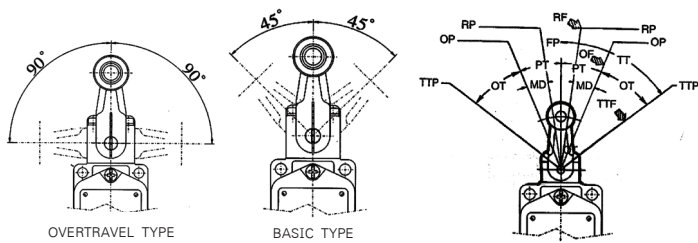


OF : Operating Force                      TTP : Total Travel Position  
 RF : Releasing Force                    PT : Pretravel  
 TF : Total Force                            OT : Overtravel  
 FP : Free Position                        DT : Travel Differential  
 OP : Operating Position                TT : Total Travel  
 RP : Releasing Position



- Note:**
1. Inductive loads have a power factor of 0.4min.(AC) and a time constant of 7 ms max.(DC).
  2. Lamp load has an inrush current of 10 times the steady-state current.
  3. Motor load has an inrush current of 6 times the steady-state current

**MAIN FEATURES :**

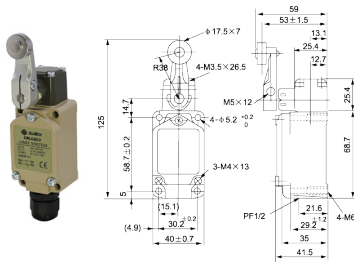
- ✓ Double-circuit type of limit switch, is widely used
- ✓ With strong aluminum cast outer shell
- ✓ High mechanical strength
- ✓ Structure preventing oil, water and pressure
- ✓ Indicating plate with setting position is installed in it, so it is easy to maintain
- ✓ Various actuators is taken convenience for using
- ✓ Built-in contact stand has double-spring, so it has long mechanical life
- ✓ Standard size configuration M20x1.5 for conduit connector

|                       |  |
|-----------------------|--|
| Operating speed       | 1mm/sec to 2m/sec (with Type WLCA2)  |
| Operating frequency   | Mechanical : 120 operations/min.<br>Electrical : 30 operations/min.  |
| Contact resistance    | 15M Ω max. (initial)   |
| Insulation resistance | 100M Ω min. (at 500 VDC)   |
| Dielectric strength   | 1000 VAC, 50/60 Hz for 1 minute between terminals of the same polarity<br>1500 VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts<br>1500 VAC, 50/60 Hz for 1 minute between each terminal and ground |
| Vibration             | Malfunction durability : 10 to 55Hz;<br>1.5mm double amplitude   |
| Shock                 | Mechanical durability :<br>Approx. 1,000m/sec <sup>2</sup> (approx. 100G's)<br>Malfunction durability :<br>Approx. 300m/sec <sup>2</sup> (approx. 30G's)   |
| Ambient temperature   | Operating:-10°C to +80°C (With no icing)   |
| Humidity              | 95% RH max.  |
| Service life          | Mechanical : 15,000,000 operations above (under rated OT)<br>Electrical : 500,000 operations above   |
| Degree of protection  | IP66   |

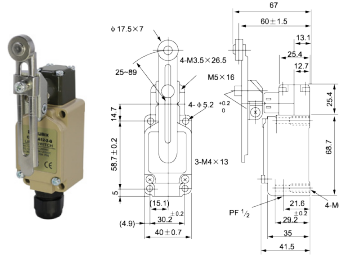
| Rated Voltage | Non-inductive load |      |           |      | Inductive load |      |            |      |
|---------------|--------------------|------|-----------|------|----------------|------|------------|------|
|               | Resistive Load     |      | Lamp Load |      | Inductive load |      | Motor Load |      |
|               | N.C.               | N.O. | N.C.      | N.O. | N.C.           | N.O. | N.C.       | N.O. |
| 125 VAC       | 10                 | 10   | 3         | 1.5  | 10             | 10   | 5          | 2.0  |
| 250 VAC       | 5                  | 5    | 2         | 1    | 5              | 5    | 3          | 1.0  |
| 8 VDC         | 10                 | 10   | 6         | 3    | 10             | 10   | 6          | 6    |
| 30 VDC        | 6                  | 6    | 4         | 3    | 6              | 6    | 4          | 4    |
| 125 VDC       | 0.8                | 0.8  | 0.2       | 0.2  | 0.8            | 0.8  | 0.2        | 0.2  |

| Types of actuator                       | Model       | OF max (g) | RF min (g) | PT max (mm) | OT min (mm) | MD max (mm) | TF max (g) | TT max    | OP (mm) |
|---|-------------|------------|------------|-------------|-------------|-------------|------------|-----------|---------|
| Roller Lever                            | CWLCA2-2    | 1360       | 227        | 20°         | 30°         | 12°         | 2720       | 50°       | -       |
| Adjustable Roller Lever                 | CWLCA12-2-Q | 1360       | 227        | 20°         | 30°         | 12°         | 2720       | 50°       | -       |
| Adjustable Rod Lever                    | CWLCL       | 142        | 28         | 20°         | 30°         | 12°         | 200        | 50°       | -       |
| Fork Lever Lock                         | CWLCA32-41  | 1200       | -          | 55°         | 35°         | -           | -          | 90 ± 10°  | -       |
| Fork Lever Lock                         | CWLCA32-42  |            |            |             |             |             |            |           |         |
| Top Plunger                             | CWLD        | 2720       | 910        | 1.7         | 6.4         | 1           | -          | 34 ± 2.8  | -       |
| Cross Roller Plugner                    | CWLD1       | 2720       | 910        | 1.7         | 5.6         | 1           | 2720       | 6.5 ± 0.8 | -       |
| Roller Plunger                          | CWLD2       | 2720       | 910        | 1.7         | 5.6         | 1           | -          | 6.5 ± 0.8 | -       |
| Ball Plunger                            | CWLD3       | 2720       | 910        | 1.7         | 5.6         | 1           | 2720       | 9 ± 0.8   | -       |
| Coil Spring (6.5 dia.)                  | CWLNJ       | 150        | -          | 28          | -           | -           | -          | -         | -       |
| Coil Spring With Plastic End (8.0 dia.) | CWLNJ-2     | 120        | -          | 28          | -           | -           | -          | -         | -       |
| Metal Stick (5.0 dia.)                  | CWLNJ-30    | 80         | -          | 28          | -           | -           | -          | -         | -       |
| Spring Wire (1.0 dia.)                  | CWLNJ-S2    | 29         | -          | 28          | -           | -           | -          | -         | -       |

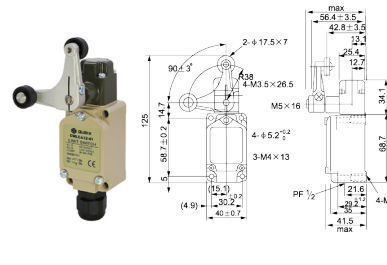




CWLCA2-2



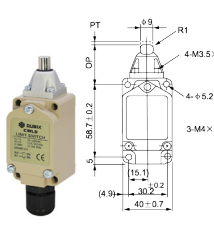
CWLCA12-2-Q



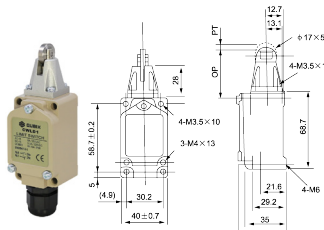
CWLCA32-41



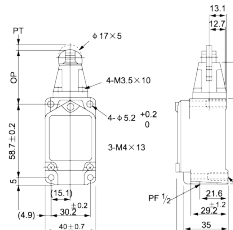
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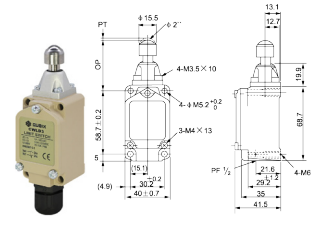
CWLD



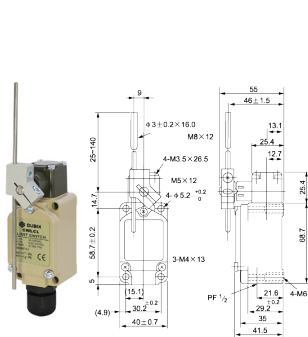
CWLD1



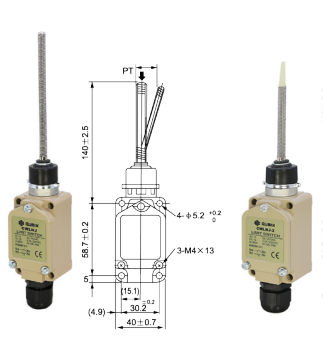
CWLD2



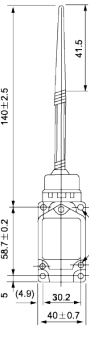
CWLD3



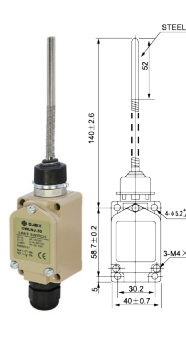
CWLCL



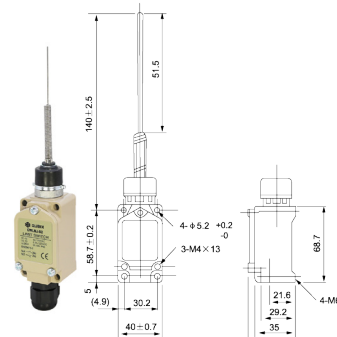
CWLNJ



CWLNJ2



CWLNJ30



CWLNJ-S2

CWL-Series

| รุ่น (Model) | ลักษณะ หน้าสัมผัสทำงาน                  | Rated Current / Voltage | Contact Type  | Terminal Type |
|--------------|---|-------------------------|---------------|---------------|
| CWLCA2-2     | Roller Lever                            | 10A / 250V              | DPDT 1NO, 1NC | SCREW TYPE    |
| CWLCA12-2-Q  | Adjustable Roller Lever                 | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLCL        | Adjustable Rod Lever                    | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLCA32-41   | Fork Lever Lock                         | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLCA32-42   | Fork Lever Lock                         | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLD         | Top Plunger                             | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLD1        | Cross Roller Plugner                    | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLD2        | Roller Plunger                          | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLD3        | Ball Plunger                            | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLNJ        | Coil Spring (6.5 dia.)                  | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLNJ2       | Coil Spring With Plastic End (8.0 dia.) | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLNJ30      | Metal Stick (5.0 dia.)                  | 10A / 250V              | DPDT 1NO, 1NC |               |
| CWLNJ-S2     | Spring Wire (1.0 dia.)                  | 10A / 250V              | DPDT 1NO, 1NC |               |

