## WLD-TS



## Ratings

| Shape / Structure | General-purpose Limit switches |
| :---: | :---: |
| service life | General type |
| Operating mechanism | Snap action |
| Actuator | Top plunger (Stainless steel plunger) |
| Frequency | $50 / 60 \mathrm{~Hz}$ |
| Leakage current | Approx. 0.5 mA |
| Switching mechanism | Self-reset mechanism |
| Contact configuration | 2-circuit double break type |
| Contact form | 1a1b |
| Load | General load |
| Ratings (AC): Non-Inductive load | Rated voltage: 125 VAC, Resistive load: 10 A (NC) $10 \mathrm{~A}(\mathrm{NO})$, Lamp load: 3 A (NC) 1.5 A (NO) <br> Rated voltage: 250 VAC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 2 A (NC) 1 A (NO) <br> Rated voltage: 500 VAC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 1.5 A (NC) 0.8 A (NO) |


| Ratings (AC): Inductive load | Rated voltage: 125 VAC, Inductive load: 10 A (NC) $10 \mathrm{~A}(\mathrm{NO})$, Motor load: 5 A (NC) 2.5 A (NO) <br> Rated voltage: 250 VAC, Inductive load: 10 A (NC) 10 A (NO), Motor load: 3 A (NC) 1.5 A (NO) <br> Rated voltage: 500 VAC, Inductive load: 3 A (NC) 3 A (NO), Motor load: 1.5 A (NC) 0.8 A (NO) |
| :---: | :---: |
| Ratings (DC): Non-Inductive load | Rated voltage: 8 VDC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 6 A (NC) 3 A (NO) Rated voltage: 14 VDC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 6 A (NC) 3 A (NO) Rated voltage: 30 VDC, Resistive load: 6 A (NC) 6 A (NO), Lamp load: 4 A (NC) 3 A (NO) Rated voltage: 125 VDC, Resistive load: 0.8 A (NC) $0.8 \mathrm{~A}(\mathrm{NO})$, Lamp load: 0.2 A (NC) 0.2 A (NO) <br> Rated voltage: 250 VDC, Resistive load: 0.4 A (NC) 0.4 A (NO), Lamp load: 0.1 A (NC) 0.1 A (NO) |
| Ratings (DC): Inductive load | Rated voltage: 8 VDC, Inductive load: 10 A (NC) 10 A (NO), Motor load: 6 A (NC) 6 A (NO) Rated voltage: 14 VDC, Inductive load: 10 A (NC) 10 A (NO), Motor load: 6 A (NC) 6 A (NO) Rated voltage: 30 VDC, Inductive load: 6 A (NC) 6 A (NO), Motor load: 4 A (NC) 4 A (NO) Rated voltage: 125 VDC, Inductive load: 0.8 A (NC) 0.8 A (NO), Motor load: 0.2 A (NC) 0.2 A (NO) <br> Rated voltage: 250 VDC, Inductive load: 0.4 A (NC) 0.4 A (NO), Motor load: 0.1 A (NC) 0.1 A (NO) |
| Explanation | The above values indicate the steady-state current. Lamp load has an inrush current of 10 times the steady-state current. Inductive load has a power factor of 0.4 Min . (AC) and a time constant of 7 ms Max. (DC). Motor load has an inrush current of 6 times the steadystate current. |
| Inrush current | $\begin{aligned} & \text { NC: } 30 \mathrm{~A} \\ & \text { NO: } 20 \mathrm{~A} \end{aligned}$ |
| Protective circuit | Classification of protection against electric shock: Class I Short-circuit protective device: 10 A fuse type gl or gG (IEC269) |
| Conduit size | 1/2-14NPT |
| Earth terminal | With ground terminal |
| Ambient temperature | Operating: -10 CEL to 80 CEL (with no icing or condensation) |
| Ambient humidity | Operating: $35 \%$ RH to $95 \%$ RH (with no icing or condensation) |

## Characteristics

| Permissible operating speed | $1 \mathrm{~mm} / \mathrm{s}$ to $0.5 \mathrm{~m} / \mathrm{s}$ |
| :---: | :---: |
| Permissible operating frequency (Mechanically) | 120 operations / 1 minute Max. |
| Permissible operating frequency (Electrically) | 30 operations / 1 minute Max. |
| Contact resistance | 25 m Ohm Max. (Initial value) (Measuring method is contact resistance meter.) |
| Insulation resistance | Between each terminal of the same polarities: 100 M Ohm Min. Between live-metallic part and ground: 100 M Ohm Min. <br> Between each terminal and non-live-metallic part: 100 M Ohm Min. <br> (at 500 VDC Megger) |
| Dielectric strength | Between each terminal of the same polarities: 1,000 VAC <br> Between live-metallic part and ground: 2,200 VAC <br> Between each terminal and non-live-metallic part: 2,200 VAC <br> ( $50 / 60 \mathrm{~Hz}$ for 1 min ) |
| Durability (Mechanically) | 15,000,000 operations Min. (No load) <br> (Temperature, Humidityconditions: 5 CEL to 35 CEL, 40 \%RH to 70 \% RH) |
| Durability (Electrically) | 750,000 operations Min. (Resistive load 10 A at 125 VAC) <br> (Temperature, Humidityconditions: 5 CEL to 35 CEL, 40 \%RH to 70 \% RH) |
| Pollution degree | 3 (EN60947-5-1) |
| Vibration resistance (Malfunction) | Vibration frequency range: 10 to 55 Hz , Double amplitude: 1.5 mm , Contact opening: 1 ms Max. at the free position and the total travel position. |
| Shock resistance (Destruction) | 1,000 m/s2 |
| Shock resistance (Malfunction) | Contact opening is 1 ms Max . at the free position and the total travel position at $300 \mathrm{~m} / \mathrm{s} 2$. |
| Degree of protection | IEC60529 (JEM): IP67 NEMA250: Type3,4,13 |


| Applicable standard (UL) | Standard No.: UL508 <br> File number: E76675 |
| :--- | :--- |
| Applicable standard (CSA) | Standard No.: C22.2 NO.14 <br> File number: LR45746 |
| Applicable standard (TUV) | Standard No.: EN60947-5-1 <br> File number: J50022353 |
| Applicable standard (CCC(CQC)) | Standard No.: GB14048.5 <br> File number: 2003010305032365 |
| Applicable standard (EC Directive (Low Voltage | 2006/95/EC |
| Directive)) | Front mounting, Back mounting |
| Mounting specification |  |

## Operating characteristics

| Operating Force (OF) | Standard value 26.67 N Max. |
| :--- | :--- |
| Release Force (RF) | Standard value 8.92 N Min. |
| Pre-Travel (PT) | Standard value 1.7 mm Max. |
| Over-Travel (OT) | Standard value 6.4 mm Min. |
| Movement Differential (MD) | Standard value 1 mm Max. |
| Operating Position (OP) | Standard value $34+/-0.8 \mathrm{~mm}$ |
| Operating limit position (TTP) | Standard value 29.5 mm Max. |

Four, $5.2^{+0.2}$ dia. mounting holes or M5 taps


