

C4B-□N Safety Limit Switch



特征 Features

- 强制断开动作装置(仅NC接点), 可以在发生像接点熔断等故障时断开接点。
- 摆杆设置的安全性确保了动作位置指示灯面板和摆杆之间采用齿轮齿合的装置。
- 强化了顶部密封结构, 以提高密封性能。
- 内藏接点座具有速动型: 1NC/1NO; 慢动型: 1NC/1NO、2NC
- Forced open action device (NC contacts only), it can disconnect the contact when the contact has fusing and other failures.
- The set safety of lever ensures that gear ratcheting device is used between the action position indicator panel and the lever.
- Strengthened top seal structure improves the sealing performance.
- Built-in contact holder has fast-action type: 1NC / 1NO; Slow-action: 1NC / 1NO and 2NC

型号说明 Model Designations

C4B - □ □ □ N

① ② ③

项目 Item	代号 Code	说明 Description
① 导管/连接器尺寸 Conduit / connector size	1	Pg13.5 (1导管型) Pg13.5 (1 conduit type)
	4	M20 (1导管型) M20 (1 conduit type)
② 内藏开关 Built-in switch	1	1NC/1NO (速动型) 1NC/1NO (quick-action type)
	5	1NC/1NO (慢动型) 1NC/1NO (slow-action type)
	A	2NC (慢动型) 2NC (slow-action type)
③ 头部及传动杆 Head and driving rod	11	滚珠摆杆型 (树脂摆杆, 树脂滚珠) Roller lever (resin lever, resin ball)
	12	可调滚珠摆杆, Form-Lock (树脂滚珠) Adjustable roller lever, Form-Lock (resin ball)
	15	滚珠摆杆型 (不锈钢滚珠) Roller lever (resin lever, resin ball)
	16	可调滚珠摆杆, Form-Lock (钢轮) Adjustable roller lever, Form-Lock (steel wheel)
	17	可调棒式摆杆, Form-Lock (长条杆) Adjustable stick lever, Form-Lock (long lever)
	18	可调滚珠摆杆, Form Lock (金属摆杆, 橡胶滚珠) Adjustable roller lever, Form Lock (metal lever, rubber ball)
	70	顶滚珠柱塞型 Top ball plunger type
	71	滚珠柱塞型 Ball plunger type
	72	滚珠柱塞型 Ball plunger type
	81	线圈弹簧型 Coil spring type
	87	塑料棒型 Plastic stick type
	86	金属棒型 Metal stick type

额定值 Rated Value

额定电压(V) Rated voltage (V)	非感性负载(A) Non-inductive load (A)				感性负载(A) Inductive load (A)			
	阻性负载 Resistive load		灯负载 Lamp load		感性负载 Inductive load		电动机负载 Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
AC	125	10	3	1.5	10		5	2.5
	250	10	2	1	10		3	1.5
	400	10	1.5	0.8	3		1.5	0.8
DC	8	10	6	3	10		6	
	14	10	6	3	10		6	
	30	6	4	3	6		4	
	125	0.8	0.2	0.2	0.8		0.2	
	250	0.4	0.1	0.1	0.4		0.1	

注1. 上述数值表示恒定电流。

注2. 所谓感性负载, 是功率因数0.4以上(交流)、时间常数7ms以下(直流的负载)。

注3. 所谓灯负载就是有10倍浪涌电流的负载。

注4. 所谓电动机负载, 就是有6倍浪涌电流的负载。

Note1. The above values represent constant current.

2. The so-called inductive load refers to the load with power factor of 0.4 or more (AC) and the time

3. constant below 7ms (DC).

4. The so-called lamp load refers to the load with 10 times of surge current.

The so-called motor load is the load with 6 times of surge current.

C4B-□N Safety Limit Switch

性能 Performance

保护等级*1 Protection level*1		IP66
寿命*2 Life *2	机械 Mechanical	1,000万次以上 More than 10,000,000 times*5
	电气 Electrical	50万次以上(AC250V 10A、电阻负载) More than 500,000 times (AC250V 10A, resistive load)
操作速度 Operating speed		1mm~0.5m/s
操作频率 Operating frequency	机械 Mechanical	120次/min 120 times/min
	电气 Electrical	30次/min 30 times/min
额定频率 Rated frequency		50/60Hz
绝缘电阻 Insulation resistance		同极端子之间、及端子与不带电金属部之间100MΩ以上(DC500V兆欧表) 100MΩ or more (DC500V Megameter) between homopolars, and between terminals and uncharged metal parts
接触电阻 Contact resistance		25mΩ以下(初期值) 5mΩ or less (initial value) 同极端子间: 2.5kV(速动型)/4kV(慢动型) Between homopolar terminals: 2.5kV(quick-action type)/4kV(slow-action type) 异极端子间: 4kV(慢动型) Between heteropolar terminals: 2.5kV(slow-action type)
耐电压 Withstand voltage (EN60947-5-1)		带电金属部之间: 4kV Between charged metal parts: 4kV
		各端子与不带电金属部之间: 6kV Between terminals and uncharged metal parts: 6kV
额定绝缘电压(UI) Rated insulation voltage (Ui)		600V(EN60947-5-1)
开闭时逆电压 Reverse voltage when on/off		1500V max (EN60947-5-1)
污染度(使用环境) Pollution degree (environmental conditions)		污染度3(EN60947-5-1) Pollution degree 3 (EN60947-5-1)
防触电保护等级 Electric shock proof protection grade		Class I (带接地端子) Class I (with ground terminal)
振动 Vibration	误动作 Malfunction	10~55Hz 0.75mm单振幅 10~55Hz 0.75mm single amplitude
冲击 Impact	耐久 Duration	1,000m/s ²
	误动作 Malfunction	300m/s ²
环境温度 Ambient temperature		-20~+80℃(无结冰、结露) -20~+80℃ (No ice or dew)
环境湿度 Ambient humidity		95%RH以下 Less than 95% RH
质量 Weight		约250g About 250g

注1. 上述值为初始值。

注2. 有些型号中可能与上述内容不同，请另外垂询。

*1. 该保护结构基于标准(EN60947-5-1)规定的测试方法，请根据使用环境、使用条件来事先确认密封性。

*2. 寿命的条件为环境温度5~35℃、环境湿度40~70%RH时的数值。

Note 1. The above are initial values.

Note 2. Values of some models may be different from the above, please contact us for details.

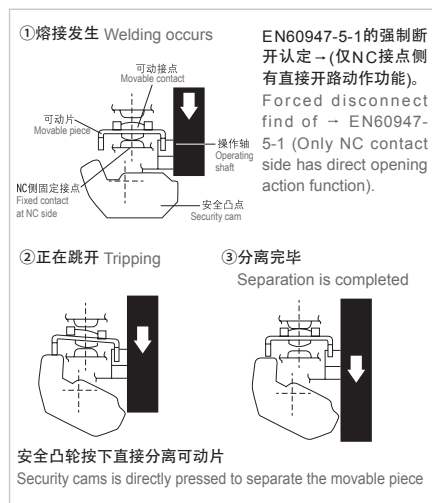
*1. The protection structure is tested based on method predetermined by standard (EN60947-5-1), please confirm the sealing in advance according to the operating environment and conditions.

*2. The conditions of life are the values under the ambient temperature of 5~35℃ and humidity of 40 to 70% RH. For other detailed conditions, please contact us.

强制断开构造 Forced disconnect structure

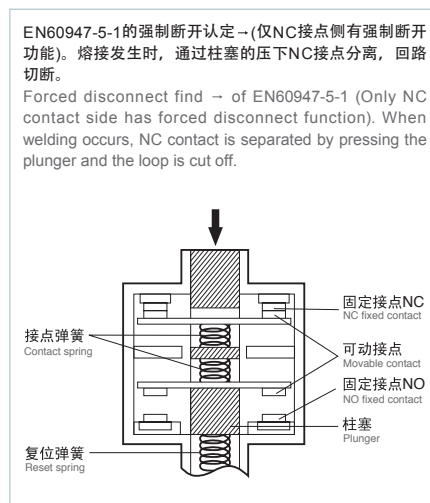
■ 1NC、1NO接点(速动型)

1NC and 1NO contacts (quick-action type)



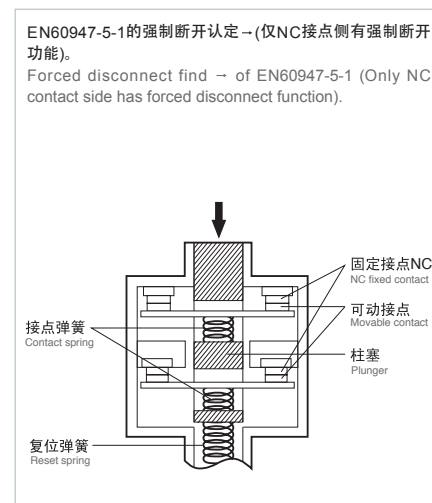
■ 1NC、1NO接点(慢动型)

1NC and 1NO contacts (slow-action type)



■ 2NC接点(慢动型)

2NC contacts (slow-action type)



C4B-□N Safety Limit Switch

接点形式 Contact form

型号 Model	接点 Contact	接点形式 Contact form	动作模式 Operation mode	说明 Explanation
C4B-□1□N	1NC/1NO (速动型) 1NC/1NO (Quick-action type)			仅NC接点(11-12)带强制断开功能，取得认证(端子No.11-12、13-14不可作异极使用) Only NC contact (11-12) has forced disconnect function and got the certification (terminal No.11-12,13-14 can not be used as different heteropoles)
C4B-□5□N	1NC/1NO (慢动型) 1NC/1NO (Slow-action type)			仅NC接点(11-12)带强制断开功能，取得认证(端子No.11-12、13-14不可作异极使用) Only NC contact (11-12) has forced disconnect function and got the certification (terminal No.11-12,13-14 can not be used as different heteropoles)
C4B-□A□N	2NC (慢动型) 2NC (Slow-action type)			两个NC接点(11-12、21-22)带强制断开功能，取得认证(端子No.11-12、21-22可以作异极使用) Two NC contacts (11-12, 21-22) have forced disconnect function and got the certification (terminal No.11-12,21-22 can be used as different heteropoles)

动作特性 Action characteristics

型号 Model			C4B-□□11N	C4B-□□15N	C4B-□□16N *1	C4B-□□17N *2	C4B-□□18N *2	C4B-□□70N	C4B-□□71N	C4B-□□81N	C4B-□□86N	C4B-□□87N
动作特性 Action characteristics												
动作力Action force	OF	最大Max.	9.41N	9.41N	9.41N	2.12N	9.41N	18.63N	18.63N	1.47N	1.47N	1.47N
回复力Restore force	RF	最小Min.	1.47N	1.47N	1.47N	0.29N	1.47N	1.96N	1.96N			
预行程Pretravel	PT		21°±3°	21°±3°	21°±3°	21°±3°	21°±3°	2mm	2mm	15	15	15
	PT	(2nd) *3 *5	(45°)	(45°)	(45°)	(45°)	(45°)	(3mm)	(3mm)			
过行程Overtravel	OT	最小Min.	50°	50°	50°	50°	50°	5mm	5mm			
响应差的行程 Poor response travel	MD	最大Max. *4	12°	12°	12°	12°	12°	1mm	1mm			
强制断开预行程 Forced disconnected pretravel	DOT	最小Min. *3*6	35°	35°	35°	35°	35°	3.2mm	3.2mm			
		*4*6	55°	55°	55°	55°	55°					
强制断开力 Forced disconnected force	DOF	最小Min. *6	19.61N	19.61N	19.61N	19.61N	19.61N	49.03N	49.03N			
总行程Total travel	TT	*5	(75°)	(75°)	(75°)	(75°)	(75°)	(7mm)	(7mm)			
自由位置Free position	FP	最大Max.						38mm	51mm			
动作位置Action position	OP							35±1mm	48±1mm			

注 2NC接点ON/OFF动作的同时性有差异,使用时请确认。

*1. 摆杆长度为31.5mm时的特性值。

*2. 杆长为140mm时的特性值。

*3. 仅慢动型。

*4. 仅速动型。

*5 参考值。

*6. 为了保证安全使用请务必加以确保。

Note The simultaneity of ON / OFF operation of 2NC contacts have difference, please make sure before using it.

*1. The property value when length of lever is 31.5mm.

*2. The property value when length of lever is 140mm.

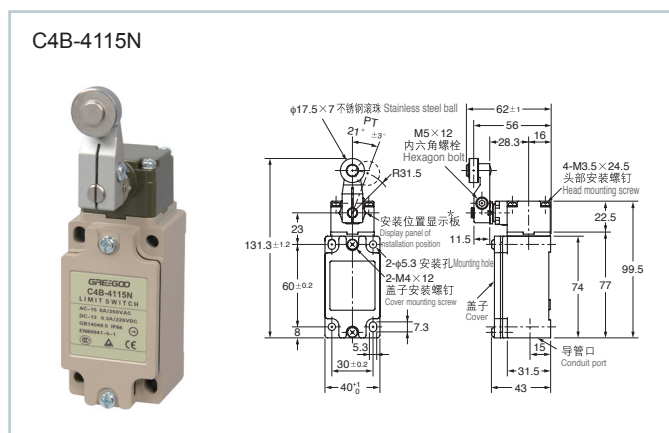
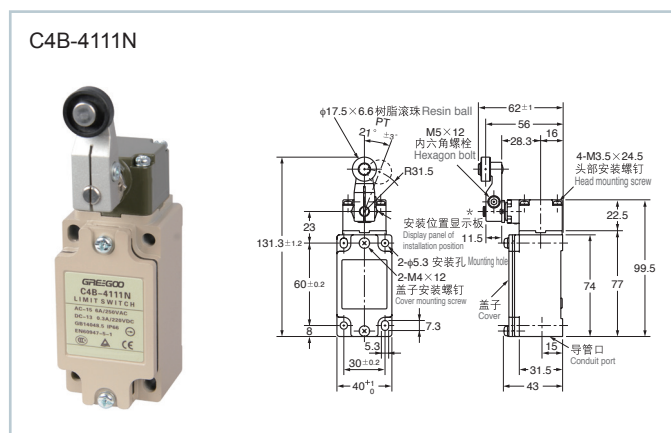
*3. Only for slow-action type.

*4. Only for quick-action type.

*5. Reference values.

*6. Please make sure in order to ensure the safe use.

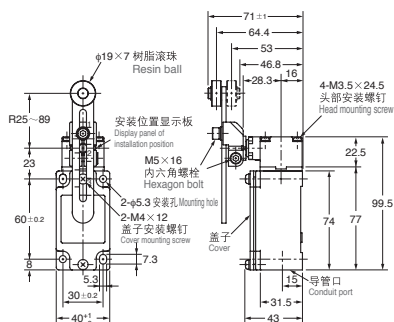
外观和尺寸 Appearance and Dimension



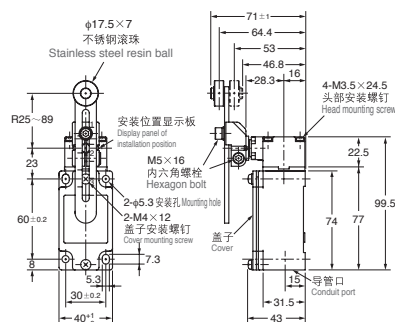
C4B-□N Safety Limit Switch

外观和尺寸 Appearance and Dimension

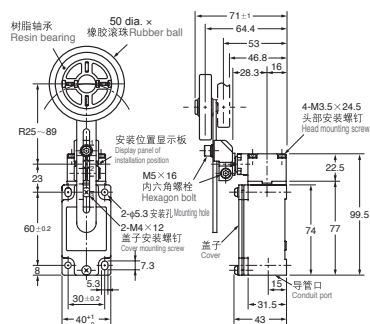
C4B-4116N



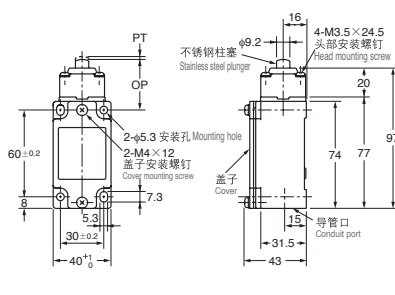
C4B-4112N



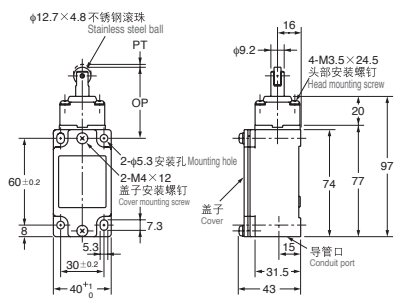
C4B-4118N



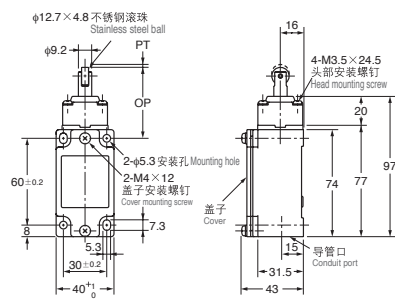
C4B-4170N



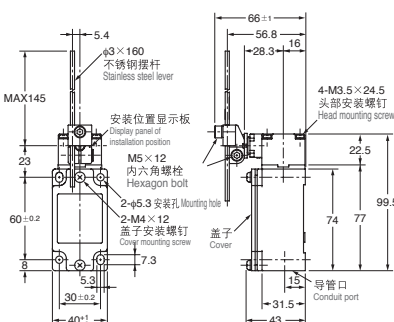
C4B-4171N



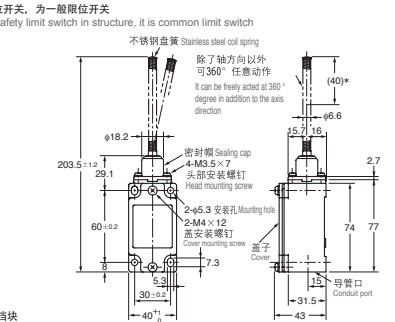
C4B-4172N



C4B-4117N

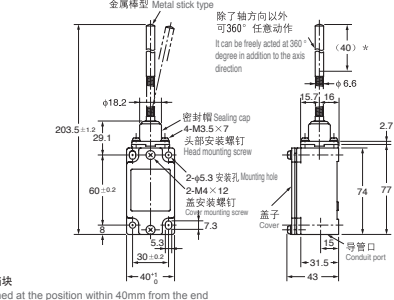


C4B-4181N



C4B-4186N

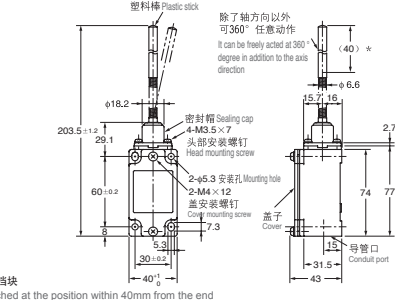
结构上不是安全限位开关，为一般限位开关
If the switch is not safety limit switch in structure, it is common limit switch



应该设定在离端部40mm的位置内触及挡块
It should be set that the stopper is touched at the position within 40mm from the end

C4B-4187N

结构上不是安全限位开关，为一般限位开关
If the switch is not safety limit switch in structure, it is common limit switch

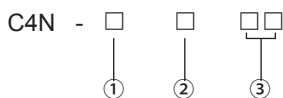


应该设定在离端部40mm的位置内触及挡块
It should be set that the stopper is touched at the position within 40mm from the end

C4N Miniature Safety Limit Switch



型号说明 Model Designations



项目 Item	代号 Code	说明 Description
① 导管/连接器尺寸 Conduit / connector size	1	Pg13.5 (1导管型) Pg13.5 (1 conduit type)
	2	G1/2 (1导管型) G1/2 (1 conduit type)
	4	M20 (1导管型) M20 (1 conduit type)
	5	Pg13.5 (2导管型) Pg13.5 (2 conduits type)
	6	G1/2 (2导管型) G1/2 (2 conduits type)
	8	M20 (2导管型) M20 (2 conduits type)
② 内藏开关 Built-in switch	1	1NC/1NO (速动型) 1NC/1NO (quick-action type)
	2	2NC (速动型) 2NC (quick-action type)
	A	1NC/1NO (慢动型) 1NC/1NO (slow-action type)
	B	2NC (慢动型) 2NC (slow-action type)
③ 头部及传动杆 Head and driving rod	20	滚珠摆杆型 (树脂摆杆, 树脂滚珠) Roller lever (resin lever, resin ball)
	22	滚珠摆杆型 (金属摆杆, 树脂滚珠) Roller lever (metal lever, resin ball)
	25	滚珠摆杆型 (金属摆杆, 金属滚珠) Roller lever (metal lever, metal ball)
	2G	可调滚珠摆杆, Form Lock (金属摆杆, 树脂滚珠) Adjustable roller lever, Form Lock (metal lever, resin ball)
	2H	可调滚珠摆杆, Form Lock (金属摆杆, 橡胶滚珠) Adjustable roller lever, Form Lock (metal lever, rubber ball)
	2M	可调滚珠摆杆, Form Lock (金属摆杆, 金属滚珠) Adjustable roller lever, Form Lock (metal lever, metal ball)
	31	顶部柱塞型 Top plunger type
	32	顶部柱塞滚珠型 Top plunger ball type
	62	单侧悬臂滚珠型 (水平) Unilateral cantilever ball type (horizontal)
	72	单侧悬臂滚珠型 (垂直) Unilateral cantilever ball type (vertical)
	80	触须型 Whisker type
	87	塑料棒型 Plastic stick type

特征 Features

- 强制断开动作装置(仅NC接点), 可以在发生像接点熔断等故障时断开接点。
- 摆杆设置的安全性确保了动作位置指示灯面板和摆杆之间采用齿轮啮合的装置。
- 强化了顶部密封结构, 以提高密封性能。
- 内藏接点座具有速动型: 1NC/1NO、2NC; 慢动型: 1NC/1NO、2NC
- Forced open action device(NC contacts only), it can disconnect the contact when the contact has fusing and other failures.
- The set safety of lever ensures that gear ratcheting device is used between the action position indicator panel and the lever.
- Strengthened top seal structure improves the sealing performance.
- Built-in contact holder has fast-action type: 1NC/1NO; Slow-action: 1NC/1NO and 2NC

性能 Performance

保护等级*1 Protection level*1	IP66	
寿命*2 Life *2	机械 Mechanical	1,000万次以上*5 More than 10,000,000 times*5
	电气 Electrical	50万次以上(AC250V 3A、电阻负载)*3 More than 500,000 times (AC250V 3A, resistive load) *3 30万次以上(AC250V 10A、电阻负载) More than 300,000 times (AC250V 10A, resistive load)
操作速度 Operating speed	1~500mm/s(C4N-1120)	
操作频率 Operating frequency	最大30次/min Max. 30 times/min	
接触电阻 Contact resistance	25mΩ以下 25 mΩ or less	
最小使用负载*4 Minimum working load *4	DC5V 1mA 电阻负载(N标准参考值) 1mA resistive load below DC5V (N standard reference value)	
额定绝缘电压(Ui) Rated insulation voltage (Ui)	300V	
防触电保护等级 Electric shock proof protection grade	Class II (双重绝缘) Class II (double insulated)	
污染度(使用环境) Pollution degree (environmental conditions)	污染度3(EN60947-5-1) Pollution degree 3 (EN60947-5-1)	
耐电压 Withstand voltage (EN60947-5-1)	同极端子间: 2.5kV Between homopolar terminals: 2.5kV	
	异极端子间: 4kV Between heteropolar terminals: 2.5kV	
	各端子间和非充电金属部分: 6kV Between terminals and uncharged metal parts: 6kV	
绝缘电阻 Insulation resistance	100MΩ以上 Above 100MΩ	
接点间隙 Contact gap	最小2×0.5mm速动型、最小2×2mm慢动型 Minimum 2×0.5mm quick-action type, Minimum 2×2mm slow-action type	
振动 Vibration	误动作 Malfunction	10~55Hz 0.75mm单振幅 10~55Hz 0.75mm single amplitude
冲击 Impact	耐久 Duration	1,000m/s ²
	误动作 Malfunction	300m/s ²
环境温度 Ambient temperature	-20~+70°C(无结冰、结露) -20~+70°C (No ice or dew)	
环境湿度 Ambient humidity	95%RH以下 Less than 95% RH	
质量 Weight	约82g(C4N-1120) About 82g (D4N-1120) 约99g(C4N-5120) About 99g (D4N-5120)	

注1. 上述值为初始值。

注2. 一旦接点连接标准负载后, 就不可用于连接更小容量的负载。否则可能导致接点表面粗糙, 从而失去接触可靠性。

*1. 保护等级是根据(EN60947-5-1) 规格的测试法得出的。使用前务必在实际使用的环境、条件下确认其密封性。开关盒本体具有防尘、防油构造, 但应尽可能保持头部在没有碎屑粉尘、油污、化学品的场所进行使用。否则可能导致过早磨损、损坏或故障。

*2. 耐久性的条件是使用环境温度 5°C ~ 35°C、使用环境湿度 40% ~ 70% RH。其他详细条件请另行查询。

*3. 使用环境温度为35°C以上时, 禁止使用2回路以上的3A AC250V负载。

*4. 这个值会因为开关频率、环境条件、可靠性等级等因素的影响而不同。请事先在实际负载上进行确认。

*5. 叉杆摆杆型的机械寿命为1,000万次以上。

Note 1. The above values are initial values.

Note 2. Once the contact is connected to a standard load, it can not be used to connect a smaller load. If so, the contact may result in rough surface, thus losing contact reliability.

*1. The protection level is gotten based on test method of (EN60947-5-1). Please make sure its sealing under actual environmental conditions before use. The switch box has dust and oil resistance structure, but it should be used in places without dust, oil and chemicals. Otherwise it may lead to premature wear, damage or malfunction.

*2. The durability is for ambient temperature of 5°C ~ 35°C and humidity of 40% to 70% RH. For additional details, please contact us.

*3. When the ambient temperature is above 35°C, more than 2 circuits 3A 250VAC loads are prohibited.

*4. The values will vary with different switching frequency, environmental conditions, reliability level and other factors. Please confirm on the actual load in advance.

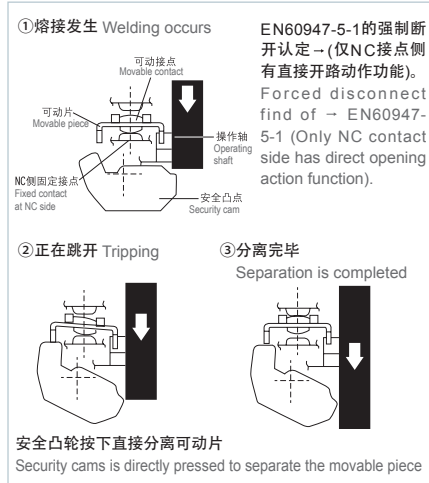
*5. The mechanical life of deadman lever type is more than 10,000,000 times.

C4N Miniature Safety Limit Switch

强制断开构造 Forced disconnect structure

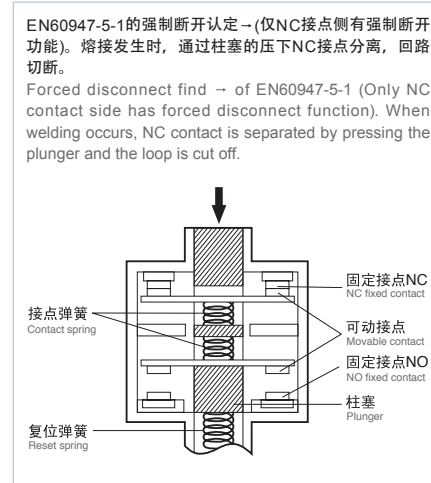
■ 1NC、1NO接点(速动型)

1NC and 1NO contacts (quick-action type)



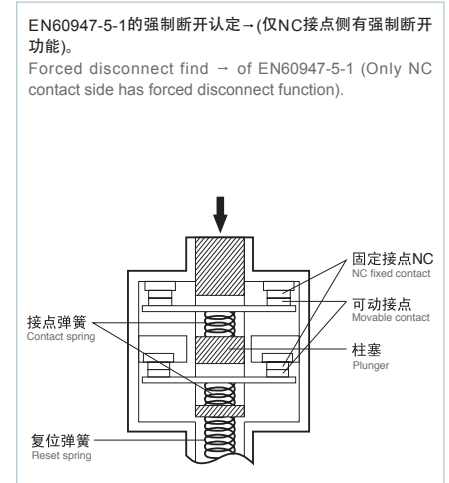
■ 1NC、1NO接点(慢动型)

1NC and 1NO contacts (slow-action type)



■ 2NC接点(慢动型)

2NC contacts (slow-action type)



接点形式 Contact form

型号 Model	接点 Contact	接点形式 Contact form	动作模式 Operation mode	说明 Explanation
C4N-□1□	1NC/1NO (速动型) 1NC/1NO (Quick-action type)			仅NC接点(31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(13-14)和(31-32)可作异极使用。 Contacts (13-14) and (31-32) can be used as heteropoles.
C4N-□2□	2NC (速动型) 2NC (Quick-action type)			仅NC接点(11-12、31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(11-12)和(31-32)可作异极使用。 Contacts (11-12) and (31-32) can be used as heteropoles.
C4N-□A□	1NC/1NO (慢动型) 1NC/1NO (Slow-action type)			仅NC接点(11-12)具有强制断开功能(-)。 Only NC contact (11-12) has forced disconnect function (-). 接点(11-12)和(33-34)可作异极使用。 Contacts (11-12) and (33-34) can be used as heteropoles.
C4N-□B□	2NC (慢动型) 2NC (Slow-action type)			仅NC接点(11-12、31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(11-12)和(31-32)可作异极使用。 Contacts (11-12) and (31-32) can be used as heteropoles.

动作特性 Action characteristics

■ 速动型(1NC/1NO)(2NC)、慢动型(2NC)

Quick-action type (1NC/1NO)(2NC), slow-action type (2NC)

动作特性 Action characteristics			型号 Model		C4N-□120	C4N-□122	C4N-□125	C4N-□226	C4N-□131	C4N-□132	C4N-□162	C4N-□172	C4N-□12H	C4N-□12G	C4N-□□80	C4N-□□87
					C4N-□220	C4N-□222	C4N-□225	C4N-□B26	C4N-□231	C4N-□232	C4N-□262	C4N-□272	C4N-□22H	C4N-□12M		
			C4N-□B20	C4N-□B22	C4N-□B25		C4N-□B31	C4N-□B32	C4N-□B62	C4N-□B72	C4N-□B2H	C4N-□22G				
													C4N-□B2G*4			
动作力Action force	OF	最大Max.	5.0N					6.5N	6.5N	5.0N	5.0N	4.5N		1.5N	1.5N	
回复力Restore force	RF	最小Min.	0.5N					1.5N	1.5N	0.8N	0.8N	0.4N				
预行程Pretravel	PT		18~27°					2mm	2mm	4mm	4mm	18~27°		15°	15°	
过行程Overtravel	OT	最小Min.	40°					4mm	4mm	5mm	5mm	40°				
响应差的行程 Poor response travel	MD	最大Max.*1	14°					1mm	1mm	1.5mm	1.5mm	14°				
动作位置Action position	OP		—					18.2±0.5mm	28.6±0.8mm	37±0.8mm	27±0.8mm	—				
总行程Total travel	TT	*2	(80°)					(6mm)	(6mm)	(9mm)	(9mm)	(80°)				
强制断开预行程 Forced disconnected pretravel	DOT	最小Min.*3	50°					3.2mm	3.2mm	5.8mm	4.8mm	50°				
强制断开力 Forced disconnected force	DOF	最小Min.*3	20N					20N	20N	20N	20N	20N				

注 2NC 接点的闭路-开路动作的同时性会有参差, 使用时请注意确认。

*1. 仅限速动型。

*2. 为参考值。

*3. 仅限慢动型。为了安全使用, 请确保所有值在最大或最小范围内。

*4. 为摆杆长度32 mm时的特性。

Note The simultaneity of ON / OFF operation of 2NC contacts have difference, please make sure before using it.

*1. Only for quick-action type.

*2. Reference values.

*3. Only for slow-action type. For safe use, please make sure that all values are within the range of maximum or minimum.

*4. The property value when length of lever is 32mm.

C4N Miniature Safety Limit Switch

动作特性 Action characteristics

■ 慢动型(1NC/1NO)

Slow-action type (1NC/1NO)

型号 Model			C4N-□A20	C4N-□A22	C4N-□A25	C4N-□A26	C4N-□A31	C4N-□A32	C4N-□A62	C4N-□A72	C4N-□A2H	C4N-□A2G*8
动作特性 Action characteristics												
动作力Action force	OF	最大Max.	5.0N				6.5N	6.5N	5.0N	5.0N	4.5N	
回复力Restore force	RF	最小Min.	0.5N				1.5N	1.5N	0.8N	0.8N	0.4N	
预行程Pretravel	PT	*1	18~27°				2mm	2mm	4mm	4mm	18~27°	
	PT	(2nd)*2	(44°)				(2.9mm)	(2.9mm)	(5.2mm)	(4.3mm)	(44°)	
	PT	*3	27.5~36.5°				2.8mm	2.8mm	4mm	4mm	27.5~36.5°	
	PT	(2nd)*4	(18°)				(1mm)	(1mm)	(1.5mm)	(1.5mm)	(18°)	
过行程Overtravel	OT	最小Min.	40°				4mm	4mm	5mm	5mm	40°	
动作位置Action position	OP		—				18.2±0.5mm	28.6±0.8mm	37±0.8mm	27±0.8mm	—	
	OP	*5	—				17.4±0.5mm	28±0.8mm	36±0.8mm	26.1±0.8mm	—	
总行程Total travel	TT	*6	(80°)				(6mm)	(6mm)	(9mm)	(9mm)	(80°)	
强制断开预行程 Forced disconnected pretravel	DOT	最小Min.*7	50°				3.2mm	3.2mm	5.8mm	4.8mm	50°	
强制断开力 Forced disconnected force	DOF	最小Min.*7	20N				20N	20N	20N	20N	20N	

*1. NC接点呈开路。

*2. NO接点呈闭路。

*3. 仅限MBB型。

*4. 为MBB型的参考值。

*5. 仅限MBB型。

*6 为参考值。

*7. 为了安全使用，请确保所有值在最大或最小范围内。

*8. 为摆杆长度32 mm时的特性。

*1. NC contact is open.

*2. NO contact is closed.

*3. Only for MBB type

*4. It is the reference value of MBB type.

*5. Only for MBB type

*6. Reference values

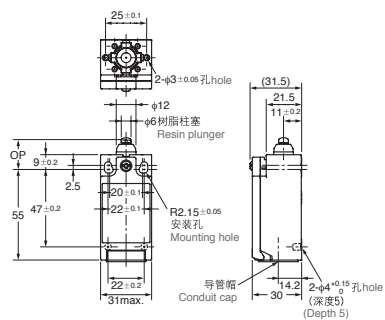
*7. For safe use, please

*8. The property value when length of lever is 32mm.

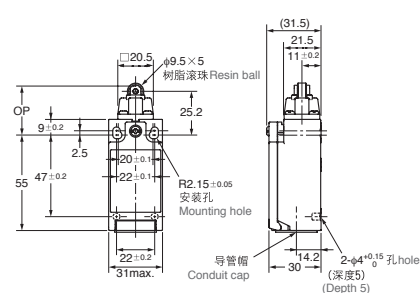
*8. The property value when length of lever is 32mm.

外观和尺寸 Appearance and Dimension

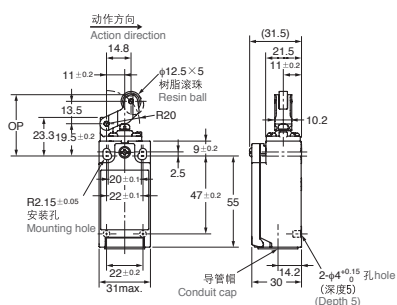
C4N-4131



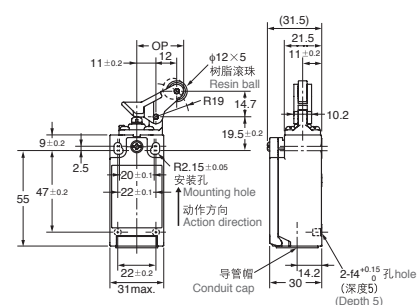
C4N-4132



C4N-4162



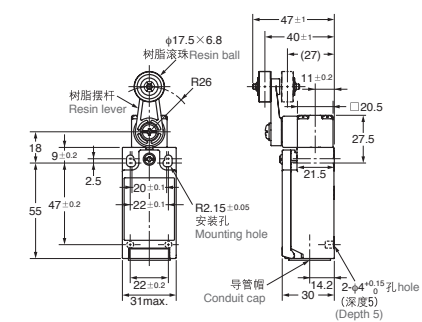
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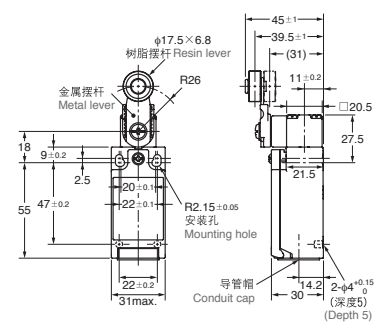
C4N Miniature Safety Limit Switch

外观和尺寸 Appearance and Dimension

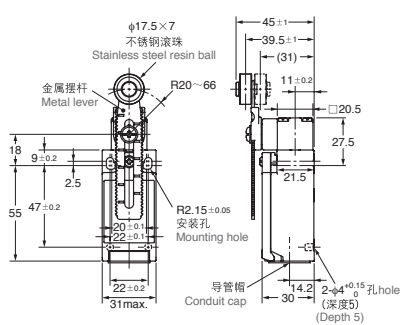
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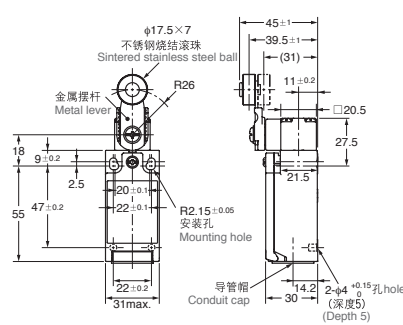
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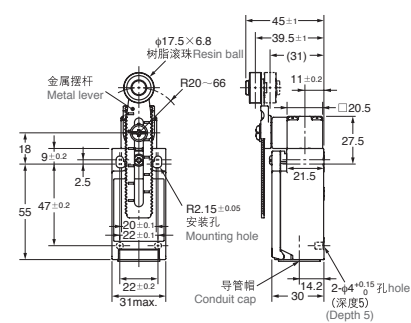
C4N-412M



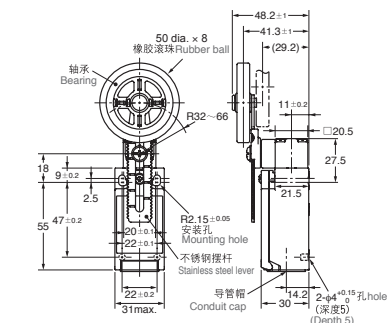
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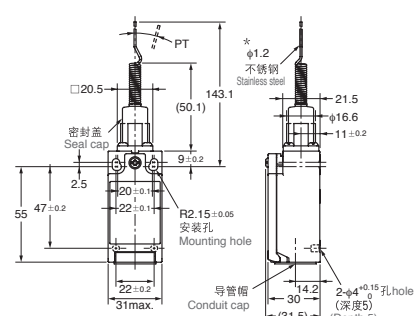
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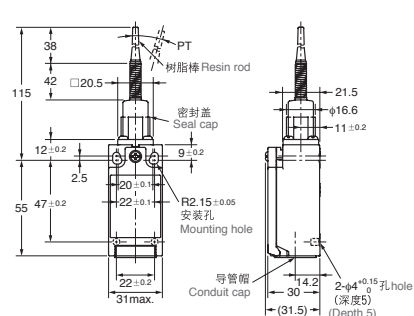
C4N-412H



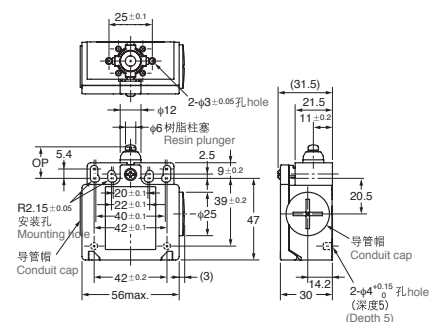
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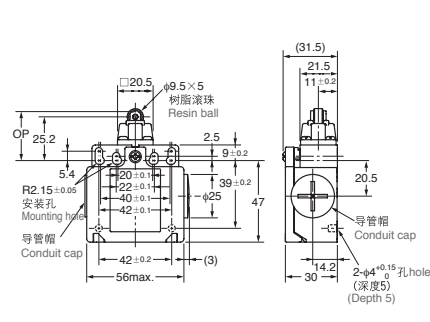
C4N-4187



C4N-8131



C4N-8132



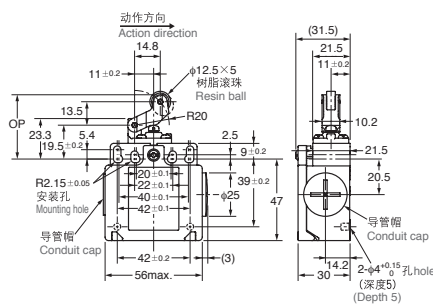
* 不锈钢垫圈和塑料棒的使用范围从前端35mm以内，整个动作在70mm以内

* Use of application of stainless steel washers and plastic stick are within 35mm from the front end, the entire action is within 70mm

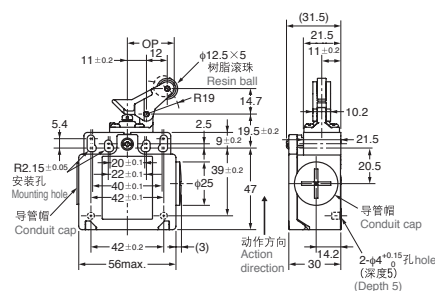
C4N Miniature Safety Limit Switch

外观和尺寸 Appearance and Dimension

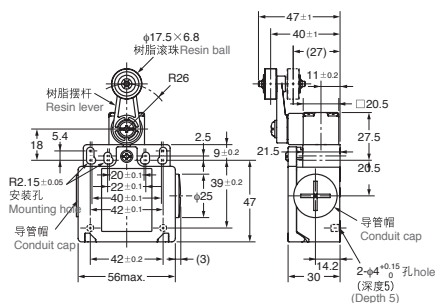
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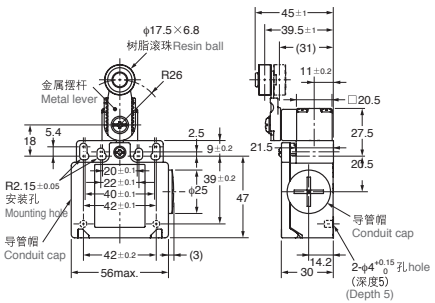
C4N-8172



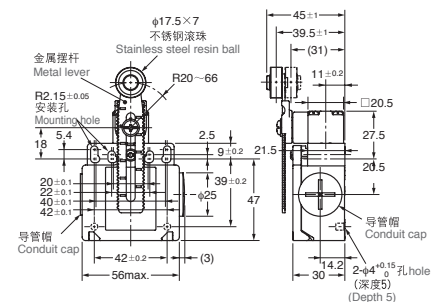
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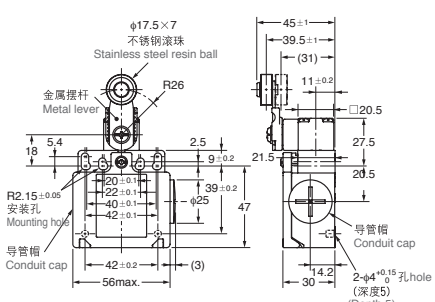
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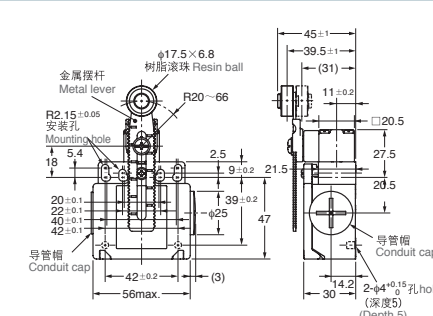
C4N-812M



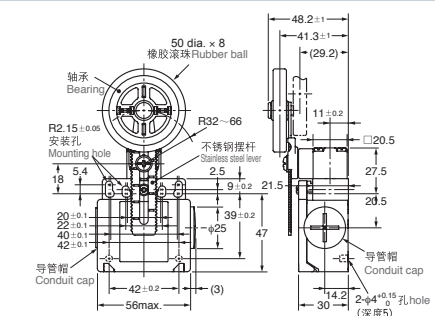
C4N-8125



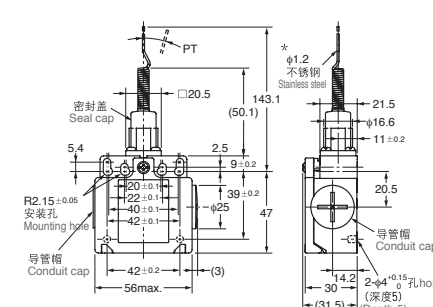
C4N-812G



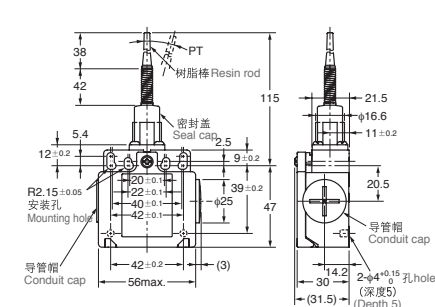
C4N-812H



C4N-8180



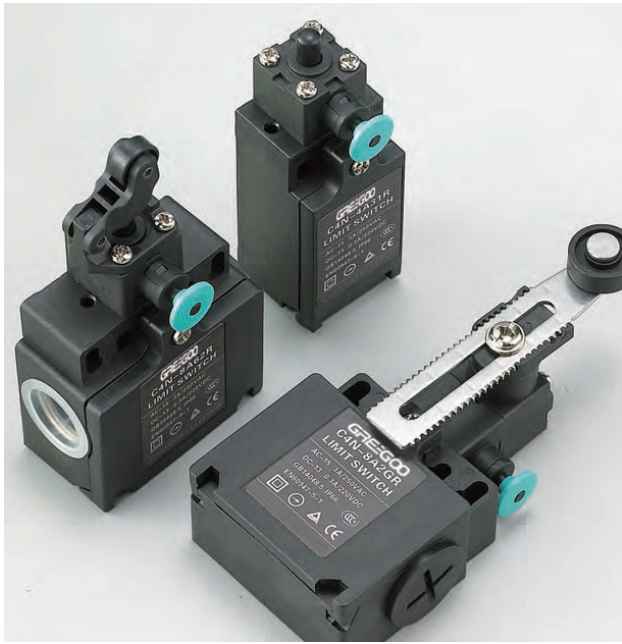
C4N-8187



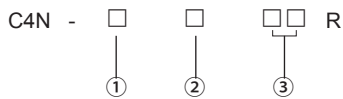
* 不锈钢垫圈和塑料棒的使用范围从前端35mm以内，整个动作在70mm以内

* Use of application of stainless steel washers and plastic stick are within 35mm from the front end, the entire action is within 70mm

C4N-□R Manual Reset Limit Switch



型号说明 Model Designations



项目 Item	代号 Code	说明 Description
① 导管/连接器尺寸 Conduit / connector size	1	Pg13.5 (1导管型) Pg13.5 (1 conduit type)
	2	G1/2 (1导管型) G1/2 (1 conduit type)
	4	M20 (1导管型) M20 (1 conduit type)
	6	G1/2 (2导管型) G1/2 (2 conduits type)
	8	M20 (2导管型) M20 (2 conduits type)
② 内藏开关 Built-in switch	A	1NC/1NO (慢动型) 1NC/1NO (slow-action type)
	B	2NC (慢动型) 2NC (slow-action type)
③ 头部及传动杆 Head and driving rod	20	滚珠摆杆型 (树脂摆杆, 树脂滚珠) Roller lever (resin lever, resin ball)
	22	滚珠摆杆型 (金属摆杆, 树脂滚珠) Roller lever (metal lever, resin ball)
	2G	可调滚珠摆杆, Form Lock (金属摆杆, 树脂滚珠) Adjustable roller lever, Form Lock (metal lever, resin ball)
	2H	可调滚珠摆杆, Form Lock (金属摆杆, 橡胶滚珠) Adjustable roller lever, Form Lock (metal lever, rubber ball)
	31	顶部柱塞型 Top plunger type
	32	顶部柱塞滚珠型 Top plunger ball type
	62	单侧悬臂滚珠型 (水平) Unilateral cantilever ball type (horizontal)
	72	单侧悬臂滚珠型 (垂直) Unilateral cantilever ball type (vertical)

特征 Features

- 强制断开动作装置(仅NC接点), 可以在发生像接点熔断等故障时断开接点。
- 摆杆设置的安全性确保了动作位置指示灯面板和摆杆之间采用齿轮齿合的装置。
- 强化了顶部密封结构, 以提高密封性能。
- 内藏接点座具有慢动型: 1NC/1NO、2NC
- Forced open action device(NC contacts only), it can disconnect the contact when the contact has fusing and other failures.
- The set safety of lever ensures that gear ratcheting device is used between the action position indicator panel and the lever.
- Strengthened top seal structure improves the sealing performance.
- Built-in contact holder has slow-action: 1NC /1NO and 2NC

性能 Performance

保护等级*1 Protection level*1		IP66
寿命*4 Life *4	机械 Mechanical	1,000万次以上*5 More than 10,000,000 times*5
	电气 Electrical	50万次以上(AC250V 3A、电阻负载)*3 More than 500,000 times (AC250V 3A, resistive load) *3 30万次以上(AC250V 10A、电阻负载) More than 300,000 times (AC250V 10A, resistive load)
操作速度 Operating speed		1~500mm/s(C4N-1A20R)
操作频率 Operating frequency		最大30次/min Max. 30 times/min
接触电阻 Contact resistance		25mΩ以下 25 mΩ or less
最小使用负载*4 Minimum working load *4		DC5V 1mA 电阻负载(N标准参考值) 1mA resistive load below DC5V (N standard reference value)
额定绝缘电压(UI) Rated insulation voltage (Ui)		300V
防触电保护等级 Electric shock proof protection grade		Class II (双重绝缘) Class II (double insulated)
污染度(使用环境) Pollution degree (environmental conditions)		污染度3(EN60947-5-1) Pollution degree 3 (EN60947-5-1)
耐压 Withstand voltage (EN60947-5-1)		同极端子间: 2.5kV Between homopolar terminals: 2.5kV
		异极端子间: 4kV Between heteropolar terminals: 2.5kV
		各端子和非充电金属部件: 6kV Between terminals and uncharged metal parts: 6kV
		绝缘电阻 Insulation resistance
绝缘电阻 Insulation resistance		100MΩ以上 Above 100MΩ
接点间隙 Contact gap		最小2×0.5mm速动型、最小2×2mm慢动型 Minimum 2×0.5mm quick-action type, Minimum 2×2mm slow-action type
振动 Vibration	误动作 Malfunction	10~55Hz 0.75mm单振幅 10~55Hz 0.75mm single amplitude
	耐久 Duration	1,000m/s ²
冲击 Impact	误动作 Malfunction	300m/s ²
	环境温度 Ambient temperature	-20~+70℃(无结冰、结露) -20~+70℃ (No ice or dew)
环境湿度 Ambient humidity		95%RH以下 Less than 95% RH
质量 Weight		约92g(D4N-1A20R) About 92g (D4N-1A20R)

注1. 上述值为初始值。

注2. 一旦接点连接标准负载后, 就不可用于连接更小容量的负载。否则可能导致接点表面粗糙, 从而失去接触可靠性。

*1. 保护等级是根据(EN60947-5-1) 规格的测试法得出的。使用前务必在实际使用的环境、条件下确认其密封性。开关盒本体具有防尘、防油构造, 但应尽可能保持头部在没有碎屑粉尘、油污、化学品的场所进行使用。否则可能导致过早磨损、损坏或故障。

*2. 耐久性的条件是使用环境温度 5℃~ 35℃、使用环境湿度 40% ~ 70% RH。其他详细条件请另行查询。

*3. 使用环境温度为35℃以上时, 禁止使用2回路以上的3A AC250V负载。

*4. 这个值会因为开关频率、环境条件、可靠性等级等因素的影响而不同。请事先在实际负载上进行确认。

*5. 叉杆摆杆型的机械寿命为1,000万次以上。

Note 1. The above values are initial values.

Note 2. Once the contact is connected to a standard load, it can not be used to connect a smaller load. If so, the contact may result in rough surface, thus losing contact reliability.

*1. The protection level is gotten based on test method of (EN60947-5-1). Please make sure its sealing under actual environmental conditions before use. The switch box has dust and oil resistance structure, but it should be used in places without dust, oil and chemicals. Otherwise it may lead to premature wear, damage or malfunction.

*2. The durability is for ambient temperature of 5℃ ~ 35℃ and humidity of 40% to 70%

*3. RH. For additional details, please contact us.

*4. When the ambient temperature is above 35℃, more than 2 circuits 3A 250VAC loads are prohibited.

*5. The values will vary with different switching frequency, environmental conditions, reliability level and other factors. Please confirm on the actual load in advance.

The mechanical life of deadman lever type is more than 10,000,000 times.

C4N-□R Manual Reset Limit Switch

强制断开构造 Forced disconnect structure

■ 1NC、1NO接点(慢动型)

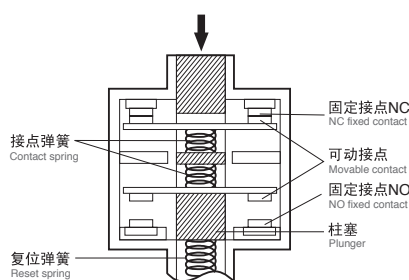
1NC and 1NO contacts (slow-action type)

仅限NC接点侧有强制断开构造。

当发生溶着时，通过按下柱塞，可以分离接点，切断回路。(符合EN60947-5-1强制断开操作)。

Only NC contact has forced disconnect structure.

When melting occurs, the contact can be isolated by pressing the plunger to cut off the loop. (In accordance with EN60947-5-1 force disconnect operation).



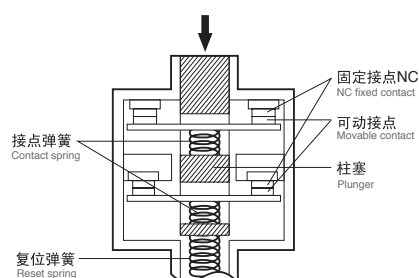
■ 2NC接点(慢动型)

2NC contacts (slow-action type)

双侧NC接点均具有强制断开构造。

当发生溶着时，通过按下柱塞，可以分离接点，切断回路。(符合EN60947-5-1强制断开操作)。

When melting occurs, the contact can be isolated by pressing the plunger to cut off the loop. (In accordance with EN60947-5-1 force disconnect operation).



接点形式 Contact form

型号 Model	接点 Contact	接点形式 Contact form	动作模式 Operation mode	说明 Explanation
C4N-□A□R	1NC/1NO (慢动型) 1NC/1NO (Slow-action type)			仅NC接点(11-12)具有强制断开功能(-)。 Only NC contact (11-12) has forced disconnect function (-) 接点(11-12) 和(33-34) 可作异极使用。 Contacts (11-12) and (33-34) can be used as heteropoles.
C4N-□B□R	2NC (慢动型) 2NC (Slow-action type)			仅NC接点(11-12、31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-) 接点(11-12) 和(31-32) 可作异极使用。 Contacts (11-12) and (31-32) can be used as heteropoles.

动作特性 Action characteristics

型号 Model		C4N-□□20R	C4N-□□22R	C4N-□□2GR *2	C4N-□□2HR	C4N-□□31R	C4N-□□32R	C4N-□□62R	C4N-□□72R
LF	最大Max.	6.45N	6.45N	5.6N	5.4N	10.8N	10.8N	7.5	7.9N
LT	最大Max.	55°	55°	55°	55°	4.5mm	4.5mm	7mm	7mm
PT1	*3	18~27°	18~27°	18~27°	18~27°	2mm	2mm	4mm	4mm
PT2	*4	(44°)	(44°)	(44°)	(44°)	(2.9mm)	(2.9mm)	(5.2mm)	(4.3mm)
OP		--	--	--	--	34±0.5mm	44.4±0.8mm	53±0.8mm	27±0.8mm
TT	*5	80°	80°	80°	80°	(6mm)	(6mm)	(9mm)	(9mm)
DOT	最小Min.*6	50°	50°	50°	50°	3.2mm	3.2mm	5.8mm	5.8mm
DOF	最小Min.*6	20N		20N	20N	20N	20N	20N	20N

注

*1. 2NC接点的闭路/开路动作的同时性有所参差，使用时请务必确认。

*2. 摆杆长32mm时的特性值。

*3. NC接点为开路(OFF)状态时的PT值。

*4. NO接点闭合(ON)时的PT一般值(仅限1NC/1NO型)。

*5. 参考值。

*6. 强制断路构造的负载和行程值。为保证安全，请务必保持在规定的上限和下限范围内。

Note

*1. The simultaneity of ON / OFF operation of 2NC contacts have difference, please make sure before using it.

*2. The property value when length of lever is 32mm.

*3. PT value when NC contact is at open (OFF) state.

*4. PT common value when NO contact is at close (ON) state (only for 1NC/1NO types).

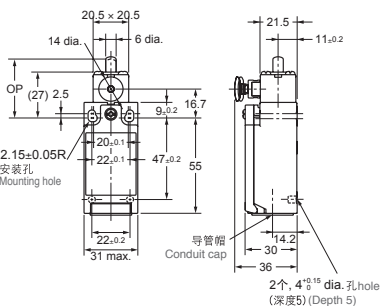
*5. Reference values.

*6. Load and travel values of forced disconnect structure. To ensure safety, be sure to remain within the upper and lower range.

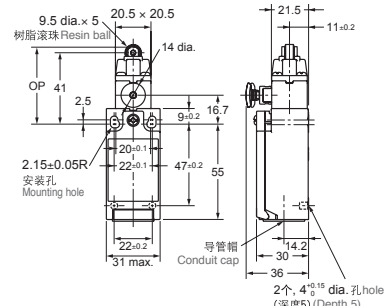
C4N-□R Manual Reset Limit Switch

外观和尺寸 Appearance and Dimension

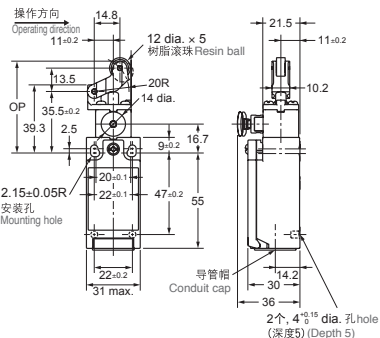
C4N-4A31R



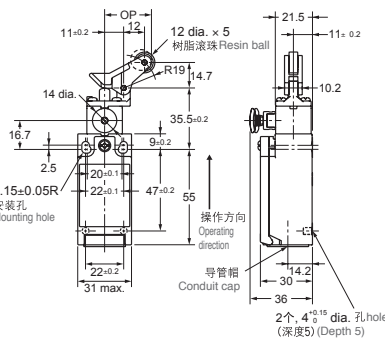
C4N-4A32R



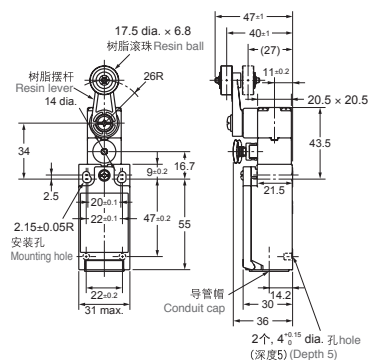
C4N-4A62R



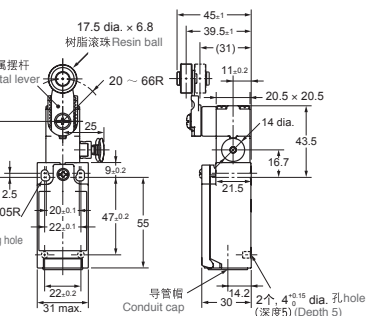
C4N-4A72R



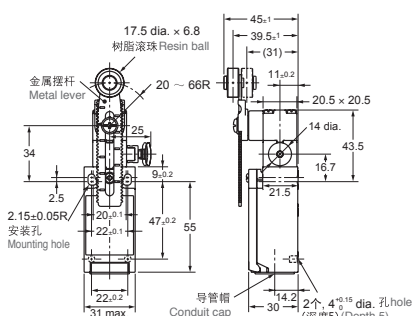
C4N-4A20R



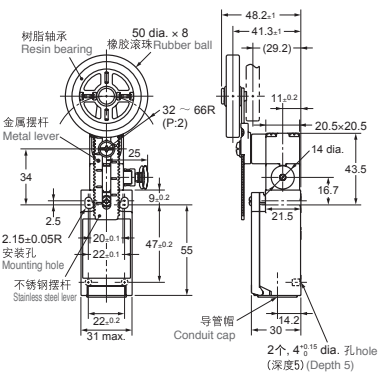
C4N-4A22R



C4N-4A2GR



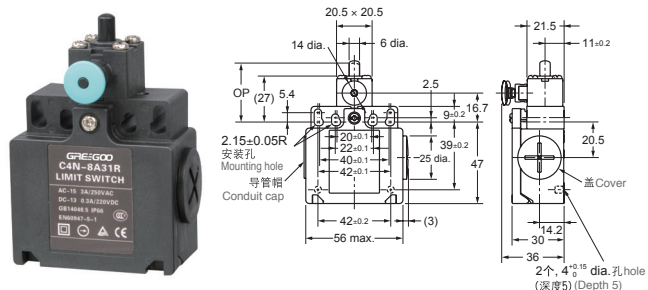
C4N-4A2HR



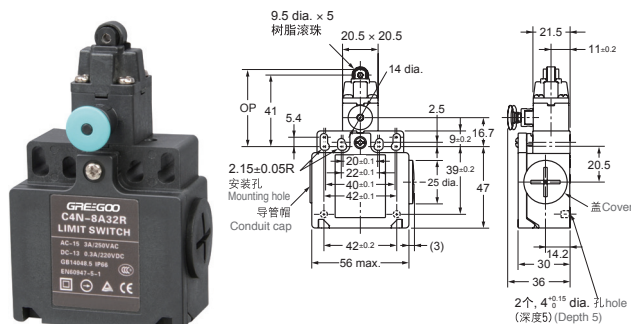
C4N-□R Manual Reset Limit Switch

外观和尺寸 Appearance and Dimension

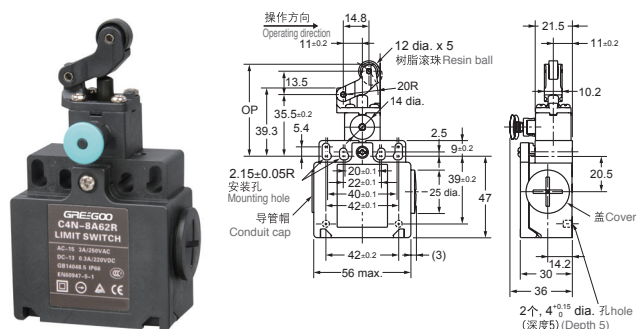
C4N-8A31R



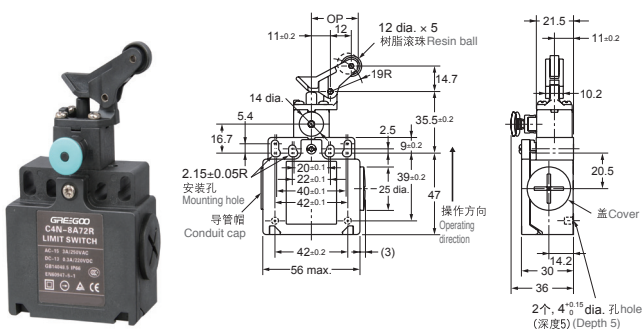
C4N-8A32R



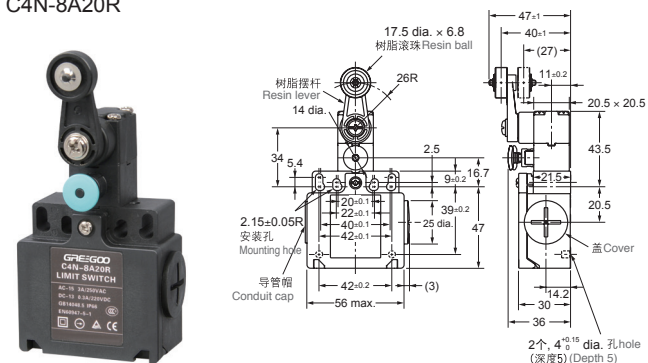
C4N-8A62R



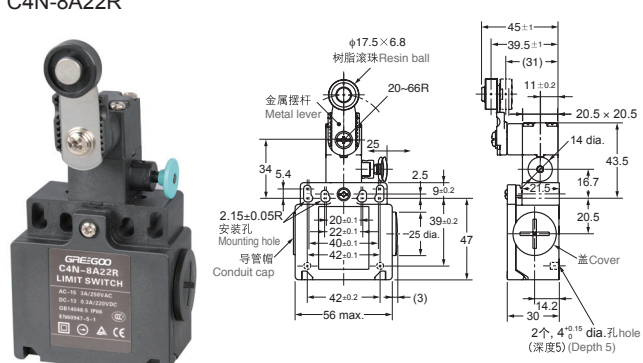
D4N-8A72R



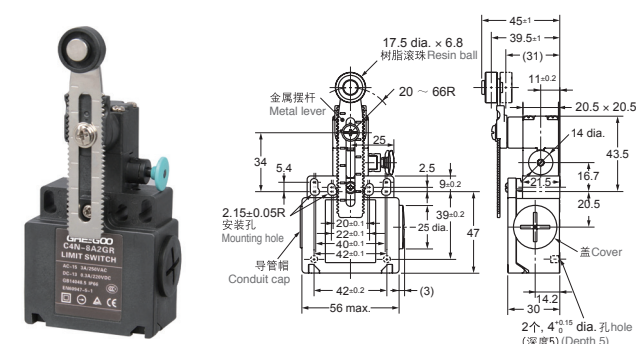
C4N-8A20R



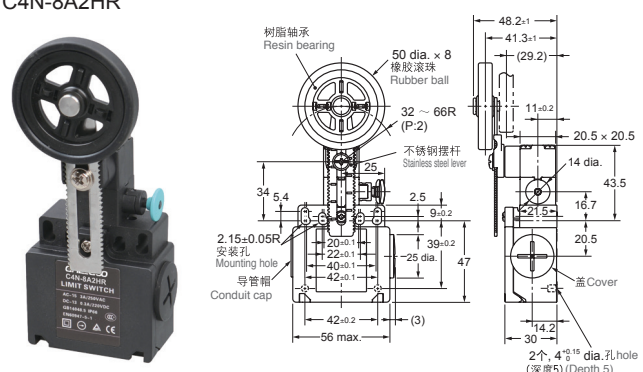
C4N-8A22R



C4N-8A2GR



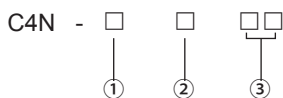
C4N-8A2HR



C4N Miniature Safety Limit Switch



型号说明 Model Designations



项目 Item	代号 Code	说明 Description
① 导管/连接器尺寸 Conduit / connector size	1	Pg13.5 (1导管型) Pg13.5 (1 conduit type)
	2	G1/2 (1导管型) G1/2 (1 conduit type)
	4	M20 (1导管型) M20 (1 conduit type)
	5	Pg13.5 (2导管型) Pg13.5 (2 conduits type)
	6	G1/2 (2导管型) G1/2 (2 conduits type)
	8	M20 (2导管型) M20 (2 conduits type)
② 内藏开关 Built-in switch	1	1NC/1NO (速动型) 1NC/1NO (quick-action type)
	2	2NC (速动型) 2NC (quick-action type)
	A	1NC/1NO (慢动型) 1NC/1NO (slow-action type)
	B	2NC (慢动型) 2NC (slow-action type)
③ 头部及传动杆 Head and driving rod	20	滚珠摆杆型 (树脂摆杆, 树脂滚珠) Roller lever (resin lever, resin ball)
	22	滚珠摆杆型 (金属摆杆, 树脂滚珠) Roller lever (metal lever, resin ball)
	25	滚珠摆杆型 (金属摆杆, 金属滚珠) Roller lever (metal lever, metal ball)
	2G	可调滚珠摆杆, Form Lock (金属摆杆, 树脂滚珠) Adjustable roller lever, Form Lock (metal lever, resin ball)
	2H	可调滚珠摆杆, Form Lock (金属摆杆, 橡胶滚珠) Adjustable roller lever, Form Lock (metal lever, rubber ball)
	2M	可调滚珠摆杆, Form Lock (金属摆杆, 金属滚珠) Adjustable roller lever, Form Lock (metal lever, metal ball)
	31	顶部柱塞型 Top plunger type
	32	顶部柱塞滚珠型 Top plunger ball type
	62	单侧悬臂滚珠型 (水平) Unilateral cantilever ball type (horizontal)
	72	单侧悬臂滚珠型 (垂直) Unilateral cantilever ball type (vertical)
	80	触须型 Whisker type
	87	塑料棒型 Plastic stick type

特征 Features

- 强制断开动作装置(仅NC接点), 可以在发生像接点熔断等故障时断开接点。
- 摆杆设置的安全性确保了动作位置指示灯面板和摆杆之间采用齿轮齿合的装置。
- 强化了顶部密封结构, 以提高密封性能。
- 内藏接点座具有速动型: 1NC/1NO、2NC; 慢动型: 1NC/1NO、2NC
- Forced open action device(NC contacts only), it can disconnect the contact when the contact has fusing and other failures.
- The set safety of lever ensures that gear ratcheting device is used between the action position indicator panel and the lever.
- Strengthened top seal structure improves the sealing performance.
- Built-in contact holder has fast-action type: 1NC/1NO; Slow-action: 1NC/1NO and 2NC

性能 Performance

保护等级*1 Protection level*1		IP66
寿命*2 Life *2	机械 Mechanical	1,000万次以上*5 More than 10,000,000 times*5
	电气 Electrical	50万次以上(AC250V 3A、电阻负载)*3 More than 500,000 times (AC250V 3A, resistive load) *3 30万次以上(AC250V 10A、电阻负载) More than 300,000 times (AC250V 10A, resistive load)
操作速度 Operating speed		1~500mm/s(C4N-1120)
操作频率 Operating frequency		最大30次/min Max. 30 times/min
接触电阻 Contact resistance		25mΩ以下 25 mΩ or less
最小使用负载*4 Minimum working load *4		DC5V 1mA 电阻负载(N标准参考值) 1mA resistive load below DC5V (N standard reference value)
额定绝缘电压(Ui) Rated insulation voltage (Ui)		300V
防触电保护等级 Electric shock proof protection grade		Class II (双重绝缘) Class II (double insulated)
污染度(使用环境) Pollution degree (environmental conditions)		污染度3(EN60947-5-1) Pollution degree 3 (EN60947-5-1)
耐电压 Withstand voltage (EN60947-5-1)		同极端子间: 2.5kV Between homopolar terminals: 2.5kV
		异极端子间: 4kV Between heteropolar terminals: 2.5kV
		各端子与非充电金属部件间: 6kV Between terminals and uncharged metal parts: 6kV
		绝缘电阻 Insulation resistance
绝缘电阻 Insulation resistance		100MΩ以上 Above 100MΩ
接点间隙 Contact gap		最小2×0.5mm速动型、最小2×2mm慢动型 Minimum 2×0.5mm quick-action type, Minimum 2×2mm slow-action type
振动 Vibration	误动作 Malfunction	10~55Hz 0.75mm单振幅 10~55Hz 0.75mm single amplitude
	耐久 Duration	1,000m/s ²
冲击 Impact	误动作 Malfunction	300m/s ²
	环境温度 Ambient temperature	-20~+70℃(无结冰、结露) -20~+70℃ (No ice or dew)
环境湿度 Ambient humidity		95%RH以下 Less than 95% RH
质量 Weight		约82g(C4N-1120) About 82g (D4N-1120) 约99g(C4N-5120) About 99g (D4N-5120)

注1. 上述值为初始值。

注2. 一旦接点连接标准负载后, 就不可用于连接更小容量的负载。否则可能导致接点表面粗糙, 从而失去接触可靠性。

*1. 保护等级是根据(EN60947-5-1) 规格的测试法得出的。使用前务必在实际使用的环境、条件下确认其密封性。开关盒本体具有防尘、防油构造, 但应尽可能保持头部在没有碎屑粉尘、油污、化学品的场所进行使用。否则可能导致过早磨损、损坏或故障。

*2. 耐久性的条件是使用环境温度 5℃~ 35℃、使用环境湿度 40% ~ 70% RH。其他详细条件请另行查询。

*3. 使用环境温度为35℃以上时, 禁止使用2回路以上的3A AC250V负载。

*4. 这个值会因为开关频率、环境条件、可靠性等级等因素的影响而不同。请事先在实际负载上进行确认。

*5. 叉杆摆杆型的机械寿命为1,000万次以上。

Note 1. The above values are initial values.

Note 2. Once the contact is connected to a standard load, it can not be used to connect a smaller load. If so, the contact may result in rough surface, thus losing contact reliability.

*1. The protection level is gotten based on test method of (EN60947-5-1). Please make sure its sealing under actual environmental conditions before use. The switch box has dust and oil resistance structure, but it should be used in places without dust, oil and chemicals. Otherwise it may lead to premature wear, damage or malfunction.

*2. The durability is for ambient temperature of 5℃ ~ 35℃ and humidity of 40% to 70% RH. For additional details, please contact us.

*3. When the ambient temperature is above 35℃, more than 2 circuits 3A 250VAC loads are prohibited.

*4. The values will vary with different switching frequency, environmental conditions, reliability level and other factors. Please confirm on the actual load in advance.

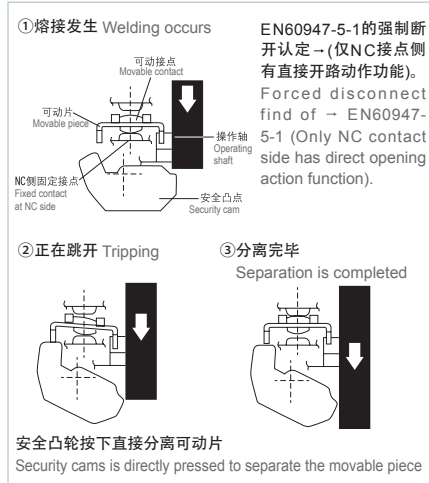
*5. The mechanical life of deadman lever type is more than 10,000,000 times.

C4N Miniature Safety Limit Switch

强制断开构造 Forced disconnect structure

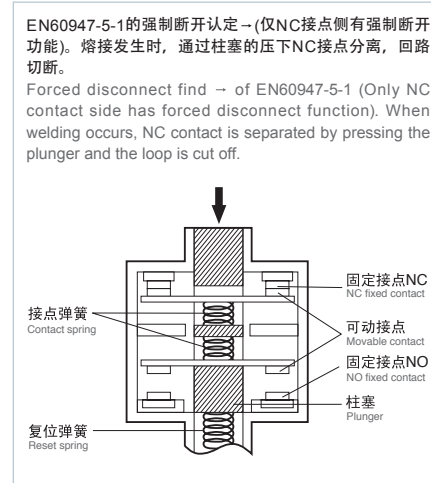
■ 1NC、1NO接点(速动型)

1NC and 1NO contacts (quick-action type)



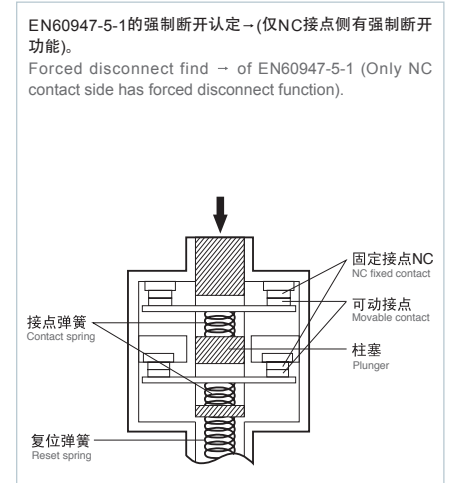
■ 1NC、1NO接点(慢动型)

1NC and 1NO contacts (slow-action type)



■ 2NC接点(慢动型)

2NC contacts (slow-action type)



接点形式 Contact form

型号 Model	接点 Contact	接点形式 Contact form	动作模式 Operation mode	说明 Explanation
C4N-□1□	1NC/1NO (速动型) 1NC/1NO (Quick-action type)			仅NC接点(31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(13-14)和(31-32)可作异极使用。 Contacts (13-14) and (31-32) can be used as heteropoles.
C4N-□2□	2NC (速动型) 2NC (Quick-action type)			仅NC接点(11-12、31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(11-12)和(31-32)可作异极使用。 Contacts (11-12) and (31-32) can be used as heteropoles.
C4N-□A□	1NC/1NO (慢动型) 1NC/1NO (Slow-action type)			仅NC接点(11-12)具有强制断开功能(-)。 Only NC contact (11-12) has forced disconnect function (-). 接点(11-12)和(33-34)可作异极使用。 Contacts (11-12) and (33-34) can be used as heteropoles.
C4N-□B□	2NC (慢动型) 2NC (Slow-action type)			仅NC接点(11-12、31-32)具有强制断开功能(-)。 Only NC contact (31-32) has forced disconnect function (-). 接点(11-12)和(31-32)可作异极使用。 Contacts (11-12) and (31-32) can be used as heteropoles.

动作特性 Action characteristics

■ 速动型(1NC/1NO)(2NC)、慢动型(2NC)

Quick-action type (1NC/1NO)(2NC), slow-action type (2NC)

动作特性 Action characteristics			型号 Model		C4N-□120	C4N-□122	C4N-□125	C4N-□226	C4N-□131	C4N-□132	C4N-□162	C4N-□172	C4N-□12H	C4N-□12G	C4N-□□80	C4N-□□87
					C4N-□220	C4N-□222	C4N-□225	C4N-□B26	C4N-□231	C4N-□232	C4N-□262	C4N-□272	C4N-□22H	C4N-□12M		
			C4N-□B20	C4N-□B22	C4N-□B25		C4N-□B31	C4N-□B32	C4N-□B62	C4N-□B72	C4N-□B2H	C4N-□22G				
													C4N-□B2G*4			
动作力Action force	OF	最大Max.	5.0N					6.5N	6.5N	5.0N	5.0N	4.5N		1.5N	1.5N	
回复力Restore force	RF	最小Min.	0.5N					1.5N	1.5N	0.8N	0.8N	0.4N				
预行程Pretravel	PT		18~27°					2mm	2mm	4mm	4mm	18~27°		15°	15°	
过行程Overtravel	OT	最小Min.	40°					4mm	4mm	5mm	5mm	40°				
响应差的行程 Poor response travel	MD	最大Max.*1	14°					1mm	1mm	1.5mm	1.5mm	14°				
动作位置Action position	OP		—					18.2±0.5mm	28.6±0.8mm	37±0.8mm	27±0.8mm	—				
总行程Total travel	TT	*2	(80°)					(6mm)	(6mm)	(9mm)	(9mm)	(80°)				
强制断开预行程 Forced disconnected pretravel	DOT	最小Min.*3	50°					3.2mm	3.2mm	5.8mm	4.8mm	50°				
强制断开力 Forced disconnected force	DOF	最小Min.*3	20N					20N	20N	20N	20N	20N				

注 2NC 接点的闭路-开路动作的同时性会有参差, 使用时请注意确认。

*1. 仅限速动型。

*2. 为参考值。

*3. 仅限慢动型。为了安全使用, 请确保所有值在最大或最小范围内。

*4. 为摆杆长度32 mm时的特性。

Note The simultaneity of ON / OFF operation of 2NC contacts have difference, please make sure before using it.

*1. Only for quick-action type.

*2. Reference values.

*3. Only for slow-action type. For safe use, please make sure that all values are within the range of maximum or minimum.

*4. The property value when length of lever is 32mm.

C4N Miniature Safety Limit Switch

动作特性 Action characteristics

■ 慢动型(1NC/1NO)

Slow-action type (1NC/1NO)

型号 Model			C4N-□A20	C4N-□A22	C4N-□A25	C4N-□A26	C4N-□A31	C4N-□A32	C4N-□A62	C4N-□A72	C4N-□A2H	C4N-□A2G*8
动作特性 Action characteristics												
动作力Action force	OF	最大Max.	5.0N				6.5N	6.5N	5.0N	5.0N	4.5N	
回复力Restore force	RF	最小Min.	0.5N				1.5N	1.5N	0.8N	0.8N	0.4N	
预行程Pretravel	PT	*1	18~27°				2mm	2mm	4mm	4mm	18~27°	
	PT	(2nd)*2	(44°)				(2.9mm)	(2.9mm)	(5.2mm)	(4.3mm)	(44°)	
	PT	*3	27.5~36.5°				2.8mm	2.8mm	4mm	4mm	27.5~36.5°	
	PT	(2nd)*4	(18°)				(1mm)	(1mm)	(1.5mm)	(1.5mm)	(18°)	
过行程Overtravel	OT	最小Min.	40°				4mm	4mm	5mm	5mm	40°	
动作位置Action position	OP		—				18.2±0.5mm	28.6±0.8mm	37±0.8mm	27±0.8mm	—	
	OP	*5	—				17.4±0.5mm	28±0.8mm	36±0.8mm	26.1±0.8mm	—	
总行程Total travel	TT	*6	(80°)				(6mm)	(6mm)	(9mm)	(9mm)	(80°)	
强制断开预行程 Forced disconnected pretravel	DOT	最小Min.*7	50°				3.2mm	3.2mm	5.8mm	4.8mm	50°	
强制断开力 Forced disconnected force	DOF	最小Min.*7	20N				20N	20N	20N	20N	20N	

*1. NC接点呈开路。

*2. NO接点呈闭路。

*3. 仅限MBB型。

*4. 为MBB型的参考值。

*5. 仅限MBB型。

*6. 为参考值。

*7. 为了安全使用，请确保所有值在最大或最小范围内。

*8. 为摆杆长度32 mm时的特性。

*1. NC contact is open.

*2. NO contact is closed.

*3. Only for MBB type

*4. It is the reference value of MBB type.

*5. Only for MBB type

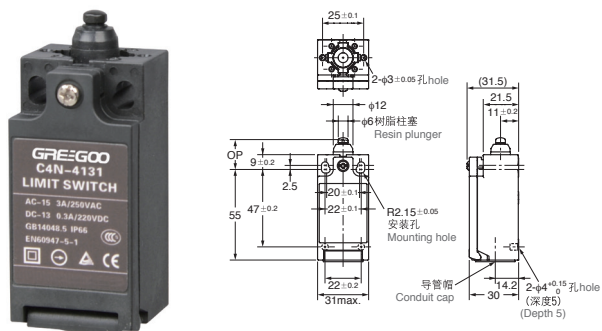
*6. Reference values

*7. For safe use, please make sure that all values are within the range of maximum or minimum.

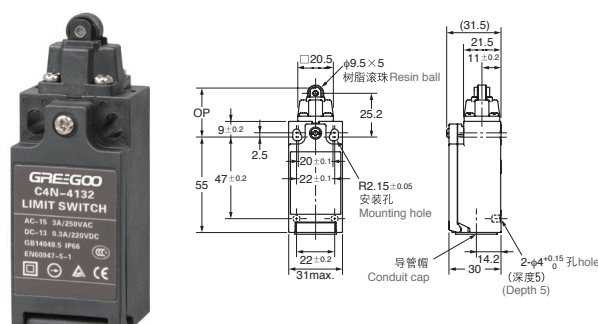
*8. The property value when length of lever is 32mm.

外观和尺寸 Appearance and Dimension

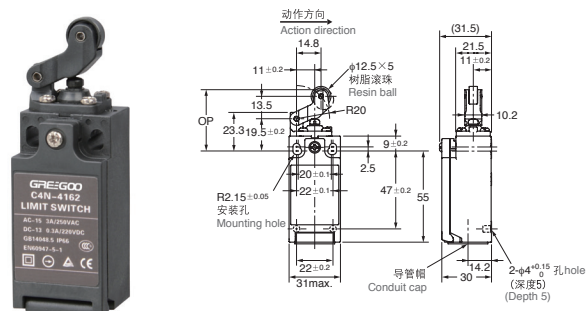
C4N-4131



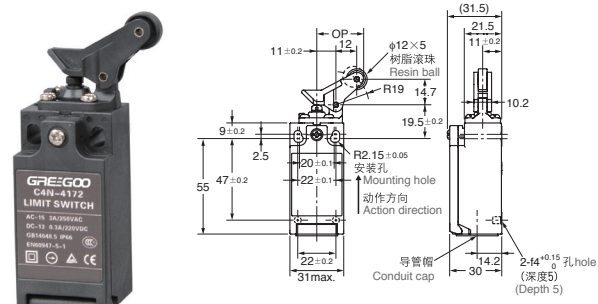
C4N-4132



C4N-4162



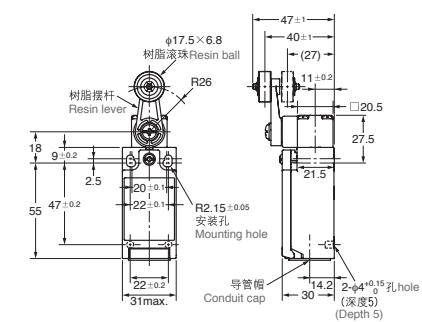
C4N-4172



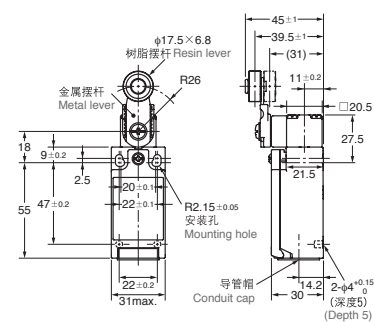
C4N Miniature Safety Limit Switch

外观和尺寸 Appearance and Dimension

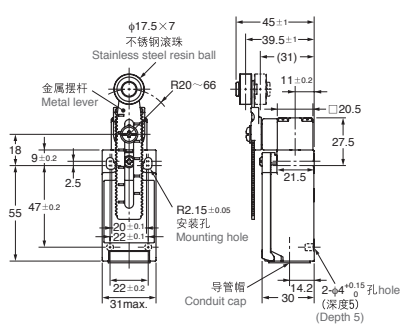
C4N-4120



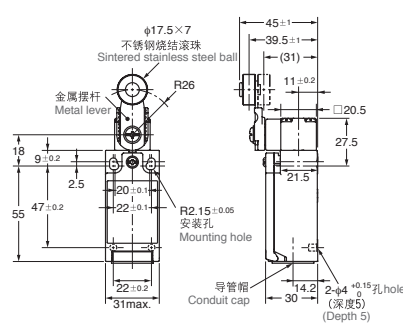
C4N-4122



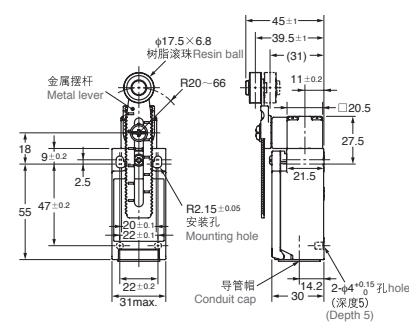
C4N-412M



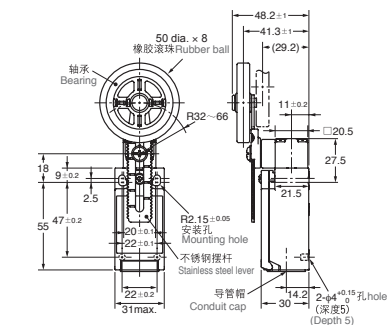
C4N-4125



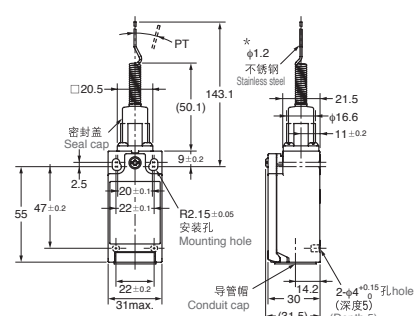
C4N-412G



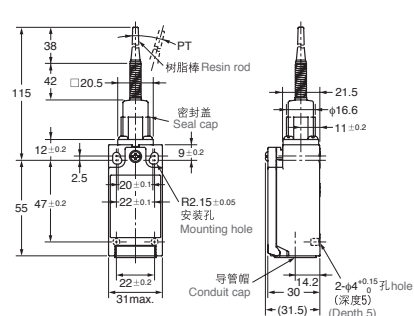
C4N-412H



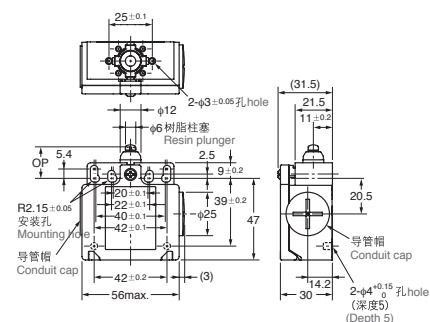
C4N-4180



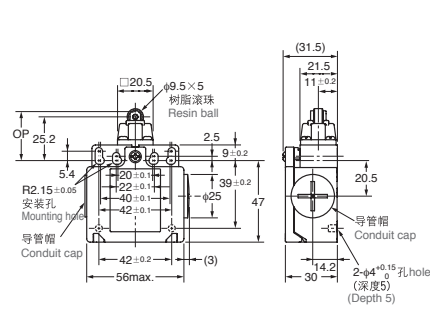
C4N-4187



C4N-8131



C4N-8132



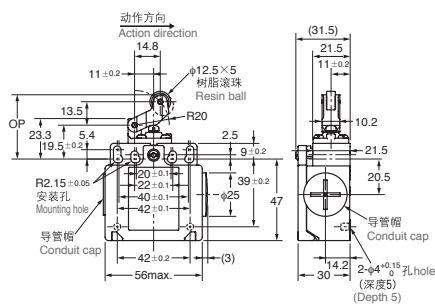
* 不锈钢垫圈和塑料棒的使用范围从前端35mm以内，整个动作在70mm以内

* Use of application of stainless steel washers and plastic stick are within 35mm from the front end, the entire action is within 70mm

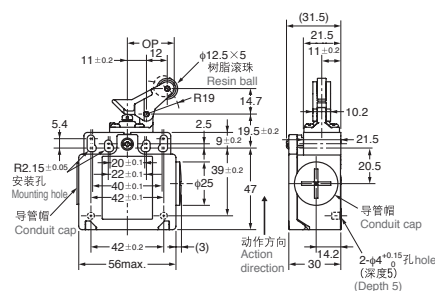
C4N Miniature Safety Limit Switch

外观和尺寸 Appearance and Dimension

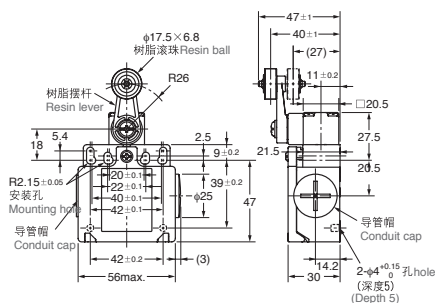
C4N-8162



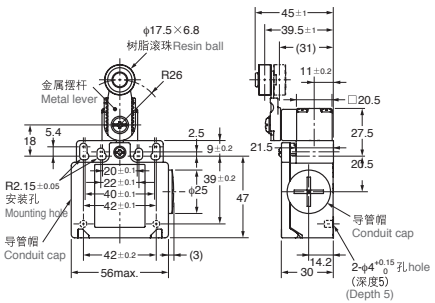
C4N-8172



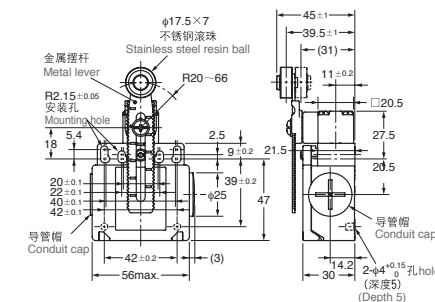
C4N-8120



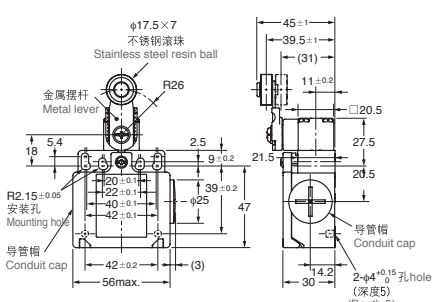
C4N-8122



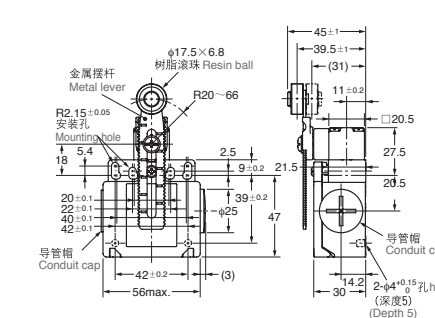
C4N-812M



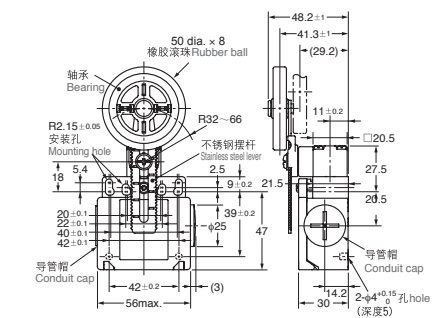
C4N-8125



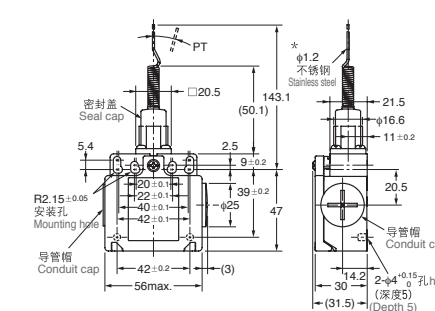
C4N-812G



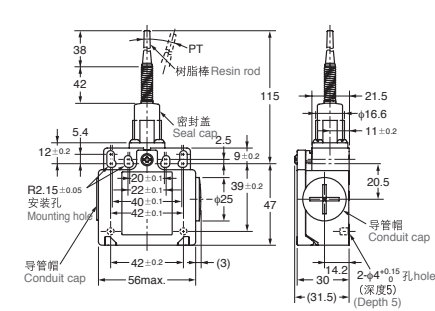
C4N-812H



C4N-8180



C4N-8187



* 不锈钢垫圈和塑料棒的使用范围从前端35mm以内，整个动作在70mm以内

* Use of application of stainless steel washers and plastic stick are within 35mm from the front end, the entire action is within 70mm

CZE Limit Switch



Actuators available 引动器

Direct movement



A
Steel plunger
钢柱塞



A/S1
Steel plunger with
rubber gasket
带橡胶垫的钢柱塞



B
Steel roller
plunger
钢轮柱塞



C
Thermoplastic
roller lever, side
actuation 热塑
性塑料杠杆, 铁
轮, 单边引动



C/S1
Thermoplastic roller
lever, with rubber
gasket, side actuation
热塑性塑料杠, 带橡
胶垫的铁轮



D
Thermoplastic roller
lever, vertical actuation
热塑性塑料杠, 铁轮,
垂直引动



D/S1
Thermoplastic roller lever,
with rubber gasket, vertical
actuation
热塑性塑料杠, 带橡胶的
铁轮, 垂直引动



R
Reversible, adjustable
thermoplastic roller lever
可逆、可调热塑料杠, 铁
轮

Angular movement



E-E/RA
Side rotary lever
with plastic or
steel roller 单侧旋
转杠带塑料或钢轮



I-I/RA
Offset side rotary lever
with plastic or steel
roller 偏置式旋转杠带
塑料或钢轮



E/50
Side rotary lever with
rubber roller 50 dia.
单侧旋转杠带橡胶轮



I/50
Side rotary bent lever
with rubber roller 50 dia.
单侧旋转弯杠带橡胶轮



F
Side rotary adjustable
lever with plastic roller
可调式单侧旋转带塑
料轮



F/50
Side rotary adjustable
lever with rubber
roner 50 dia. 可调式
单侧旋转杠带橡胶轮

Multi-directional movement



G/H
Side rotary adjustable plastic
glass fiber, G, aluminum, H,
rod 6 dia.
单侧旋转塑料玻璃光纤杠Φ6



Q
Ceramic
roller lever
陶瓷摆杠



IS
Offset side rotary
lever with plastic or
steel roller 偏置式旋
转杠带塑料或钢轮



L
Flexible rod
棒式



LP
Flexible rod with
plastic terminal
塑料末端棒式



LP
Flexible rod with
metal terminal
金属末端棒式

CZE Limit Switch

General feature

Operatimg frequency 操作频率		operat./sec (Hz) 操作次数/秒		1		
Insulation resistance 绝缘电阻		500 V DC	MΩ	100		
Dielectric strength 电介强度		50/60 Hz per 1*	V AC	2500		
Rated insulation voltage 额定绝缘电压		Ui IEC947-5-1	V AC	500		
Rated thermal current 额定热电流		Ithe IEC947-5-1	A	10		
Rated operating current 额定操作电流		IEC 947-5-1/EN60947-5-1				
	Category AC15 A300	le	24V	A	10	
			125V	A	6	
			230V	A	4	
			400V	A	3	
	Category DC13 Q300	le	24V	A	10	
			48V	A	4	
			120V	A	1	
			250V	A	0.4	
Contact resistance 触点电阻		IEC255-7 cat.3	initial value 初期	MΩ	25	
Short circuit protective devices 短路保护装置		IEC269(IEC947-5-1) gl or gG type fuse gl或gG熔断		A	10	
Rated conditionals short circuit current 额定短路电流		IEC947-5-1		A	100	
Pollution degree 污染等级		IEC947-5-1			3	
Protection degree 防护等级		EN 60529		IP	66	
Protection against electric shock 电气冲击防护		plastic 塑料	class 等级		II	
		metal 金属	class 等级		I	
Vibration resistance 振动电阻		IEC68-2-6		mm	0.35±15%(10÷55 Hz±1 Hz)	
Shock resistance 冲击电阻		IEC68-2-27	11 ms	g	30	
Mechanical life 机械寿命				cycles min	15.000.000	
Electrical life 电气寿命		at 250VAC 6A with resistance load cosβ=1 250VAC 6A 电阻负载 cosβ=1		cycles min	500.000	
		at 250VAC 6A with resistance load cosβ=0.4 250VAC 6A 电阻负载 cosβ=0.4		cycles min	500.000	
Distance between contacts 触点距离		snap action type 快动作		mm	2×1, 25	
		low action type 慢动作		mm	2×2	
Terminals 端子		type			Screw with combined notch and retravtable plate	
					(notch Ph. size 1)	
		screw 螺丝			M	3, 5
		protection degree 防护等级			IP	20A
		material 材料				Steel class 8.8/Galvanized 钢等级8.8/镀锌
		Max. screw tightening torque 最大螺丝收紧转距			N cm (kg cm)	120(12, 24)
		max connecting capacity 最大接线		rigid cable 硬线	mm²	2×1, 5
				fixible cable 软线	mm²	2×1, 5
		with prod terminal			mm²	1×1, 5
		terminal numbering 端子		In accordance with EN50013 符合EN50013		
Conduit / connector size 导管/连接器尺寸		M20x1.5 PG13.5			Standard M20x1.5 标配M20x1.5	

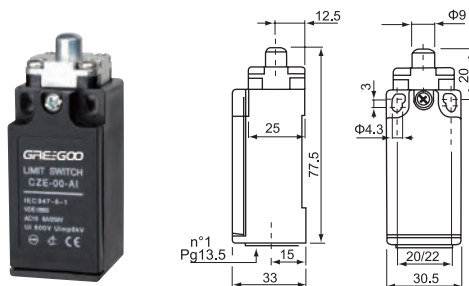
Contact block 触点

1 NO+1 NC	fast action 快动作	00
1 NO+1 NC	slow action 慢动作	01
1 NO+1 NC	slow overlapping action 慢重叠动作	02
2 NO	slow action 慢动作	03
2 NC	slow action 慢动作	04
2 NC	fast action 快动作	05

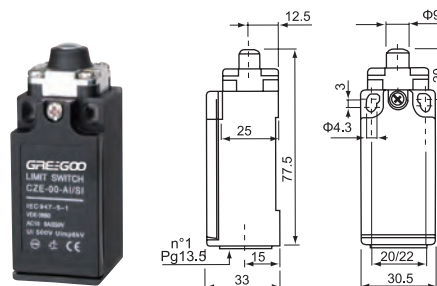
CZE Limit Switch

塑料系列 Plastic Version

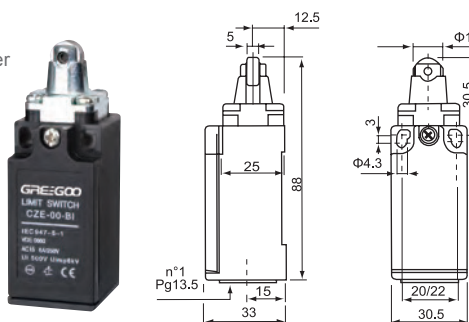
CZE-00-AI
Steel plunger



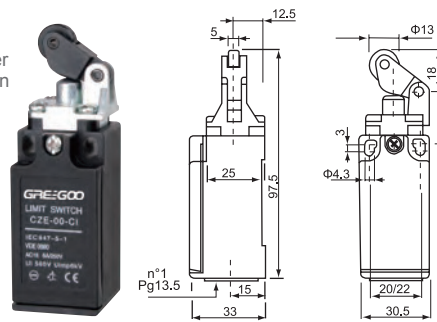
CZE-00-AI/SI
Steel plunger with rubber gasket



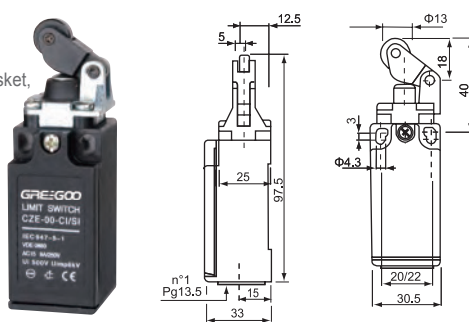
CZE-00-BI
Steel roller plunger



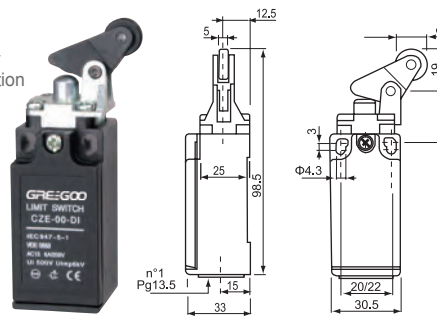
CZE-00-CI
Thermoplastic roller lever, side actuation



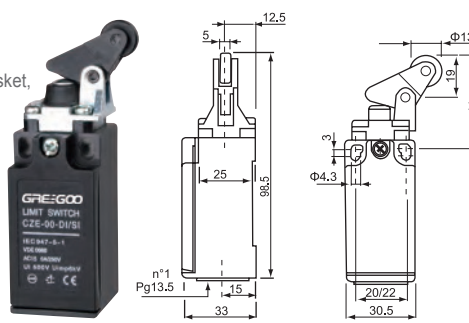
CZE-00-CI/SI
Thermoplastic roller lever with rubber gasket, side actuation



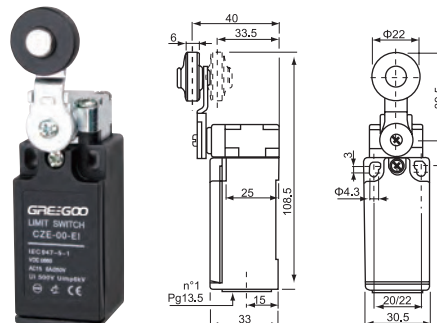
CZE-00-DI
Thermoplastic roller lever, vertical actuation



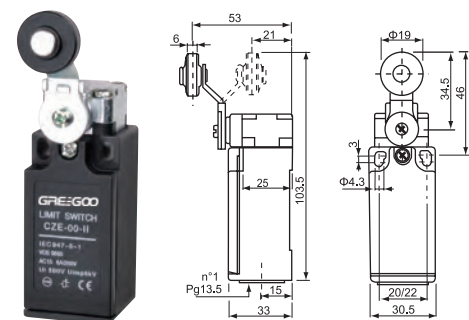
CZE-00-DI/SI
Thermoplastic roller lever with rubber gasket, vertical actuation



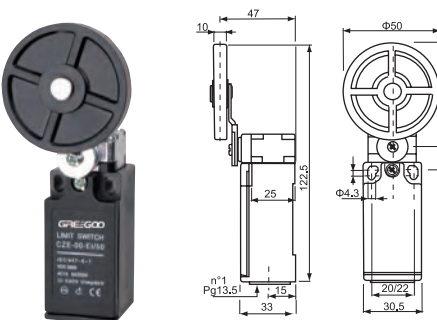
CZE-00-EI
Side rotary lever with plastic roller



CZE-00-II
Offset side rotary lever with plastic roller.



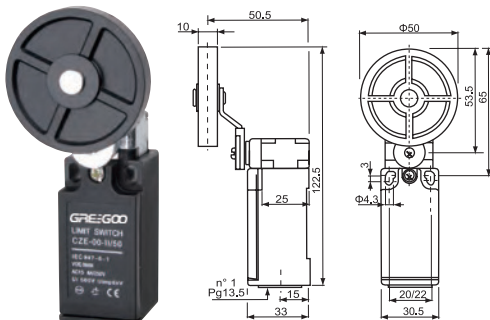
CZE-00-EI/50
Side rotary lever with rubber roller $\Phi 50$



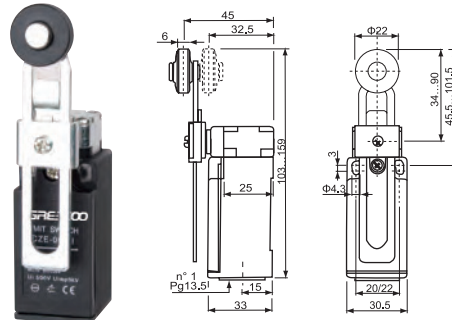
CZE Limit Switch

塑料系列 Plastic Version

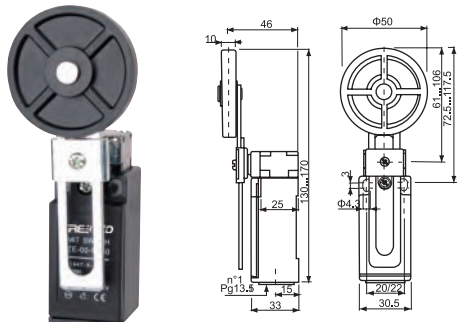
CZE-00-II/50
Side rotary bent
lever with rubber
roller $\Phi 50$



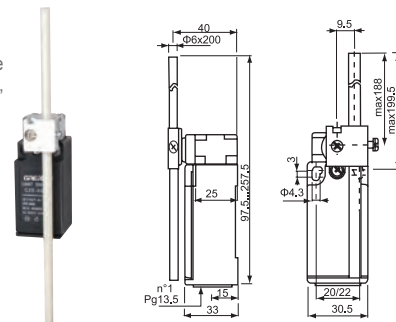
CZE-00-FI
Side rotary adjustable
lever with plastic roller



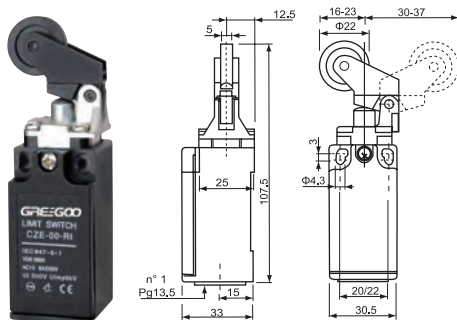
CZE-00-FI/50
Side rotary adjustable
lever with rubber roller
 $\Phi 50$



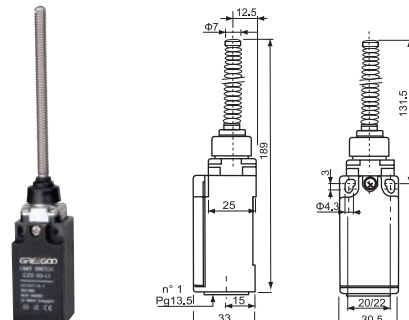
CZE-00-GI
Side rotary adjustable
plastic glass fiber "G",
aluminum "H", rod $\Phi 6$



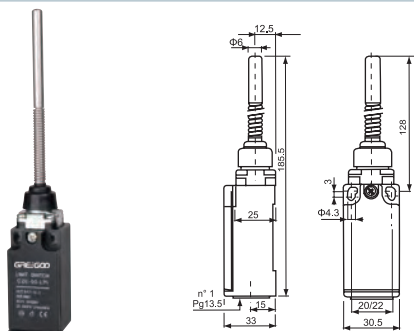
CZE-00-RI
Reversible adjustable
thermoplastic roller lever



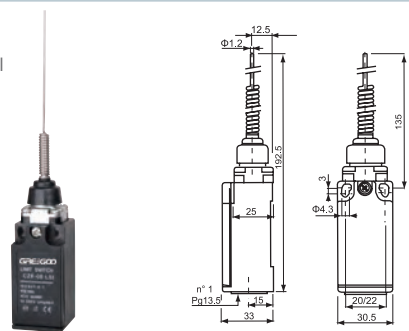
CZE-00-LI
Flexible rod



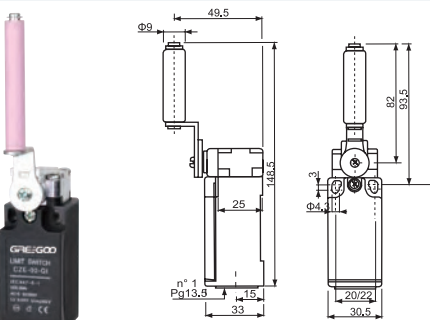
CZE-00-LPI
Flexible rod with plastic
terminal



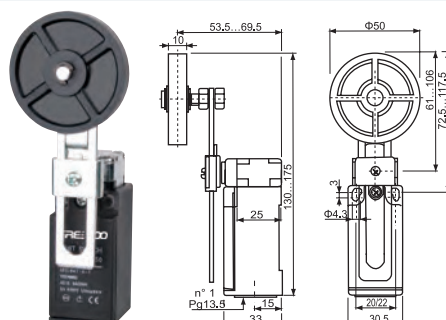
CZE-00-LSI
Flexible rod with metal
terminal



CZE-00-QI
Ceramic roller lever



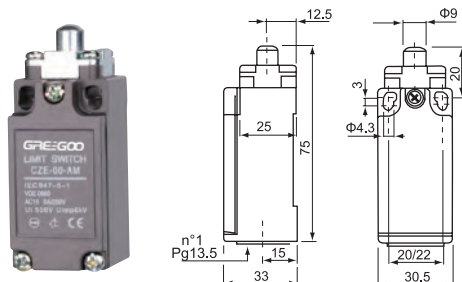
CZE-00-FRI/50
Side rotary adjustable
horizontal and vertical
lever with rubber roller
 $\Phi 50$



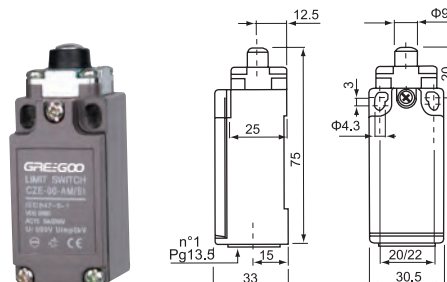
CZE Limit Switch

金属系列 Metal Version

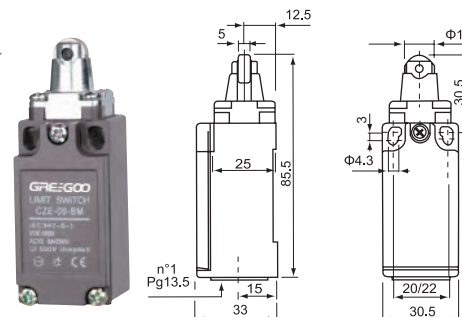
CZE-00-AM
Steel plunger



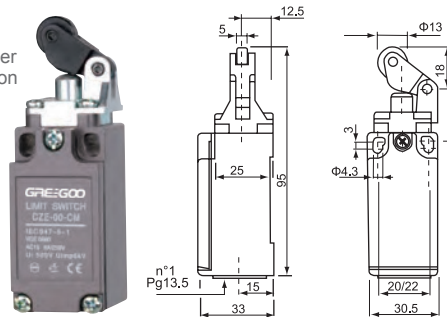
CZE-00-AM/SI
Steel plunger with rubber gasket



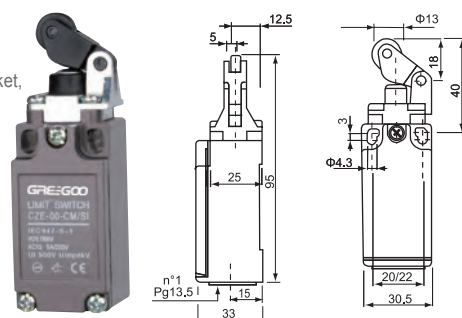
CZE-00-BM
Steel roller plunger



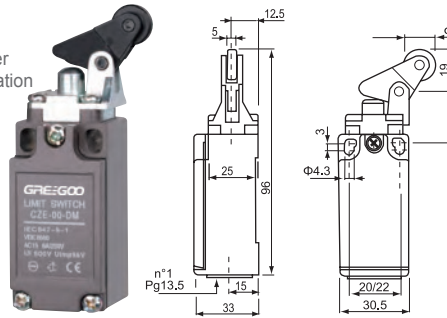
CZE-00-CM
Thermoplastic roller lever, side actuation



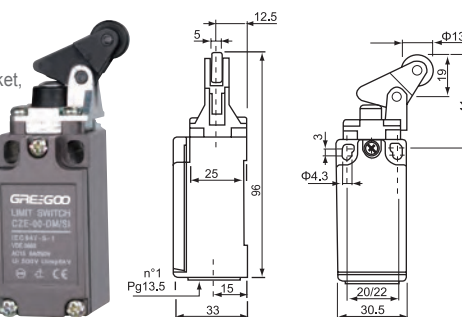
CZE-00-CM/SI
Thermoplastic roller lever with rubber gasket, side actuation



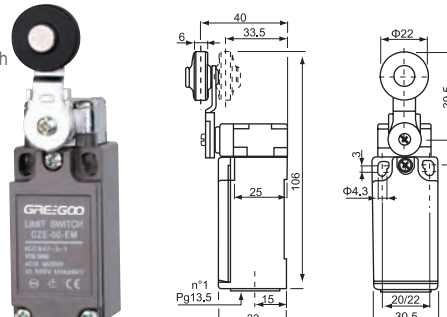
CZE-00-DM
Thermoplastic roller lever, vertical actuation



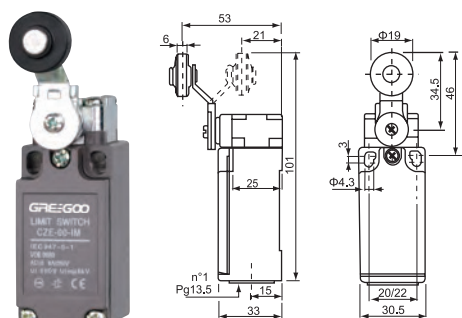
CZE-00-DM/SI
Thermoplastic roller lever with rubber gasket, vertical actuation



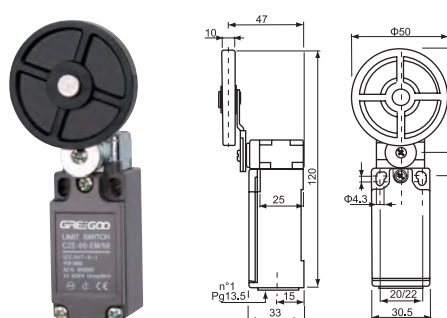
CZE-00-EM
Side rotary lever with plastic roller



CZE-00-IM
Offset side rotary lever with plastic roller.



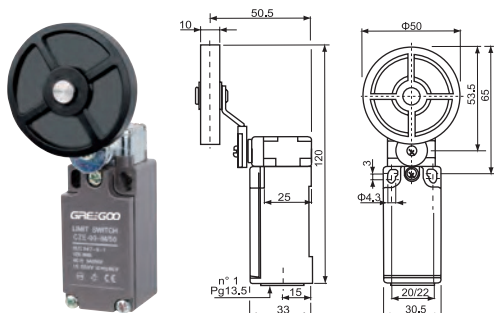
CZE-00-EM/50
Side rotary lever with rubber roller
Φ50



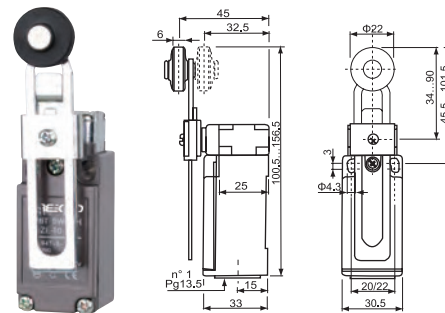
CZE Limit Switch

金属系列 Metal Version

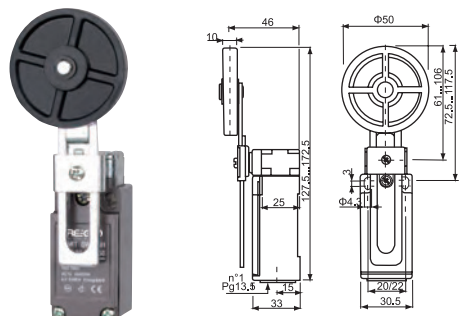
CZE-00-IM/50
Side rotary bent
lever with rubber
roller $\Phi 50$



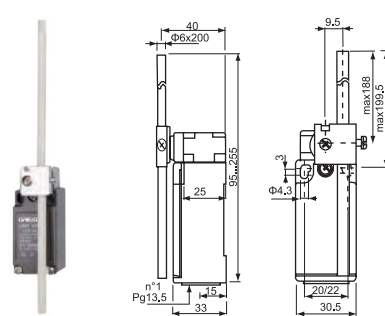
CZE-00-FM
Side rotary adjustable
lever with plastic roller



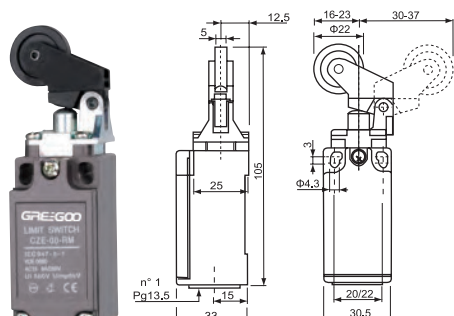
CZE-00-FM/50
Side rotary adjustable
lever with rubber roller
 $\Phi 50$



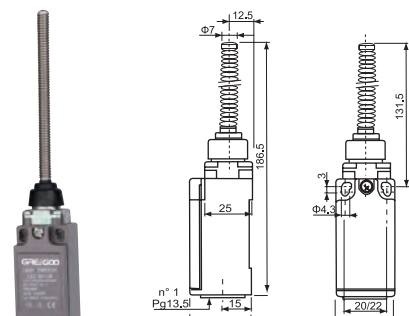
CZE-00-GM
Side rotary adjustable
plastic glass fiber "G",
aluminum "H", rod $\Phi 6$



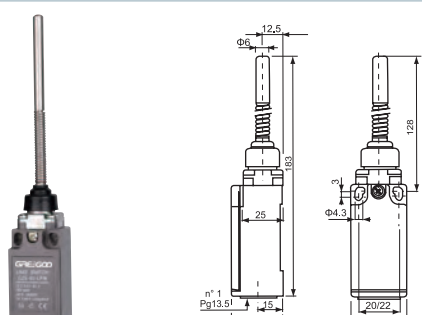
CZE-00-RM
Reversible adjustable
thermoplastic roller lever



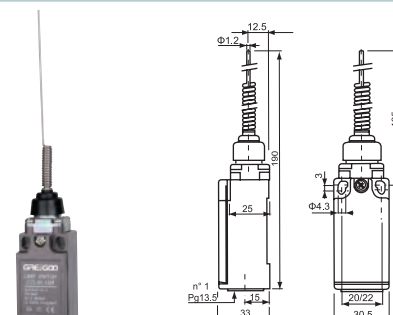
CZE-00-LM
Flexible rod



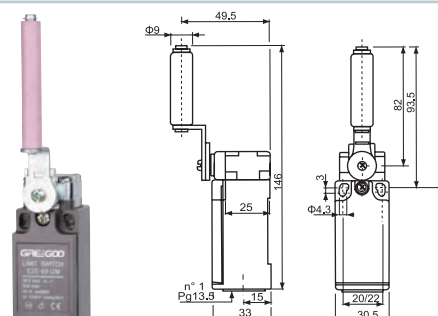
CZE-00-LPM
Flexible rod with plastic
terminal



CZE-00-LSM
Flexible rod with metal
terminal



CZE-00-QM
Ceramic roller lever



CZE-00-FRM/50
Side rotary adjustable
horizontal and vertical
lever with rubber roller
 $\Phi 50$

