

## 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-2m/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 <sup>7</sup> (operations) Electrically 5 x10 <sup>5</sup> (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
  - SN4170 Small metal, 1 conduit
  - SN2170 Metal, 2 conduits
  - SN6170 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
  - B1: PG11
  - C1: M16

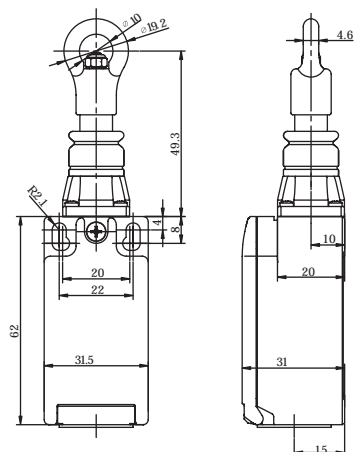
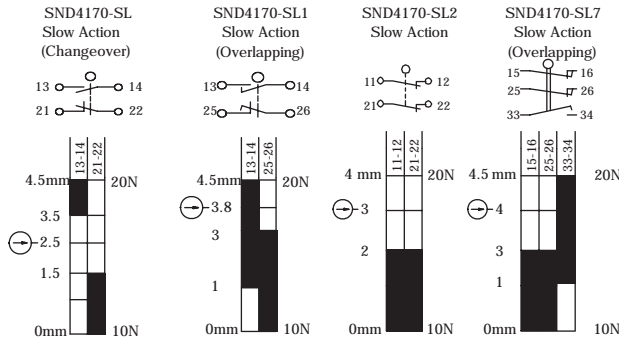
#### (70N)

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

#### R

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

#### SND4170



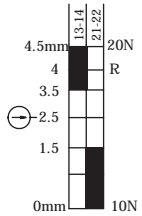
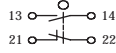
Order Code	Contact block			
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SND4170-SL1- _	SL1	⊕	slow action	1NO+1NC MBB
SND4170-SL2- _	SL2	⊕	slow action	2NC
SND4170-SL7- _	SL7	⊕	slow action	2NC+1NO

## CABLE PULL SAFETY SWITCHES (One - Way Actuation)

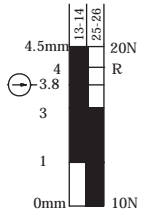
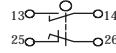
### SND4170-R



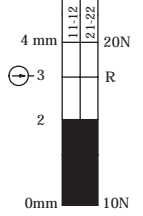
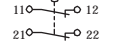
SND4170-SL-R  
Slow Action  
(Changeover)



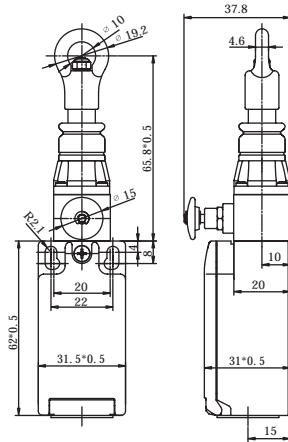
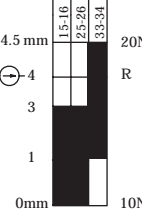
SND4170-SL1-R  
Slow Action  
(Overlapping)



SND4170-SL2-R  
Slow Action



SND4170-SL7-R  
Slow Action  
(Overlapping)



**Order Code**

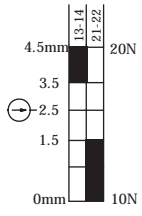
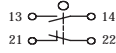
**Contact block**

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	

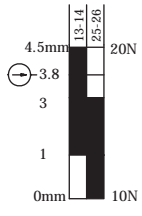
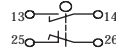
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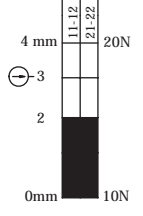
SND2170-SL  
Slow Action  
(Changeover)



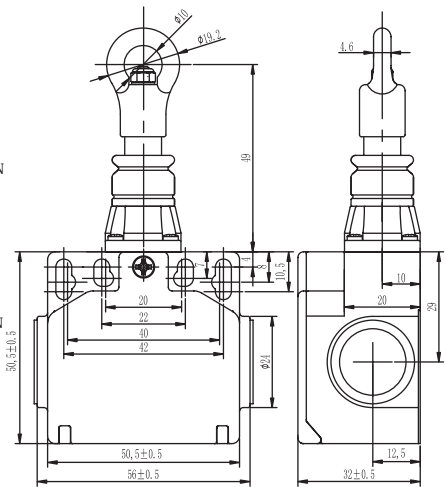
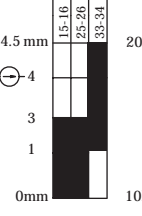
SND2170-SL1  
Slow Action  
(Overlapping)



SND2170-SL2  
Slow Action



SND2170-SL7  
Slow Action  
(Overlapping)



**Order Code**

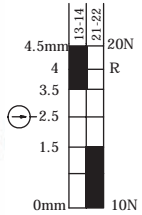
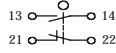
**Contact block**

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	

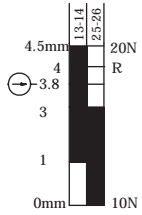
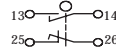
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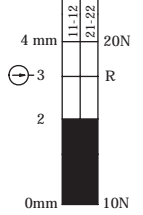
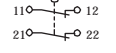
SND2170-SL-R  
Slow Action  
(Changeover)



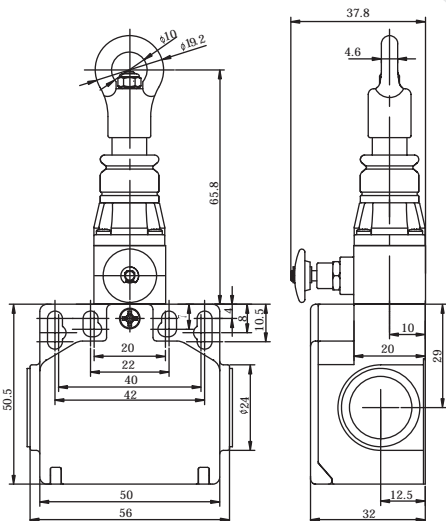
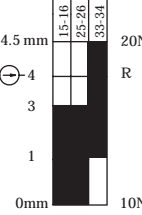
SND2170-SL1-R  
Slow Action  
(Overlapping)



SND2170-SL2-R  
Slow Action



SND2170-SL7-R  
Slow Action  
(Overlapping)



**Order Code**

**Contact block**

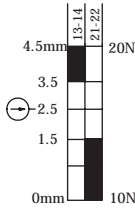
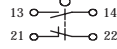
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SND2170-SL1- _R	SL1	⊕	slow action	1NO+1NC	MBB
SND2170-SL2- _R	SL2	⊕	slow action	2NC	
SND2170-SL7- _R	SL7	⊕	slow action	2NC+1NO	

## CABLE PULL SAFETY SWITCHES (One - Way Actuation)

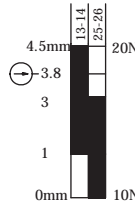
### SN4170



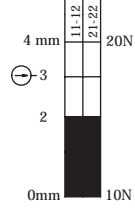
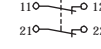
SN4170-SL  
Slow Action  
(Changeover)



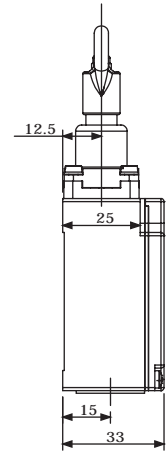
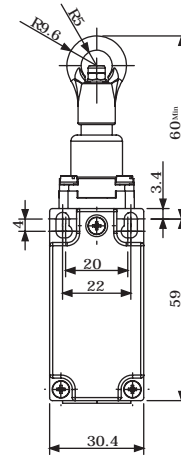
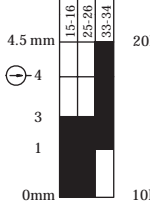
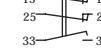
SN4170-SL1  
Slow Action  
(Overlapping)



SN4170-SL2  
Slow Action



SN4170-SL7  
Slow Action  
(Overlapping)



**Order Code**

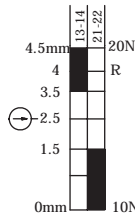
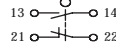
**Contact block**

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	

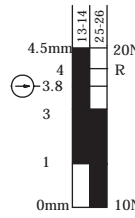
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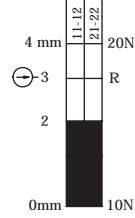
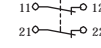
SN4170-SL-R  
Slow Action  
(Changeover)



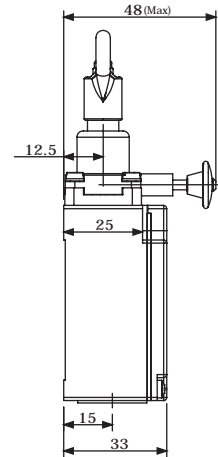
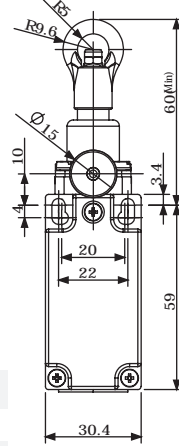
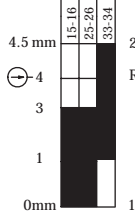
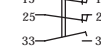
SN4170-SL1-R  
Slow Action  
(Overlapping)



SN4170-SL2-R  
Slow Action



SN4170-SL7-R  
Slow Action  
(Overlapping)



**Order Code**

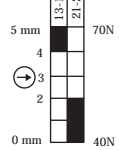
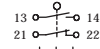
**Contact block**

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	

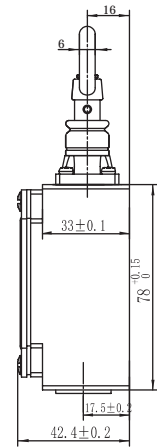
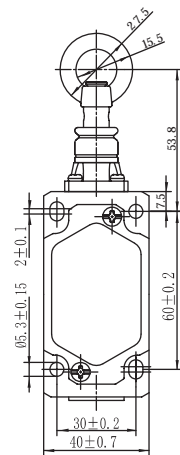
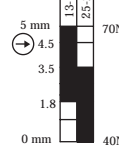
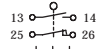
### SN6170



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



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



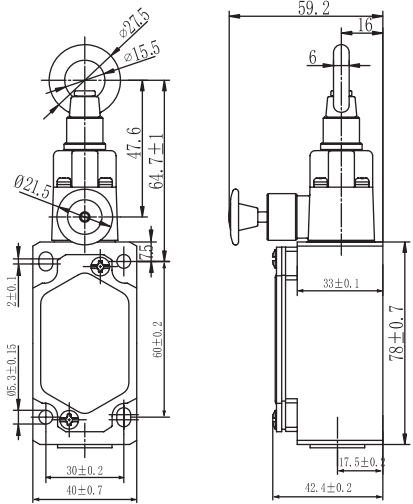
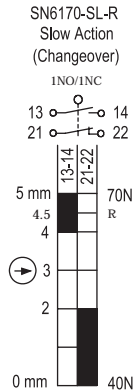
**Order Code**

**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)

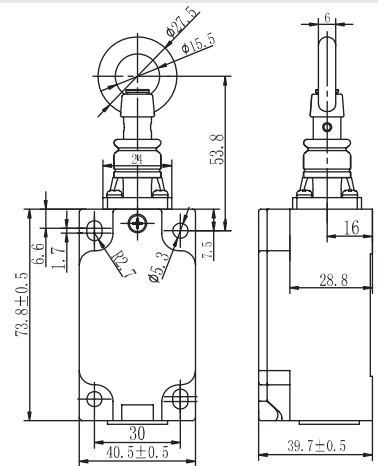
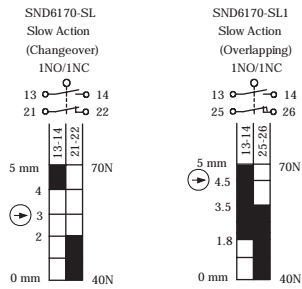
### SN6170-R



Order Code      Contact block

SN6170-SL- \_R      SL      slow action      INO+INC      BBM

### SND6170

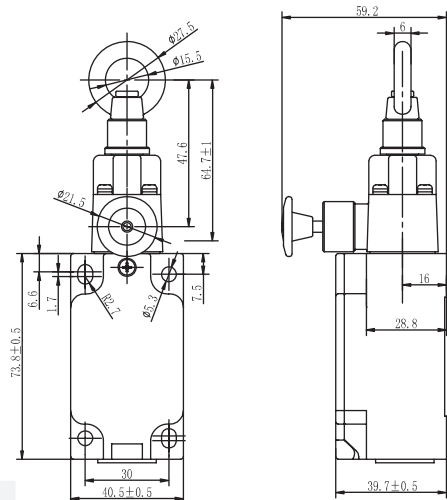
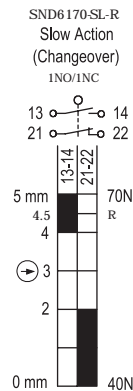


Order Code      Contact block

SND6170-SL- \_      SL      slow action      INO+INC      BBM

SND6170-SL1- \_      SL1      slow action      MBB

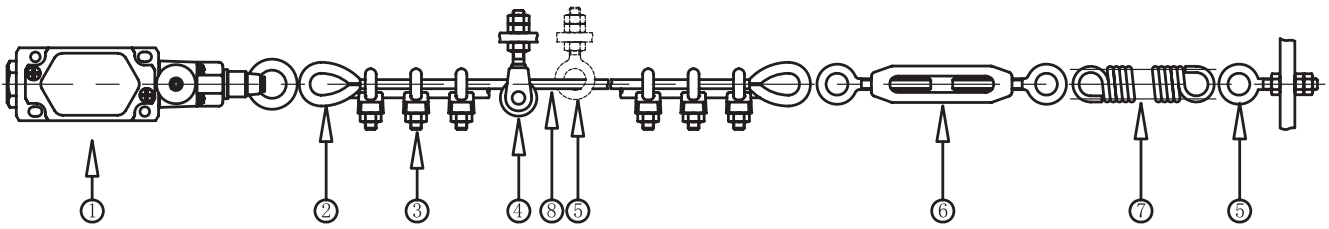
### SND6170-R



Order Code      Contact block

SND6170-SL- \_R      SL      slow action      INO+INC      BBM

## 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)

## 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 direction. 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-2m/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 <sup>7</sup> (operations) Electrically 5 x10 <sup>5</sup> (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
- B1: PG11
- C1: M16

#### - L

#### (70N)

Optional (pull force at starting point)

force in Newton

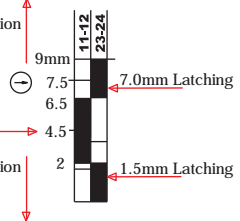
#### R

Lock/Reset function

- Blank
- R: with Reset function

Example diagram

Cable pull direction



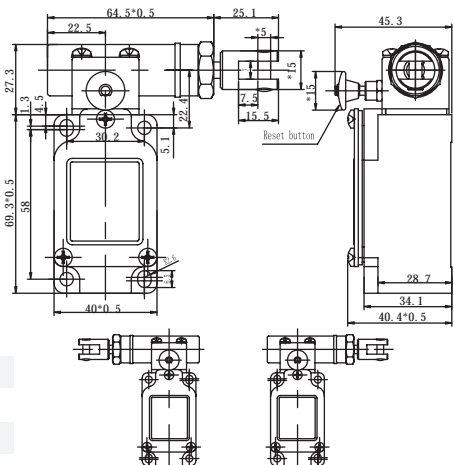
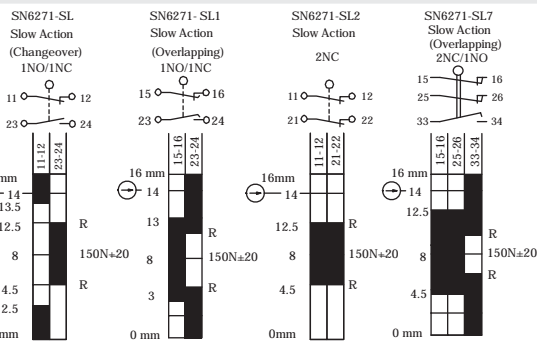
### Explanation of Travel Diagram

#### 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

SN6271-SL-LR	SL	⊕	slow action	1NO+1NC	BBM
SN6271-SL1-LR	SL1	⊕	slow action	1NO+1NC	MBB
SN6271-SL2-LR	SL2	⊕	slow action	2NC	
SN6271-SL7-LR	SL7	⊕	slow action	2NC+1NO	



