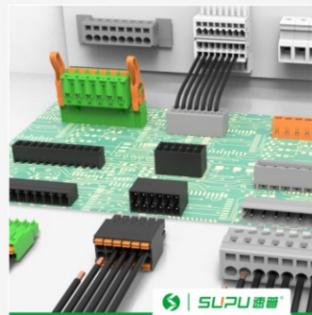轨装接线端子选型手册
RAIL-MOUNTED TERMINAL BLOCK

重载连接器选型手册
HEAVY DUTY CONNECTOR

限位开关选型手册
Limit Switch

PCB连接器及端子选型手册
PCB CONNECTORS AND TERMINAL BLOCKS
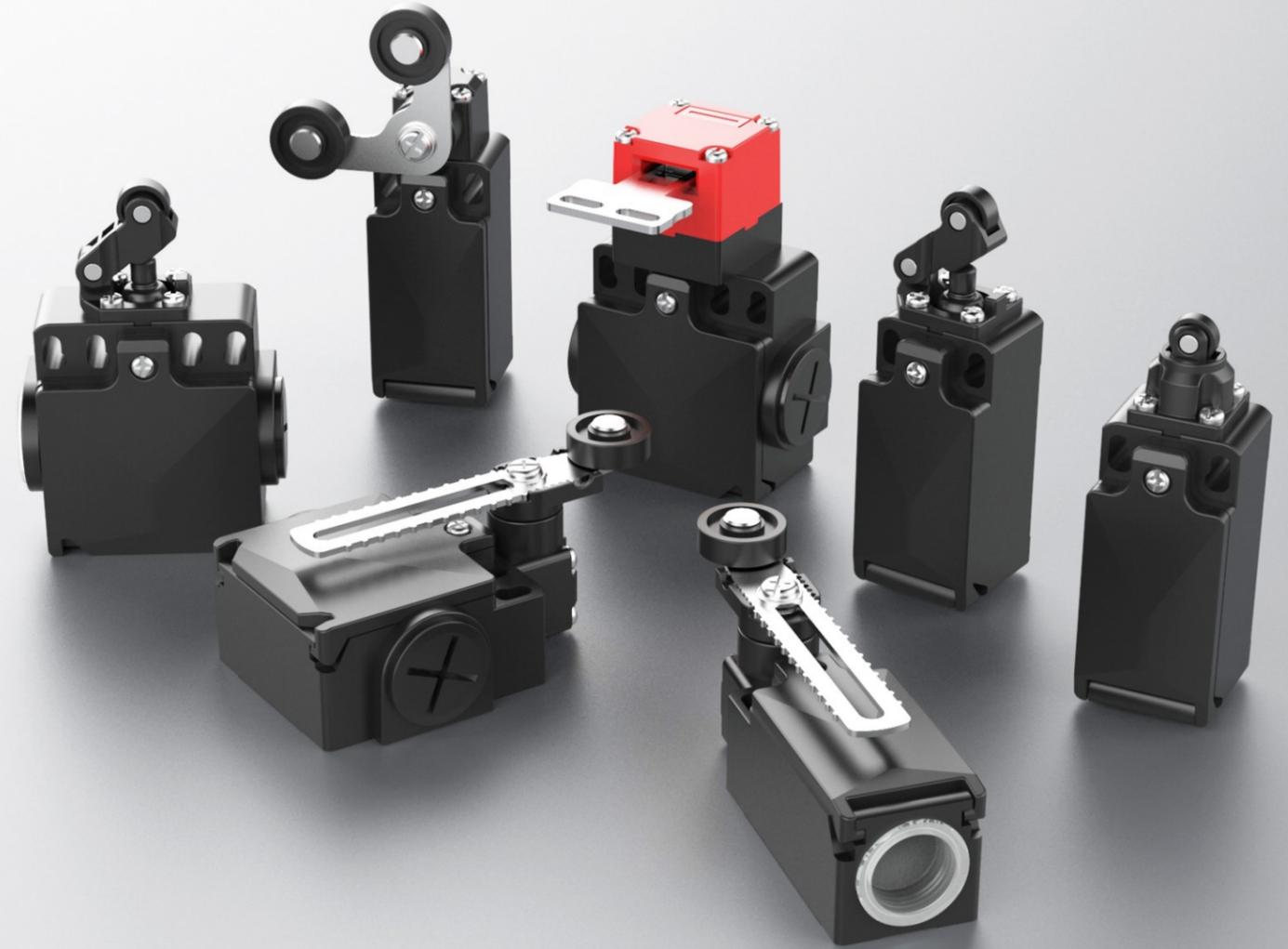
工业开关选型手册
INDUSTRIAL SWITCH

定制部件选型手册
Customerized Parts

SUPU 速普®

限位开关选型手册
LIMIT SWITCH

V 2.0 I

宁波速普电子有限公司
NINGBO SUPU ELECTRONICS CO.,LTD.

速普电子现有二个生产基地，三百多名员工，已发展成为连接器、工业开关、精密模具、定制部件四大业务版块，集研发、生产、销售、服务于一体的电气产业全球优秀供应商。

速普连接器产品包括轨装接线端子、多用途连接器、PCB固定式接线端子、专用电气连接器、工业按钮指示灯、重载连接器、电梯门开关等，其中弹簧接线端子在国内品牌，市场占有率遥遥领先。已通过CQC，UL，VDE，TUV，CE，ROHS，IRIS等质量认证。在物联网时代，我们加强信息技术和运营技术的融合，提供多渠道、全方位、专业化的服务体系，及时响应客户多样需求，帮助更多电气行业客户提高业绩，致力于成为值得信赖的智能制造供应商。

速普产品被广泛应用于电梯、电力控制系统、轨道交通、自动化控制、风能、太阳能、照明、造船、仪器仪表、机械制造、建筑布线等领域。公司秉承产品创新与科技前瞻，投资建立了技术研发中心。公司拥有先进的产品试验检验中心，针对产品的安全性、可靠性、适用性进行全面的检验和控制，所有程序都被有机地结合起来，并且有效地利用现有经营资源，通过发挥协同效应，使其更加高效、标准地运营。

在提供标准产品外，同时为客户带去连接器产品解决方案服务，有效满足客户个性化需求。与奥的斯电梯、迅达电梯、三菱电机、施耐德电气、上海电气、现代重工、中车集团、南车时代、浦镇车辆等全球知名企业保持紧密合作，销售网络遍及全球。

Ningbo Supu Electronics Co., Ltd. has two production bases & over 300 staff , developed four business sections: terminal blocks and connectors, industrial switch, precision mould, and customized components. As focusing on R&D, production, sales and service, we are excellent global supplier of electrical industry.

Our products range include rail-mounted spring terminal blocks, rail-mounted screw terminal blocks, miniature spring terminal blocks, multi usage connectors with spring cage clamp(MCS connector), PCB terminal blocks, enginering connectors, Pushbutton switches, heavy duty connector, elevator door switches, in which we hold the most share in domestic by spring terminal blocks. We got the certificates like CQC, UL, VDE, TUV, CE, ROHS, IRIS . In the networking age, we keep on dedicatinig the information technology to management, which make our the service in more places, all direction and professional. It could be reach customers' requirements to help them get better business and to be the smart manufacture.

Our products have been widely used in elevators, power control system, rail transportation control, windenergy, solarenergy, lighting, shipbulding, instrumentation, machinery manufacturing, building wiring and other fields. Company adhere the forward-looking product innovation and technology, have invested in technology research and development center. We have advanced product testing and inspection center, conduct a comprehensive inspection and control for productsafety, reliability, applicability, all programs are organically integrated, and effectively used the existing management resources, through the synergy effect, to make it more efficient and standard operation.

Excepting providing standard products, we also support to provide the effectively products solutions with personalized requirements. We have a close cooperation with Otis Group, Schindler Group, Mitsubishi Group, Schneider Electric, Shanghai Electric, Hyundai Heavy Industries, CRRS Group, CSR, Puzhen Group and other world's leading enterprises. The sales network is all over the world.

SUPU, makes the world connected!

使命 Mission

追求全体员工物质和精神两方面的幸福，提升企业价值，
为人类和社会进步与发展做出贡献
Pursuit happiness of all staff in material & spiritual，
promote the enterprise value, contribute to the progress
& development for human & society

愿景 Corporation Vision

成为全球电气产业经营典范
To be the model of the global electric industry

核心价值观 Core Values

勤奋、创新、内求、利他
Diligence, Innovative, Self-seeking, Altruism
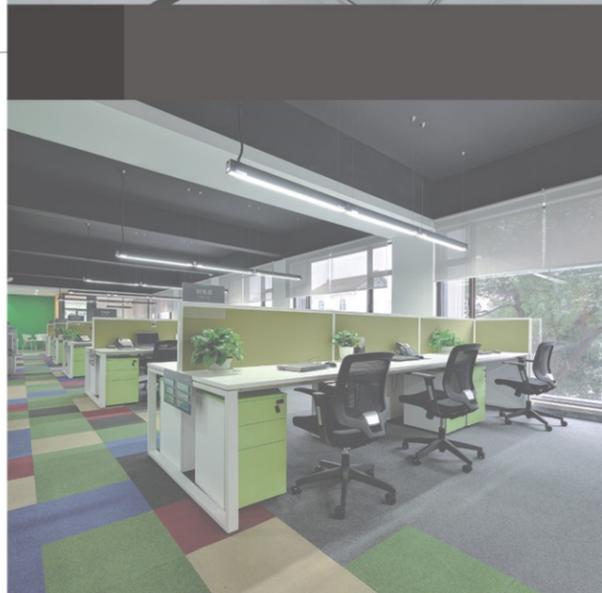
质量方针 Quality Policy

追求全程精益品质 持续改进 超越顾客期望 打造行业品牌
To pursuit full lean quality Continuous improvement Exceed
customers expectations Build industry brand
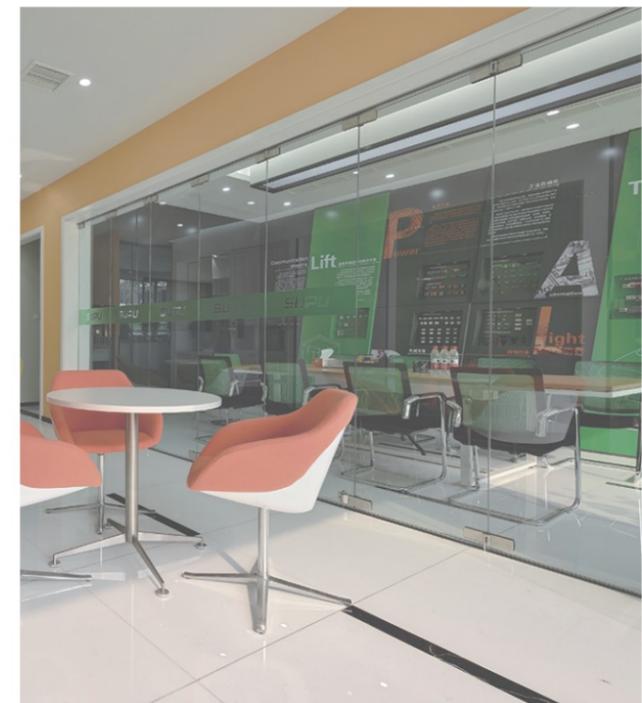
2020变革年 Innovation Year 2020

全面精益 实现新跨越——聚焦客户需求，精耕内部运营，
追求经营效能最佳化！
Comprehensive lean，achieve new progress--
Focus on customer needs，improve internal operation，seek for best
efficiency。

TX1特性说明 TX1 characteristics description

1.防护等级高 High IP degree

TX1系列限位开关外壳采用高性能增强尼龙制成。防护等级IP65、IP67,可以在各种恶劣环境条件下正常使用。

The TX1 series limit switch housing is made of reinforced nylon with high performance . Protection level IP65, IP67, can be used in a variety of harsh environmental conditions.

2.直接断开操作功能 Directly disconnect operation function:

TX1系列限位开关常闭触点具有直接断开操作功能(符合IEC60947-5-1),保证当开关操动到常闭触点断开位置时使得触点分断,进而电路被肯定断开,防止故障发生。

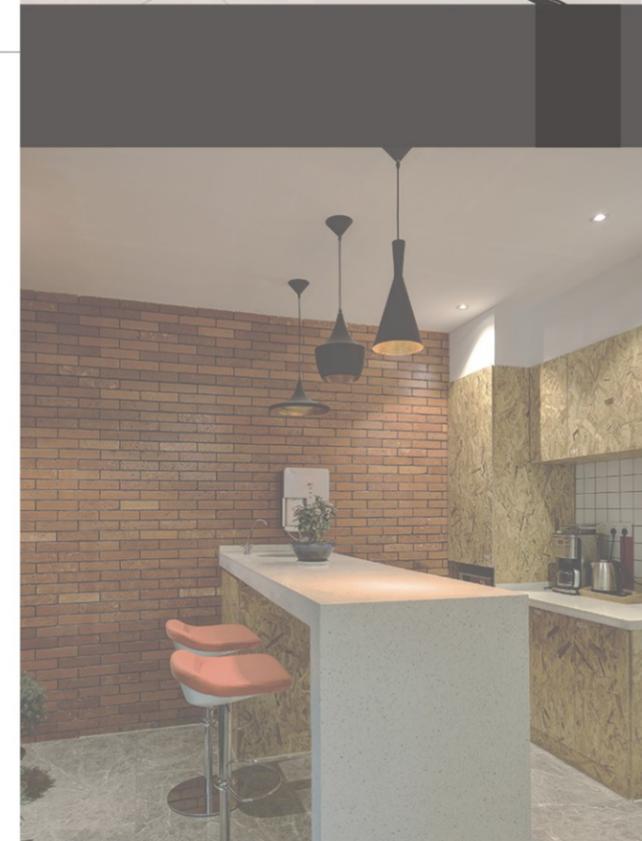The normally closed contact of TX1 series limit switch has the function of direct disconnection (in accordance with IEC60947-5-1), ensuring that the contact will be broken when the switch is operated to the disconnecting position , the circuit will be definitely disconnected to prevent failure.

3.寿命长,接触可靠 Long life and reliable contact

触点采用特殊压花工艺,触头材料采用银合金制成,还有镀金触点可供选择,使得触点接触更加可靠,机械寿命可达1000万次,电气寿命500,000次以上 (AC250V电阻负载3A时)。

The contact is made of special embossing technology, the contact material is made of silver alloy, and there are also gold-plated contacts for special use , making the contact more reliable, mechanical life can reach to 10 million times and electrical life over 500,000 times (when AC250V resistor loads 3A).

4.触点组合多样性 Diverse Contact combination

触点模块包含带有1NC/1NO、2NC、2NO、1NC/2NO、2NC/1NO、3NO和3NC七种触点形式,还有MBB接点慢动型可供选择。

The contact module contains seven contact forms with 1NC/1NO, 2NC, 2NO, 1NC/2NO, 2NC/1NO, 3NO and 3NC, as well as the MBB squirm module to choose from.

5.灵活多变 Flexible Operation

所有操作头部可沿4个方向90° 旋转;摇杆型头部,摇杆与转轴为齿状咬合,可以10度为等级进行角度调节。可满足客户在不同场合的使用需求。

All operation heads can rotate 90° along 4 directions; Joystick head, joystick and rotating shaft are dentate occlusion , can be 10 degrees for the level of Angle adjustment. Can meet the needs of customers in different occasions.

6.安装方便 Easy installation

采用两个螺钉即可将TX1系列限位开关固定在机器设备上。

TX1 series limit switch can be fixed on the machine with two screws.

型号及含义 Code and Description

TX1 - ☐1 ☐2 ☐3 ☐4

类型 Type
空:自动复位 Blank: automatic reset
R:手动复位 R:Manual reset
K1:钥匙水平安装（仅限门锁型） K1:Horizontal key installation (door lock type only)
K2:钥匙竖直安装（仅限门锁型） K2:Vertical key installation (door lock type only)

操作头部 Operation Head
01:直动型 Straight moving type
03:单向悬臂滚轮型（水平）One-way cantilever roller type (horizontal)
05:滚轮摇杆型 Roller joystick type
07:叉式摇杆锁定型（左操作）V-joystick lock type(left operation)
S:门锁型 Door lock type
02:滚轮直动型 Straight running roller type
04:单向悬臂滚轮型（竖直）One-way cantilever roller type (Vertical)
06:可调滚轮摇杆型 Adjustable roller joystick type
08:叉式摇杆锁定型（右操作）V-joystick lock type(right operation)

内置开关模块类型 Switch moudle type
A:1NC+1NO(慢动型）squirm
B:2NC(慢动型）squirm
C:2NO(慢动型）squirm
D:3NC（慢动型）squirm
E:1NC+2NO（慢动型）squirm
F:2NC+1NO（慢动型）squirm
G:3NO（慢动型）squirm
H:1NC+1NO（快动型）momentary
J:2NC（快动型）momentary
K:1NC+1NO（MBB接点,慢动型）MBB module ,squirm
L:1NC+2NO（MBB接点,慢动型） MBB module ,squirm
M:2NC+1NO（MBB接点,慢动型）MBB module ,squirm

表示出线方式 wire-out type:
1-底部出线 wire out from bottom
2-侧面出线 wire out from side

TX1系列限位开关 TX1 Series limit switch

TX1天璇系列限位开关技术参数 TX1 limit switch technical parameters

技术标准 Standard	GB14048.5 IEC60947-5-1 EN50047
认证 Approval	CCC CE
储存及运输环境温度 Storage Ambient Temperature	-45℃～80℃
使用环境温度 Usage Ambient Temperature	-25℃～55℃
防护等级 Protection Level	IP65、IP67
绝缘电阻 Insulation Resistance	≥100MΩ
接触电阻 Contact Resistance	≤50mΩ
工频耐压(Uimp) Power Frequency Withstand Voltage	2500V•1min
抗冲击 Impact resistant	11ms,50g,半波正弦 half sine wave
耐振动 Vibration Resistance	10…500Hz,25g,
绝缘耐压(Ui) Insulation Voltage	500V
约定发热电流(Ith) Conventional Thermal Current	10A
机械寿命(次) Mechnical Endurance(Cycles)	10,000,000次以上 ≥10,000,000
电气寿命(次) Electrical Endurance(Cycles)	500,000次以上（AC250V电阻负载3A时） ≥500,000 (AC250V resistance with load 3A) 300,000次以上（AC250V电阻负载10A时）≥300,000(AC250V resistance with load 10A)
触头额定容量 Contact Rated Capacity	AC-15 (A300):240V/3A DC-13 (Q300):250V/0.27A
弱电开关的专用触点特性 Specifications of special contact blocks	Pmax:12 VA Imax:1A Umax:24V
触点材料 Contact Material	银合金(AgNi)(标准触点) Silver alloy(AgNi) (standard contact) 镀金(AgNi/Au) (弱电系统) Gold flashed (AgNi/Au) (Low power switching)
接线截面 Cabling Capacity	最小: 0.5mm² Min: 0.5mm² 最大: 2x1.5mm² Max: 2*1.5mm²
安装方式 Mountiog Type	螺钉接线 Screw connection
安装扭矩(Max) Installation Twisting	Max 0.8N.m
RoHS材料 RoHS Material	是 Yes

(1)UL认证准备中 UL certification is pending

(2)弱电系统建议采用镀金触点,请在订单中注明。

The weak electric system is recommended to use gold plated contacts,please note in the order

■ 直动型 Straight moving type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules, Squirm	1NC1NO	TX1-1A01			1.5m/s	6.5N	20N	1
		2NC	TX1-1B01						
		2NO	TX1-1C01						
	3级慢动 3 modules, Squirm	3NC	TX1-1D01 *						
		1NC2NO	TX1-1E01 *						
		2NC1NO	TX1-1F01 *						
		3NO	TX1-1G01 *						
	2级快动 2modules, Momentary	1NC1NO	TX1-1H01 *						
		2NC	TX1-1J01 *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist, then disconnect)	1NC1NO	TX1-1K01 *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist, then disconnect)	1NC2NO	TX1-1L01 *						
		2NC1NO	TX1-1M01 *						

■ 滚轮直动型 Straight running roller type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules, Squirm	1NC1NO	TX1-1A02 *			1m/s	6.5N	20N	1
		2NC	TX1-1B02 *						
		2NO	TX1-1C02 *						
	3级慢动 3 modules, Squirm	3NC	TX1-1D02 *						
		1NC2NO	TX1-1E02 *						
		2NC1NO	TX1-1F02 *						
		3NO	TX1-1G02 *						
	2级快动 2modules, Momentary	1NC1NO	TX1-1H02 *						
		2NC	TX1-1J02 *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist, then disconnect)	1NC1NO	TX1-1K02 *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist, then disconnect)	1NC2NO	TX1-1L02 *						
		2NC1NO	TX1-1M02 *						

标记说明： ▭ 触点闭合 Module connect　(P)=强制开点 Mandatory disconnect point　⊖ NC触点带强制开功能 NC module with mandatory disconnection function
(Remark)　▢ 触点断开 Module disconnect

■ 单向悬臂滚轮型（水平）One-way cantilever roller type (horizontal)

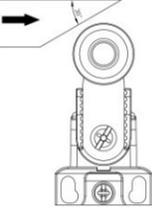| 名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules, Squirm	1NC1NO	TX1-1A03			1m/s	5N	20N	1
		2NC	TX1-1B03						
		2NO	TX1-1C03						
	3级慢动 3 modules, Squirm	3NC	TX1-1D03 *						
		1NC2NO	TX1-1E03 *						
		2NC1NO	TX1-1F03 *						
		3NO	TX1-1G03 *						
	2级快动 2modules, Momentary	1NC1NO	TX1-1H03 *						
		2NC	TX1-1J03 *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist, then disconnect)	1NC1NO	TX1-1K03						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist, then disconnect)	1NC2NO	TX1-1L03 *						
		2NC1NO	TX1-1M03 *						

■ 单向悬臂滚轮型（竖直）One-way cantilever roller type (Vertical)

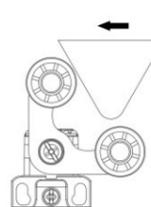| 名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules, Squirm	1NC1NO	TX1-1A04			1m/s	5N	20N	1
		2NC	TX1-1B04						
		2NO	TX1-1C04						
	3级慢动 3 modules, Squirm	3NC	TX1-1D04 *						
		1NC2NO	TX1-1E04 *						
		2NC1NO	TX1-1F04 *						
		3NO	TX1-1G04 *						
	2级快动 2modules, Momentary	1NC1NO	TX1-1H04 *						
		2NC	TX1-1J04 *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist, then disconnect)	1NC1NO	TX1-1K04						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist, then disconnect)	1NC2NO	TX1-1L04 *						
		2NC1NO	TX1-1M04 *						

标记说明： ▭ 触点闭合 Module connect　(P)=强制开点 Mandatory disconnect point　⊖ NC触点带强制开功能 NC module with mandatory disconnection function
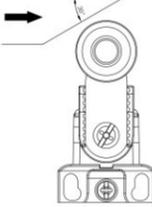**(Remark)**　▢ 触点断开 Module disconnect

滚轮摇杆型 Roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A05			1.5m/s	5N	20N	1
		2NC	TX1-1B05						
		2NO	TX1-1C05						
	3级慢动 3 modules,Squirm	3NC	TX1-1D05 *						
		1NC2NO	TX1-1E05 *						
		2NC1NO	TX1-1F05 *						
		3NO	TX1-1G05 *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H05 *						
		2NC	TX1-1J05 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K05 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L05 *						
		2NC1NO	TX1-1M05 *						

可调滚轮摇杆型 Adjustable roller joystick type
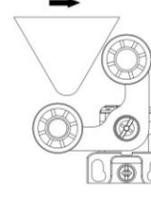
名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A06 *			1.5m/s	5N	20N	1
		2NC	TX1-1B06 *						
		2NO	TX1-1C06 *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D06 *						
		1NC2NO	TX1-1E06 *						
		2NC1NO	TX1-1F06 *						
		3NO	TX1-1G06 *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H06 *						
		2NC	TX1-1J06 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K06 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L06 *						
		2NC1NO	TX1-1M06 *						

标记说明： ■ 触点闭合 Module connect　(P)=强制断开点 Mandatory disconnect point　⊖ NC触点带强制断开功能 NC module with mandatory disconnection function
(Remark) □ 触点断开 Module disconnect　摇杆与转轴为齿状咬合，可以10度为等级进行角度调节
joystick and rotating shaft are dentate occlusion , can be 10 degrees for the level of angle adjustment

叉式摇杆锁定型（左操作） V-joystick lock type(left operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A07 *			1.5m/s	5N	20N	1
		2NC	TX1-1B07 *						
		2NO	TX1-1C07 *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D07 *						
		1NC2NO	TX1-1E07 *						
		2NC1NO	TX1-1F07 *						
		3NO	TX1-1G07 *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H07 *						
		2NC	TX1-1J07 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K07 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L07 *						
		2NC1NO	TX1-1M07 *						

叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A08 *			1.5m/s	5N	20N	1
		2NC	TX1-1B08 *						
		2NO	TX1-1C08 *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D08 *						
		1NC2NO	TX1-1E08 *						
		2NC1NO	TX1-1F08 *						
		3NO	TX1-1G08 *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H08 *						
		2NC	TX1-1J08 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K08 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L08 *						
		2NC1NO	TX1-1M08 *						

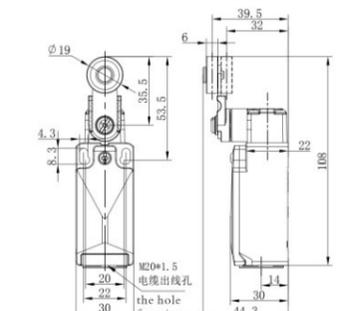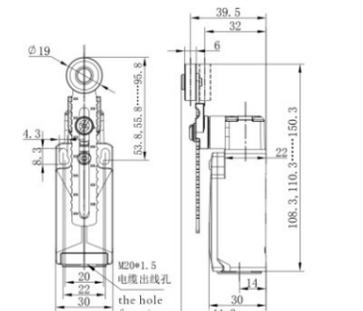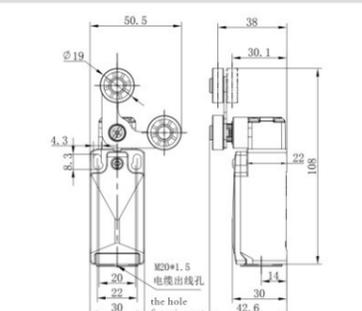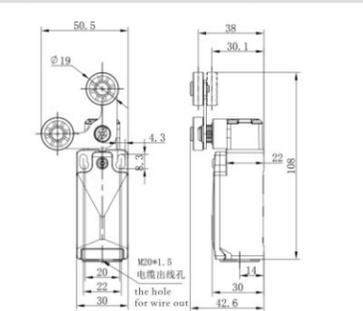标记说明： ■ 触点闭合 Module connect　(P)=强制断开点 Mandatory disconnect point　⊖ NC触点带强制断开功能 NC module with mandatory disconnection function
(Remark) □ 触点断开 Module disconnect

外形尺寸图(Boundary Dimension)（mm）

直动型 Straight moving type	滚轮直动型 Straight running roller type
单向悬臂滚轮型（水平） One-way cantilever roller type (horizontal)	单向悬臂滚轮型（竖直） One-way cantilever roller type (Vertical)
滚轮摇杆型 Roller joystick type	可调滚轮摇杆型 Adjustable roller joystick type
叉式摇杆锁定型（左操作） V-joystick lock type(left operation)	叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

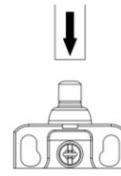■ 直动型 Straight moving type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules, Squirm	1NC1NO	TX1-2A01						
		2NC	TX1-2B01						
		2NO	TX1-2C01						
	3极慢动 3 modules, Squirm	3NC	TX1-2D01 *						
		1NC2NO	TX1-2E01 *			1.5m/s	6.5N	20N	1
		2NC1NO	TX1-2F01 *						
		3NO	TX1-2G01 *						
	2极快动 2modules, Momentary	1NC1NO	TX1-2H01 *						
		2NC	TX1-2J01 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K01 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L01 *						
		2NC1NO	TX1-2M01 *						

■ 滚轮直动型 Straight running roller type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules, Squirm	1NC1NO	TX1-2A02 *						
		2NC	TX1-2B02 *						
		2NO	TX1-2C02 *						
	3极慢动 3 modules, Squirm	3NC	TX1-2D02 *						
		1NC2NO	TX1-2E02 *			1m/s	6.5N	20N	1
		2NC1NO	TX1-2F02 *						
		3NO	TX1-2G02 *						
	2极快动 2modules, Momentary	1NC1NO	TX1-2H02 *						
		2NC	TX1-2J02 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K02 *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L02 *						
		2NC1NO	TX1-2M02 *						

标记说明：■ 触点闭合 Module connect　(P)=强制断开点 Mandatory disconnect point　→ NC触点带强制断开功能 NC module with mandatory disconnection function
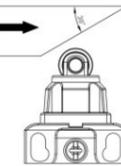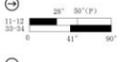(Remark) □ 触点断开 Module disconnect

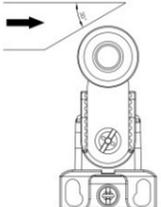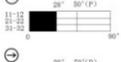## ■ 滚轮摇杆型 Roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2A05						
		2NC	TX1-2B05						
		2NO	TX1-2C05						
	3极慢动 3 modules,Squirm	3NC	TX1-2D05 *			1.5m/s	5N	20N	1
		1NC2NO	TX1-2E05 *						
		2NC1NO	TX1-2F05 *						
		3NO	TX1-2G05 *						
	2极快动 2modules,Momentary	1NC1NO	TX1-2H05 *						
		2NC	TX1-2J05 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K05 *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L05 *						
		2NC1NO	TX1-2M05 *						

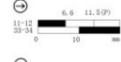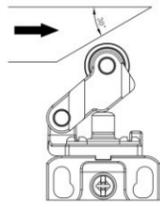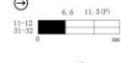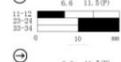## ■ 可调滚轮摇杆型 Adjustable roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2A06 *						
		2NC	TX1-2B06 *						
		2NO	TX1-2C06 *						
	3极慢动 3 modules,Squirm	3NC	TX1-2D06 *			1.5m/s	5N	20N	1
		1NC2NO	TX1-2E06 *						
		2NC1NO	TX1-2F06 *						
		3NO	TX1-2G06 *						
	2极快动 2modules,Momentary	1NC1NO	TX1-2H06 *						
		2NC	TX1-2J06						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K06 *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L06 *						
		2NC1NO	TX1-2M06 *						

标记说明：█ 触点闭合 Module connect (P)=强制断开点 Mandatory disconnect point ⊖ NC触点带强制断开功能 NC module with mandatory disconnection function
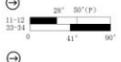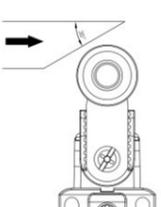(Remark) □ 触点断开 Module disconnect

■ 单向悬臂滚轮型（水平） One-way cantilever roller type (horizontal)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2A03						
		2NC	TX1-2B03						
		2NO	TX1-2C03						
	3极慢动 3 modules,Squirm	3NC	TX1-2D03 *			1m/s	6N	10N	1
		1NC2NO	TX1-2E03 *						
		2NC1NO	TX1-2F03 *						
		3NO	TX1-2G03 *						
	2极快动 2modules,Momentary	1NC1NO	TX1-2H03 *						
		2NC	TX1-2J03 *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K03						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L03 *						
		2NC1NO	TX1-2M03 *						

标记说明：█ 触点闭合 Module connect (P)=强制断开点 Mandatory disconnect point ⊖ NC触点带强制断开功能 NC module with mandatory disconnection function
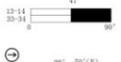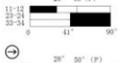(Remark) □ 触点断开 Module disconnect

■ 叉式摇杆锁定型（左操作）V-joystick lock type(left operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2A07 *						
		2NC	TX1-2B07 *						
		2NO	TX1-2C07 *						
		3NC	TX1-2D07 *						
	3极慢动 3 modules,Squirm	1NC2NO	TX1-2E07 *			1.5m/s	5N	20N	1
		2NC1NO	TX1-2F07 *						
		3NO	TX1-2G07 *						
	2极快动 2modules,Momentary	1NC1NO	TX1-2H07 *						
		2NC	TX1-2J07 *						
	MBB接点（先合后断）2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-2K07 *						
	3极慢动 MBB接点（先合后断）3 modules MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L07 *						
		2NC1NO	TX1-2M07 *						

■ 叉式摇杆锁定型（右操作）V-joystick lock type(Right operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2A08 *						
		2NC	TX1-2B08 *						
		2NO	TX1-2C08 *						
		3NC	TX1-2D08 *						
	3极慢动 3 modules,Squirm	1NC2NO	TX1-2E08 *			1.5m/s	5N	20N	1
		2NC1NO	TX1-2F08 *						
		3NO	TX1-2G08 *						
	2极快动 2modules,Momentary	1NC1NO	TX1-2H08 *						
		2NC	TX1-2J08 *						
	MBB接点（先合后断）2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-2K08 *						
	3极慢动 MBB接点（先合后断）3 modules MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L08 *						
		2NC1NO	TX1-2M08 *						

标记说明：
(Remark)
■ 触点闭合 Module connect
□ 触点断开 Module disconnect
(P)=强制断点 Mandatory disconnect point
⊖ NC触点带强制断开功能 NC module with mandatory disconnection function

外形尺寸图(Boundary Dimension)（mm）

直动型 Straight moving type

滚轮直动型 Straight running roller type

单向悬臂滚轮型（水平）One-way cantilever roller type (horizontal)

滚轮摇杆型 Roller joystick type

可调滚轮摇杆型 Adjustable roller joystick type

叉式摇杆锁定型（左操作）V-joystick lock type(left operation)

叉式摇杆锁定型（右操作）V-joystick lock type(right operation)

直动型 Straight moving type
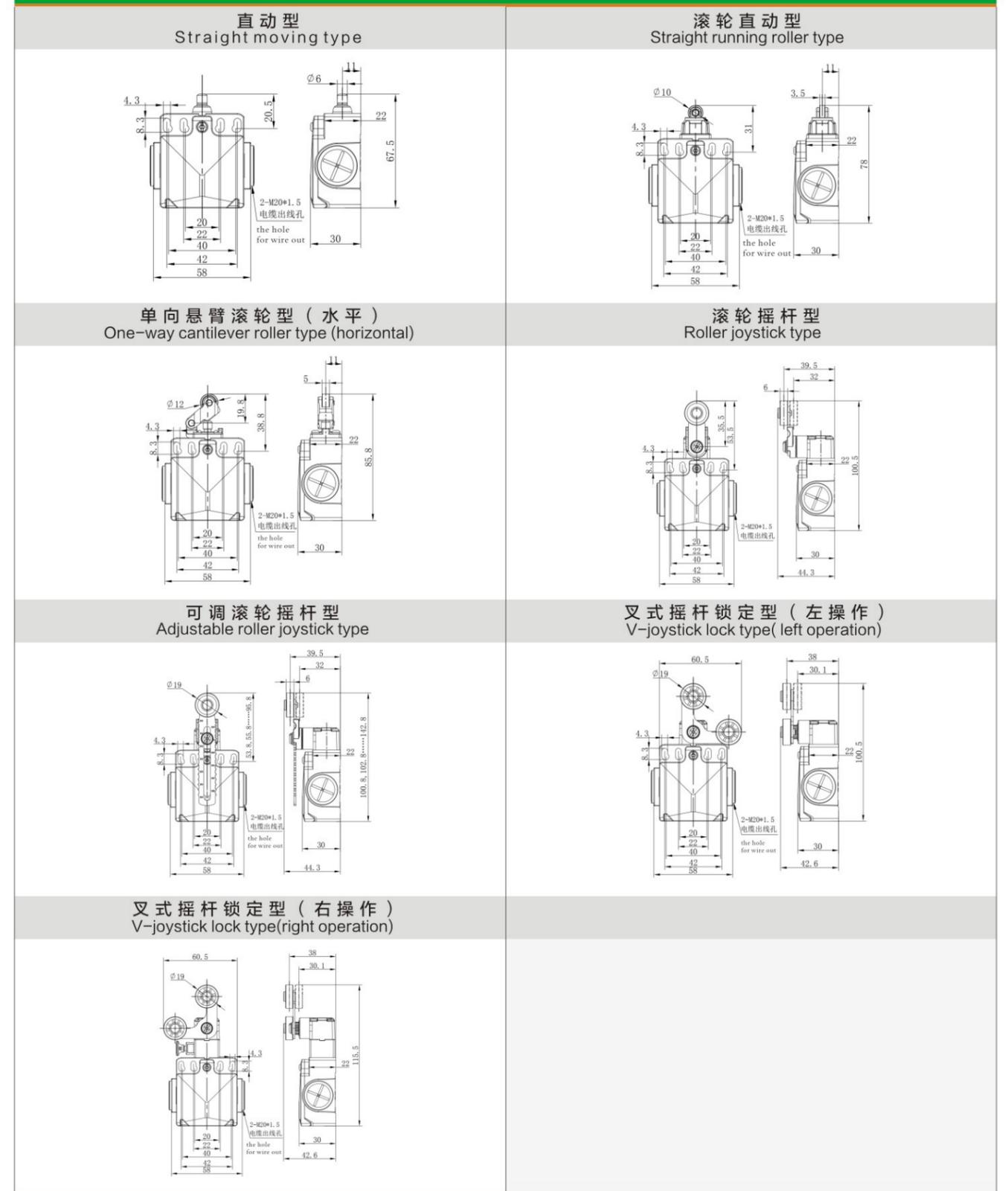
名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A01R *						
		2NC	TX1-1B01R *						
		2NO	TX1-1C01R *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D01R *						
		1NC2NO	TX1-1E01R *						
		2NC1NO	TX1-1F01R *			1.5m/s	6.5N	20N	1
		3NO	TX1-1G01R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H01R *						
		2NC	TX1-1J01R *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1K01R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L01R *						
		2NC1NO	TX1-1M01R *						

滚轮直动型 Straight running roller type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A02R *						
		2NC	TX1-1B02R *						
		2NO	TX1-1C02R *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D02R *						
		1NC2NO	TX1-1E02R *						
		2NC1NO	TX1-1F02R *			1.5m/s	6.5N	20N	1
		3NO	TX1-1G02R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H02R *						
		2NC	TX1-1J02R *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1K02R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L02R *						
		2NC1NO	TX1-1M02R *						

单向悬臂滚轮型（水平）One-way cantilever roller type (horizontal)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A03R *						
		2NC	TX1-1B03R *						
		2NO	TX1-1C03R *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D03R *						
		1NC2NO	TX1-1E03R *						
		2NC1NO	TX1-1F03R *			1m/s	5N	20N	1
		3NO	TX1-1G03R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H03R *						
		2NC	TX1-1J03R *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1K03R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L03R *						
		2NC1NO	TX1-1M03R *						

单向悬臂滚轮型（竖直）One-way cantilever roller type (Vertical)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A04R *						
		2NC	TX1-1B04R *						
		2NO	TX1-1C04R *						
	3级慢动 3 modules,Squirm	3NC	TX1-1D04R *						
		1NC2NO	TX1-1E04R *						
		2NC1NO	TX1-1F04R *			1m/s	5N	20N	1
		3NO	TX1-1G04R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H04R *						
		2NC	TX1-1J04R *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1K04R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L04R *						
		2NC1NO	TX1-1M04R *						

标记说明：（Remark） ▬ 触点闭合 Module connect　　▭ 触点断开 Module disconnect　　(P)=强制断点 Mandatory disconnect point　　↻ NC触点带强制断开功能 NC module with mandatory disconnection function

■ 滚轮摇杆型 Roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-1A05R *						
		2NC	TX1-1B05R *						
		2NO	TX1-1C05R *						
	3极慢动 3 modules,Squirm	3NC	TX1-1D05R *						
		1NC2NO	TX1-1E05R *			1.5m/s	5N	20N	1
		2NC1NO	TX1-1F05R *						
		3NO	TX1-1G05R *						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H05R *						
		2NC	TX1-1J05R *						
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K05R *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L05R *						
		2NC1NO	TX1-1M05R *						

■ 叉式摇杆锁定型（左操作） V-joystick lock type(left operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-1A07R *						
		2NC	TX1-1B07R *						
		2NO	TX1-1C07R *						
	3极慢动 3 modules,Squirm	3NC	TX1-1D07R *						
		1NC2NO	TX1-1E07R *			1.5m/s	5N	20N	1
		2NC1NO	TX1-1F07R *						
		3NO	TX1-1G07R *						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H07R *						
		2NC	TX1-1J07R *						
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K07R *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L07R *						
		2NC1NO	TX1-1M07R *						

■ 可调滚轮摇杆型 Adjustable roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-1A06R *						
		2NC	TX1-1B06R *						
		2NO	TX1-1C06R *						
	3极慢动 3 modules,Squirm	3NC	TX1-1D06R *						
		1NC2NO	TX1-1E06R *			1.5m/s	5N	20N	1
		2NC1NO	TX1-1F06R *						
		3NO	TX1-1G06R *						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H06R *						
		2NC	TX1-1J06R *						
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K06R *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L06R *						
		2NC1NO	TX1-1M06R *						

■ 叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

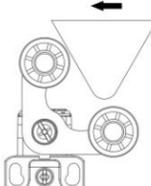| 名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-1A08R *						
		2NC	TX1-1B08R *						
		2NO	TX1-1C08R *						
	3极慢动 3 modules,Squirm	3NC	TX1-1D08R *						
		1NC2NO	TX1-1E08R *			1.5m/s	5N	20N	1
		2NC1NO	TX1-1F08R *						
		3NO	TX1-1G08R *						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H08R *						
		2NC	TX1-1J08R *						
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K08R *						
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L08R *						
		2NC1NO	TX1-1M08R *						

标记说明： ▬ 触点闭合 Module connect (P)=强制断点 Mandatory disconnect point → NC触点带强制断开功能 NC module with mandatory disconnection function
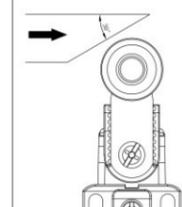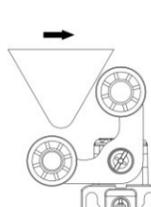(Remark) ▢ 触点断开 Module disconnect

外形尺寸图(Boundary Dimension)（mm）

直动型 Straight moving type

滚轮直动型 Straight running roller type

单向悬臂滚轮型（水平）One-way cantilever roller type (horizontal)

单向悬臂滚轮型（竖直）One-way cantilever roller type (Vertical)

滚轮摇杆型 Roller joystick type

可调滚轮摇杆型 Adjustable roller joystick type

叉式摇杆锁定型（左操作）V-joystick lock type(left operation)

叉式摇杆锁定型（右操作）V-joystick lock type(right operation)

■ 直动型 Straight moving type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-2A01R *			1.5m/s	6.5N	20N	1
		2NC	TX1-2B01R *						
		2NO	TX1-2C01R *						
	3级慢动 3 modules,Squirm	3NC	TX1-2D01R *						
		1NC2NO	TX1-2E01R *						
		2NC1NO	TX1-2F01R *						
		3NO	TX1-2G01R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-2H01R *						
		2NC	TX1-2J01R *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K01R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L01R *						
		2NC1NO	TX1-2M01R *						

■ 滚轮直动型 Straight running roller type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-2A02R *			1m/s	6.5N	20N	1
		2NC	TX1-2B02R *						
		2NO	TX1-2C02R *						
	3级慢动 3 modules,Squirm	3NC	TX1-2D02R *						
		1NC2NO	TX1-2E02R *						
		2NC1NO	TX1-2F02R *						
		3NO	TX1-2G02R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-2H02R *						
		2NC	TX1-2J02R *						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2K02R *						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2L02R *						
		2NC1NO	TX1-2M02R *						

标记说明： ▬ 触点闭合 Module connect   □ 触点断开 Module disconnect   (P)=强制断开点 Mandatory disconnect point   ⊖ NC触点带强制断开功能 NC module with mandatory disconnection function
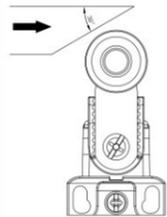(Remark)

■ 滚轮摇杆型 With two holes for wire out

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A05R＊						
		2NC	TX1-1B05R＊						
		2NO	TX1-1C05R＊						
	3级慢动 3 modules,Squirm	3NC	TX1-1D05R＊			1.5m/s	5N	20N	1
		1NC2NO	TX1-1E05R＊						
		2NC1NO	TX1-1F05R＊						
		3NO	TX1-1G05R＊						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H05R＊						
		2NC	TX1-1J05R＊						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist,then disconnect)	1NC1NO	TX1-1K05R＊						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist,then disconnect)	1NC2NO	TX1-1L05R＊						
		2NC1NO	TX1-1M05R＊						

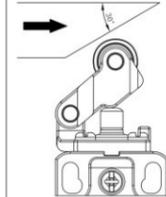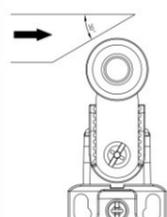## ■ 可调滚轮摇杆型 Adjustable roller joystick type

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A06R＊						
		2NC	TX1-1B06R＊						
		2NO	TX1-1C06R＊						
	3级慢动 3 modules,Squirm	3NC	TX1-1D06R＊			1.5m/s	5N	20N	1
		1NC2NO	TX1-1E06R＊						
		2NC1NO	TX1-1F06R＊						
		3NO	TX1-1G06R＊						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H06R＊						
		2NC	TX1-1J06R＊						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist,then disconnect)	1NC1NO	TX1-1K06R＊						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist,then disconnect)	1NC2NO	TX1-1L06R＊						
		2NC1NO	TX1-1M06R＊						

標記说明： (Remark)　■ 触点闭合 Module connect　□ 触点断开 Module disconnect　(P)=强制断开点 Mandatory disconnect point　↦ NC触点带强制断开功能 NC module with mandatory disconnection function
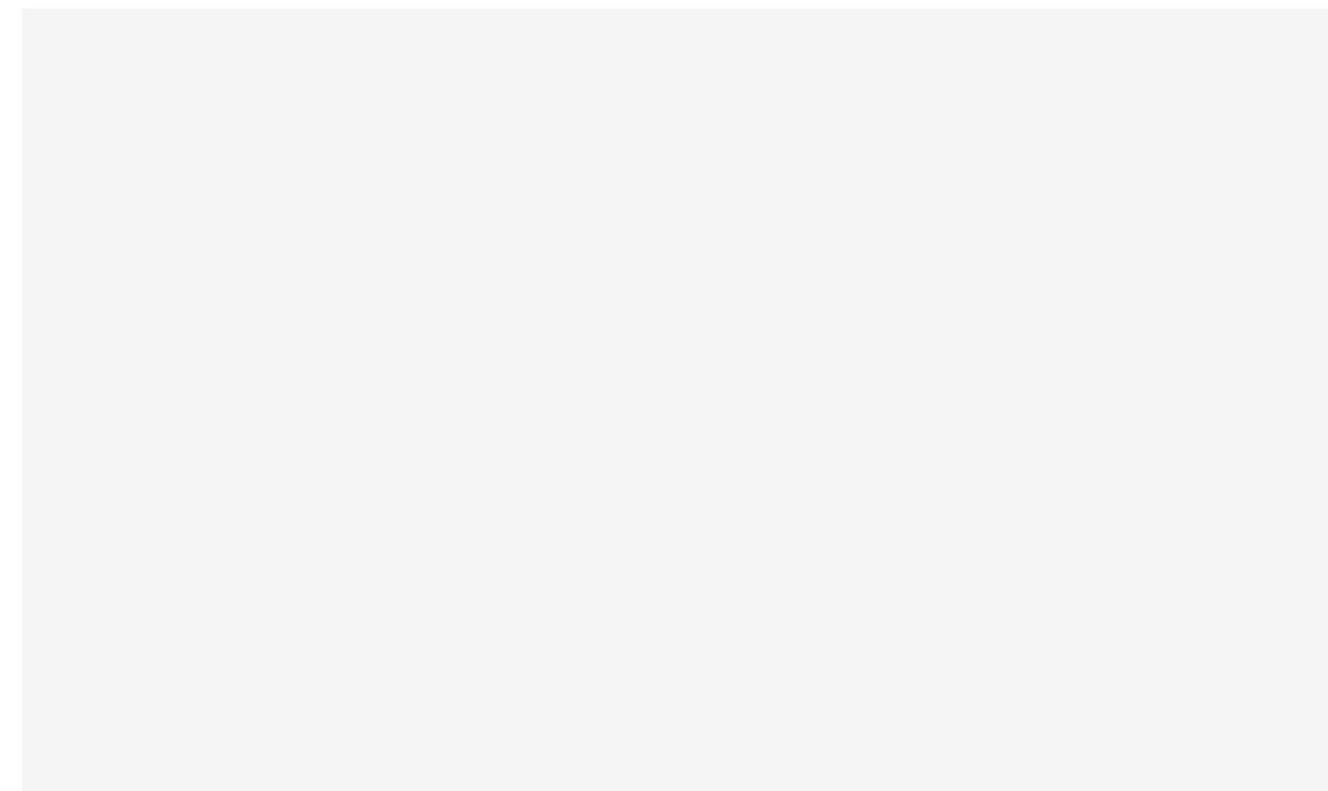
■ 单向悬臂滚轮型（水平） One-way cantilever roller type (horizontal)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发类型 Trigger type	最大触发速度 Maximum triggering speed	最小触发力 Minimum triggering force	强制断开力 Mandatory disconnection force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1A07R＊						
		2NC	TX1-1B07R＊						
		2NO	TX1-1C07R＊						
	3级慢动 3 modules,Squirm	3NC	TX1-1D07R＊			1.5m/s	5N	20N	1
		1NC2NO	TX1-1E07R＊						
		2NC1NO	TX1-1F07R＊						
		3NO	TX1-1G07R＊						
	2极快动 2modules,Momentary	1NC1NO	TX1-1H07R＊						
		2NC	TX1-1J07R＊						
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist,then disconnect)	1NC1NO	TX1-1K07R＊						
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist,then disconnect)	1NC2NO	TX1-1L07R＊						
		2NC1NO	TX1-1M07R＊						

標記说明： (Remark)　■ 触点闭合 Module connect　□ 触点断开 Module disconnect　(P)=强制断开点 Mandatory disconnect point　↦ NC触点带强制断开功能 NC module with mandatory disconnection function

■ 叉式摇杆锁定型（左操作） V-joystick lock type(left operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发速度 Trigger Speed	钥匙插入力 Key Insert Force	钥匙拔出力 Key Pulling-out Force	最小起订量 M.O.Q
		1NC1NO	TX1-1A05R *					
	2级慢动 2 modules,Squirm	2NC	TX1-1B05R *					
		2NO	TX1-1C05R *					
		3NC	TX1-1D05R *					
	3级慢动 3 modules,Squirm	1NC2NO	TX1-1E05R *		1.5m/s	5N	20N	1
		2NC1NO	TX1-1F05R *					
		3NO	TX1-1G05R *					
	2级快动 2modules,Momentary	1NC1NO	TX1-1H05R *					
		2NC	TX1-1J05R *					
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K05R *					
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L05R *					
		2NC1NO	TX1-1M05R *					

■ 叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图	触发类型	最大触发速度	最小触发力	强制断开力	最小起订量 M.O.Q
		1NC1NO	TX1-1A06R *						
	2级慢动 2 modules,Squirm	2NC	TX1-1B06R *						
		2NO	TX1-1C06R *						
		3NC	TX1-1D06R *						
	3级慢动 3 modules,Squirm	1NC2NO	TX1-1E06R *			1.5m/s	5N	20N	1
		2NC1NO	TX1-1F06R *						
		3NO	TX1-1G06R *						
	2级快动 2modules,Momentary	1NC1NO	TX1-1H06R *						
		2NC	TX1-1J06R *						
	MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then connect)	1NC1NO	TX1-1K06R *						
	MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1L06R *						
		2NC1NO	TX1-1M06R *						

标记说明： ▬ 触点闭合 Module connect　（P）=强制断点 Mandatory disconnect point　⊖→ NC触点带强制断开功能 NC module with mandatory disconnection function
(Remark) □ 触点断开 Module disconnect

外形尺寸图(Boundary Dimension)（mm）

直动型 Straight moving type

滚轮直动型 Straight running roller type

单向悬臂滚轮型（水平） One-way cantilever roller type (horizontal)

滚轮摇杆型 Roller joystick type

可调滚轮摇杆型 Adjustable roller joystick type

叉式摇杆锁定型（左操作） V-joystick lock type(left operation)

叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

安装说明 Mounting notes

安装尺寸:挡块的角度、位置请参见下图（符合EN50047标准） Mounting Dimension:see below picture for the angle and position of the block (In accordance with EN50047)	
滚轮摇杆型 Roller joystick type	直动型 Straight moving type

滚轮直动型
Straight running roller type

单向悬臂滚轮型（水平） One-way cantilever roller type (horizontal)	单向悬臂滚轮型（竖直） One-way cantilever roller type (Vertical)

叉式摇杆锁定型（左操作） V-joystick lock type(left operation)	叉式摇杆锁定型（右操作） V-joystick lock type(right operation)

标记说明 Remark：   A-触发点 A- trigger point   H-触发行程 H: trigger limit

门锁型钥匙水平安装 Door lock horizontal mounting

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发速度 Trigger Speed	钥匙插入力 Key Insert Force	钥匙拔出力 Key Pulling-out Force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1ASK1 *					
		2NC	TX1-1BSK1 *					
		2NO	TX1-1CSK1 *					
	3级慢动 3 modules,Squirm	3NC	TX1-1DSK1 *					
		1NC2NO	TX1-1ESK1 *		0.1m/s −0.5m/s	MAX:15N	MAX:30N	1
		2NC1NO	TX1-1FSK1 *					
		3NO	TX1-1GSK1 *					
	2级快动 2modules,Momentary	1NC1NO	TX1-1HSK1 *					
		2NC	TX1-1JSK1 *					
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1KSK1 *					
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1LSK1 *					
		2NC1NO	TX1-1MSK1 *					

门锁型钥匙竖直安装 Door lock vertical mounting

名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发速度 Trigger Speed	钥匙插入力 Key Insert Force	钥匙拔出力 Key Pulling-out Force	最小起订量 M.O.Q
	2级慢动 2 modules,Squirm	1NC1NO	TX1-1ASK2 *					
		2NC	TX1-1BSK2 *					
		2NO	TX1-1CSK2 *					
	3级慢动 3 modules,Squirm	3NC	TX1-1DSK2 *					
		1NC2NO	TX1-1ESK2 *		0.1m/s −0.5m/s	MAX:15N	MAX:30N	1
		2NC1NO	TX1-1FSK2 *					
		3NO	TX1-1GSK2 *					
	2级快动 2modules,Momentary	1NC1NO	TX1-1HSK2 *					
		2NC	TX1-1JSK2 *					
	2级慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-1KSK2 *					
	3级慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-1LSK2 *					
		2NC1NO	TX1-1MSK2 *					

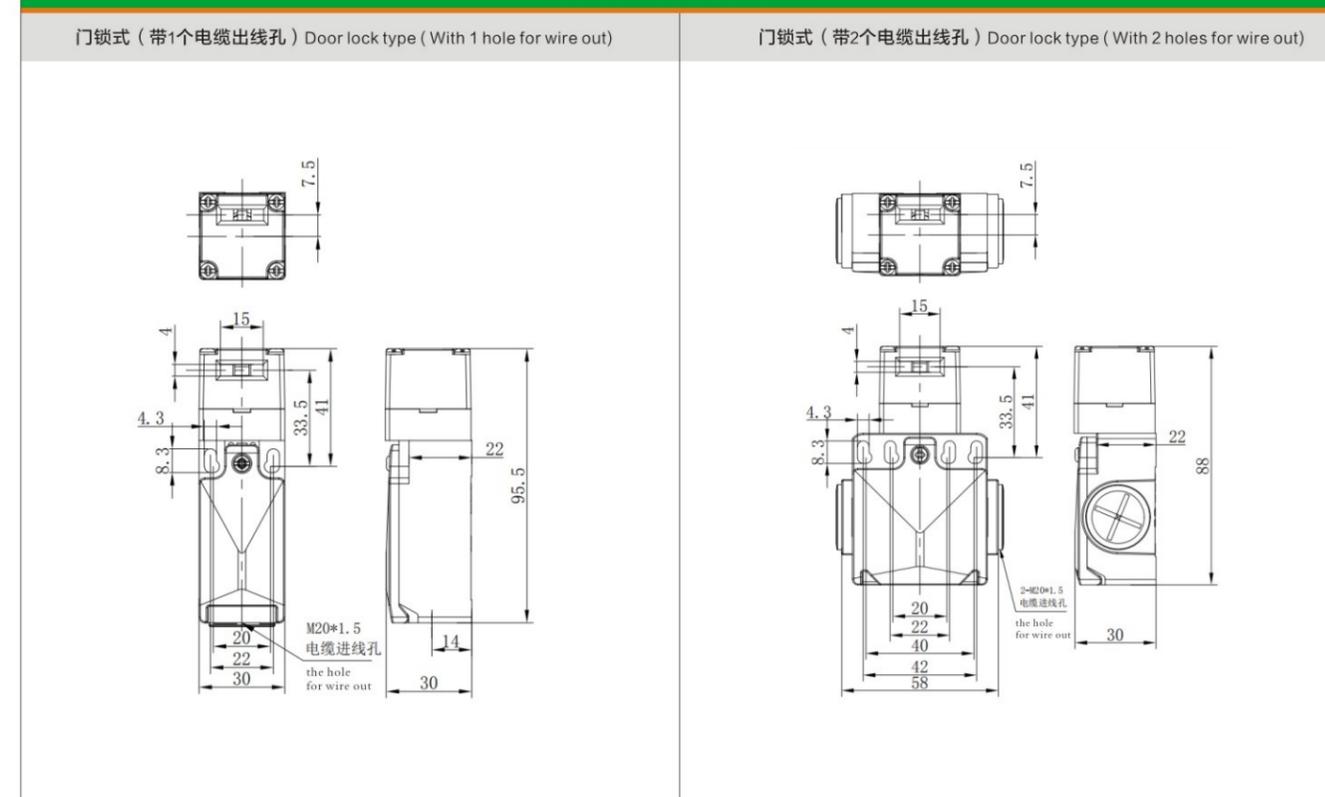## ■ 门锁型钥匙水平安装 Door lock horizontal mounting

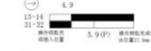| 名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发速度 Trigger Speed	钥匙插入力 Key Insert Force	钥匙拔出力 Key Pulling-out Force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2ASK1 *					
		2NC	TX1-2BSK1 *					
		2NO	TX1-2CSK1 *					
	3极慢动 3 modules,Squirm	3NC	TX1-2DSK1 *					
		1NC2NO	TX1-2ESK1 *		0.1m/s ~0.5m/s	MAX:15N	MAX:30N	1
		2NC1NO	TX1-2FSK1 *					
		3NO	TX1-2GSK1 *					
	2极快动 2modules,Momentary	1NC1NO	TX1-2HSK1 *					
		2NC	TX1-2JSK1 *					
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2KSK1 *					
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2LSK1 *					
		2NC1NO	TX1-2MSK1 *					

■ 门锁型钥匙竖直安装 Door lock vertcial mounting
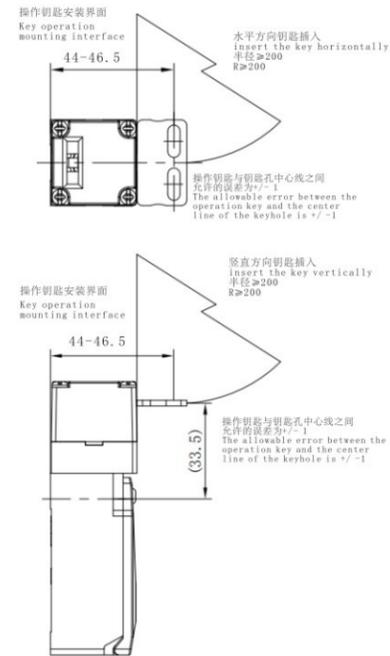
名称和外观 Name and Photo	触头开关类型 Module Type	触头数量 Module Q'ty	订货号码 Order Number	开关行程图 Picture	触发速度 Trigger Speed	钥匙插入力 Key Insert Force	钥匙拔出力 Key Pulling-out Force	最小起订量 M.O.Q
	2极慢动 2 modules,Squirm	1NC1NO	TX1-2ASK2 *					
		2NC	TX1-2BSK2 *					
		2NO	TX1-2CSK2 *					
	3极慢动 3 modules,Squirm	3NC	TX1-2DSK2 *					
		1NC2NO	TX1-2ESK2 *		0.1m/s ~0.5m/s	MAX:15N	MAX:30N	1
		2NC1NO	TX1-2FSK2 *					
		3NO	TX1-2GSK2 *					
	2极快动 2modules,Momentary	1NC1NO	TX1-2HSK2 *					
		2NC	TX1-2JSK2 *					
	2极慢动 MBB接点（先合后断） 2 modules Squirm MBB contact (connect fist ,then disconnect)	1NC1NO	TX1-2KSK2 *					
	3极慢动 MBB接点（先合后断） 3 modules Squirm MBB contact (connect fist ,then disconnect)	1NC2NO	TX1-2LSK2 *					
		2NC1NO	TX1-2MSK2 *					

外形尺寸图 Boundary Dimension（mm）

门锁式（带1个电缆出线孔）Door lock type (With 1 hole for wire out)

门锁式（带2个电缆出线孔）Door lock type (With 2 holes for wire out)

操作钥匙水平安装 Key operation horizontal mounting
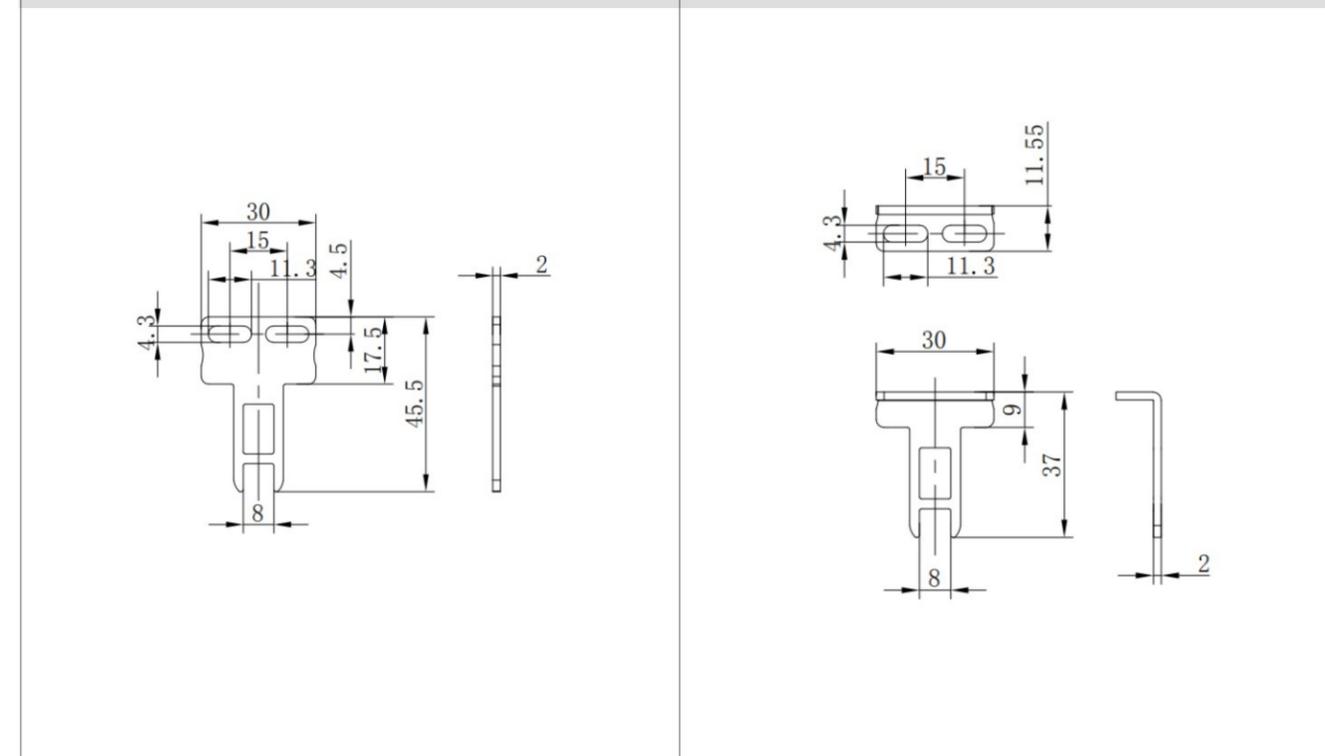
操作钥匙竖直安装 Key operation vertical mounting

门锁型钥匙水平安装，前侧操动钥匙时 Horizontal mounting ,Key operate from front

操作钥匙安装界面
Key operation mounting interface
44~46.5

水平方向钥匙插入
insert the key horizontally
半径≥200
R≥200

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

操作钥匙安装界面
Key operation mounting interface
44~46.5

竖直方向钥匙插入
insert the key vertically
半径≥200
R≥200

(33.5)

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

门锁型钥匙水平安装，顶部操动钥匙时 Horizontal mounting ,Key operate from top

(7.8)

水平方向钥匙插入
insert the key horizontally
半径≥200
R≥200

竖直方向钥匙插入
insert the key vertically
半径≥200
R≥200

(41)

54.5~57

操作钥匙安装界面
Key operation mounting interface

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

门锁型钥匙竖直安装，前侧操动钥匙时 Vertical mounting ,Key operate from front

操作钥匙安装界面
Key operation mounting interface
40~42.5

水平方向钥匙插入
insert the key horizontally
半径≥200
R≥200

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

操作钥匙安装界面
Key operation mounting interface
40~42.5

竖直方向钥匙插入
insert the key vertically
半径≥200
R≥200

27.5

(33.5)

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

门锁型钥匙竖直安装，顶部操动钥匙时 Vertical mounting ,Key operate from top

(7.8)

竖直方向钥匙插入
insert the key vertically
半径≥200
R≥200

(41)

54.5~57

操作钥匙安装界面
Key operation mounting interface

操作钥匙与钥匙孔中心线之间允许的误差为+/－1
The allowable error between the operation key and the center line of the keyhole is +/－1

1.接线 Wiring

请按下图所示加工导线长度。否则多余的导线可能会引起外壳凸起或者接触不严。

Please process the wire length as shown in the figure below. Otherwise, extra wires may cause the casing to bulge or loose contact.

带1个电缆出线孔（3极触点）with 1 wiring hole(3 contacts)	带2个电缆进线孔（3极触点）With 2 wiring holes(3 contacts)
42 28 33	42 28
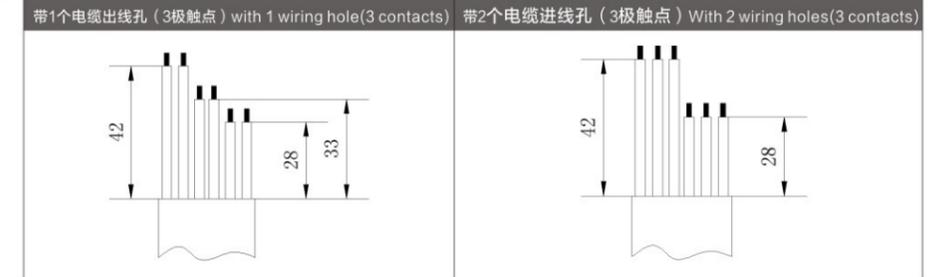
2.电缆出线孔 Cable outlet hole

请使用正确扭矩拧紧。如果用过大的扭矩旋紧，可能会导致外壳破损。

接线时，没有使用的出线孔请使用并拧紧出线孔盖。

Please tighten with correct torque. If you tighten too tense, you may damage the housing.
When wiring, use and tighten the outlet hole cover for the outlet hole which is not in use .

3.头部旋转 Head rotation

所有操作头部可沿4个方向90°旋转；摇杆型头部，摇杆与转轴为齿状咬合，可以10度为等级进行角度调节。改变头部安装方向时，请根据实际情况，以免产品干涉。

All operation heads can rotate 90° along 4 directions; Joystick head, joystick and rotating shaft aredentate occlusion, can be 10 degrees for the level of Angle adjustment. When changing the installation direction of the head, please follow the actual situation to avoid product interference.

摇杆型头部，摆杆与转轴为齿状咬合设计，可以10度为等级进行度数调节
Joystick head, joystick and rotating shaft aredentate occlusion, can be 10 degrees for the level of angle adjustment

所有操作头部可沿4个方向90°旋转
All operation heads can rotate 90° along 4 directions

内置开关模块，常闭触点具有直接断开操作功能
Switch module is inside, NC module has the mandatory disconnection function .

下部为铰链式结构，只需卸下一个螺钉即可打开，方便接线与维护
The lower part is a hinged structure , It can be opened with only one screw removed,so it is convenient for wiring and maintenance

4.安装注意事项 Precautions for installation

在完成接线后以及使用开关前，请务必安装外盖。请勿在外盖打开的情况下接通电源。否则可能触电。当安装外盖时，请确认密封圈状态，并确认没有异物。如果外盖附带的密封圈粘染异物或者发生错位，会影响产品密封性能使用正确的外盖安装螺钉，否则会影响产品密封性能。从四角卸下螺钉改变头部安装方向时，应确保头部没有异物。

Be sure to install the outer cover after wiring and before using the switch. Do not switch on the power when the outer cover is open. Otherwise you might get an electric shock. When installing the outer cover, make sure the seal ring is in good condition and there is no foreign matter. If the sealing ring attached to the outer cover is stained with foreign body or misaligned, the sealing performance of the product will be affected
Please use the correct outer cover mounting screw, otherwise it will affect the sealing performance of the product.
When removing the screws from the corners to change the direction of the head, make sure there are no foreign bodies in the head.

5.使用注意事项 Notes for use

开关可用于标准负载以及微小负载，然而一旦将触点用于开关一个负载，将不能用于开关更小的负载。因为触点在使用后，触点表面可能会变得粗糙而导致小负载的接触可靠性降低。确保挡块以正确角度接触传动杆,如果斜向地向开关的传动杆、滚轮施加负载，会导致传动杆以及运转轴的变形、损坏。

Switches can be used for standard loads as well as small loads, but once a contact is used to one load, it cannot be used to a smaller load. Since the contact surface may become rough after use, the contact reliability of smaller load may be reduced.
Make sure that the block contacts the driving rod at the right Angle. If the load applied to the driving rod and roller of was inclined , the driving rod and the rotating shaft will be deformed and damaged.