

CABLE PULL SAFETY SWITCHES (Two - Way Actuation)

2-way cable pull switches are designed to avert hazards (dangerous situation) at the earliest possible moment, or to reduce existing risks which could cause injury to persons or damage to either machines or to work in progress. The switch works in two directions. 1) tripped in the event of the trip wire breaking; 2) tripped with the trip wire is pulled.

Application examples: woodworking machines, cutting presses, conveyor systems, transfer machines, printing and textile machines, rolling mills etc.

Features

- Positive Opening of NC contacts
- Screw terminals with self-lifting clamps for easy wiring
- Latch/Reset function
- Galvanically separated contacts
- Custom pull force for different applications

Specifications

Operating Speed	0.05mm-0.5m/sec
Operating Frequency	Mechanical: 120ops/min Electrical: 30 ops/min
Insulation Resistance	>100MΩ@500V DC
Contact Resistance	<25mΩ (initial value)
Rated Current/Voltage	10A/600V AC (EN60947-5-1) AC15 A600 / DC13 Q300
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
Service Life	Mechanically 1.0 x10 ⁷ (operations) Electrically 5 x10 ⁵ (operations)
Operating Temperature	-25~+80°C (-13~176°F)
Humidity	< 95%RH
Degree of Protection	IP65/IP67

Selection Guide:

SN6170

- Body Style
- SND4170 Small plastic, 1 conduit
 - SND2170 plastic, 2 conduits
 - SND6170 Large plastic, 1 conduit
 - SN6271 Large metal, 1 conduit

SL

- Contact Block
- SL: 1NO/1NC Slow Action changeover
 - SL1: 1NO/1NC Slow Action Overlapping
 - SL2: 2NC Slow Action
 - SL7: 2NC/1NO Slow Action Overlapping

C

- Conduits
- A: 1/2"NPT
 - B: PG13.5
 - C: M20
 - D: M16
 - B1: PG11

- L

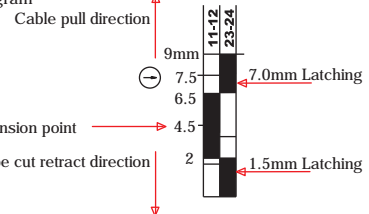
(70N)

- Optional (pull force at starting point)
- force in Newton

R

- Lock/Reset function
- Blank
 - R: with Reset function

Example diagram



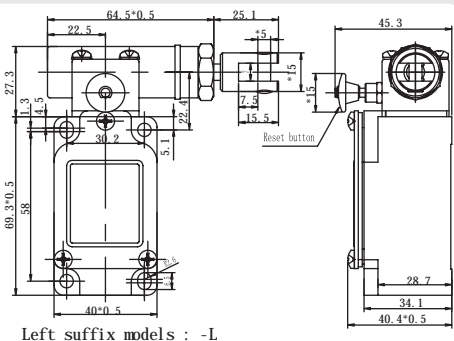
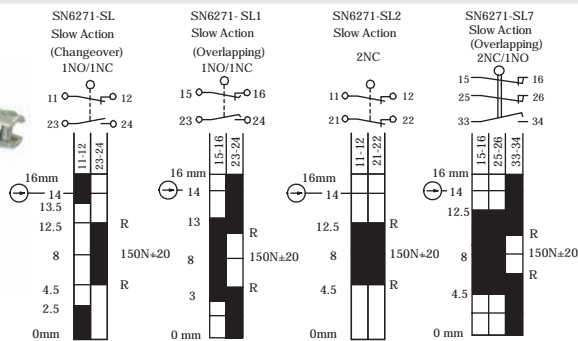
Explanation of Travel Diagram

Definitions of Operating Characteristics

- | | | | |
|----|-----------------|----|----------------------------|
| OF | Operating Force | PT | Pretravel |
| RF | Releasing Force | MD | Movement Differential |
| OT | Overtravel | OP | Operating Position |
| TT | Total Travel | PO | Travel to Positive Opening |



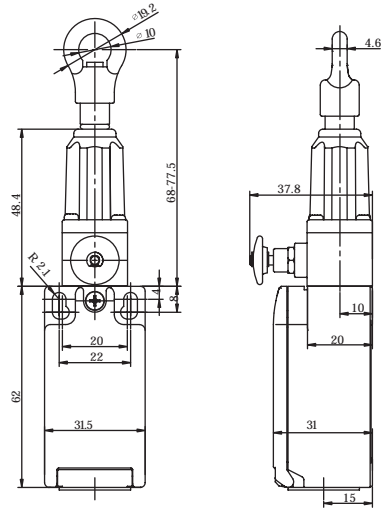
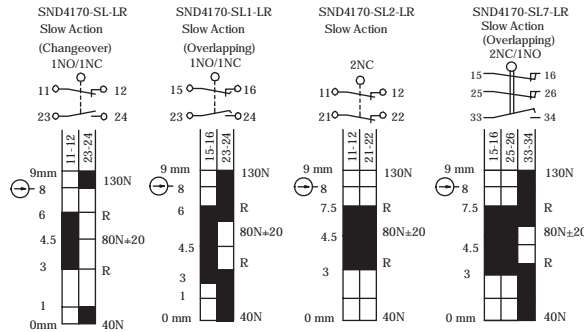
SN6271



Order Code	Contact block	Symbol	Operating Characteristics	Suffix
SN6271-SL-R	SL	⊕	slow action	1NO+1NC BBM
SN6271-SL1-R	SL1	⊕	slow action	1NO+1NC MBB
SN6271-SL2-R	SL2	⊕	slow action	2NC
SN6271-SL7-R	SL7	⊕	slow action	2NC+1NO

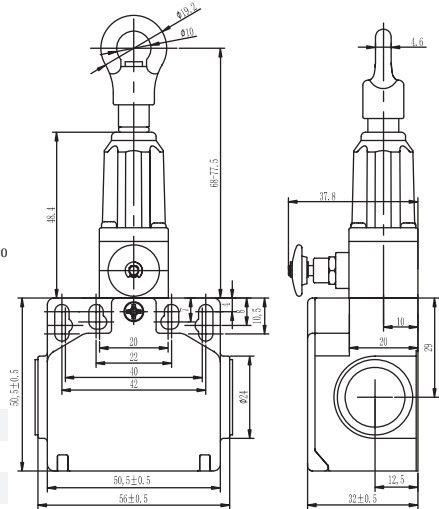
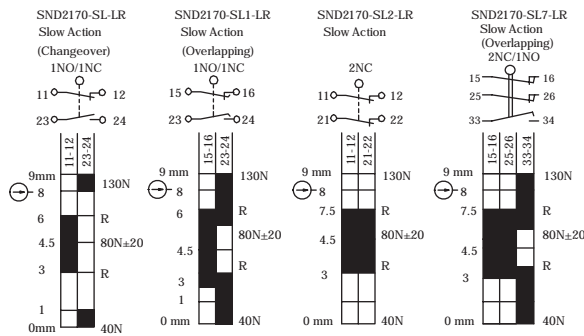
CABLE PULL SAFETY SWITCHES (Two - Way Actuation)

SND4170-LR



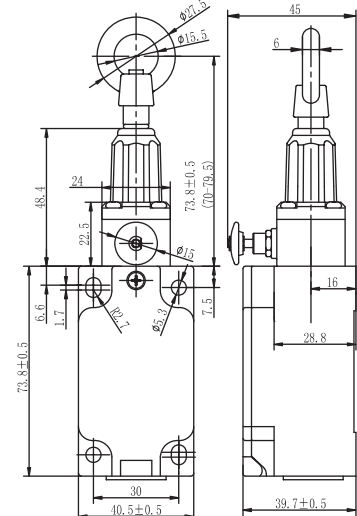
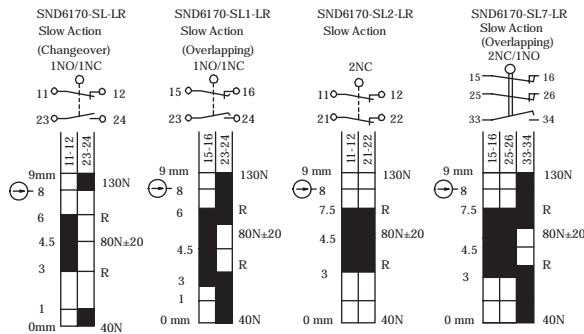
Order Code	Contact block			
SND4170-SL-LR	SL		slow action	1NO+1NC BBM
SND4170-SL1-LR	SL1		slow action	1NO+1NC MBB
SND4170-SL2-LR	SL2		slow action	2NC
SND4170-SL7-LR	SL7		slow action	2NC+1NO

SND2170-LR



Order Code	Contact block			
SND2170-SL-LR	SL		slow action	1NO+1NC BBM
SND2170-SL1-LR	SL1		slow action	1NO+1NC MBB
SND2170-SL2-LR	SL2		slow action	2NC
SND2170-SL7-LR	SL7		slow action	2NC+1NO

SND6170-LR



Order Code	Contact block			
SND6170-SL-LR	SL		slow action	1NO+1NC BBM
SND6170-SL1-LR	SL1		slow action	1NO+1NC MBB
SND6170-SL2-LR	SL2		slow action	2NC
SND6170-SL7-LR	SL7		slow action	2NC+1NO

CABLE PULL SAFETY SWITCHES (One - Way Actuation)

Features

- Galvanically separated contacts
- Screw terminals with self-lifting clamps for easy wiring
- Positive Opening of NC contacts

Definitions of Operating Characteristics

- OF Operating Force
- RF Releasing Force
- OT Overtravel
- TT Total Travel
- PT Pretravel
- MD Movement Differential
- OP Operating Position
- PO Travel to Positive Opening



Specifications

Operating Speed	0.05mm-0.5m/sec
Operating Frequency	Mechanical: 120ops/min Electrical: 30 ops/min
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Contact Resistance	<25mΩ (initial value)
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	AC15 A600 / DC13 Q300
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Degree of Protection	IP65/IP67

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 - SN2170 Metal, 2 conduits
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- Contact Block
 - SL: 1NO/1NC Slow Action changeover
 - SL1: 1NO/1NC Slow Action Overlapping
 - SL2: 2NC Slow Action
 - SL7: 2NC/1NO Slow Action Overlapping

C

- Conduits
 - A: 1/2"NPT
 - B: PG13.5
 - C: M20
 - D: M16
 - B1: PG11

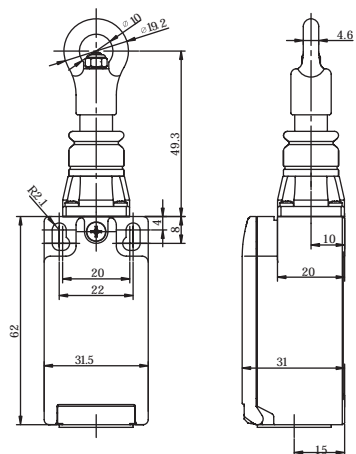
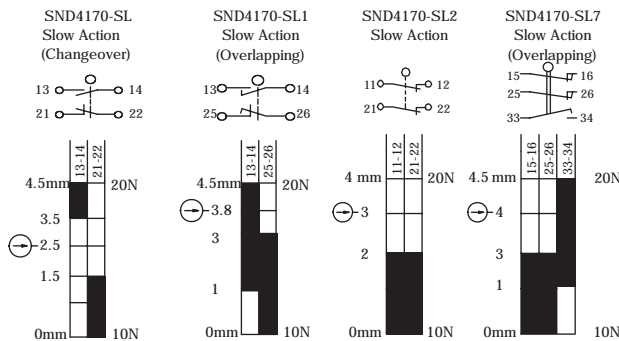
(70N)

- Optional (pull force at starting point)
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R

- Lock/Reset function
 - Blank
 - R: with Reset function

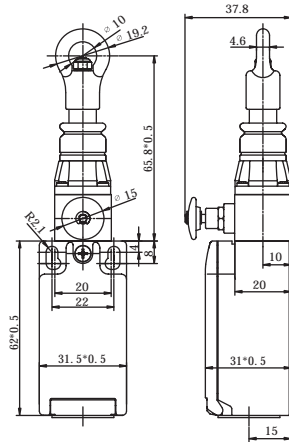
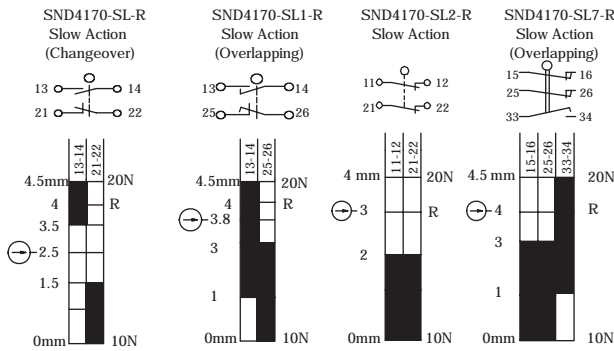
SND4170



Order Code	Contact block			
SND4170-SL- _	SL	⊕	slow action	1NO+1NC BBM
SND4170-SL1- _	SL1	⊕	slow action	1NO+1NC MBB
SND4170-SL2- _	SL2	⊕	slow action	2NC
SND4170-SL7- _	SL7	⊕	slow action	2NC+1NO

CABLE PULL SAFETY SWITCHES (One - Way Actuation)

SND4170-R

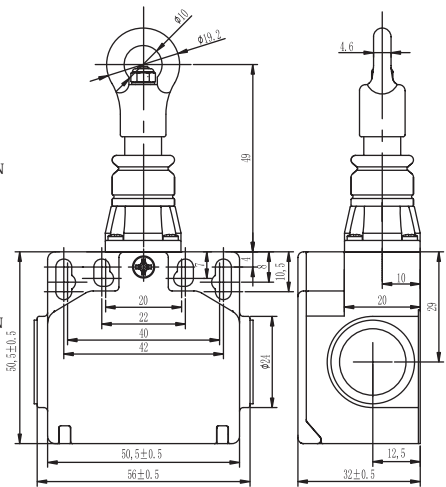
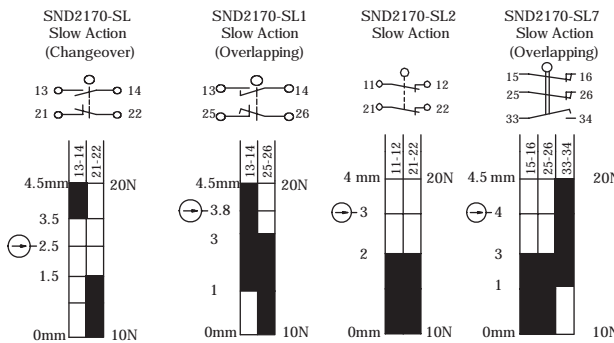


Order Code

Contact block

SND4170-SL- _R	SL		slow action	1NO+1NC	BBM
SND4170-SL1- _R	SL1		slow action	1NO+1NC	MBB
SND4170-SL2- _R	SL2		slow action	2NC	
SND4170-SL7- _R	SL7		slow action	2NC+1NO	

SND2170

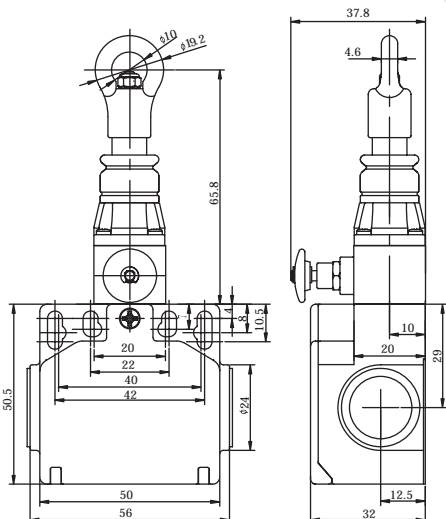
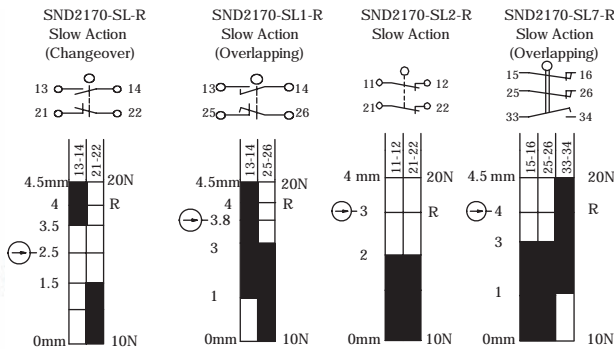


Order Code

Contact block

SND2170-SL- _	SL		slow action	1NO+1NC	BBM
SND2170-SL1- _	SL1		slow action	1NO+1NC	MBB
SND2170-SL2- _	SL2		slow action	2NC	
SND2170-SL7- _	SL7		slow action	2NC+1NO	

SND2170-R



Order Code

Contact block

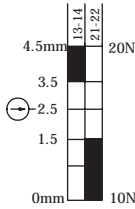
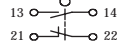
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SND2170-SL1- _R	SL1		slow action	1NO+1NC	MBB
SND2170-SL2- _R	SL2		slow action	2NC	
SND2170-SL7- _R	SL7		slow action	2NC+1NO	

CABLE PULL SAFETY SWITCHES (One - Way Actuation)

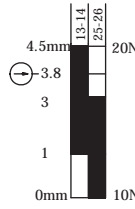
SN4170



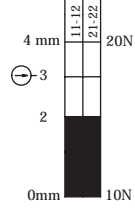
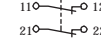
SN4170-SL
Slow Action
(Changeover)



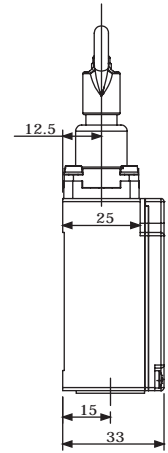
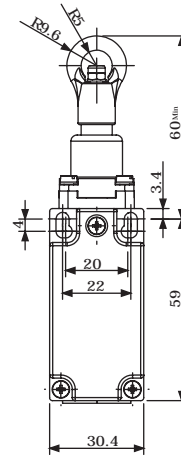
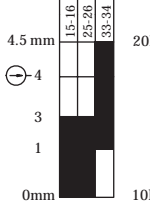
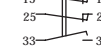
SN4170-SL1
Slow Action
(Overlapping)



SN4170-SL2
Slow Action



SN4170-SL7
Slow Action
(Overlapping)



Order Code

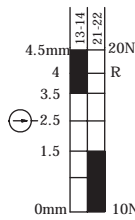
Contact block

SN4170-SL- _	SL		slow action	1NO+1NC	BBM
SN4170-SL1- _	SL1		slow action	1NO+1NC	MBB
SN4170-SL2- _	SL2		slow action	2NC	
SN4170-SL7- _	SL7		slow action	2NC+1NO	

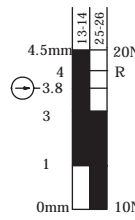
SN4170-R



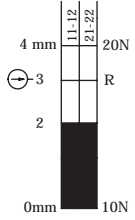
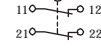
SN4170-SL-R
Slow Action
(Changeover)



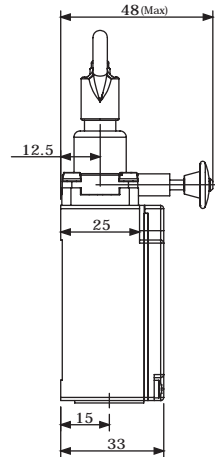
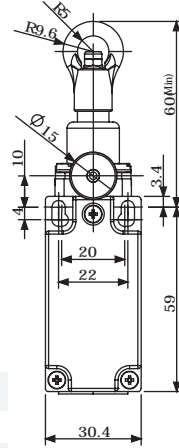
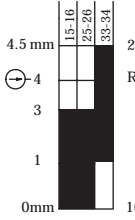
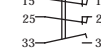
SN4170-SL1-R
Slow Action
(Overlapping)



SN4170-SL2-R
Slow Action



SN4170-SL7-R
Slow Action
(Overlapping)



Order Code

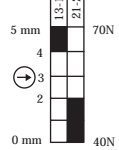
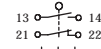
Contact block

SN4170-SL- _R	SL		slow action	1NO+1NC	BBM
SN4170-SL1- _R	SL1		slow action	1NO+1NC	MBB
SN4170-SL2- _R	SL2		slow action	2NC	
SN4170-SL7- _R	SL7		slow action	2NC+1NO	

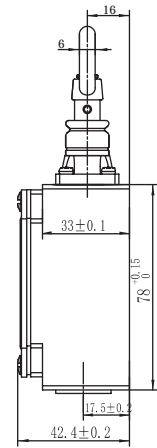
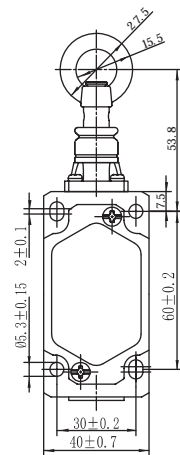
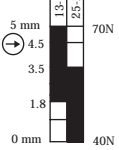
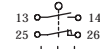
SN6170



SN6170-SL
Slow Action
(Changeover)
1NO/1NC



SN6170-SL1
Slow Action
(Overlapping)
1NO/1NC



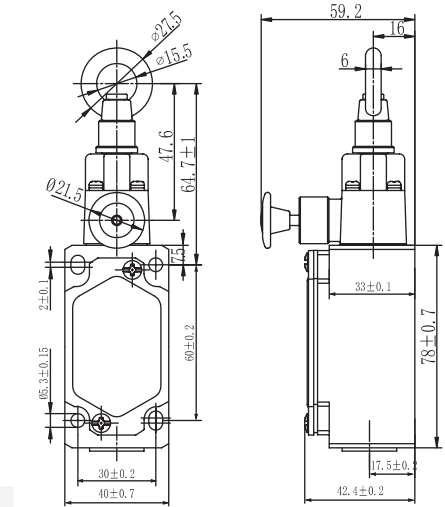
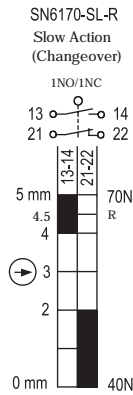
Order Code

Contact block

SN6170-SL- _	SL		slow action	1NO+1NC	BBM
SN6170-SL1- _	SL1		slow action	1NO+1NC	MBB

CABLE PULL SAFETY SWITCHES (One - Way Actuation)

SN6170-R



Order Code

Contact block

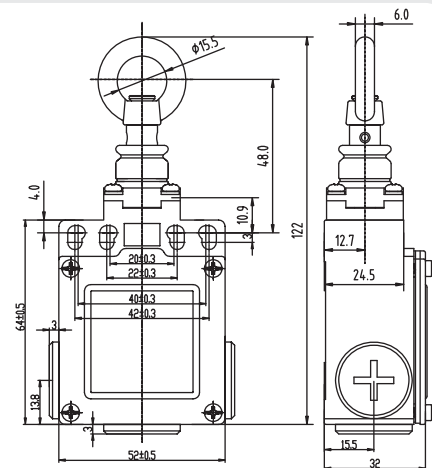
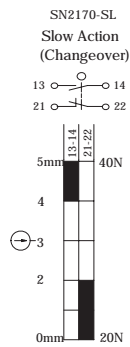
SN6170-SL- _R

SL

slow action

1NO+1NC BBM

SN2170



Order Code

Contact block

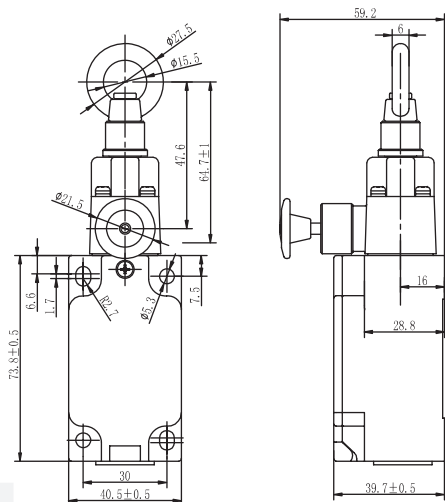
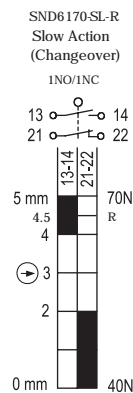
SN2170-SL- _

SL

slow action

1NO+1NC BBM

SND6170-R



Order Code

Contact block

SND6170-SL- _R

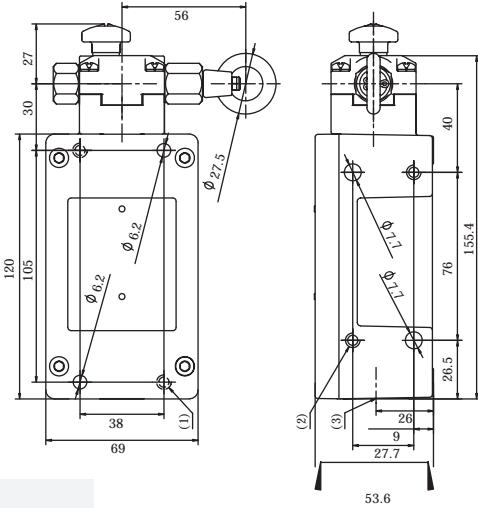
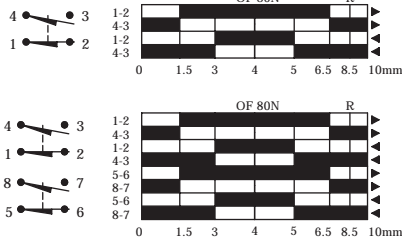
SL

slow action

1NO+1NC BBM

CABLE PULL SAFETY SWITCHES (One - Way Actuation)

HES-1A-70(Explosion - Proof)

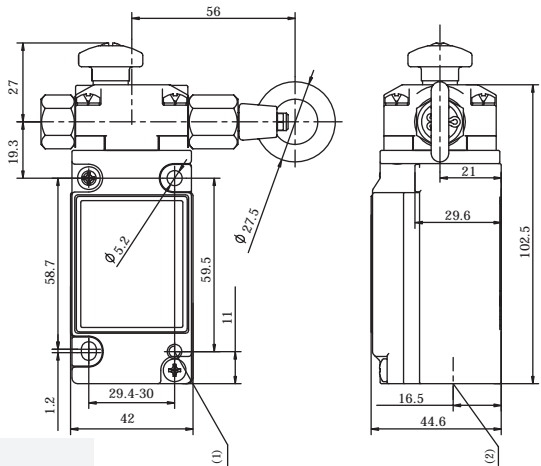
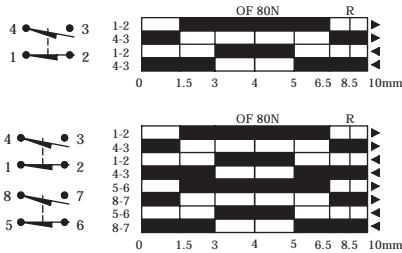


Order Code

HES-1A-70 (1NO/1NC)

HES-2A-70 (2NO/2NC)

HLS-1A-70

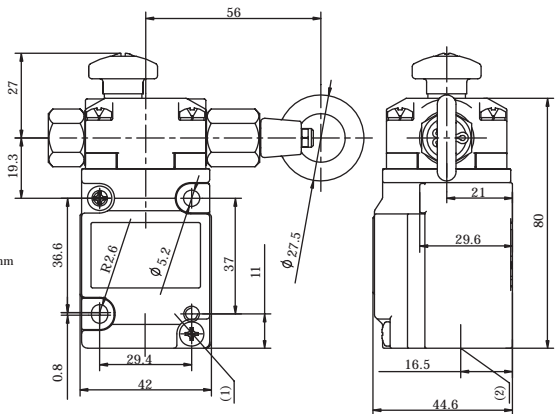


Order Code

HLS-1A-70 (1NO/1NC)

HLS-2A-70 (2NO/2NC)

HMS-1A-70



Order Code

HMS-1A-70 (1NO/1NC)

* With Reset Order Code Suffix: -R

CP SERIES CABLE PULL SAFETY SWITCHES

Features

- max span 125m
- General-purpose fitting size and triggering mode
- Compatible to EN418 required with emergency stop button on the surface cover
- the switch works in two direction: tripped when the wire is pulled or breaking.
- The switch can be with indicator light to show the state.
- Positive Opening of NC contacts
- Conform to EN60947-5-5, ISO13850, ISOTR 12100, IEC 60947-5-1, EN 418

Specifications

Operating Frequency	Mechanical: 120ops/min Electrical: 30 ops/min
Insulation Resistance	>100MΩ@ 500V DC
Contact Resistance	<25mΩ (initial value)
Rated Current/Voltage	Ith: 10A 600V AC (EN60947-5-1) AC15 A600 / DC13 Q300
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
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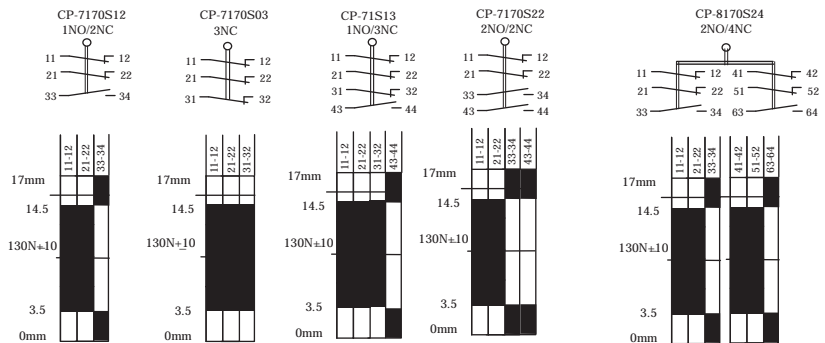
Selection Guide:

CP-71 - 70 - S - 12 - A - R - 24 - E							
Body Styles	Pull direction	Contact Block	Contact Block	Conduits	triggering mode	LED	Emergency stop button
CP-71 CP-81	70: Top 71L: Left 71R: Right 71: Left and right	P: Snap action S: Slow Action	03: 3NC 12: 2NO/1NC 13: 1NO/3NC 22: 2NC/2NO 24: 2NO/4NC	A: 1/2NPT C: M20	Blank: One-way R: Two-way	24: 24VDC 120: 120VAC 240: 240VAC	Blank E: Emergency stop button

CP-7170

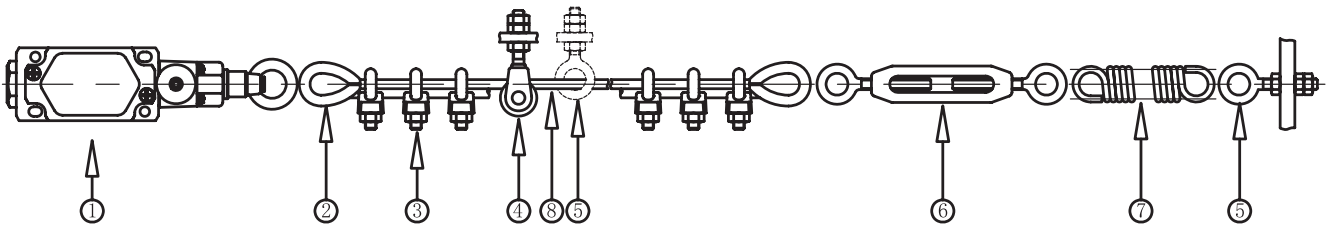


CP-8171



ON OFF

CABLE PULL SAFETY SWITCHES Accessories



② CPA-02
Wire rope thimble (rope eye)

③ CPA-03
Cable/rope clamp



④ CPA-04 Pulley

⑤ CPA-05 Stay bolt



⑥ CPA-06
Turnbuckle for adjusting cable tension

⑦ CPA-07 Spring

⑧ CPA-08
*5mm Zinc-plated steel rope coated with PVC



- CPA-08-010 (10 m rope)
- CPA-08-020 (20 m rope)
- CPA-08-035 (35 m rope)
- CPA-08-100 (100 m rope)