

凱昆
機電·工控

KACON

PLASTIC LIMIT SWITCHCH

塑料行程限位开关

KXN series



CCC CE IP65



400-886-3633
www.kacon.com.cn

KXN series



KXN-301



KXN-302



KXN-312



KXN-601



KXN-602



KXN-612



KXN-702



KXN-703



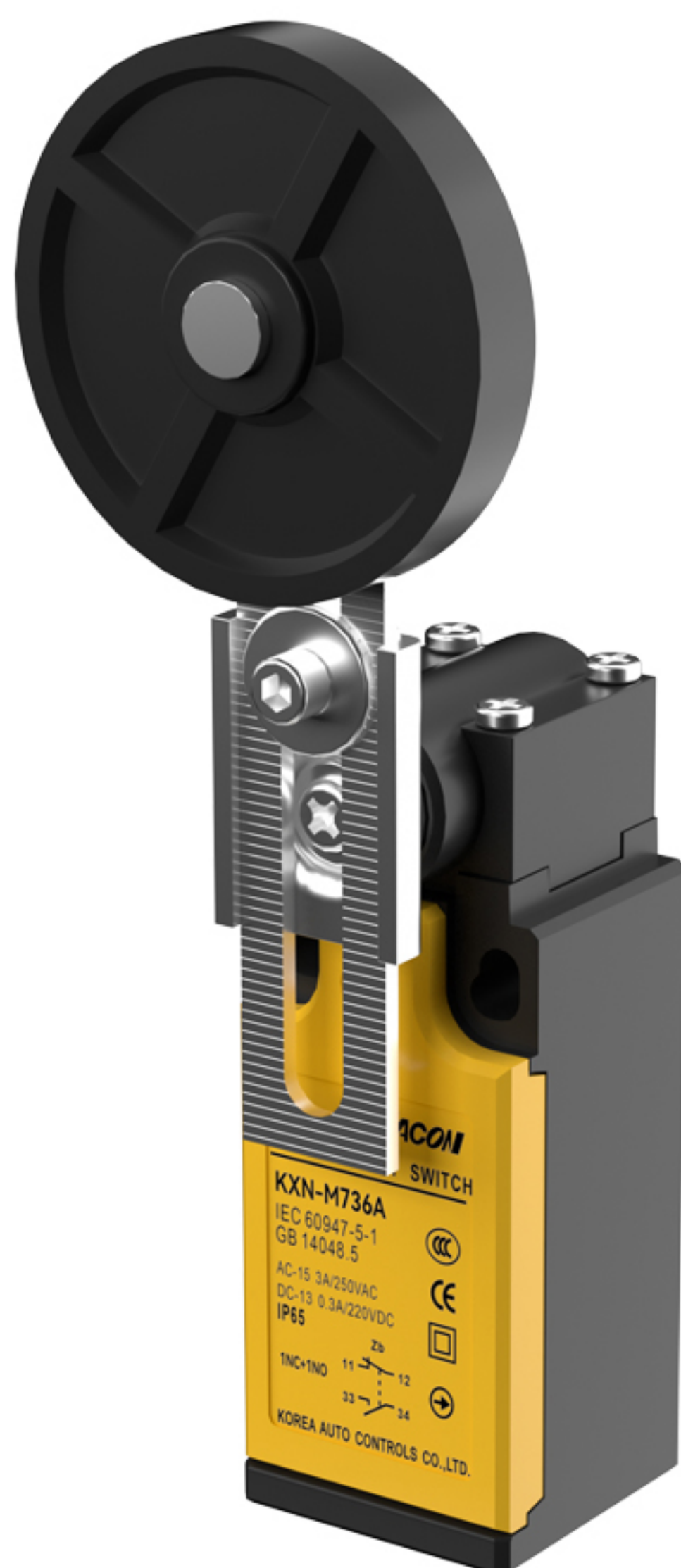
KXN-712



KXN-713



KXN-726



KXN-736



KXN-901



KXN-902



KXN-903

NAMING CONVENTION - KXN SERIES

KXN	-	①	②	③
		①	②	③
		Conduit Size 导管尺寸	Operating type 操作类型	Contact Configuration 触点形式
		T	301	1
		M	302	A
			312	B
			601	C
			602	D
			612	
			702	
			703	
			712	
			713	
			726	
			736	
			901	
			902	
			903	

PRODUCT STRUCTURE - KXN SERIES

Safety-Guided Lever Configuration/安全导向摆杆设定

Both the lever and the rotating shaft are designed with interlocking grooves to ensure a secure engagement, effectively preventing slippage between the lever and the shaft. Two roller material options are available: resin roller and metal roller. (为摆杆和转动轴分别设计了咬合槽，可有效防止摆杆和转动轴打滑。滚轮材质有树脂滚轮和金属滚轮两种类型。)

Head/头部

The switch head can be freely adjusted to any of four directions. For the ball plunger type, installation is possible in two directions at 90° intervals. (开关头部可朝4个方向任意变化。滚珠柱塞型可以在成90°角的2个方向进行安装。)

Cover/外盖

The lower part of the outer cover features a hinged structure, allowing it to be opened by removing just one screw, making maintenance and wiring more convenient. (外盖的下部为铰链构造，只需一个螺钉即可打开，便于维护和接线。)

Built-in Switch/内置开关

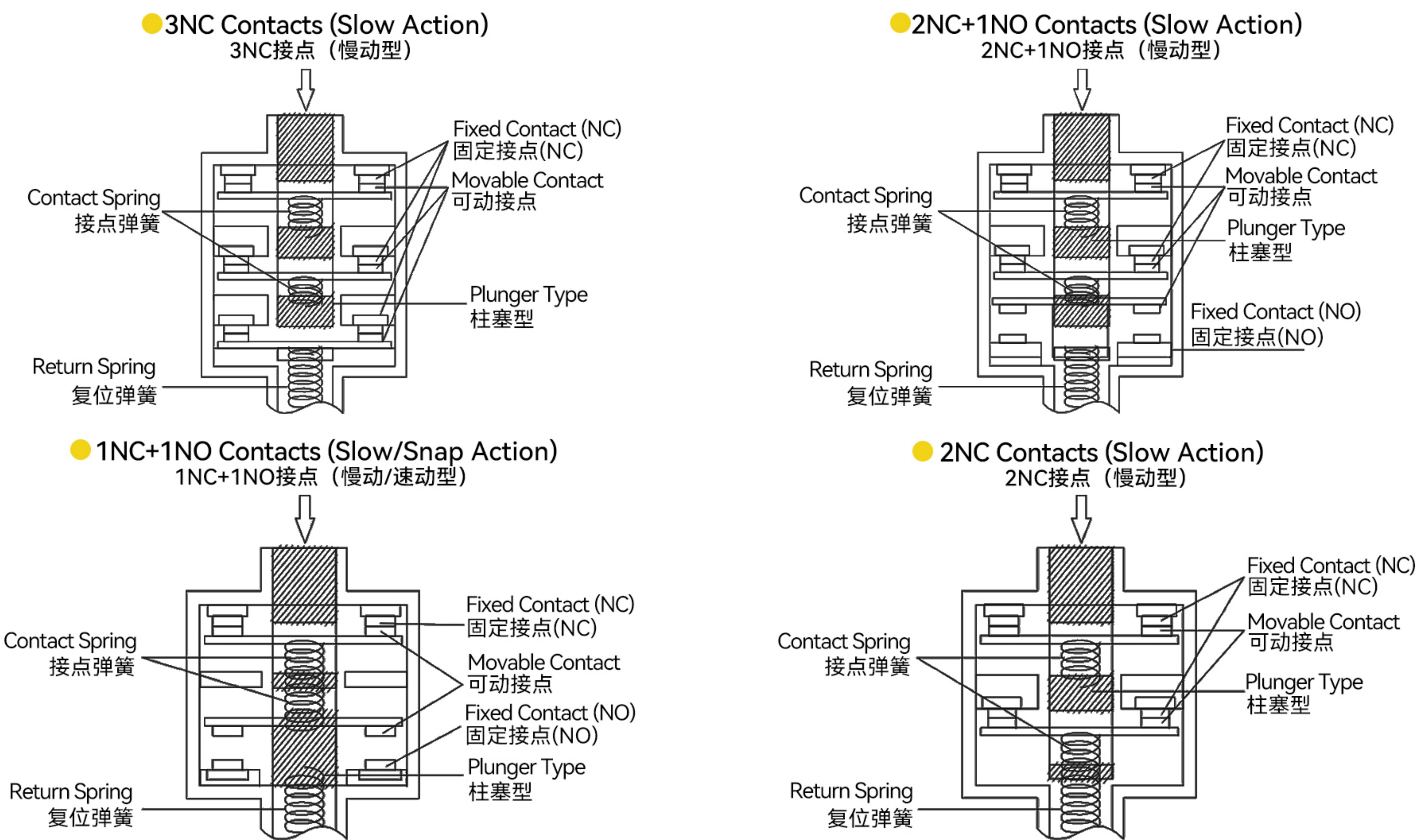
The built-in switch adopts a positive-opening mechanism that forcibly separates the contacts when abnormalities such as contact welding occur on the NC side. (内置开关采用了当NC侧出现接点熔断等异常时，可以强制离开接点的强制断开构造。)

KXN series

PRODUCT FEATURES - KXN SERIES

Protection Rating/保护等级		IP65
Service Life/寿命		> 500000 / AC250V At 3A Resistive Load(电阻负载3A时) > 300000 / AC250V At 10A Resistive Load(电阻负载10A时)
Operating Speed/操作速度		5mm~0.5m/s
Operating Frequency/操作频率		30 operations/min max. （每分钟30次以下）
Contact Resistance/接点电阻		≤ 25mΩ
Minimum Applicable Load/最小适用负载		≤ DC5V / 1mA Resistive Load(电阻负载)
Rated Insulation Voltage/额定绝缘电压（Ui）		300V
Rated Frequency/额定频率		50/60 Hz
Contact Protection Rating/防触点保护等级		Class II / Double Insulation(双重绝缘)
Pollution Degree/污染度(使用环境)		3(EN60947-5-1)
Dielectric Strength/耐电压		Between terminals of the same polarity(同极端子间): 2.5kV Between terminals of different polarity(异极端子间): 4kV Between current-carrying terminals and non-current-carrying metal parts(其他端子与不带电金属部件间): 6kV
Insulation Resistance/绝缘电阻		≥ 100MΩ
Vibration Resistance/耐振动	False Operation/误动作	
Shock Resistance/耐冲击	Durability/耐久	
	False Operation/误动作	
Conditional Short-Circuit Current/条件短路电流		100A(EN60947-5-1)
Rated Thermal Current/额定开放热电流（Ui）		10A(EN60947-5-1)
Ambient Operating Temperature/使用环境温度		-30~70℃ / 无结冰(No icing)
Ambient Operating Humidity/使用环境湿度		≤95% RH

POSITIVE-OPENING MECHANISM - KXN SERIES



*Complies with the mandatory disconnection operation specified in EN 60947-5-1 (the forced separation structure is only available on the NC contact side). If contact welding occurs, the contacts can be separated by depressing the plunger.

*符合EN60947-5-1强制断开操作⊕(仅NC接点侧具有强制断开构造)当发生熔着时，通过按下柱塞可以分离接点。

OPERATING FORCE - KXN SERIES

	类型 TYPE	触点部分 CONTACT BLOCK		操作行程 OPERATING TRAVEL		操作力 OPERATING FORCE		过行程 OVERTRAVEL	总行程 TOTAL TRAVEL
				PT	PT2nd	NC-OF	NO-OF	OT	TT
	KXN-301	1	1NC+1NO Snap Action	1.8		5N		2.9	4.7
		A	1NC+1NO Slow Action 	1.7(NC)	2.8(NO)	8.2N	10.8N	2	4.8
		B	2NC Slow Action 	1.2	1.6	7.8N		3.25	4.85
		C	2NC+1NO Slow Action 	1.2	2.5	8N	10.1N	2.35	4.85
		D	3NC Slow Action 	1.4		8.5N		3.5	4.9
	KXN-302	1	1NC+1NO Snap Action	1.8		5N		4.3	6.1
		A	1NC+1NO Slow Action 	1.6(NC)	2.8(NO)	8N	10.6N	2.7	5.5
		B	2NC Slow Action 	1.2	1.7	7.8N		3.8	5.5
		C	2NC+1NO Slow Action 	1.35	2.6	8N	9.5N	3.1	5.7
		D	3NC Slow Action 	1.4		8N		4.1	5.5
	KXN-312	1	1NC+1NO Snap Action	1.8		5N		4.3	6.1
		A	1NC+1NO Slow Action 	1.6(NC)	2.8(NO)	8N	10.6N	2.7	5.5
		B	2NC Slow Action 	1.2	1.7	7.8N		3.8	5.5
		C	2NC+1NO Slow Action 	1.35	2.6	8N	9.5N	3.1	5.7
		D	3NC Slow Action 	1.4		8N		4.1	5.5
	KXN-601	1	1NC+1NO Snap Action	2.4		3.8N		8	10.4
		A	1NC+1NO Slow Action 	2.2(NC)	3.7(NO)	5.8N	7N	6.8	10.5
		B	2NC Slow Action 	1.7	2.3	5.3N		5.6	7.9
		C	2NC+1NO Slow Action 	2	3.9	5N	6.2N	5.1	9.75
		D	3NC Slow Action 	2		5.6N		7.4	9.4
	KXN-602	1	1NC+1NO Snap Action	2.4		3.8N		8	10.4
		A	1NC+1NO Slow Action 	2.2(NC)	3.7(NO)	5.8N	7N	6.8	10.5
		B	2NC Slow Action 	1.7	2.3	5.3N		5.6	7.9
		C	2NC+1NO Slow Action 	2	3.9	5N	6.2N	5.1	9.75
		D	3NC Slow Action 	2		5.6N		7.4	9.4
	KXN-612	1	1NC+1NO Snap Action	2.4		3.8N		8	10.4
		A	1NC+1NO Slow Action 	2.2(NC)	3.7(NO)	5.8N	7N	6.8	10.5
		B	2NC Slow Action 	1.7	2.3	5.3N		5.6	7.9
		C	2NC+1NO Slow Action 	2	3.9	5N	6.2N	5.1	9.75
		D	3NC Slow Action 	2		5.6N		7.4	9.4

KXN series

OPERATING FORCE - KXN SERIES

	类型 TYPE	触点部分 CONTACT BLOCK		操作行程 OPERATING TRAVEL		操作力 OPERATING FORCE		过行程 OVERTRAVEL	总行程 TOTAL TRAVEL
				PT	PT2nd	NC-OF	NO-OF	OT	TT
	KXN-702	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	5.3N	45°	
		B	2NC Slow Action 	20°	30°	4N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	
	KXN-703	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	4.4N	45°	
		B	2NC Slow Action 	20°	30°	4N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	
	KXN-712	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	5.3N	45°	
		B	2NC Slow Action 	20°	30°	4N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	
	KXN-713	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	4.4N	45°	
		B	2NC Slow Action 	20°	30°	4N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	
	KXN-726	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	4.4N	45°	
		B	2NC Slow Action 	20°	30°	4N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	
	KXN-736	1	1NC+1NO Snap Action	20°		3N		70°	90°
		A	1NC+1NO Slow Action 	15°(NC)	45°(NO)	4N	4.4N	45°	
		B	2NC Slow Action 	20°	30°	4.6N		60°	
		C	2NC+1NO Slow Action 	30°	45°	4.4N	5N	45°	
		D	3NC Slow Action 	15°		3.2N		75°	

KXN series

OPERATING FORCE - KXN SERIES



类型 TYPE	触点部分 CONTACT BLOCK		操作行程 OPERATING TRAVEL		操作力 OPERATING FORCE		过行程 OVERTRAVEL	总行程 TOTAL TRAVEL
			PT	PT2nd	NC-OF	NO-OF	OT	TT
KXN-901	1	1NC+1NO Snap Action	15°		0.6N		10°	25°
	A	1NC+1NO Slow Action 	12°(NC)	18°(NO)	0.8N	1N	25°	30°
	B	2NC Slow Action 	11°	15°	1N		10°	25°
	C	2NC+1NO Slow Action 	8°	18°	0.8N	0.9N	7°	25°
	D	3NC Slow Action 	11°		1N		14°	25°



KXN-902	1	1NC+1NO Snap Action	15°		0.6N		10°	25°
	A	1NC+1NO Slow Action 	12°(NC)	18°(NO)	0.8N	1N	25°	30°
	B	2NC Slow Action 	11°	15°	1N		10°	25°
	C	2NC+1NO Slow Action 	8°	18°	0.8N	0.9N	7°	25°
	D	3NC Slow Action 	11°		1N		14°	25°

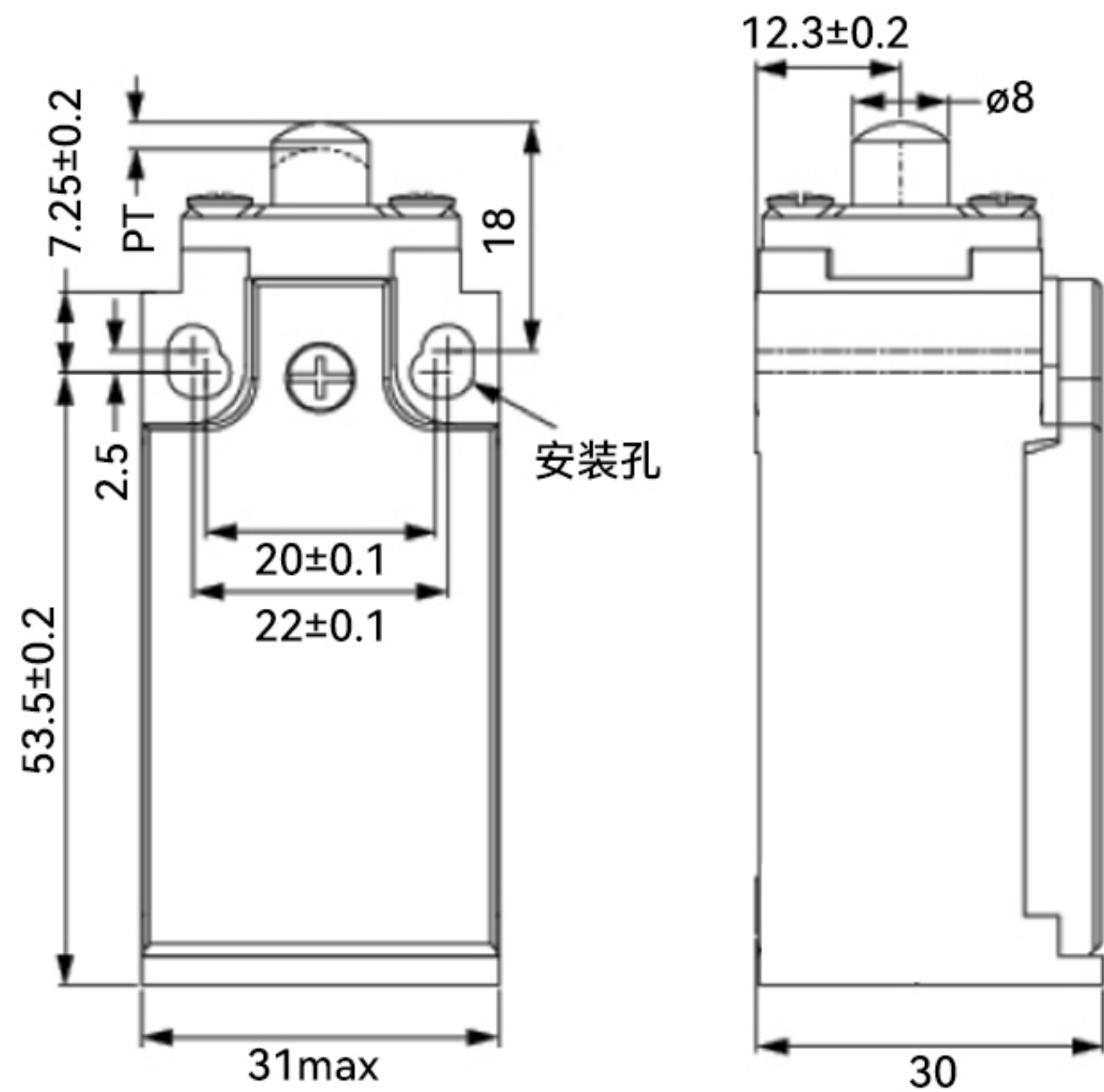


KXN-903	1	1NC+1NO Snap Action	15°		0.6N		10°	25°
	A	1NC+1NO Slow Action 	12°(NC)	18°(NO)	0.8N	1N	25°	30°
	B	2NC Slow Action 	11°	15°	1N		10°	25°
	C	2NC+1NO Slow Action 	8°	18°	0.8N	0.9N	7°	25°
	D	3NC Slow Action 	11°		1N		14°	25°

KXN series

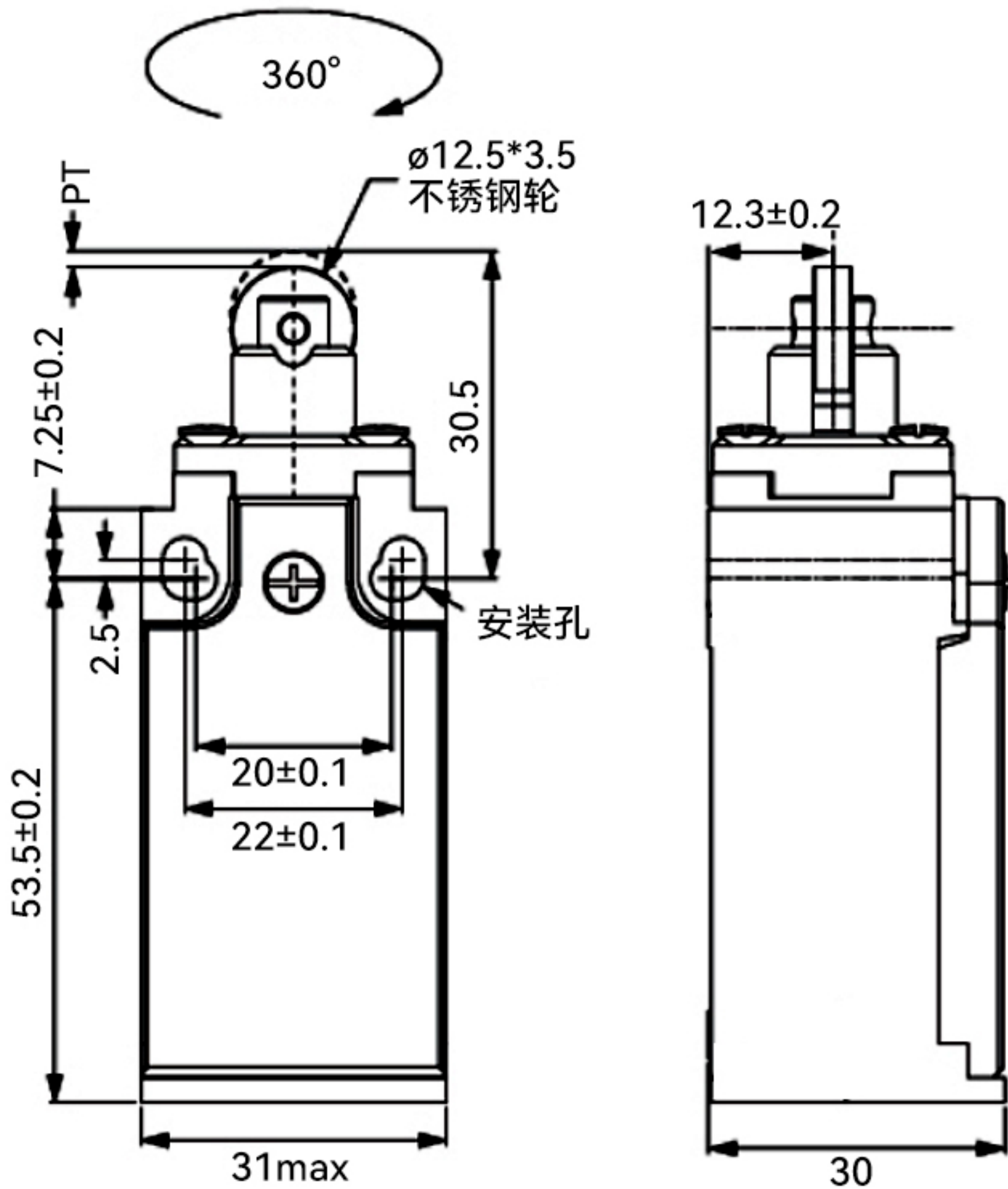
KXN-□301□ Top plunger type（顶部柱塞型）

KXN	-	M	301	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	301: Top plunger type (顶部柱塞型)	1: 1NC+1NO Snap Action(速动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)



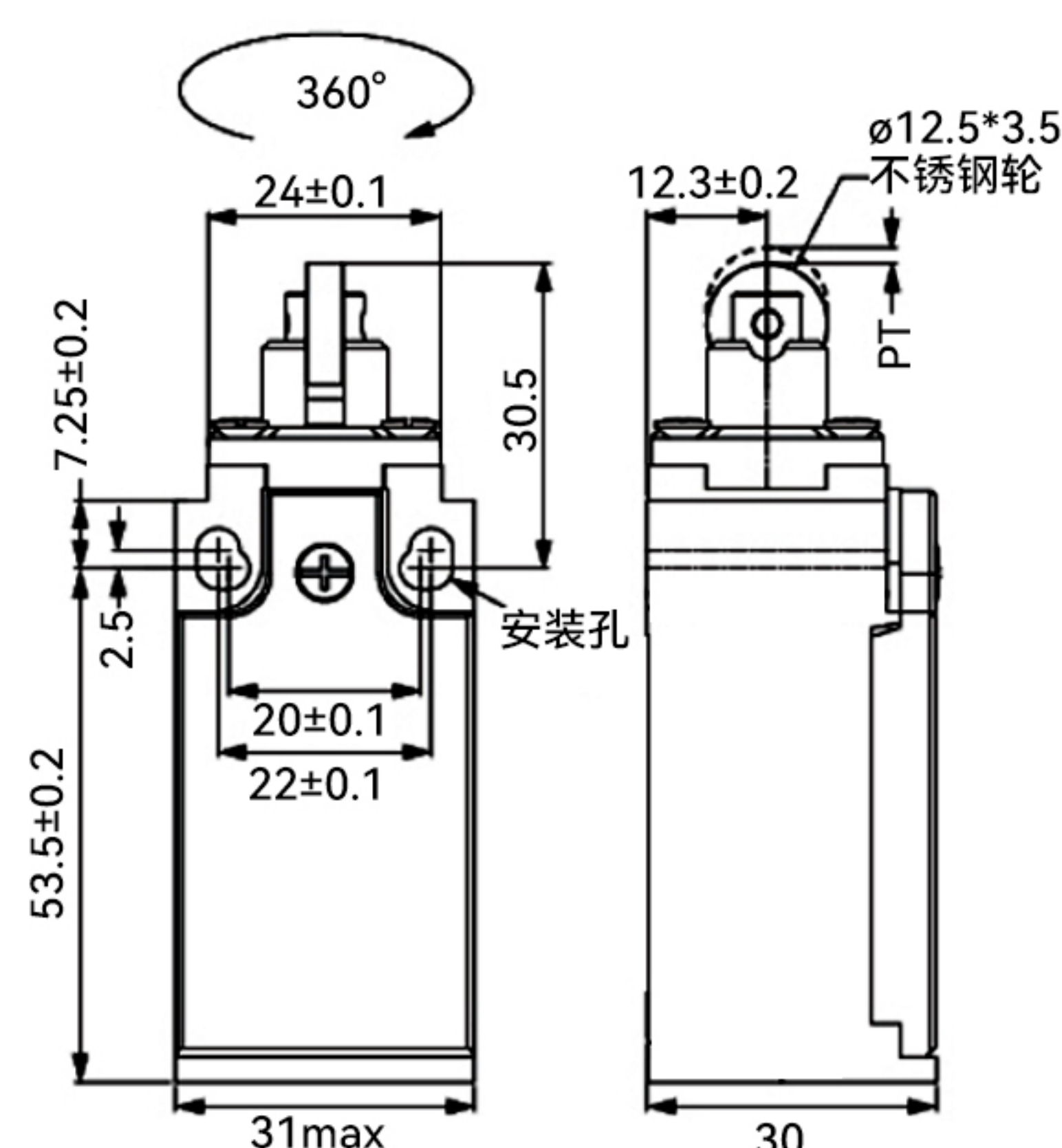
KXN-□302□ Top plunger horizontal roller type（顶部柱塞横向滚轮型）

KXN	-	M	302	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	302: Top plunger horizontal roller type(顶部柱塞横向滚轮型)	1: 1NC+1NO Snap Action(速动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)



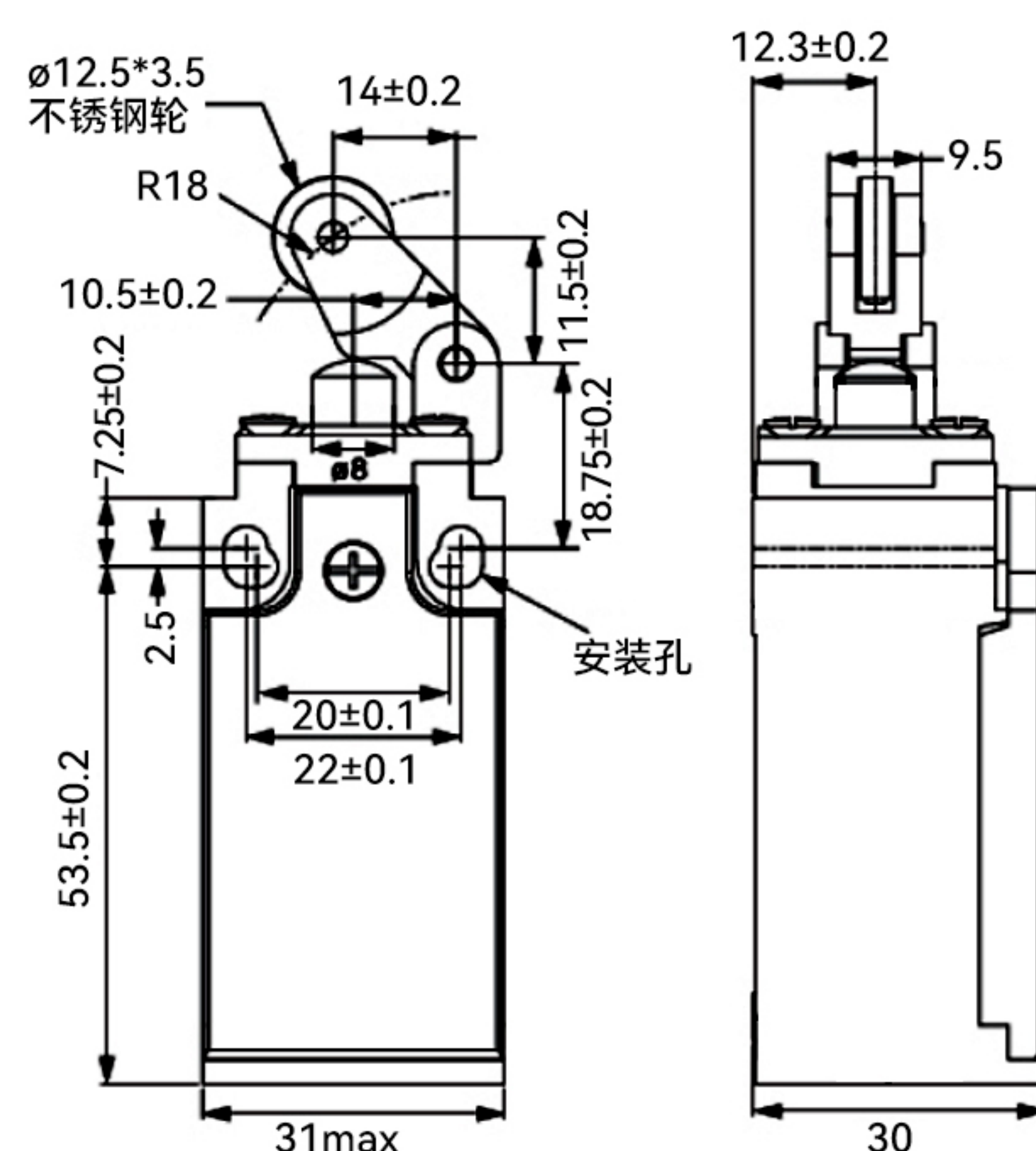
KXN-□312□ Top plunger vertical roller type (顶部柱塞竖向滚轮型)

KXN	-	M	312	1
Serise 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	312: Top plunger vertical roller type(顶部柱塞竖向滚轮型)	1: 1NC+1NO Snap Action(速动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)



KXN-□601□ Right cantilever roller type (右侧悬臂滚轮型)

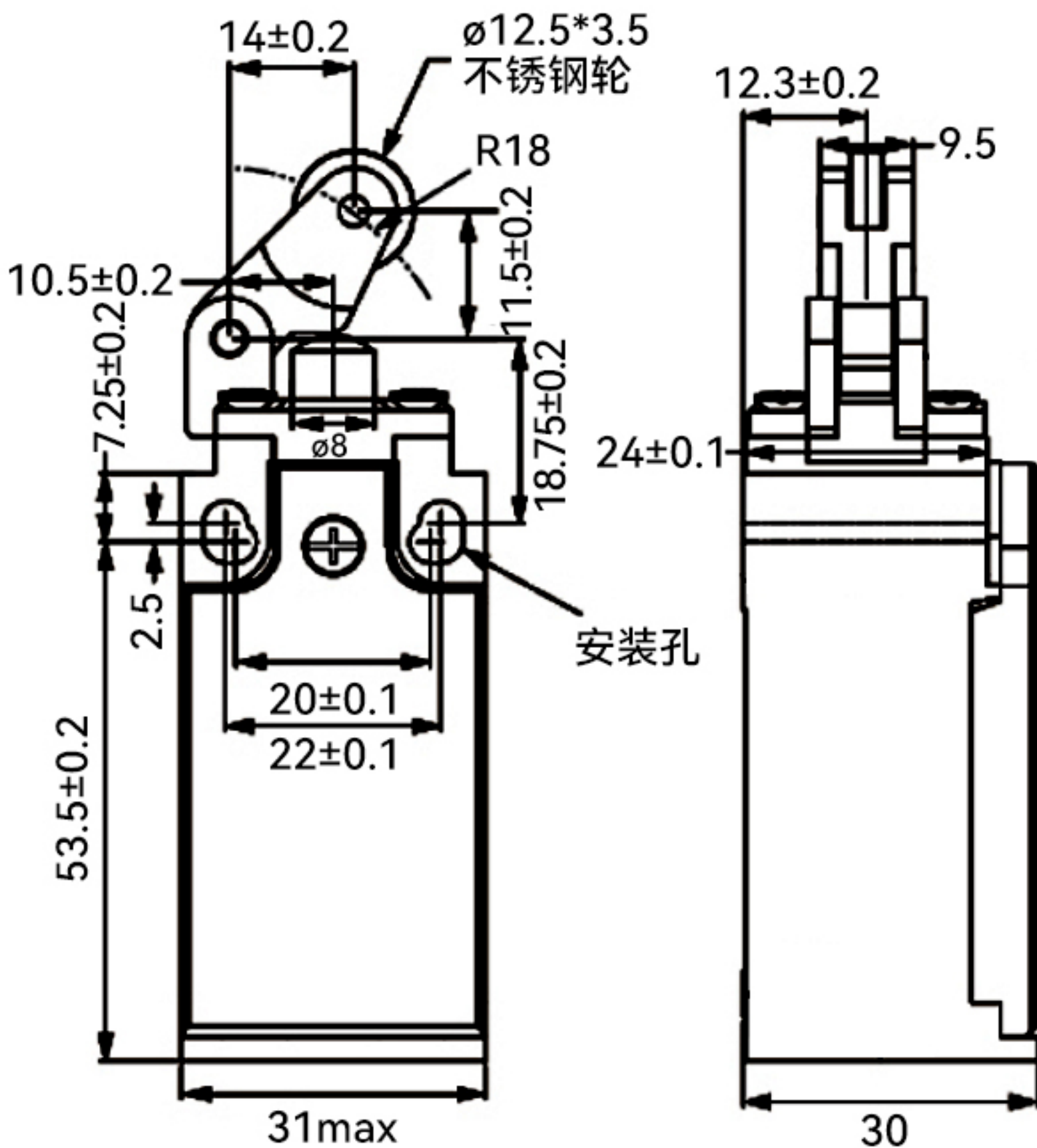
KXN	-	M	601	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T :PG13.5 M :M20(导管型)	601 : Right cantilever roller type(右侧悬臂滚轮型)	1 : 1NC+1NO Snap Action(速动型) A : 1NC+1NO Slow Action(慢动型) B : 2NC Slow Action(慢动型) C : 2NC+1NO Slow Action(慢动型) D : 3NC Slow Action(慢动型)



KXN series

KXN-□602□ Left cantilever roller type（左侧悬臂滚轮型）

KXN	-	M	602	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	602: Left cantilever roller type(左侧悬臂滚轮型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)

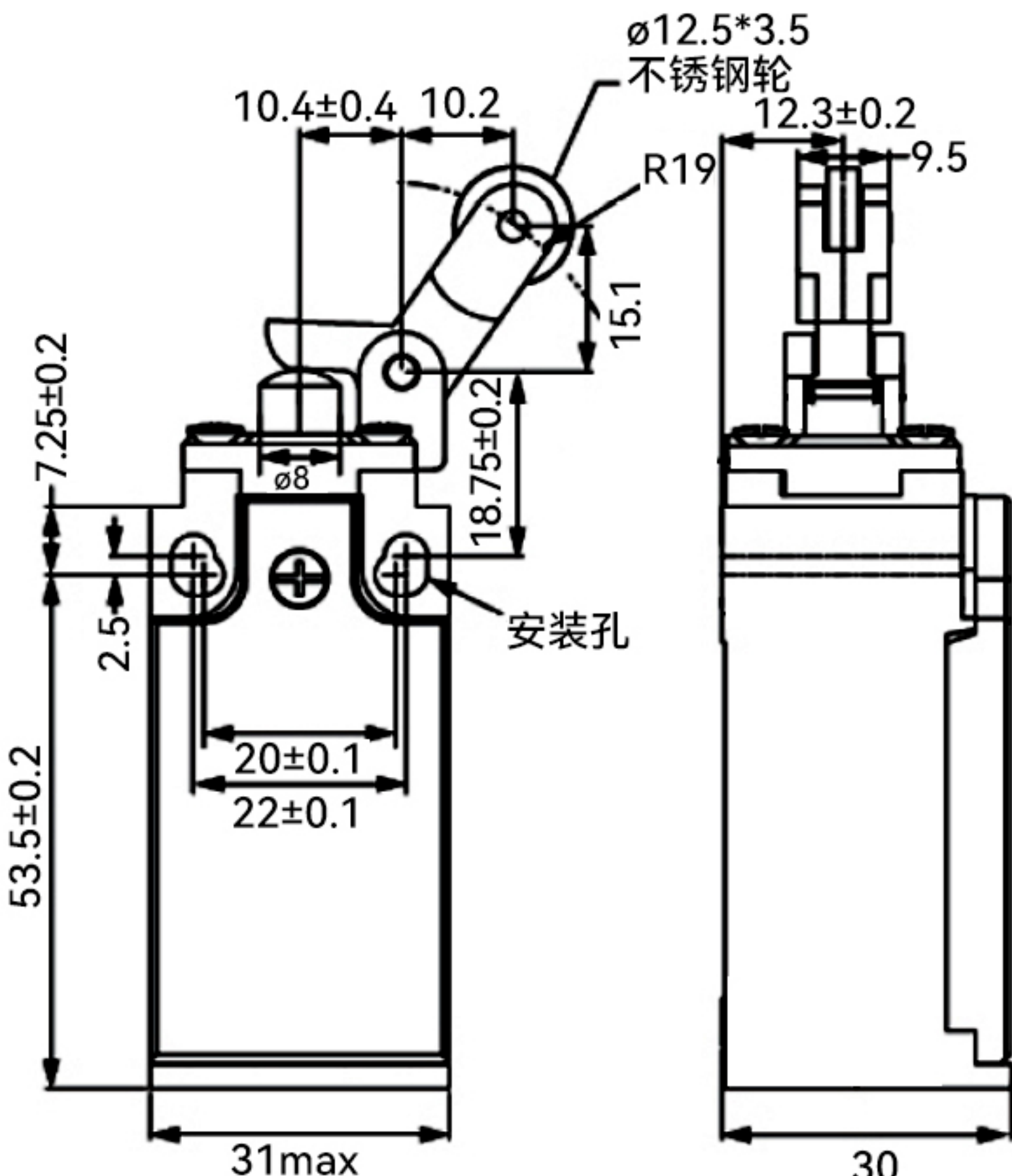


Technical drawing dimensions for KXN-M6021:

- Front view: 14±0.2, 10.5±0.2, 7.25±0.2, 2.5, 53.5±0.2, 20±0.1, 22±0.1, 31max, 11.5±0.2, 18.75±0.2, 24±0.1, 9.5, 12.3±0.2, 30, 12.5*3.5 不锈钢轮, R18, 安装孔.
- Side view: 12.3±0.2, 9.5, 30.

KXN-□612□ Right swing arm roller type（右侧摆臂滚轮型）

KXN	-	M	612	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	612: Right swing arm roller type(右侧摆臂滚轮型)	1: 1NC+1NO Snap Action(速动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)



Technical drawing dimensions for KXN-M6121:

- Front view: 10.4±0.4, 10.2, 7.25±0.2, 2.5, 53.5±0.2, 20±0.1, 22±0.1, 31max, 18.75±0.2, 15.1, 12.3±0.2, 9.5, 12.5*3.5 不锈钢轮, R19, 安装孔.
- Side view: 12.3±0.2, 9.5, 30.

KXN

M

702

1

Serise
系列

Conduit size
导管尺寸

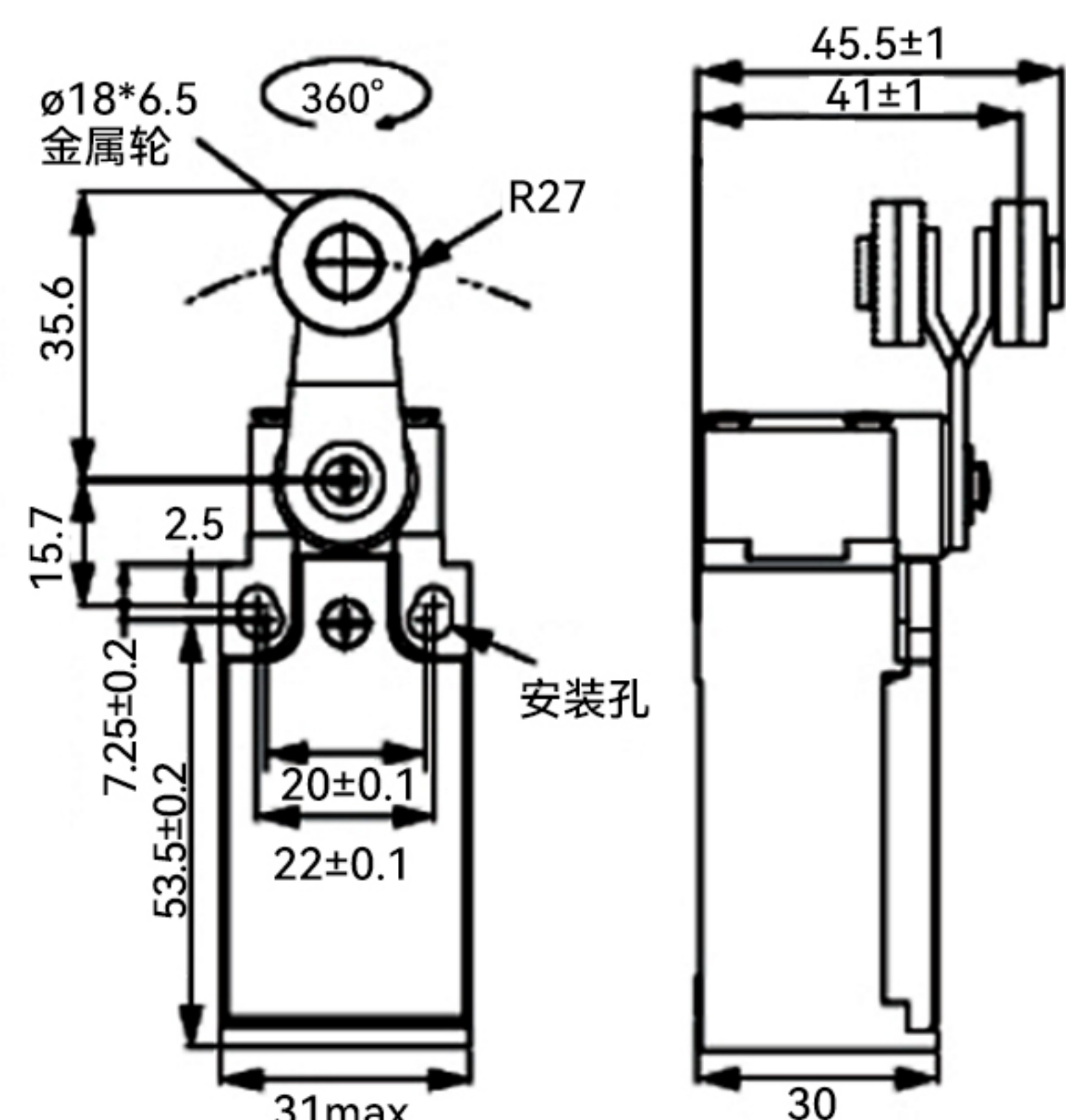
Operation type
操作类型

Contact form
触点形式

T:PG13.5
M:M20(导管型)

702: Metal roller lever type
(滚轮摆杆型)

1: 1NC+1NO Snap Action(瞬动型)
A: 1NC+1NO Slow Action(慢动型)
B: 2NC Slow Action(慢动型)
C: 2NC+1NO Slow Action(慢动型)
D: 3NC Slow Action(慢动型)



KXN

■

M

703

1

Serise
系列

Conduit size
导管尺寸

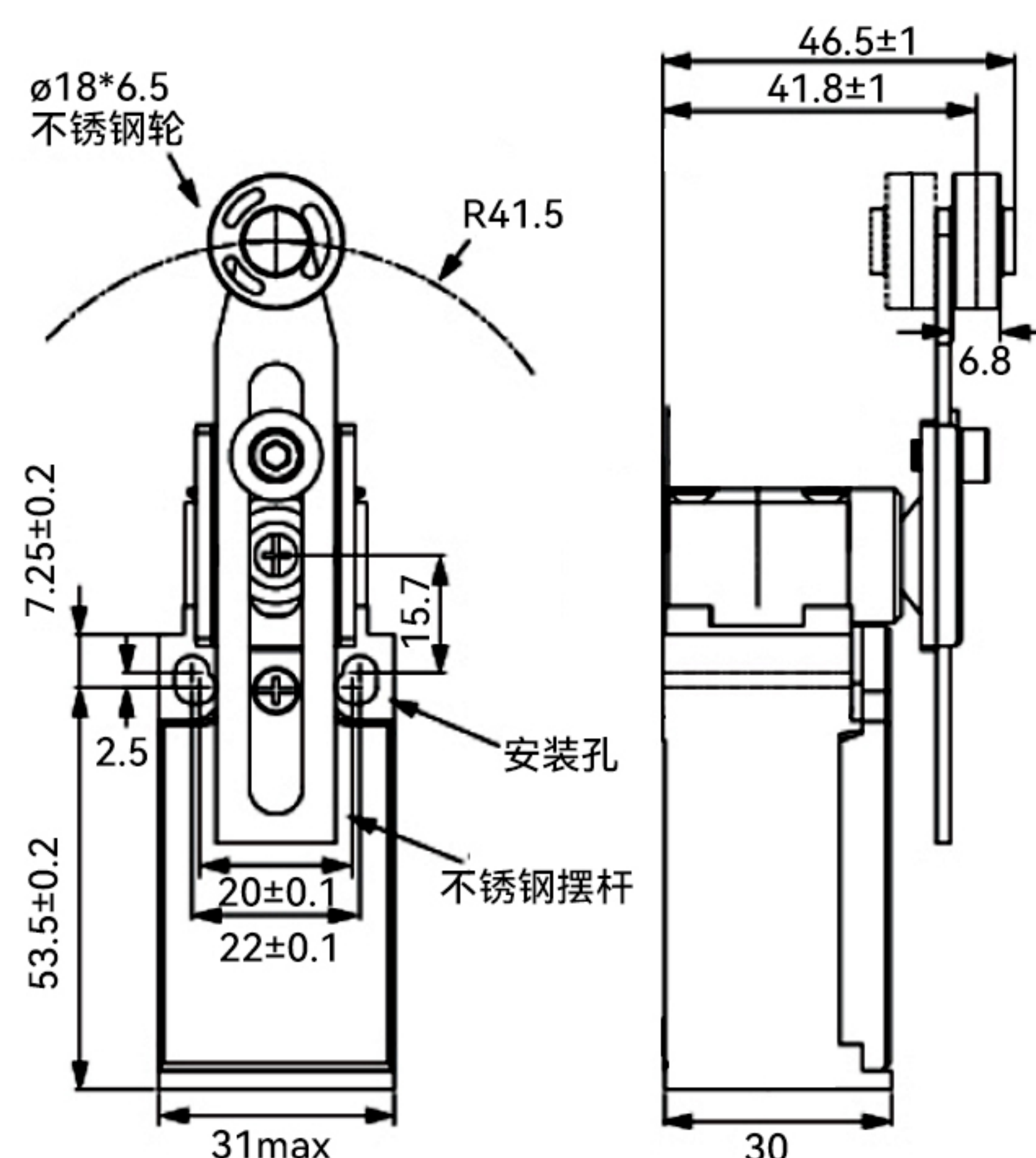
Operation type
操作类型

Contact form
触点形式

T:PG13.5
M:M20(导管型)

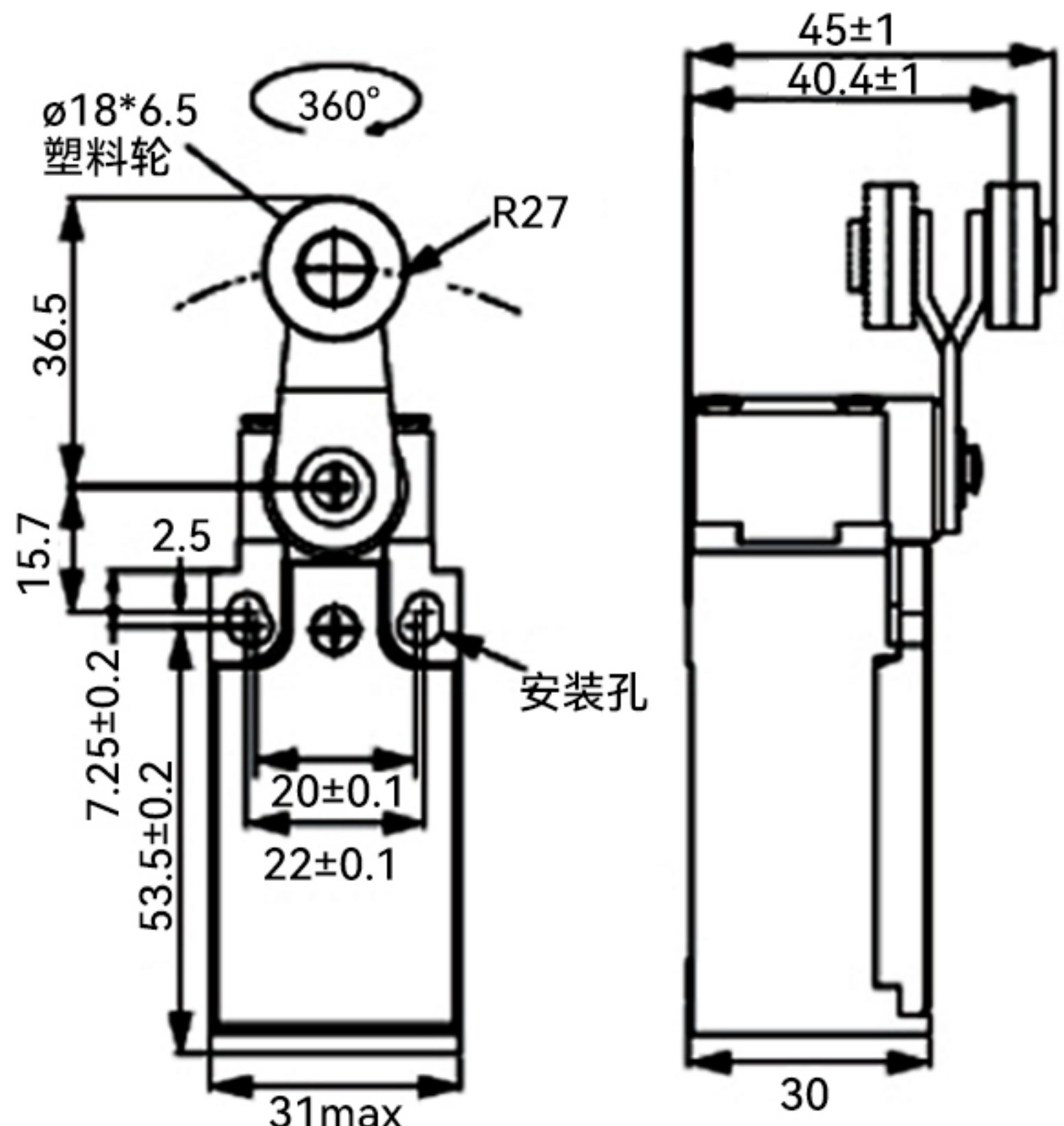
703: Adjustable metal roller lever type(可调滚轮摆杆型)

1: 1NC+1NO Snap Action(瞬动型)
A: 1NC+1NO Slow Action(慢动型)
B: 2NC Slow Action(慢动型)
C: 2NC+1NO Slow Action(慢动型)
D: 3NC Slow Action(慢动型)

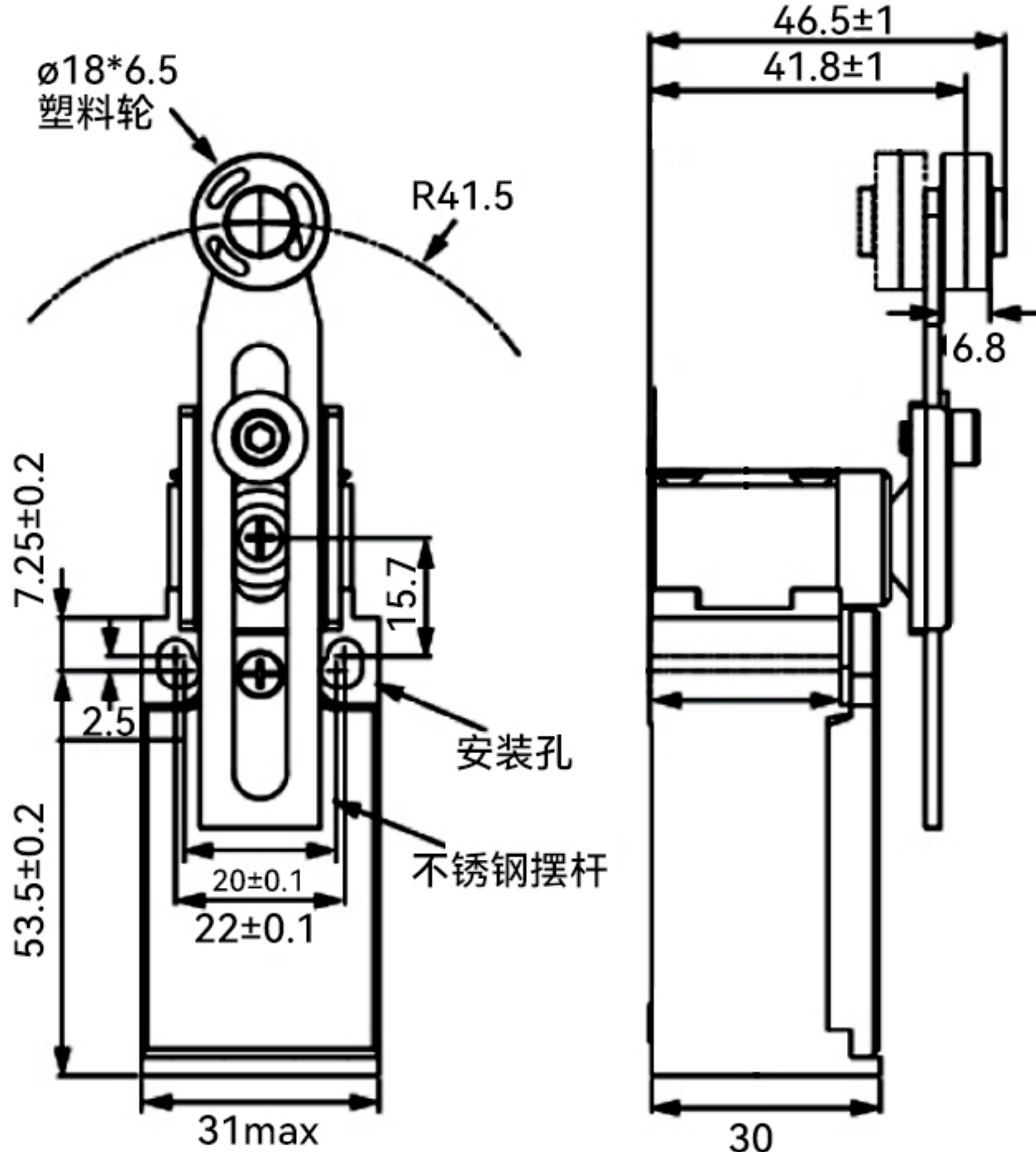


KXN series

KXN-□712□ Plastic roller lever type（塑料滚轮摆杆型）

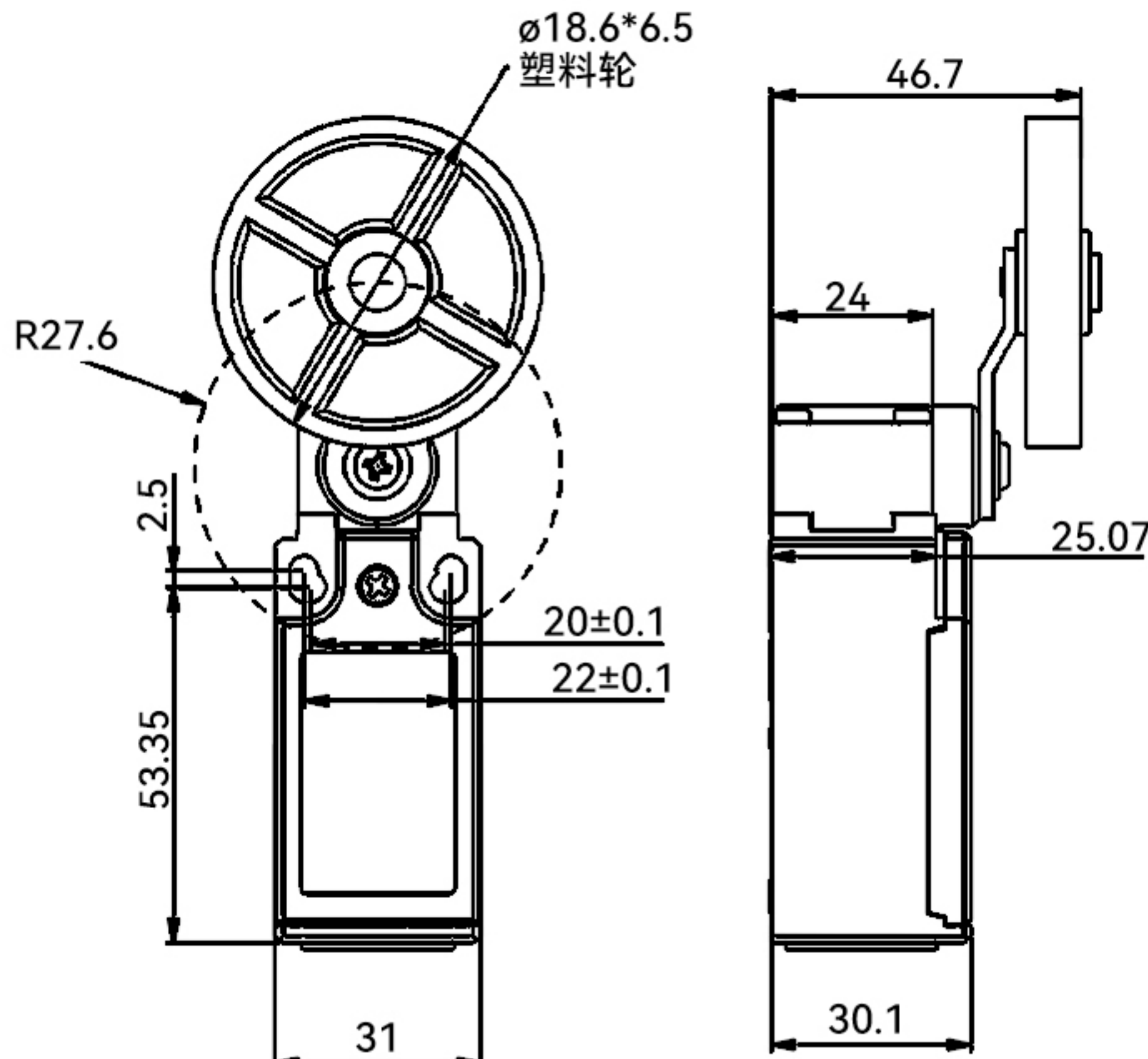
KXN	-	M	712	1
Serise 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	712: Plastic roller lever type (塑料滚轮摆杆型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)
				

KXN-□713□ Adjustable plastic roller lever type（可调塑料滚轮摆杆型）

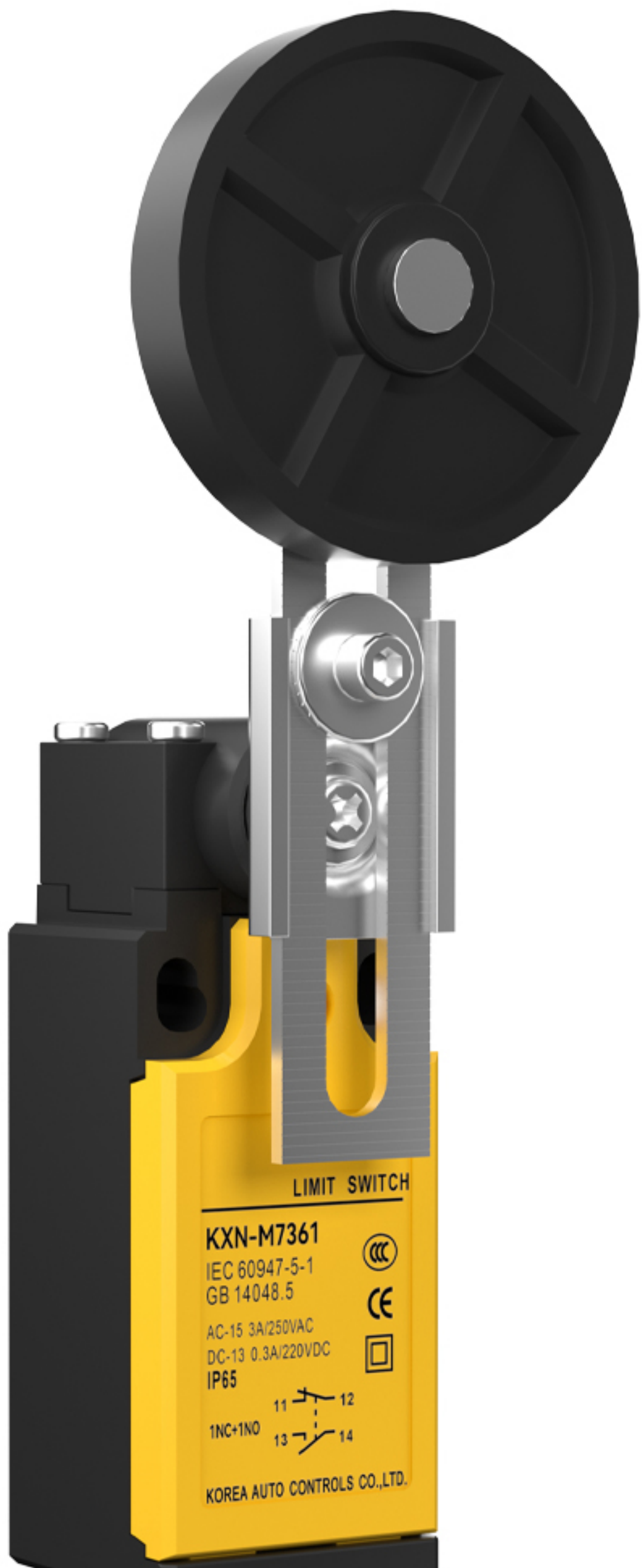
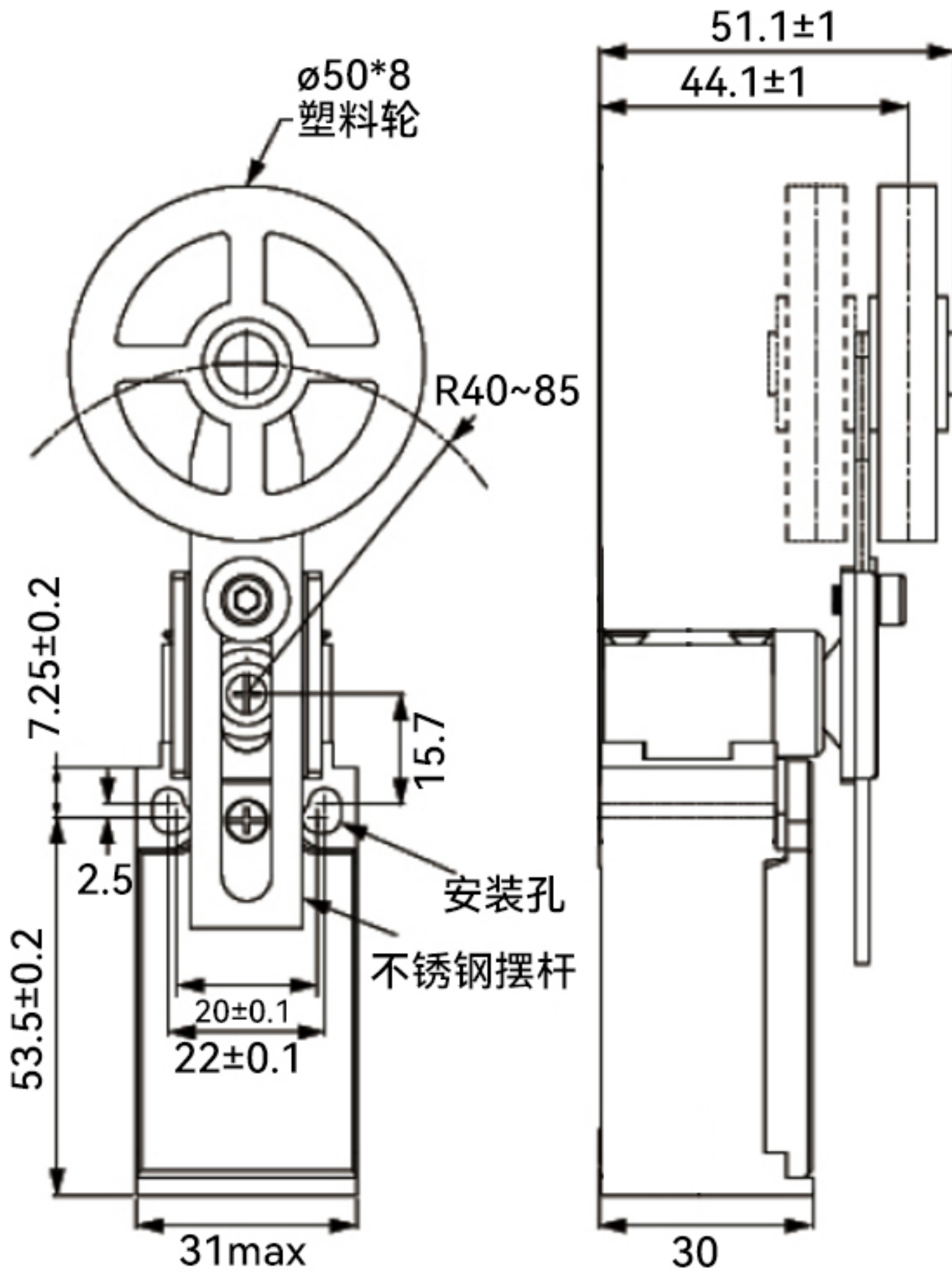
KXN	-	M	713	1
Serise 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T:PG13.5 M:M20(导管型)	713: Adjustable plastic roller lever type(顶部柱塞横向滚轮型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)
				

KXN series

KXN-□726□ Adjustable plastic large roller lever type (塑料大滚轮摆杆型)

KXN	-	M	726	1
Serise 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T: PG13.5 M: M20(导管型)	726: Adjustable plastic large roller lever type(可调塑料大滚轮摆杆型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)
				

KXN-□736□ Adjustable Plastic Large Roller Lever (可调塑料大滚轮摆杆型)

KXN	-	M	736	1
Series 系列		Conduit size 导管尺寸	Operation type 操作类型	Contact form 触点形式
		T: PG13.5 M: M20(导管型)	736: Adjustable Plastic Large Roller Lever(可调塑料大滚轮摆杆型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)
				

KXN series

KXN-□901□ Spring rod type (彈簧棒型)



KXN	M	902	1
Serise 系列	Conduit size 導管尺寸	Operation type 操作类型	Contact form 触点形式
	T:PG13.5 M:M20(導管型)	901: Spring rod type (彈簧棒型)	1: 1NC+1NO Snap Action(瞬動型) A: 1NC+1NO Slow Action(慢動型) B: 2NC Slow Action(慢動型) C: 2NC+1NO Slow Action(慢動型) D: 3NC Slow Action(慢動型)

KXN-□902□ Spring plunger type (彈簧針棒型)

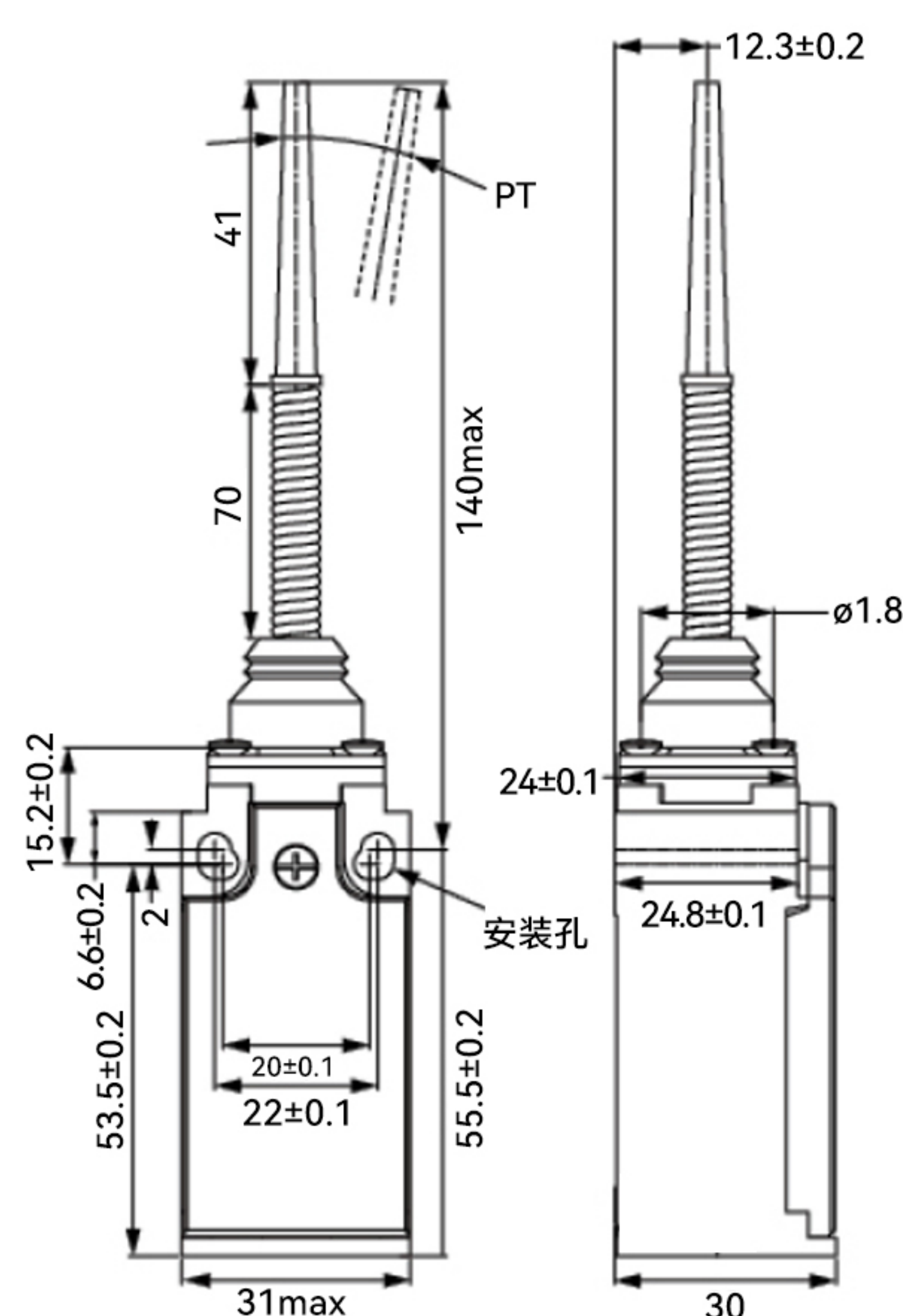


KXN	M	902	1
Serise 系列	Conduit size 導管尺寸	Operation type 操作类型	Contact form 触点形式
	T:PG13.5 M:M20(導管型)	902: Spring plunger type (彈簧針棒型)	1: 1NC+1NO Snap Action(瞬動型) A: 1NC+1NO Slow Action(慢動型) B: 2NC Slow Action(慢動型) C: 2NC+1NO Slow Action(慢動型) D: 3NC Slow Action(慢動型)

KXN-□903□ Spring plastic rod type (彈簧塑料棒型)



KXN	M	903	1
Serise 系列	Conduit size 導管尺寸	Operation type 操作类型	Contact form 触点形式
	T:PG13.5 M:M20(导管型)	903: Spring plastic rod type (彈簧塑料棒型)	1: 1NC+1NO Snap Action(瞬动型) A: 1NC+1NO Slow Action(慢动型) B: 2NC Slow Action(慢动型) C: 2NC+1NO Slow Action(慢动型) D: 3NC Slow Action(慢动型)



PRECAUTIONS - KXN SERIES

⚠ WARNING /注意

**ELECTRIC SHOCK MAY OCCUR UNDER CERTAIN CIRCUMSTANCES.
DO NOT USE METAL CONNECTORS OR METAL CONDUITS.**

有时可能会出现触电现象。请勿使用金属连接器或金属导管。



SAFETY PRECAUTIONS/安全注意事项

- Do not use this switch in oil, water, or environments susceptible to oil and water exposure. Otherwise, oil or water may seep into the switch interior.
- Always fit the outer cover after wiring and before operating the switch. Furthermore, never switch on the power supply with the outer cover open, as this may cause electric shock.
- Do not switch two or more standard load circuits (AC250V, 3A) simultaneously. Failure to comply may degrade insulation performance.
- 请勿在油中、水中，或易受油、水影响的环境中使用本开关。否则可能会导致油或水浸入开关内部。
- 在完成接线后以及使用开关前，请务必安装外盖。此外，请勿在外盖打开的情况下接通开关电源。否则可能导致触电。
- 请勿同时进行2个或2个以上的标准负载（AC250V，3A）电路的开关。否则可能导致绝缘功能下降。

USAGE PRECAUTIONS/使用注意事项

The switch contacts support standard loads or micro-loads. However, once the contacts are used to switch a certain load, they cannot be reused for switching lighter loads. After operation, the contact surfaces may become rough, which will impair the contact reliability under micro-load conditions.

开关节点可用于标准负载或微小负载。然而，一旦将接点用于开关一个负载，将不能用于开关更小的负载。因为接点表面在使用后可能会变得粗糙而导致小负载的接触可靠性降低。