## Tongue Switches

Trojan T15


## Description

The Trojan T15 is a compact universal tongue actuated safety interlock switch designed to fit at the opening edge of sliding, hinged or lift-off guards. With its dual entry slots and rotatable head, movable only by releasing the cover screws, the Trojan T15 can offer four different options for actuator entry.

The Trojan T15 features a compact housing, only $75 \times 52 \times 32 \mathrm{~mm}$ ( $2.95 \times 2.04 \times 1.25$ in) and includes direct opening action contacts and a tamper-resistant mechanism. The Trojan T15 has 2 N.C. safety contacts or 1 N.C. safety contact and 1 N.O. auxiliary contact. The unit is sealed to IP67 and has three M20 conduit entries.

Operation of the switch is achieved by the insertion of the specially profiled stainless steel actuator which should be permanently fixed to the leading edge of the guard door. The standard T15 incorporates actuator retention force of 30 N . An optional catch mechanism helps keep doors shut on vibrating machinery.

## Features

- Compact size, $75 \times 52 \times 32 \mathrm{~mm}$ ( $2.95 \times 2.05 \times 1.26 \mathrm{in}$ ) case
- 30N actuator retention force
- Strong and versatile, can be used in most applications
- Contacts: 2 N.C. safety or 1 N.C. safety \& 1 N.O. auxiliary
- GD2 style available for demanding applications

Specifications

| Standards | EN 954-1, ISO 13849-1, IEC /EN 60204-1, N FPA 79, EN 1088, ISO 14119, IEC/ EN 60947-5-1, AN SI B11.19, AS4024.1 |
| :---: | :---: |
| C ategory | Cat. 1 Device per EN 954-1 Dual channel interlocks suitable for Cat. 3 or 4 systems |
| Approvals | CE marked for all applicable directives, cULus and TUV Nord |
| Safety C ontacts | 2 N .C. or 1 N .C. direct opening action |
| ```Designation/Utilization C at. A600/AC-15 (Ue) (le) N600/DC-13 (Ue) (le)``` | $\begin{array}{llll} 600 \mathrm{~V} & 500 \mathrm{~V} & 240 \mathrm{~V} & 120 \mathrm{~V} \\ 1.2 \mathrm{~A} & 1.4 \mathrm{~A} & 3 \mathrm{~A} & 6 \mathrm{~A} \\ 600 \mathrm{~V} & 500 \mathrm{~V} & 250 \mathrm{~V} & 125 \mathrm{~V} \\ 0.4 \mathrm{~A} & 0.55 \mathrm{~A} & 1.1 \mathrm{~A} & 2.2 \mathrm{~A} \end{array}$ |
| Max. Switched Current/ Voltage/Load | 500V/500VA |
| Thermal C urrent (lth) | 10A |
| Min Current | 5 V 5 mA DC |
| Safety C ontact Gap | >2 x 2 mm (0.078in) |
| Rtd. Insulation Voltage | (Ui) 500 V |
| Rtd. Impulse W ithstand Volt. | (Uimp) 2500V |
| Auxiliary Contacts | 1 N.O. |
| Pollution D egree © | 3 |
| Actuator Travel for Positive 0 pening | 6 mm (0.236in) |
| Min 0 perating Radius | $175 \mathrm{~mm} \text { (6.89in) }$ <br> 60 mm (2.36in) with flexible actuator |
| Break Contact Min Force | 30N (6.71b) |
| Max Actuation Speed | 160mm (6.29) per sec |
| Max Actuation Frequency | 2 C ycle per sec |
| C ase Material | UL approved glass filled polybutylene terephthalate |
| Actuator M aterial | Stainless Steel |
| Protection | IP67 |
| Conduit Entry | $3 \times \mathrm{M} 20$ or quick disconnect style |
| O perating Temperature | $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right.$ to $\left.+176^{\circ} \mathrm{F}\right)$ |
| Fixing | $2 \times \mathrm{M} 5$ |
| Mounting | Any position |
| Mechanical Life | 1,000,000 operations |
| Electrical Life | 1,000,000 operations |
| W eight | 120 g (0.265lbs) |
| Colour | Red |
| (conductive pollution occurs, or dry, non conductive pollution occur which becomes conductive due to condensation. |  |

## Applications

Note: Lift-off guards require good alignment when using tongue actuated interlock switches.
IMPO RTANT: It must not be possible to lift the guard without actuating the interlock. An interlock on either side may be required.


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Product Selection

| Model Type | Contacts |  | Actuator | M20 Conduit |  | Quick Disconnect End Entry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Safety | Aux. |  | Standard | 1/2in NPT Adaptor |  |
| Standard | 2 N.C. | - | Standard | 440K-T11303 | 440K-T11267 | 440K-T11307 |
|  |  |  | Fully-Flex | 440K-T11395 | 440K-T11273 | 440K-T11384 |
|  |  |  | - | 440K-T11269 | - | 440K-T11385 |
|  | 1 N.C. | 1 N.0. | Standard | 440K-T11305 | 440K-T11268 | 440K-T11386 |
|  |  |  | Fully-Flex | 440K-T11396 | 440K-T11276 | 440K-T11387 |
|  |  |  | - | 440K-T11270 | - | 440K-T11388 |
| GD 2 Front Entry | 2 N.C. | - | Standard | 440K-T11463 | 440K-T11288 | 440K-T11389 |
|  |  |  | Fully-Flex | 440K-T11397 | 440K-T11287 | 440K-T11390 |
|  |  |  | - | 440K-T11280 | - | 440K-T11391 |
|  | 1 N.C. | 1 N.O. | Standard | 440K-T11398 | 440K-T11284 | 440K-T11392 |
|  |  |  | Fully-Flex | 440K-T11399 | 440K-T11283 | 440K-T11393 |
|  |  |  | - | 440K-T11279 | - | 440K-T11394 |
|  |  | Recommended mating cable, 2 m (6.5ft). See page 15-10 for details and additional lengths. |  |  |  | 889D-F4AC-2 |

Accessories

|  | Description | For Dimensions See Page | Catalogue Number |
| :---: | :---: | :---: | :---: |
|  | Standard Actuator <br> (Standard model only) | 440K-A11238 |  |

## Tongue Switches

Trojan T15
Accessories (continued)

| Description |
| :--- |
| For Dimensions refer to page | Catalogue Number

## Optional Items



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Approximate Dimensions-mm (inches)
D imensions are not intended to be used for installation purposes.


Typical Wiring Diagrams (shown with guard closed, actuator inserted)


| Connector Pinout |  | 1 N.C. + 1 N.O. |  |  |  |  | 2 N.C. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Terminal |  |  |  | act | Termi |  |  |  | Contact |
|  | 1 3 | $\begin{aligned} & 11 \\ & 12 \end{aligned}$ |  |  |  |  | $\begin{aligned} & 11 \\ & 12 \end{aligned}$ |  |  |  | N.C. |
|  | 2 4 | $24 \quad \text { N.O. }$ |  |  |  |  | $\begin{aligned} & 21 \\ & 22 \end{aligned}$ |  |  |  | N.C. |
| Contact Action |  | 1 N.C. \& 1 N.O. (BBM) |  |  |  |  | 2 N.C. |  |  |  |  |
| $\square$ Contact O pen $\square$ Contact Closed |  | 20 | 15 | 10 | 6 | 0mm | 20 | 15 | 10 | 6 | 0 mm |
| Actuator withdrawal distance from full insertion |  | $\begin{aligned} & 11 / 12 \\ & 23 / 24 \end{aligned}$ |  |  |  |  | $\begin{aligned} & 11 / 12 \\ & 21 / 22 \end{aligned}$ |  |  |  |  |

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