



## RJSDR SERIES SAFETY LIMIT SWITCHES WITH RESET

### Features

- Each model features a positive opening mechanism (NC contacts only) and equipped with a lockable head.
- Conforms to EN (TUV) standards corresponding to the CE marking.
- Positive opening operation of NC (Normally Closed) contacts conforming to IEC /EN 60947-5-1 
- Double insulation makes ground terminal unnecessary (Bears  marking)
- Wide standard operating temperature range: -25°C to 80°C
- Full range of actuator heads and levers suitable for safety applications
- Sealing up to IP 67
- Wide switch variations, (Snap action and slow action basic switches)
- International conduit sizes



### Specifications

<b>Standards</b>	EN60947-5-1, UL508, EN50047, EN1088
<b>Positive Opening Operation</b>	NC Contact
<b>Utilization Category</b>	AC15 A600
<b>Min Current</b>	5V, 5mA, DC
<b>Thermal Current (I<sub>th</sub>)</b>	10A
<b>Rated Insulation Voltage</b>	600 VAC
<b>Rated Impulse withstand Volt</b>	2500 VAC
<b>Insulation Resistance</b>	100MΩ min. (DC 500V)
<b>Contact Resistance</b>	25mΩ max. (Initial)
<b>Max Switching Speed</b>	250mm/s
<b>Max Switching Frequency</b>	6000 operation per hour
<b>Enclosure Material</b>	UL approved glass-filled polybutylene terephthalate
<b>Enclosure Protection</b>	IP 67
<b>Operating Temperature</b>	Min -25°C (-18°F) Max 80°C (+176°F)
<b>Pollution Degree</b>	3
<b>Protection Against Electric Shock</b>	Class II (Double Insulation)
<b>Mech. Life Expectancy</b>	1 x 10 <sup>6</sup> Cycle min
<b>Electrically Life Expectancy</b>	150,000 Cycle min
<b>Vibration</b>	IEC 68-2-6, 10-55Hz ± 1 Hz, Excursion: 0.35mm, 1 octave/min
<b>Conduit Entry</b>	Various (see Product Selection table)
<b>Fixing</b>	2 x M4

# RJSDR SERIES SAFETY LIMIT SWITCHES WITH RESET

## Structure description

### Metal Lever Setting

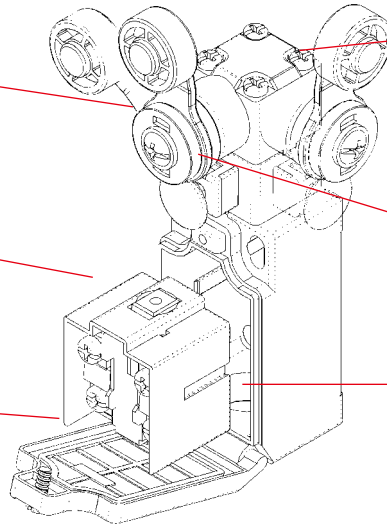
Grooves which engage the lever every 18° are cut in the operation indicator disk to prevent the lever from slipping against the rotary shaft.

### Contact Block

Has a positive opening mechanism separating the contacts when the contacts are welded.

### Cover

The cover, with a hinge on its lower part, can be opened by removing the screw of the cover, which ensures ease of maintenance and wiring.



### Head

With roller lever models, the direction of the switch head can be adjusted to any of the four directions by loosening the roller lever switch screws at the four corners of the head.

### Reset Head

The direction of the reset head can be adjusted to any of the four directions.

### Conduit

Wide switch variations.  
PG13.5 PG11  
M16 M20  
1/2-14NPT

## Product Selection

RJSDR -□- □- □

1 2 3

### 1. THREAD DIMENSION OF LEAD EXIT

- 1:PG13.5 (S)
- 2:1/2NPT (C)
- 4:PG11 (O)
- 5:M16 (C)
- 6:M20 (O)
- 7:Connector (C)

### 2. CONTACT TYPES

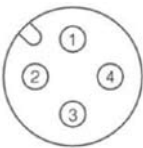
- 1:1NC/1NO SLOW ACTION (BBM) (S)
- 2:2NC SLOW ACTION (O)
- 3:1NC/1NO SNAP ACTION(C)
- 4:2NC/1NO SLOW ACTION
- 5:3NC SLOW ACTION

### 3. Key type

- 20: Roller arm type
- 21: Adjustable roller arm type (standard roller)
- 22: Adjustable roller arm type (Long arm type)
- 25: Rod lever type
- 27: Adjustable roller arm type (big roller)
- 31: Push plunger type
- 32: Roller plunger type
- 62: Roller lever type
- 63: One-Way roller arm lever type

\*(s):standard (o):option (c): customization

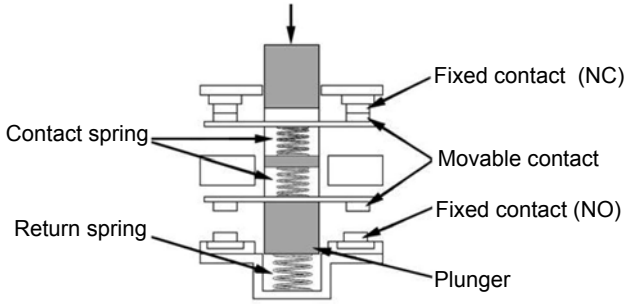
## Contact Block Form

TYPE	CONTACT FORM	CONNECTOR PIN ARRANGEMENT	OPERATION DIAGRAMS
RJSDR-□- 1	1NC/1NO(Slow action) (See Note 1)		 <b>M12 Connector pin arrangement</b>
RJSDR-□- 2	2NC (Slow action) (See Note 2)		
RJSDR-□- 3	1NC/1NO(Snap action) (See Note 1)		<b>No Connector TYPE</b>
RJSDR-□- 4	2NC/1NO(Slow action)		
RJSDR-□- 5	3NC (Slow action)		

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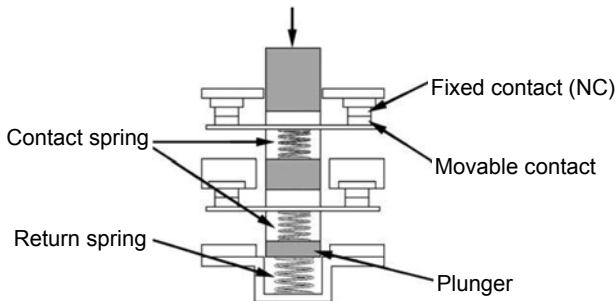
## Positive Opening Mechanism

### 1NC/1NO Contact (Snap action)



Only the NC contacts have a positive opening function. When metal deposition occurs, the contacts are separated from each other by pushing in the plunger.

### 2NC Contact (Slow action)



Both NC contacts incorporate a positive opening function. When metal deposition occurs, the contacts are separated from each other by pushing in the plunger.

## Operating Characteristics

Unit: mm

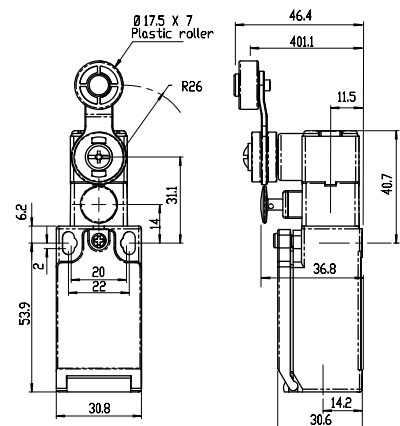
Item Operating Characteristics Dimensions

### RJSDR 20

Roller Arm Type



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-20	Slow 1NC/1NO	30°	41°	6.5 N	45°	19.0 N	80°
RJSDR-x-2-20	Slow 2NC	30°	-	6.5 N			
RJSDR-x-3-20	Snap 1NC/1NO	28°	-	5.3 N			
RJSDR-x-4-20	Slow 2NC/1NO	30°	41°	6.5 N			
RJSDR-x-5-20	Slow 3NC	30°	-	6.5 N			



# RJSDR SERIES SAFETY LIMIT SWITCHES WITH RESET

Unit: mm

## Operating Characteristics

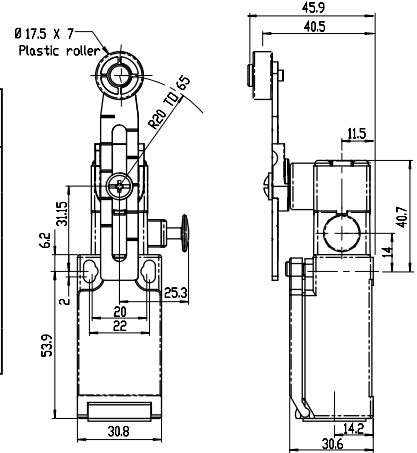
Item    Operating Characteristics    Dimensions

### RJSDR 21

Adjustable Roller  
Arm type (Standard arm)



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-21	Slow 1NC/1NO	30°	41°	6.5 N	45°	19.0 N	80°
RJSDR-x-2-21	Slow 2NC	30°	-	6.5 N			
RJSDR-x-3-21	Snap 1NC/1NO	28°	-	5.3 N			
RJSDR-x-4-21	Slow 2NC/1NO	30°	41°	6.5 N			
RJSDR-x-5-21	Slow 3NC	30°	-	6.5 N			

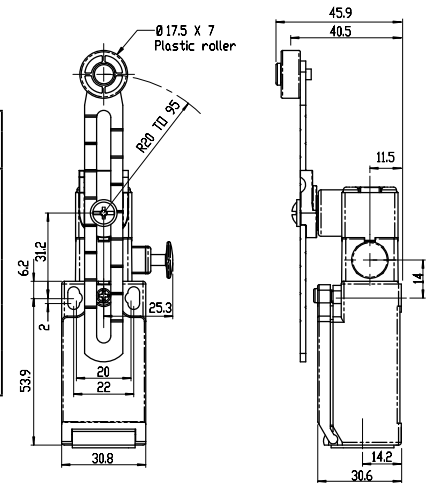


### RJSDR -22

Adjustable Roller Arm Type  
(Long arm)



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-22	Slow 1NC/1NO	30°	41°	5.2 N	45°	19.0 N	80°
RJSDR-x-2-22	Slow 2NC	30°	-	5.2 N			
RJSDR-x-3-22	Snap 1NC/1NO	28°	-	4.5 N			
RJSDR-x-4-22	Slow 2NC/1NO	30°	41°	5.2 N			
RJSDR-x-5-22	Slow 3NC	30°	-	5.2 N			

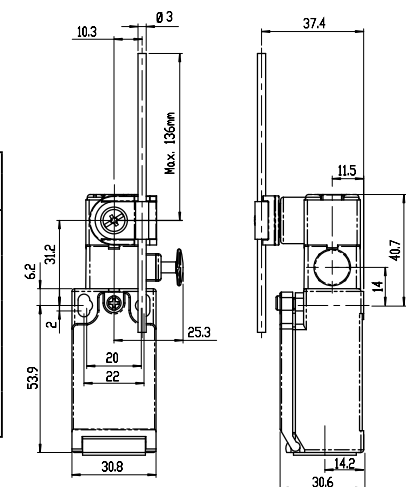


### RJSDR -25

Rod Lever Type



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-25	Slow 1NC/1NO	30°	41°	1.8 N	45°	19.0 N	80°
RJSDR-x-2-25	Slow 2NC	30°	-	1.8 N			
RJSDR-x-3-25	Snap 1NC/1NO	28°	-	1.9 N			
RJSDR-x-4-25	Slow 2NC/1NO	30°	41°	1.8 N			
RJSDR-x-5-25	Slow 3NC	30°	-	1.8 N			



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Unit: mm

## Operating Characteristics

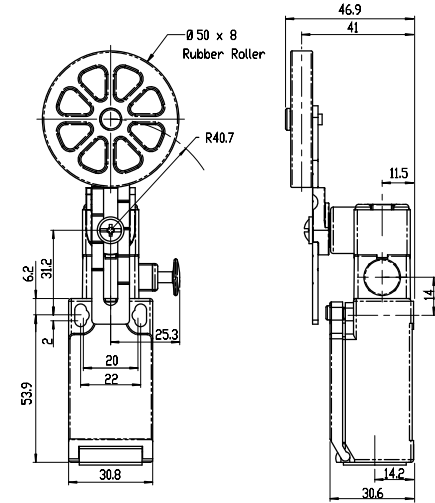
Item Operating Characteristics Dimensions

### RJSDR -27

Adjustable Roller  
Arm Type (Big roller)



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-27	Slow 1NC/1NO	30°	41°	5.2 N	45°	19.0 N	80°
RJSDR-x-2-27	Slow 2NC	30°	-	5.2 N			
RJSDR-x-3-27	Snap 1NC/1NO	28°	-	4.5 N			
RJSDR-x-4-27	Slow 2NC/1NO	30°	41°	5.2 N			
RJSDR-x-5-27	Slow 3NC	30°	-	5.2 N			

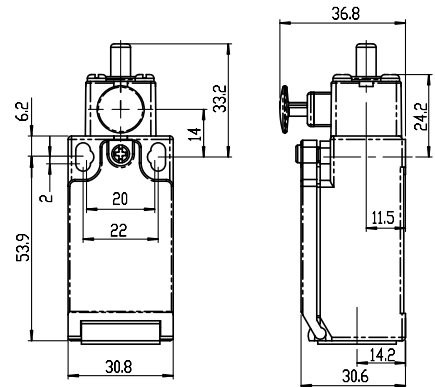


### RJSDR -31

Push Plunger Type



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-31	Slow 1NC/1NO	2.2 mm	3.0	7.26 N	3.2 mm	19.0 N	6.0 mm
RJSDR-x-2-31	Slow 2NC	2.2 mm	-	7.42 N			
RJSDR-x-3-31	Snap 1NC/1NO	1.9 mm	-	6.71 N			
RJSDR-x-4-31	Slow 2NC/1NO	2.2 mm	3.0	7.26 N			
RJSDR-x-5-31	Slow 3NC	2.2 mm	-	7.42 N			



### RJSDR -32

Roller Plunger Type



Type	Contact Block	Operating travel (PT)	PT2nd	Operating Force (OF)	Positive Opening		Total Travel
					Travel (min)	Force (min)	
RJSDR-x-1-32	Slow 1NC/1NO	2.2 mm	3.0	7.26 N	3.2 mm	19.0 N	6.0 mm
RJSDR-x-2-32	Slow 2NC	2.2 mm	-	7.42 N			
RJSDR-x-3-32	Snap 1NC/1NO	1.9 mm	-	6.71 N			
RJSDR-x-4-32	Slow 2NC/1NO	2.2 mm	3.0	7.26 N			
RJSDR-x-5-32	Slow 3NC	2.2 mm	-	7.42 N			

