LIMIT SWITCHES



DUST AND DAMP PROOF IP 67 AND (Pt5 / Sec -1)



CONFORMS TO IS: 13947 (Pt5 Sec-1)

PROTECTION IP 67

LEVER ARM OPERATED

JW - 12 1 N.O 1 N.C.

JW - 18 1 N.O 2 N.C.

MICRO ADJUSTABLE LIMIT SWITCHES

- **★** MICRO TRIP TORQUE ADJUSTMENT
- ★ RESET POSITION ADJUSTMENT
- ★ REVERSE ACTION SETTING ADJUSTMENT
- ★ RAPID SETTING ADJUSTMENTS OF ROTARY OPERATION LEVER THROUGH 360° AND SCHEME CHANGES WITHOUT DISMOUNTING
- **★ FOUR POSSIBLE MOUNTING POSITIONS**

ROLLER PLUNGER OPERATED

JW - 32 1 N.O 1 N.C.

2 N.O. 2 N.C. AND JW - 38

PUSH ROD PLUNGER OPERATED

JW - 42 1 N.O 1 N.C.

JW - 48 2 N.O. 2 N.C.

MICRO METER ADJUSTMENT **LIMIT SWITCHES**

PLUNGER TYPE SWITCHES SHOULD BE USED WHERE A MICROMETER ADJUSTMENT OF THE PLUNGER IS REQUIRED. THESE SWITCHES ARE SUITABLE FOR USE ON MACHINES WHERE SHORT, CONTROLLED CAM MOVEMENTS ARE PRESENT. OPERATION MUST BE IN LINE WITH PLUNGER AXIS OR CAN BE PERPENDICULAR TO THE PLUNGER AXIS ON THE ROLLER PLUNGER TYPES.

Non Plug-in Small Precision Limit Switches are designed specifically for use on modern machine tools, to control starting, stopping or reversing of electrical motors including safety and signalling light, lifting gear, hoists, conveyors, etc.

The two pole limit switches are identical in appearance and size to the popular single pole version. Two pole limit switches are desirable in many installations and can reduce the number of limit switches and control relays used.

Protected against oil, cutting lubricants and fine dust penetration by using compressed rubber rings, special gaskets, pressure die cast zinc top and aluminium bottom cover.

All the parts are ant-corrosive material and paints.

Spring return, Snap action, Quick make and Quick break contacts.

| | Operational current and voltage | | | | | | | | | | | | |
|----------------------------------|---------------------------------|----------------------------------|---|---------------------|--|--|--|--|--|--|--|--|--|
| AC 15 rating | 1 NO | e pole + 1 NC ver contacts | Double pole 2 NO + 2 NC Changeover contacts | | | | | | | | | | |
| 110 V 240 V 440 V 600 V | 2 | A A A 8 A | 3.0 A 1.5 A 0.8 A 0.6 A | | | | | | | | | | |
| DC 13 rating | Single throw | Double throw | Single throw | Double throw | | | | | | | | | |
| 115 V 230 V 600 V | 2.0 A 0.5 A 0.1 A | 0.5 A 0.2 A 0.02 A | 1.0 A 0.3 A 0.1 A | 0.2 A 0.1 A - | | | | | | | | | |

| | WIRING DIAGRAMS |
|-----------------------|--|
| MUST BE SAME POLARITY | MUST BE SAME POLARITY IB OPPOSITE POLARITY 2A MUST BE SAME POLARITY 2A MUST BE SAME POLARITY 2A NUST BE SAME POLARITY |

1 N.O.1 N.C. contacts are Single Pole, Double Throw one circuit normally open and one circuit normally closed. These circuits are electrically separate, but cannot be used on opposite polarities.

2 N.O. 2 N.C. contacts: Each pole is electrically separate from the other and can be used on opposite polarities. The contacts of each pole, double throw-these circuits are electrically separate, but cannot be used on opposite polarities

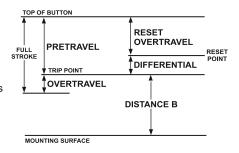
APPROXIMATE DIMENSIONS NOT FOR CONSTRUCTION (Dimensions in mm.) Operating Data for types JO1 and JO2 $\,$

TECHNICAL DATA:

Thermal rating 10A - 20 $^{\circ}$ to + 70 $^{\circ}$ C Operating temperature - 40 ° to + 70° C Storage temperature 5 to 6 ms. Transfer time Bounce time 5 ms. 1/100th Repeat Accuracy ± 20 million operations Mechanical Life Nickel Silver Solid

TERMINAL CAPACITY:

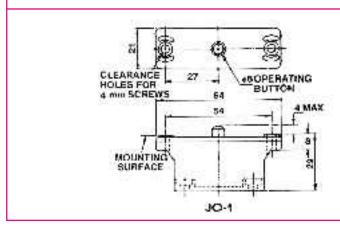
 $\begin{array}{lll} \mbox{Flexible} & 2 \mbox{ x } 1.5 \mbox{ mm}^2 \mbox{ max}. \\ \mbox{Solid} & 1 \mbox{ x } 2.5 \mbox{ mm}^2 \mbox{max}. \end{array}$

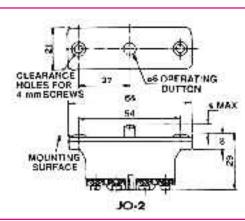


| | Type JO1 | Type JO2 |
|---|-------------|-------------|
| Pretravel | 1.5-1.9 | 1.5-1.9 |
| Full Stroke | 2.6-3.2 | 2.6-3.2 |
| Differential | 0.8-1.2 | 0.6-1.2 |
| Reset Overtravel | 0.4-1.0 | 0.4-1.2 |
| Distance 'B' From top of button to mounting surface at trip point | 2.4-2.0 | 2.4-2.0 |
| Operating force | 0.3-0.4 kg. | 0.2-0.4 kg. |

SNAP SWITCH DIMENSIONS

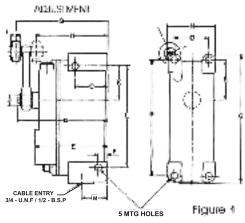
APPROXIMATE DIMENSIONS NOT FOR CONSTRUCTION





LEVER ARM OPERATED

APPROXIMATE DIMENSIONS NOT FOR CONSTRUCTION (Dimensions in mm)



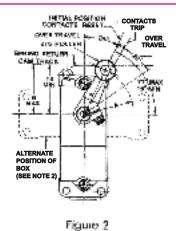


Figure 1 and 2 JW-12, JW-18

| А | В | С | D | Е | F | G | Н | l | J | K | L | М | N | 0 | Р | Q | R |
|-----------------------|-------------------------|----|----|----|---|------------|------------|---|----|----|----|----|----|----|----|----|----|
| Length of Arm 5 mm | Arm Length Plus 5 mm | 24 | 68 | 56 | 5 | 68 - 70 | 56 - 58 | 8 | 11 | 23 | 78 | 19 | 37 | 27 | 89 | 98 | 29 |

OPERATING TORQUE 3.16 Kg Cm Repeat Accuracy \pm 0.025 with 35 mm arm.

NOTE 1: For reverse operation place arm and roller in similar position to left of centre line and reverse position of return spring.

NOTE 2: If roller is used in dotted position (side view) it will not pass over cover, and unit must be mounted accordingly.

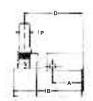
ROLLER PLUNGER & PUSH ROD PLUNGER OPERATED

APPROXIMATE DIMENSIONS NOT FOR CONSTRUCTION (Dimensions in mm)

PUSH ROD PLUNGER TYPE-

Cam must actuate push rod in line with rod axis. Care must be taken to avoid. exceeding the overtravel





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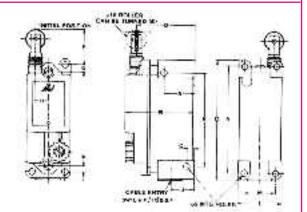
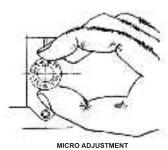


Figure 1 Type JW-42, JW-48

Figure 2 Type JW-32, JW-38



Pretravel 2mm Differential 1mm Total stroke 6mm 1.4kg. Operating force 0.5kg. Reset force Reset overtravel Trip overtravel 4mm + 0.30 Repeat accuracy Plus or minus 1.6 mm depending upon setting of plunger adjustment.

INITIAL POSITION

PRETRAVEL

OVERTRAVEL

OVERTRAVEL

POINT

TRIP

OVERTRAVEL

STOP POSITION

RESET

OVERTRAVEL

OVERTRAVEL

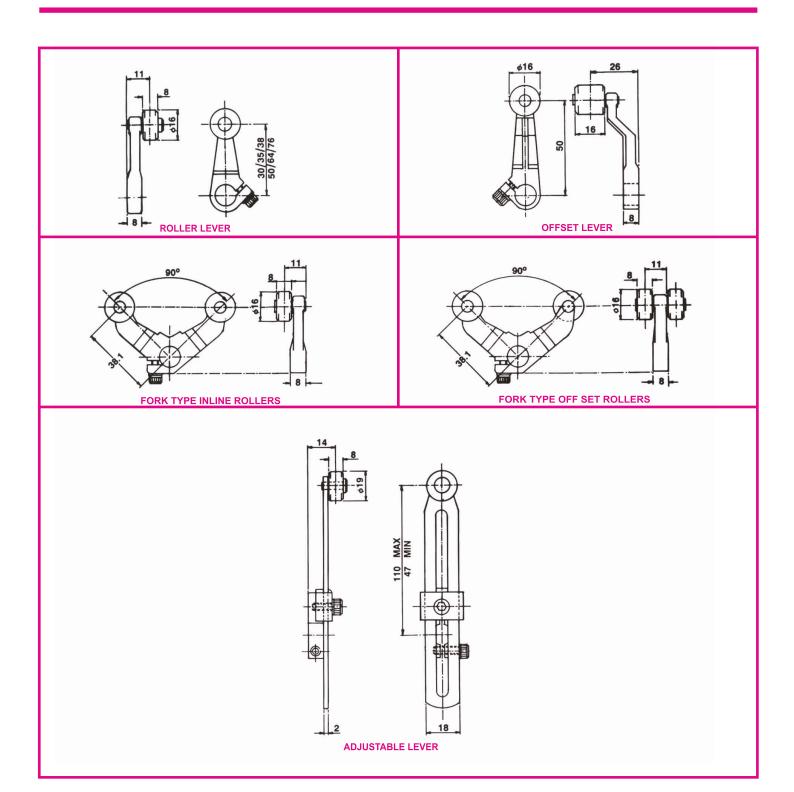
OVERTRAVEL

STOP POSITION

Figures 1 & 2 types JW-32, JW-38, JW-42, JW-48

| Туре | Α | В | С | D | Е | F | G | Н | I | J | K | L | М | Ν | 0 | Р |
|------------------------------|----|----|---|----|---|----|---|----|---|----|----|----|----|----|----|---|
| JW-32, JW-38 JW-42, JW-48 | 24 | 56 | 5 | 46 | 5 | 28 | 6 | 10 | 3 | 19 | 78 | 37 | 27 | 89 | 98 | 8 |





Manufactured by:



POST BOX NO. 27

89, (NEW NO:107), SIDCO INDUSTRIAL ESTATE

AMBATTUR, CHENNAI - 600 098.

PHONE: 26251279, 26257859, 26254469

FAX: 044-226255038.

E-MAIL: dchandramohan@jaibalaji.firm.in