








**JAI** manufactures a wide range of **JAI** Limit Switches tested to rigid quality standards. **JAI** BC9 series Limit Switches comply with IS 13947/pt-5/sec-1 of 2004 & IEC 947-5-1 and carry the unique  mark. **JAI** Limit Switches are certified by  International Canada and U.S. They also conform to European standard .

## FEATURES

### **JAI** BC9 Oil Tight Limit Switches

- Completely oil & water tight and dust & damp proof
- Ample wiring space for easy termination
- Flame retardant thermo-plastic barriers between terminals to prevent short-circuit
- Serrated terminals to give firm grip to straighten wire
- Flexibility of replacing complete contact blocks without changing the operating characteristic
- The S.P.D.T twin-break silver contacts provide quick make-and-break action with high contact pressure
- The brass forged lever with steel roller and all stainless steel parts provide high rigidity and corrosion resistance.

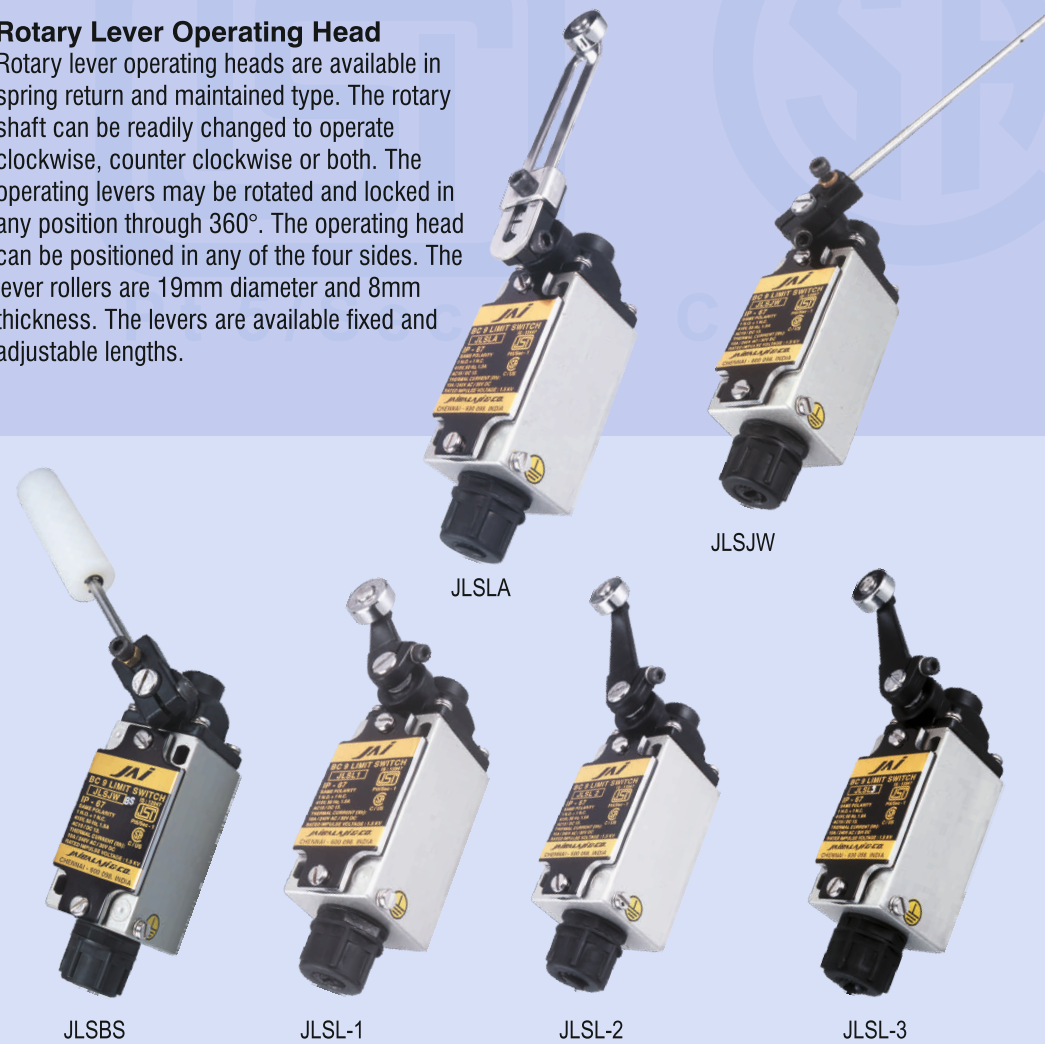
## MODELS

### **JAI** BC9 Oil Tight Limit Switches

BC 9 JLS type limit switches are available with a variety of operating heads to meet diverse applications

#### Rotary Lever Operating Head

Rotary lever operating heads are available in spring return and maintained type. The rotary shaft can be readily changed to operate clockwise, counter clockwise or both. The operating levers may be rotated and locked in any position through 360°. The operating head can be positioned in any of the four sides. The lever rollers are 19mm diameter and 8mm thickness. The levers are available fixed and adjustable lengths.



#### Top Push Operating Head

BC9 Top Plunger limit switches are available in three designs. One has an adjustable top push button which has a hex, bolt and lock nut, the length of which can be adjusted upto 8mm (Adjustment is accomplished by locking the 8mm spanner in the spindle and then by turning the threaded 4mm Hex. Head operating plunger and securing it with a lock nut).



The second type has a steel roller of 11.1 mm diameter and 3.85mm thickness. The top push operating heads are easier to apply because the operating direction and repeat accuracy is less critical.

#### Side Push Operating Head

Jai BC 9 Side plunger limit switches are in two different designs. One has adjustable push button which can be adjusted upto 8mm (Adjustment is accomplished by locking the 8mm spanner in the spindle and then by turning the threaded 4mm hex. Head operating plunger and securing it with a lock nut).



The second type has steel roller of 12mm diameter and 3.85mm thickness. In our BC 9 Side plunger roller type limit switches there is a provision to change the positioning of the roller plunger from horizontal to vertical position and vice versa by unscrewing the plunger cap nut and it is ready to operate as per the choice

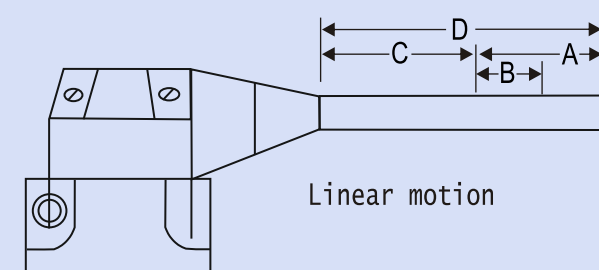
#### Cat Whisker Operating Head

BC 9 Cat whisker limit switches are available in two designs with 137mm long operating lever. One type consists of 3.2 diameter nylon rod fixed with stainless steel tension spring from the bottom. The second type consists of 6.2 diameter stainless steel tension spring. Both these types can be operated in any direction from the centre.

#### Fork Lever Operating Head :

Each of the two arms of length 38mm has a roller of 19mm diameter and 8mm thickness either in line or offset. Available in spring return or maintained type.

#### Diagram for Operating Data



## ELECTRICAL & MECHANICAL RATINGS

Utilisation Category AC 15 and DC 13 as per IEC 947 - 5 - 1  
IS 13947 / Pt 5 Sec 1 of 2004  
Thermal Current (1th) 10A  
Insulation Voltage (Ui) 600 V AC  
ISI Licence No. CM/L-2015427

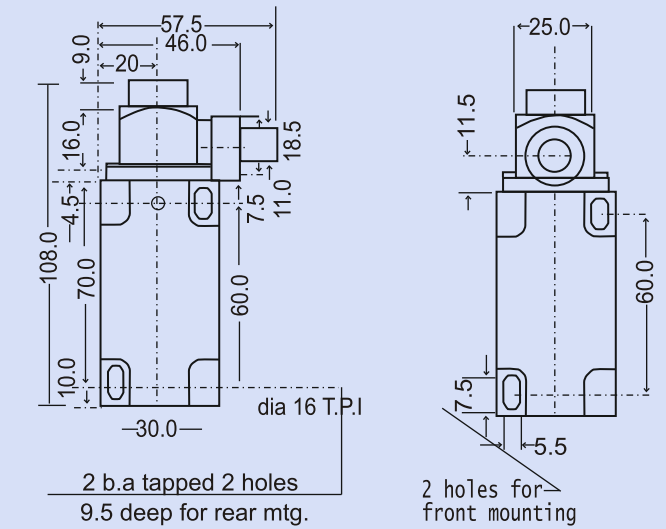
#### Operating Current and Voltage

AC 15 rating 6A at 110v; 3A at 220V;  
1.5A at 400V; 1.2A at 550V  
DC 13 rating 0.2A at 110V; 0.1A at 220V,  
Contact combination 1 NO + 1 NC SPDT switch  
change-over contact

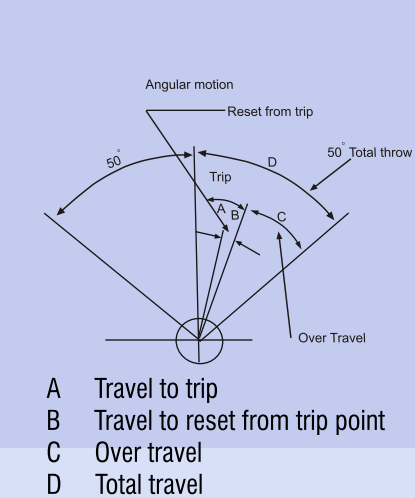
Frequency of operation 2500 operations per hour  
Mechanical life 20 x 10<sup>6</sup> operations  
Enclosure category Die cast enclosure to IP-67  
as per IS 13947 / Pt5 / Sec1 of 2004  
Terminal capacity 2.5mm solid or stranded

#### Weights

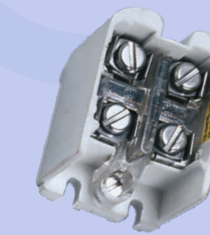
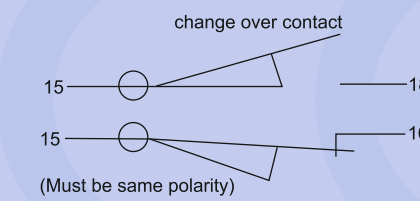
Oil tight limit switches 500 gms approx.  
General purpose limit switches 400 gms approx.



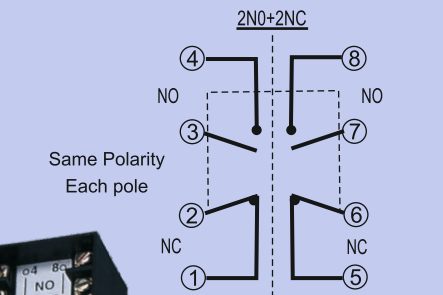
#### Accessory



#### Wiring Diagram: 1NO + 1NC



#### Wiring Diagram: 2NO + 2NC



BC 9 Types	JLSL 1 JLSL 2 JLSL A JLSJ W JLSL F JLSL F 0	JLSL 1M JLSL 2M JLSL AM JLSJWM JLSL F M JLSL FOM	JLSTPR JLSTPBA mm	JLSSPR JLSSPBA mm	JLSCW
Travel to trip A	10°	50°+	1.3+	2.0+	20°+
Travel to reset from trip point B	6°	50°+	1.1	1.7	18°+
Over travel C	40°	40°*	5.5	5.1	5°*
Total travel D	50°	90°+	6.8	7.0	25°*
Force to trip (max) kg	1.0	0.5	2.0	2.0	0.285
Force to be applied at a radius of (mm)	28	38	-	-	25.5

+ Maximum \* Minimum