

## KAKKU HEAVY DUTY SNAP ACTION LIMIT SWITCHES

TYPE KSA – 300 AND KSA - 311

### SPECIAL FEATURES

- Double break snap acting contacts with high quality silver cadmium oxide contact tips having arc-retarding and anti-welding properties.
- Provided with specially treated oil resistant rubber gasket at all the joints to make it completely dust proof.
- Provision of arc-chute to ensure better insulation between housing and contact assembly.
- Universal design for both AC & DC applications.
- Resists extreme shock and vibratory conditions.
- Reliability of performance and long life.

### APPLICATION

These Limit Switches are small & compact rotary lever operated, designed for heavy duty applications in automatic control circuits of chain conveyors, presses, machine tools etc. Where mechanical positions have to be translated into electrical signals for controlling remote starters & contactors etc. The switches can also be used as door limit switches in EOT cranes, H.T. breakers, cubicles etc.

### CONSTRUCTIONAL & OPERATIONAL FEATURES

The actuating system of the limit switch consists of a driving lever with roller fitted on a splined shaft. When the roller lever is pushed

by the striker, the force is transmitted to operate the contacts with snap action, with the help of a pressure ball. Due to the provision of splined shaft the operating roller lever can be fixed within its operating limits on the shaft at intervals of 10°.

The lever of limit switch can be operated either from left side or from the right side. The direction of operation can be changed by changing the position of spring assembled between the switch housing & pressure ball carrier to the opposite direction.

The actuating rollers can be fixed in three different positions as shown in the figures. [Stage I, II & III]

### TECHNICAL DATA

Ambient temperature	: 55° C
Mounting arrangement	: Surface mounting.
Housing	: Cast Al.
Action	: Spring return or stayput.
Actuating force	: Not greater than 6 Kg.f.
Speed of striker	: 0.3 to 30 Mtrs. per minute.
Enclosure category	: As per IP-54 of IS : 2147 – 1962.
Cable entry	: 1 No. of 1/2" threaded pipe.
Terminals	: Suitable for conductor size 2.5mm <sup>2</sup> .
No. of contacts	: 2(1NO + 1NC). (Electrically separated)

### RATINGS

Rated voltage	Permissible continuous current (Amps.)	Making current (Amps.)	Breaking current at inductive load (Amps.)	
			500V AC	220 V DC
Upto 500V AC or 220V DC	10	40	10	1.5

### SELECTION CHART

Types	Version	Action	Nature of lever assembly	Fig.	Lever mounting	–erst while USSR type
KSA – 300	1	Spring return	Straight roller lever	1	At stage 1 or 2 or 3	BK – 300 AT
KSA – 300	2	Stayput	V – shaped roller lever	3	At stage 1 or 3	BK – 300 AT
KSA – 300	3	Spring return	Straight lever with beveled roller	5	At stage 1 or 3	BK – 300 AT
KSA – 311	1	Spring return	Straight roller lever	2	At stage 1 or 2 or 3	BK – 311 AT
KSA – 311	2	Stayput	V – shaped roller lever	4	At stage 1 or 3	BK – 311 AT
KSA – 311	3	Spring return	Straight lever with beveled roller	6	At stage 1 or 3	BK – 311 AT

Magnitude of the switch travel shall be as follows :

Travel	Version		
	1	2	3
Working	12°	12°	12°
Maximum additional	10°	Is not admitted	4°
Total	22° ± 2°	12°	16°

### DIMENSIONS

As per relevant figures shown in the dimensional data sheet.

### OPTIONAL EXTRAS

- Enclosure IP – 55 or superior.
- Suitable base plate at bottom to match any mounting dimension. (furnish drawing).
- Epoxy paint for special applications.
- Adopter can be provided for cable entry for 25mm or 19mm conduit entry.

### ORDERING INFORMATION

- Give KAKKU type.
- Roller mounting stage 1, 2 or 3.
- Specify optional extras if any.

*Product improvement is a continuous process at KAKKU. Hence data given in this catalogue is subject to revision without notice.*



Symbol Of Reliability

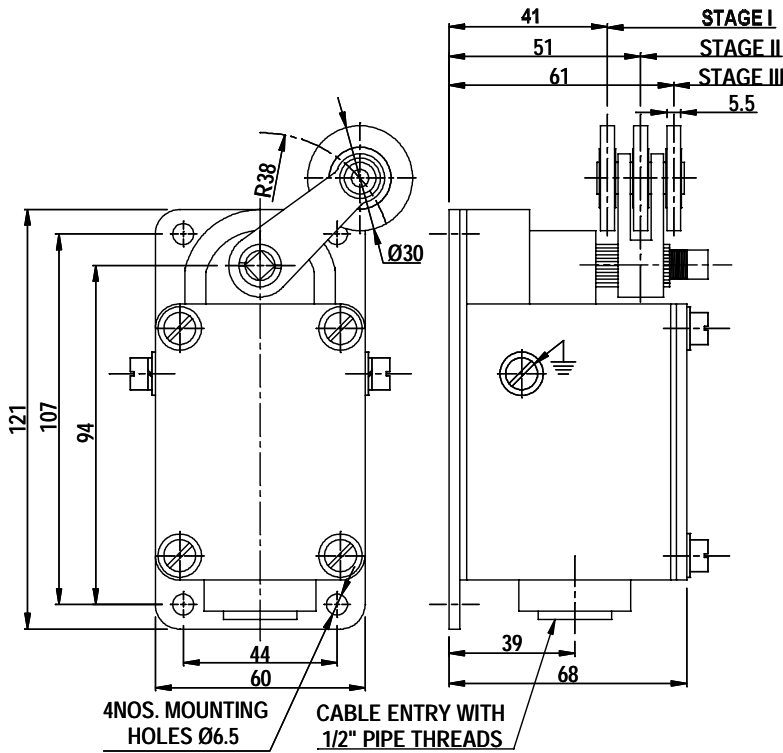


Fig .A : SNAP ACTION LIMIT SWITCH  
TYPE : KSA - 300

VERSION : 1

Admissible Angle	Recommended Angle	
$\beta^\circ$	25° - 55°	45° at a speed up to 15 m/ min
$\alpha^\circ$	$<\alpha = <\beta$	50° - 55° at a speed more than 15 m/ min.

VERSION : 3

$\beta^\circ$	45° $\pm$ 2°
$\alpha^\circ$	45°

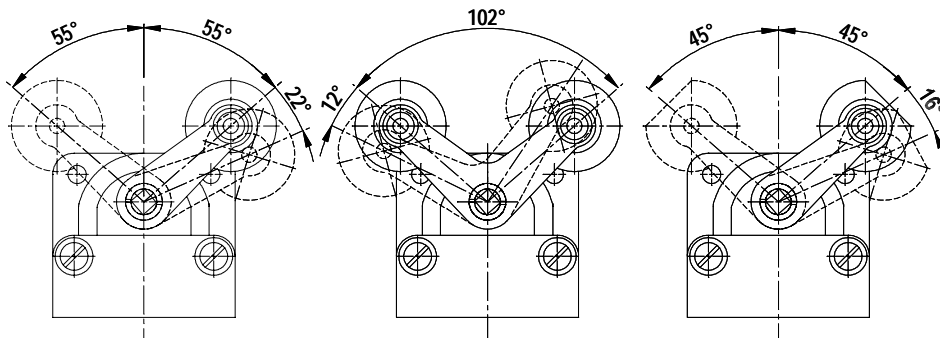
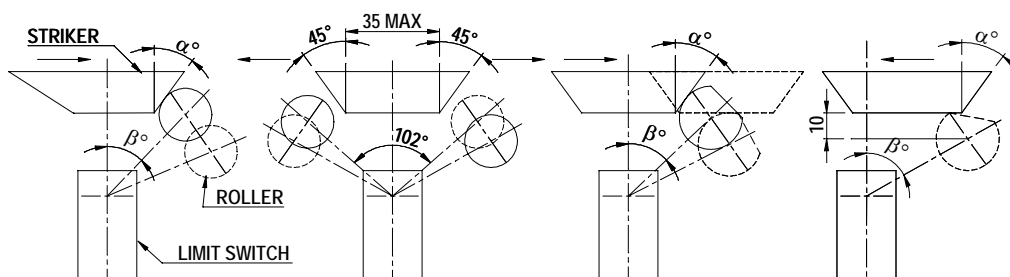


Fig 1 : VERSION - 1

Fig 3 : VERSION - 3

Fig 5 : VERSION - 3



ADJUSTABLE UP TO 55°  
ON EITHER SIDE OF CENTRE

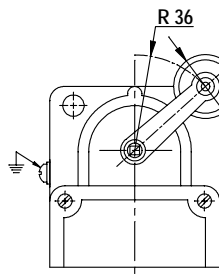
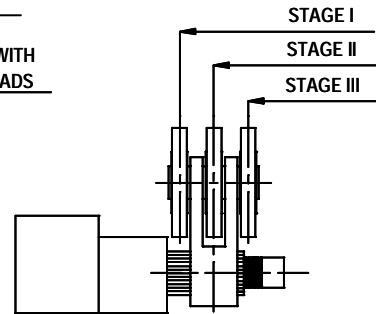
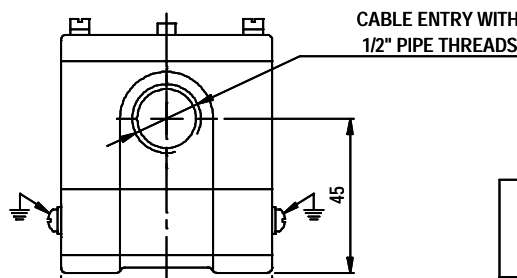
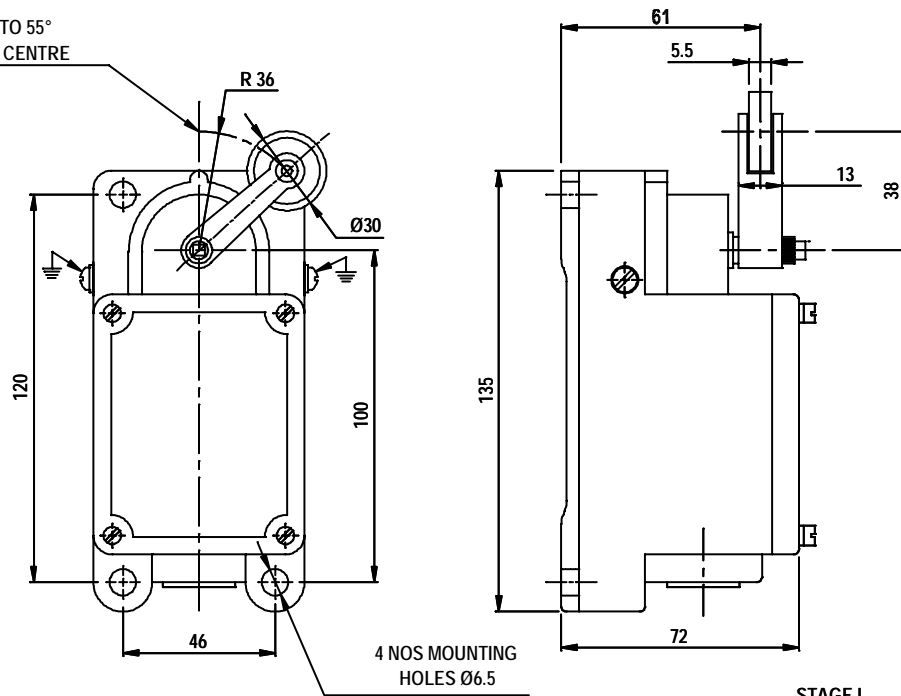


Fig. : VERSION - 1

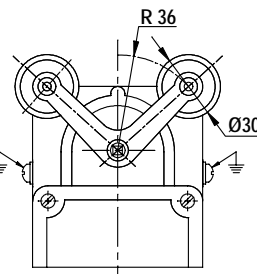


Fig 3. : VERSION - 3

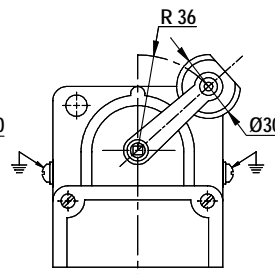


Fig 5 : VERSION - 3

