级: F 级
- 满足加强绝缘, 爬电距离 6.4mm 以上
- 可提供符合 IEC61810-10 标准产品
- 可提供符合 UL508 标准产品
- 可提供满足 30A 1 万次(载流电寿命 30A-90A-30A), 电耐久性的产品(环境温度 85°C)
- 外形尺寸: LxHxW: 39mm × 32mm × 16.5mm

90A normally closed contact configuration

Coil and contact medium withstand voltage: 4KV

UL insulation class: F-class

Meets reinforced insulation requirements, creepage distance $\geq 6.4\text{mm}$

Products compliant with IEC 61810-10 available

Products compliant with UL 508 available

Products meeting 30A 10,000 cycles (current-carrying life 30A-90A-30A)

electrical endurance available (ambient temperature 85°C)

Dimensions: LxHxW 39mm × 32mm × 16.5mm

触点参数 CONTACT PARAMETERS

触点形式 Contact Form	1A、1B
触点材料 Contact Material	银合金 Silver Alloy
接触电阻 Contact Resistance	$\leq 1.0\text{m}\Omega$ (1A 6VDC)
触点负载(阻性) Contact Rating(Res. Load)	90A 277VAC
最大切换电流(阻性) Max. Switching Current(Res. Load)	90A
最大切换电压(阻性) Max. Switching Voltage(Res. Load)	277VAC
最大切换功率 Max. Switching Power	24930VAC
电气寿命 Electrical Life	1×10^5 次 OPS
机械寿命 Mechanical Life	3×10^6 次 OPS

备注: 电气寿命数据仅供参考, 以最终产品确认规格书为准。

Notes: The electrical life data is only for reference, and the final product confirmation specification shall prevail.

性能参数 CHARACTERISTICS

绝缘电阻 Insulation Resistance		1000MΩ Min. (500VDC)
介质耐压 Dielectric Strength		触点与线圈间 Between Coil & Contacts: 4000VAC 1min
		断开触点间 Between Open Contacts: 2000VAC 1min
动作时间 Operate Time		≤20ms
复归时间 Release Time		≤20ms
冲击 Shock Resistance	稳定性 Functional	98m/s ₂ (10G)
	强度 Destructive	980m/s ₂ (100G)
振动 Vibration Resistance		10Hz~55Hz 1.5mm 双振幅 (DA)
湿度 Humidity		5%-85%RH
温度范围 Ambient Temperature		-40℃~85℃
引出端方式 Termination		PCB 安装
封装方式 Construction		密封型 Sealed
重量 Unit Weight		约 Approx.:42g

线圈规格表 COIL DATA(23°C)

额定电压 Rated Voltage VDC	动作/复归电压 Set/Reset Voltage VDC	脉冲宽度 Pulse Duration ms	线圈电阻 Coil Resistance $\Omega \pm 10\%$		线圈功耗 Coil Power W
5	≤ 3.75	≥ 50	单线圈 Single Coil Latching	16.7	约 Approx. 1.5
6	≤ 4.5			24	
9	≤ 6.75			54	
12	≤ 9.0			96	

24	≤18		双线圈 Double Coils Latching	384	约 Approx. 3.0
5	≤3.75			8.3/8.3	
6	≤4.5			12/12	
9	≤6.75			27/27	
12	≤9.0			48/48	
24	≤18			192/192	

安全认证 APPROVALS

安全认证	UL/CUL	TUV	CQC
证书编号	认证中	认证中	认证中
负载	1、电寿命 30A(100ms)--90A(800ms)--30A(100ms), 277/250VAC, 1秒通9秒断, 10000次, 85℃ 2、电寿命 90A 277/250VAC, 1秒通9秒断, 500次, 85℃	1、电寿命 30A(100ms)--90A(800ms)--30A(100ms), 277/250VAC, 1秒通9秒断, 10000次, 85℃ 2、电寿命 90A 277/250VAC, 1秒通9秒断, 500次, 85℃	1、电寿命 30A(100ms)--90A(800ms)--30A(100ms), 277/250VAC, 1秒通9秒断, 10000次, 85℃ 2、电寿命 90A 277/250VAC, 1秒通9秒断, 500次, 85℃

订货标记示例 ORDERING INFORMATION

	MLQ	-90	SH	1	12	-A	-L1	-R	(XXX)
产品型号 Model:	MLQ								
负载规格 Load:	90: 90A								
封装方式 Sealing Method:	SH:密封 Sealed S: 塑封型 Sealed 无: 防尘型 Flux Proofed								
触点组数 Contact Group:	1:1 组 1 Groups								
线圈电压 Coil Voltage:	05、06、09、12、24								
触点形式 Contact Form:	A: 常开 NO B: 常闭 NC								
线圈类型 Coil Type:	L1: 单线圈 Single Coil Latching L2: 双线圈 Double Coils Latching								
极性特点 Polarity	R: 反极性 Negative Polarity (如接线图所示) 无: 标准极性 Positive Polarity (如接线图所示)								
特性代号 Special Code(2)	XXX: 客户特殊要求 Customer Special Requirement								

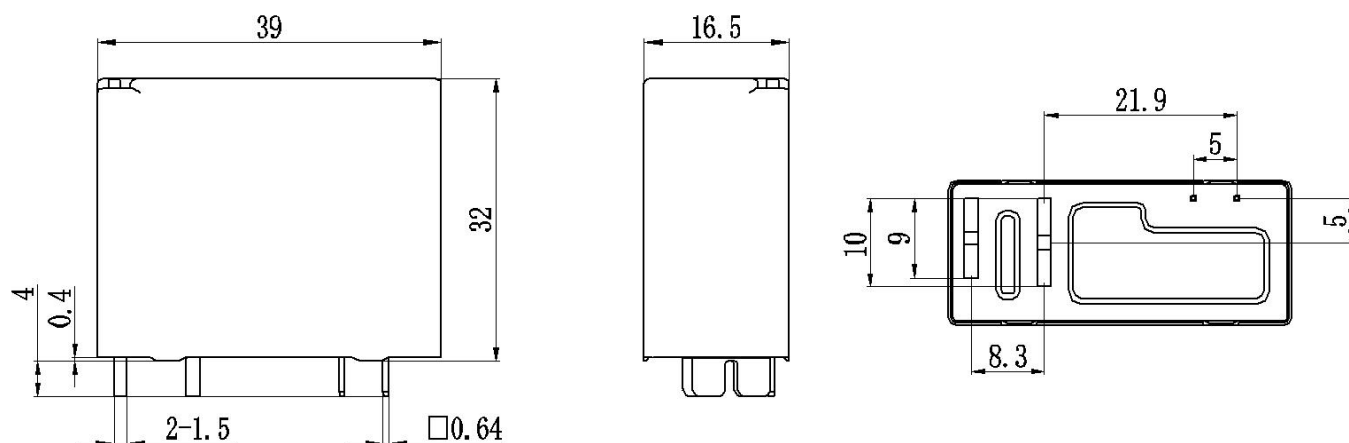
备注: (1) A 表示继电器出厂时触点处于断开状态; B 表示继电器出厂时触点处于闭合状态, 如客户没有特别申明, 我司将控制继电器触点处于闭合状态。

(2) 我司可根据客户需求定制各种规格的外接件。

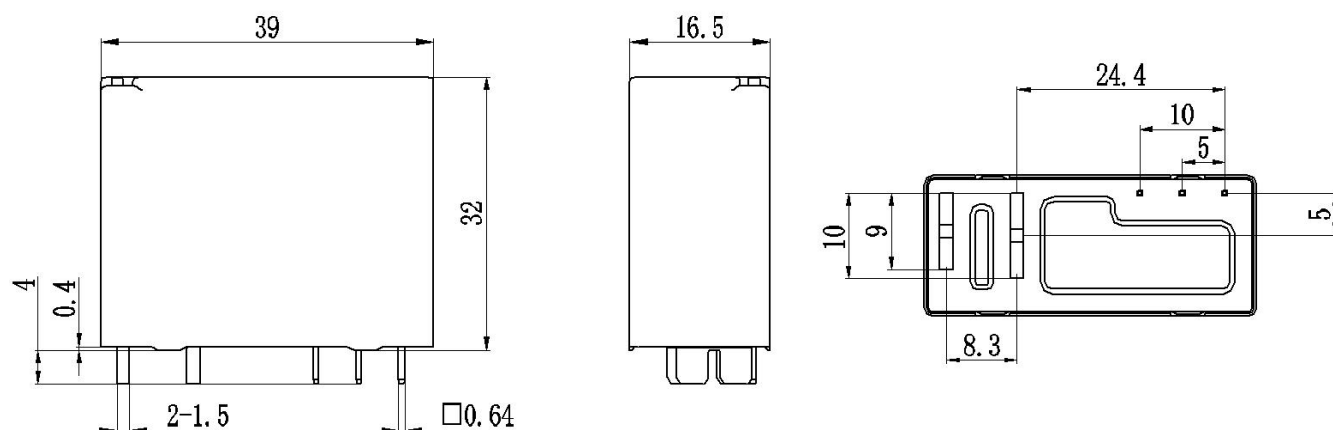
Note: (1) A indicates the relay contacts are open at factory default; B indicates the relay contacts are closed at factory default. Unless otherwise specified by the customer, our company will set the relay contacts to the closed state.

(2) Our company can customize external components of various specifications according to customer requirements

单线圈 Single coil

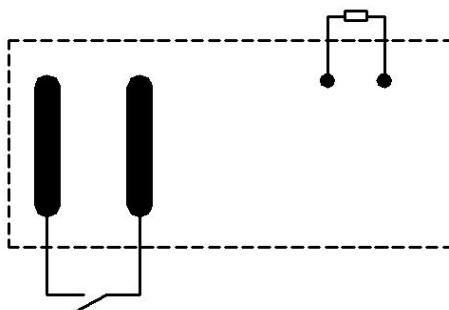


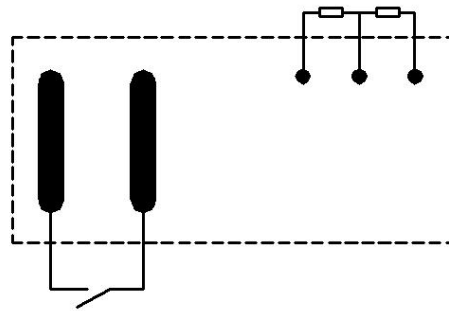
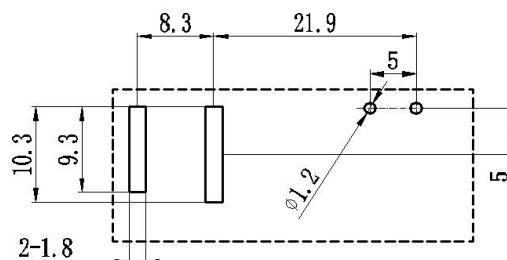
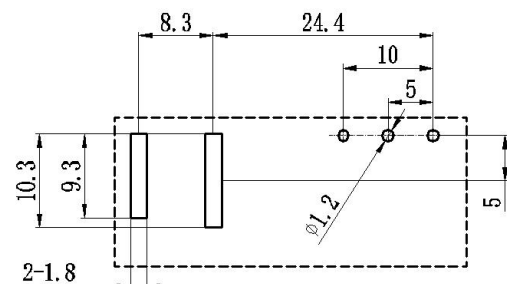
双线圈 Double Coils



线圈接线图 Wiring Diagram

单线圈 Single Coil



双线圈 Double Coils

单线圈 Single Coil

双线圈 Double Coils

备注 Notes:

- 产品部分外形尺寸未注尺寸公差，当外形尺寸 $\leq 1\text{mm}$ ，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $1\sim 5\text{mm}$ 之间时，公差为 $\pm 0.3\text{mm}$ ；当外形尺寸 $> 5\text{mm}$ 时，公差为 $\pm 0.4\text{mm}$ 。
In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$;
- 安装孔尺寸中未注尺寸公差的均为 $\pm 0.1\text{mm}$ 。
The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

注意事项 Notes:

- 磁保持继电器出厂状态为动作或复归状态，但因运输或继电器安装时受到冲击等因素的影响，可能会改变状态，因而使用时（电源接入时）请根据需要重新将其设置为复归状态或动作状态；
Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "reset" or "set" status, therefore, when application (connecting the power supply), please reset the relay to "reset" or "set" status on request.
- 为了确保磁保持继电器动作或复归，施加到线圈上的激励电压须达到额定电压，脉冲宽度须大于动作或复归时间的 5 倍；不要同时向动作线圈和复归线圈施加电压；不要长时间（大于 1 分钟）向线圈施加电压；
In order to maintain "reset" or "set" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "reset" or "set" time. Do not energize voltage to "reset" coil and "set" coil simultaneously. And also, long energized time (more than 1min) should be avoided.
- 不带软铜绞线的磁保持继电器负载引出脚不能焊锡，不能随意扳动。
The terminals of relay without twisted copper wire cannot be tin-soldered, cannot be moved willfully, more over two terminals can't be fixed at the same time.
- 继电器通常为防尘罩结构，外接件按照客户特殊要求定制，所以推荐此产品的储存时间小于 6 个月，并注意仓储环境；同时为保证产品接触可靠性，在客户

没有特别申明的情况下，我司将控制继电器触点为闭合状态。

Relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements. No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

5. 本产品规格书仅供客户使用时参考，若有更改，恕不另行通知。

This product specification for client's reference, if any change without notice.

6. 对美硕而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应该根据具体的使用条件选择与之相匹配的产品，若有疑问，请与美硕联系获取更多的技术支持。但产品选型责任仅由客户负责。

For MEISHUO, cannot require evaluation of relays in each specific application of all the performance parameters, so customers should be selected according to the matching conditions for the use of specific products, if you have any questions, please contact us and get more technical support. However, product selection responsibility only by the customer.