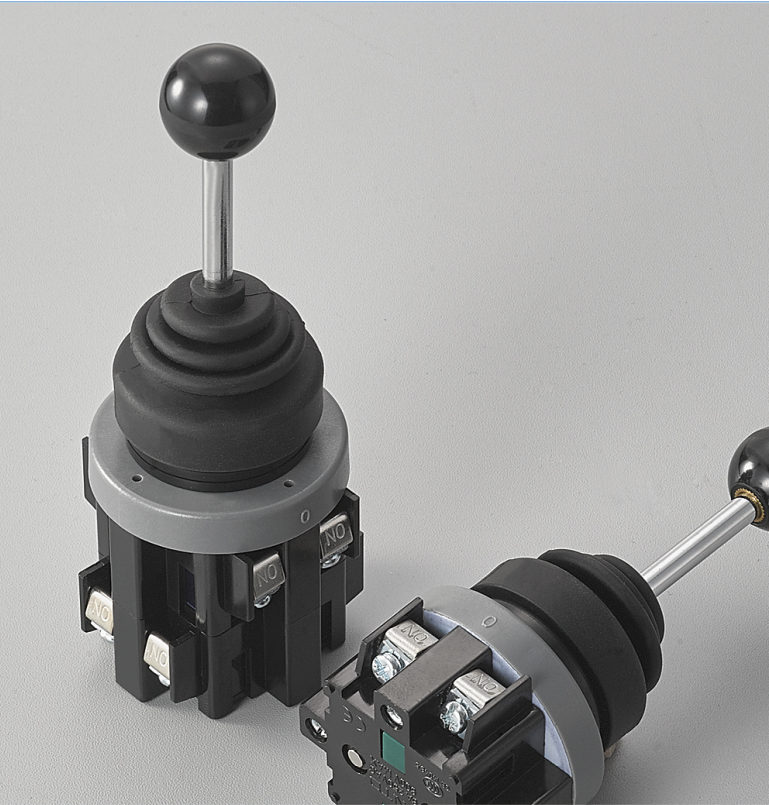
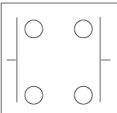


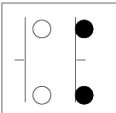


特点 Features

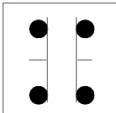
- 上、下、左、右四方向操作顺畅，具可任意选择一向、二向、三向、或四向
- 有保持、复位、无动作等三种操作方式
- 具耐油、防水和防压结构
- Smoothly and swiftly handle the lever in four directions upward, rightward, downward, and leftward
- Operate in four, three, or two directions with the switch
- Rubber bushing is water-proof, oil-resistant, and dustpreventive



BR1(2NO)



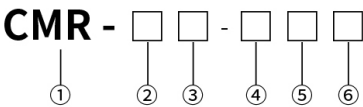
BR2(1NO1NC)



BR3(2NC)



选型说明 Model Designation



项目 Items	代号 Code	说明 Description	备注 Note
① 型式 Type	CMR	圆型 Round type	
	CMRS	圆型(CMV触点座) Round type (CMV contact seat)	
	CMRN	密封圆型 Seal Round	
	CMRSN	密封圆型(微动开关) Sealed circular type	
② 固定孔径 Mounting Hole	30	Φ30mm	
③ 触点座节数 Number of contact seats	1~4	1~4	
④ 触点排列型式 *1*2 Contact arrangement type	1	10/0/10/0	一节触点座可选 One contact seat is optional
	2	10/10/10/10	二节触点座可选 Two contact seat is optional
	3	20/0/20/0	二节触点座可选 Two contact seat is optional
	4	20/10/20/10	三节触点座可选 Three contact seat is optional
	5	30/0/30/0	三节触点座可选 Three contact seat is optional
	6	20/20/20/20	四节触点座可选 Four contact seat is optional
	7	30/10/30/10	四节触点座可选 Four contact seat is optional
	8	40/0/40/0	四节触点座可选 Four contact seat is optional
	其它 Other	字母数字组合 Alphanumeric combination	

⑤ 操作类型 Type of operation	R	保持 Go-on	
	L	复位 Auto-return	
⑥ 触点类型*3 Contact type	A	常开触点NO (10:1NO;20:2NO;30:3NO;40:4NO)	
	B	常闭触点NC (01:1NC;02:2NC;03:3NC;04:4NC)	
	C	一开一闭触点1NO-1NC (两个对立方向为不同触点类型 "10/0/01/0" ; 11: 单向1NO/1NC) One open and one close contact 1NO-1NC (The two opposite directions are different contact types "10/0/01/0"; 11: one-way 1NO/1NC)	
	其它 Other	字母数字组合 Alphanumeric combination	

*1:触点排列 "10/0/10/0" 对应为 "上/右/下/左" 四个方向;
*2:触点排列型式内以常开触点举例, 如客户需选用其他触点时将参数更换需求触点参数即可, 具体选型可参照下方选型列表。例: "01/01/01/01" 表示为两节四向均为常闭触点; "10/10/01/01" 表示为两节四向为两组一开一闭触点。
*3:触点类型根据触点座节数及触点排列型式变化。

*1: Contact arrangement "10/0/10/0" corresponds to "up/right/down/left" four directions;
*2: The contact arrangement type is normally open contact for example, if the customer needs to choose other contacts, the parameters can be replaced by the required contact parameters, the specific selection can refer to the selection list below. For example, "01/01/01/01" means that the two four-way contacts are normally closed; "10/10/01/01" indicates two four-way sections for two sets of one open and one closed contacts.
*3: Contact type varies according to the number of contact seats and contact arrangement type.

NO reference arrangements apply to standard contact seats.
CMRS/CMRSN-304-4RC/4LC: 4 microswitch seats; mixed-contact array 11/11/11/11.

额定值 Ratings

交流AC	额定电压 Rated voltage		110V	220V	440V
	额定电流 Rated current		10A	6A	3A
	开断电流 Breaking current capacity		50A	30A	10A
直流DC	电阻性负载 Resistance Load	额定电压 Rated voltage	110V	220V	600V
		额定电流 Rated Current	2.2A	1.1A	0.4A
		开断电流 Breaking Current	2.42A	1.21A	0.44A
	电感性负载 Inductive Load	额定电流 Rated Current	1.2A	0.45A	0.2A
		开断电流 Breaking Current	1.32A	0.5A	0.22A

国际认证规格 International Certification Specifications

认证规格 Certification specifications	规格 Specifications	文件No. Document
CCC	GB/T 14048.5	请咨询昌得代表处 Please consult the CNTD Representative Office
CE	EN 60947-5-1	

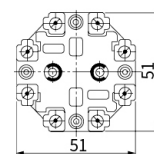
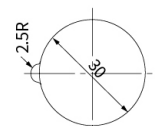
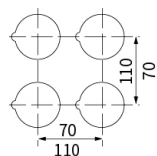
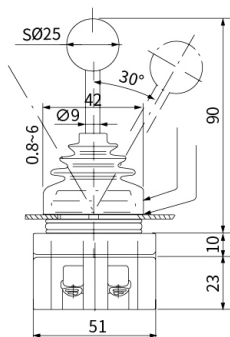
安全规格认证额定值 Safety Specification Certification Rating

CCC(GB/T 14048.5)	类型与额定值 Type and Rating
	AC-15 250V/6A

外观和尺寸 Appearance and Dimension

CMR-301

十字开关
Monolever Switch



常用型号 Common Model

Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMR-301-1RA	CMR-301-1LA	1	10/0/10/0	2NO	2 opposed
CMR-301-1RB	CMR-301-1LB	1	01/0/01/0	2NC	2 opposed
CMR-301-1RC	CMR-301-1LC	1	10/0/01/0	1NO+1NC	2 opposed

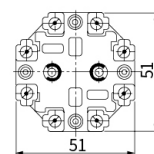
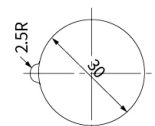
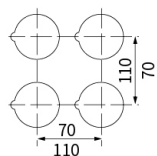
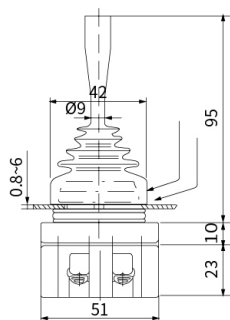
Array order: up / right / down / left. R = maintained; L = spring return.

注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

CMRN-301

十字开关
Monolever Switch



常用型号 Common Model

Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMRN-301-1RA	CMRN-301-1LA	1	10/0/10/0	2NO	2 opposed
CMRN-301-1RB	CMRN-301-1LB	1	01/0/01/0	2NC	2 opposed
CMRN-301-1RC	CMRN-301-1LC	1	10/0/01/0	1NO+1NC	2 opposed

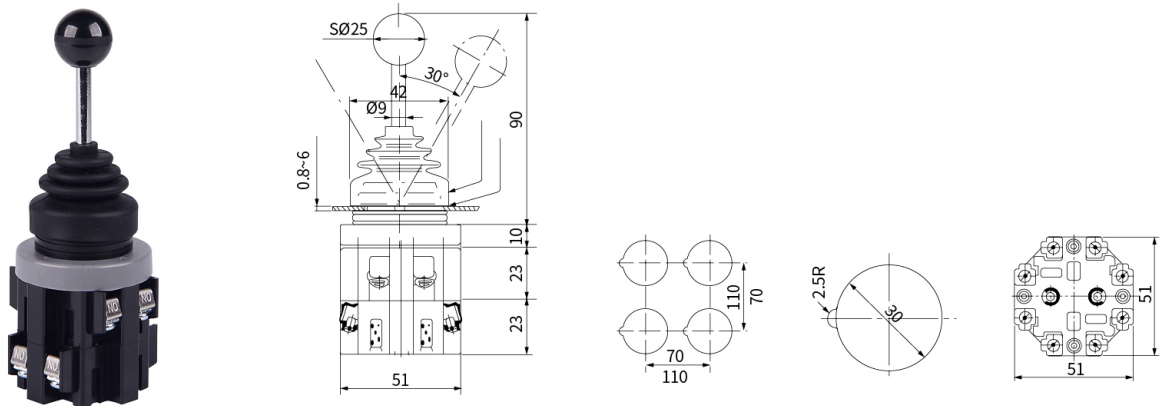
Array order: up / right / down / left. R = maintained; L = spring return.

注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

外观和尺寸 Appearance and Dimension

CMR-302
十字开关
Monolever Switch



常用型号 Common Model

Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMR-302-2RA	CMR-302-2LA	2	10/10/10/10	4NO	4
CMR-302-2RB	CMR-302-2LB	2	01/01/01/01	4NC	4
CMR-302-2RC	CMR-302-2LC	2	10/10/01/01	2NO+2NC	4
CMR-302-3RA	CMR-302-3LA	2	20/0/20/0	4NO	2 opposed
CMR-302-3RB	CMR-302-3LB	2	02/0/02/0	4NC	2 opposed
CMR-302-3RC	CMR-302-3LC	2	20/0/02/0	2NO+2NC	2 opposed

Array order: up / right / down / left. R = maintained; L = spring return.

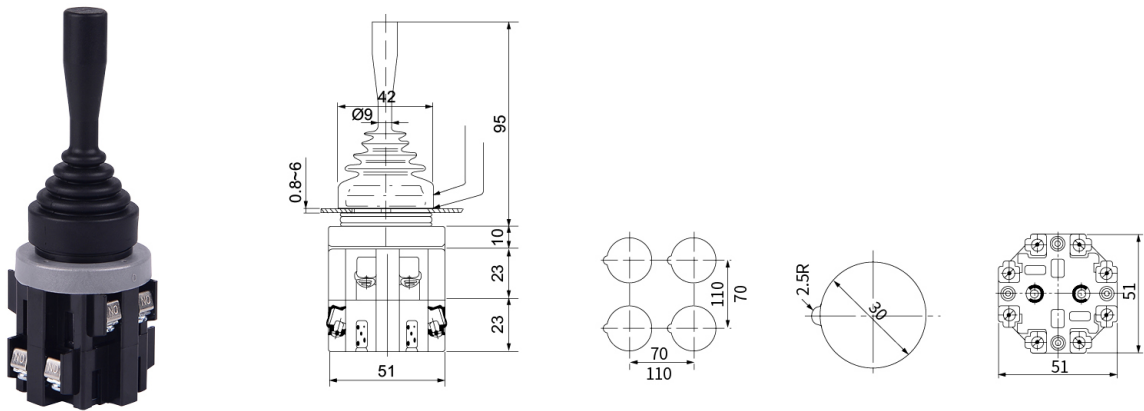
注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

外观和尺寸 Appearance and Dimension

CMRN-302

十字开关
Monolever Switch



常用型号 Common Model

Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMRN-302-2RA	CMRN-302-2LA	2	10/10/10/10	4NO	4
CMRN-302-2RB	CMRN-302-2LB	2	01/01/01/01	4NC	4
CMRN-302-2RC	CMRN-302-2LC	2	10/10/01/01	2NO+2NC	4
CMRN-302-3RA	CMRN-302-3LA	2	20/0/20/0	4NO	2 opposed
CMRN-302-3RB	CMRN-302-3LB	2	02/0/02/0	4NC	2 opposed
CMRN-302-3RC	CMRN-302-3LC	2	20/0/02/0	2NO+2NC	2 opposed

Array order: up / right / down / left. R = maintained; L = spring return.

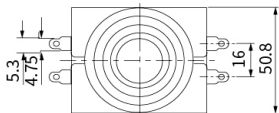
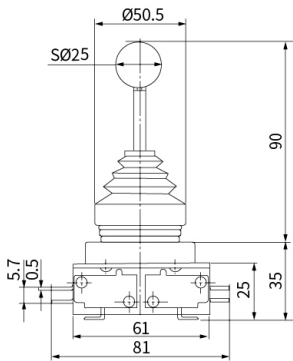
注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

外观和尺寸 Appearance and Dimension

CMRS-304

十字开关
Monolever Switch



常用型号 Common Model

Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMRS-304-4RC	CMRS-304-4LC	4	11/11/11/11	4NO+4NC	4

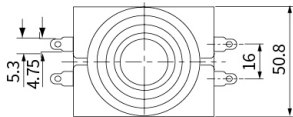
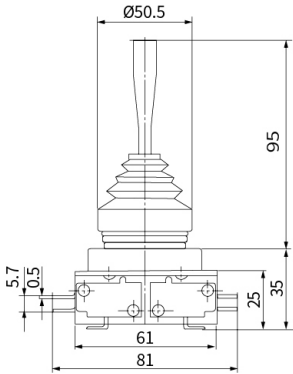
Array order: up / right / down / left. R = maintained; L = spring return.

注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

CMRSN-304

十字开关
Monolever Switch



Maintained model	Spring-return model	Seats	Array: U/R/D/L	Total contacts	Directions
CMRSN-304-4RC	CMRSN-304-4LC	4	11/11/11/11	4NO+4NC	4

Array order: up / right / down / left. R = maintained; L = spring return.

注：以上为常用型号参考，未在表格内的参考选型说明。

Note: The above is a common model reference, not in the table reference selection description.

微小负载型的使用 Applications Under Minimal Load

开关接点可用于一般负载或微小负载。但是, 已经连接过一般负载的接点, 就不能用于连接更小容量的负载。否则, 可能导致接触面的糙化, 而且可能失去接触可靠性。

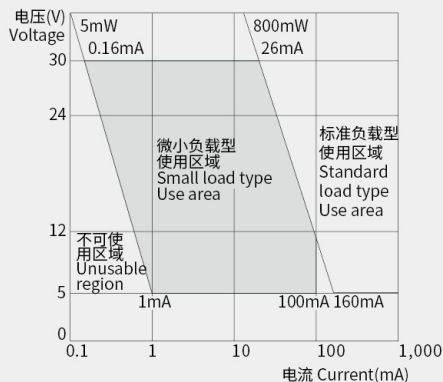
如果在开关微小负载电路时使用一般负载用开关, 可能会引起接触不良。下图为开关负载区域范围定义。本目录册内产品适用于 DC24V 10mA 以上范围, 当使用负载小于 DC24V 10mA 以下时, 可能存在由于电流过小无法击破触点表面氧化膜或硫化膜的现象, 从而导致开关接触不良。所以当使用负载小于 DC24V 10mA 以下时, 请咨询昌得电气科技有限公司进行产品定制。

请设置 CR 电路等吸收电路, 防止震荡和抖动所导致的噪声和脉冲缺失, 对于开关时会产生冲击电流的负载, 请插入接点保护电路, 以免导致耐久性降低。

Switch contacts can be used for general loads or small loads. However, contacts that have already been connected to general loads cannot be used to connect smaller capacity loads. Otherwise, it may lead to roughness of the contact surface and loss of contact reliability.

If a general load switch is used when switching a small load circuit, poor contact may be caused. The following diagram shows the switching load area range definition. The products in this catalog are suitable for DC24V 10mA or above. When the load is less than DC24V 10mA or below, the oxidized film or vulcanized film on the contact surface may be unable to be broken due to too small current, resulting in poor switch contact. Therefore, when the load is less than DC24V 10mA, please consult CNTD Electrical Technology Co., Ltd. for product customization.

Please set the absorption circuit such as CR circuit to prevent noise and pulse loss caused by shock and jitter, for the load that will produce impulse current on the switch, please insert the contact protection circuit to avoid reducing durability.



使用注意事项 Using Precautions

本公司产品是作为工业产品而设计生产, 严格遵守工业产品标准。我司明确声明, 除非经过特殊设计并得到我司明确书面确认, 我司产品不适用于以下应用场合:

- 要求极高可靠性的应用场合, 包括核能、燃气、电力等要求长期稳定运行的系统。
- 要求极高安全性的应用场合, 涉及人身安全与财产的情况。
- 苛刻条件、严酷环境的应用场合, 包括室外、存在化学污染、电磁、振动或冲击影响的环境。
- 有火灾或爆炸风险的应用场合, 包括存在易燃易爆性气体、强酸强碱化学品等物质的环境。
- 涉及军工用途、航天航空项目的应用场合。

The company's products are designed and produced as industrial products, in strict compliance with industrial product standards. We expressly declare that, unless specifically designed and expressly confirmed by us in writing, our products are not intended for the following applications:

- Applications that require high reliability, including nuclear, gas, electric and other systems that require long-term stable operation.
- Applications requiring very high security, situations involving personal safety and property.
- Applications in harsh conditions, harsh environments, including outdoor, chemical contamination, electromagnetic, vibration or shock effects.
- Applications where there is a risk of fire or explosion, including environments where flammable and explosive gases, strong acids and alkali chemicals are present.
- Applications involving military use and aerospace projects.