

## Description

The Centurion is a positive mode, thumbwheel operated machine guard locking interlock switch that locks the guard closed until the operator manually rotates the thumbwheel, retracting the shaft from the guard door. The action of retracting the shaft initiates two functions; it isolates the power to the machine while the guard is open and, due to the operating principle, gives up to 20 seconds delay before the guard can be opened.

Alternative styles with longer shafts can increase the time delay by as much as $50 \%$. The Centurion is ideal for use on simple machines with short, constant run down times. It is important that correct installation and operation of the unit are followed to ensure that the retractable shaft cannot be extended when the guard is open. For machines with long or variable run down times or where frequent access is required, solenoid locking switches such as the TLS-GD2 and Atlas 5 should be considered.

The Centurion has 2 safety (N.C.) contacts, 1 auxiliary (N.O.) contact and 1 conduit entry (either M20 or quick disconnect).

EX and Pneumatic styles of the Centurion are also available; see the Explosion Proof section on page 16-1 for more information.

Note: Additional safety measures (i.e., a shroud) should be used to ensure the thumbwheel can only be accessed by fingertips.

## Features

- Manually operated time delay, allows for machine run down
- Simple operation \& installation
- Robust die cast housing, ideal for heavy duty applications
- Contacts, 2 N.C. \& 1 N.O. (sealed to IP66)

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, A S4024.1 |
| :---: | :---: |
| C ategory | Cat. 1 Device per EN 954-1 <br> Dual channel interlocks suitable for Cat. 3 or 4 systems |
| Approvals | CE marked for all applicable directives, cULus, BG, and SUVA |
| Safety C ontact | 2 N .C. direct opening action |
| ```Designation/Utilization Cat. AC (Ue) (le) DC``` | $\begin{aligned} & \mathrm{AC} 15 \\ & 500 \mathrm{~V} 250 \mathrm{~V} 100 \mathrm{~V} \\ & 1 \mathrm{~A} 2 \mathrm{~A} 5 \mathrm{~A} \\ & 20 \mathrm{~V} 0.5 \mathrm{~A} 24 \mathrm{~V} 2 \mathrm{~A} \end{aligned}$ |
| Max Switched Current/Volt/ Load | 500V/500VA |
| Thermal Current (Ith) | 10A |
| Min Current | 5 V 5 mA |
| Safety C ontact Gap | >2mm (0.078in) |
| Rtd. Insulation Voltage | (Ui) 500 V |
| Rtd. Impulse withstand Volt | (Uimp) 2500V |
| Auxiliary C ontacts | 1 N.C. |
| Shaft Movement to Achieve Contact $O$ peration | 2mm (0.078in) |
| C ase M aterial | Heavy duty die cast alloy |
| Locking shaft | Stainless Steel |
| Protection | IP66 |
| Conduit Entry | $1 \times \mathrm{M} 20$ or quick disconnect |
| O perating Temperature | $-25^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}\left(-10^{\circ} \mathrm{F}\right.$ to $\left.+176{ }^{\circ} \mathrm{F}\right)$ |
| Mounting | $2 \times \mathrm{M} 4$ |
| Mechanical Life | 1,000,000 operations |
| Electrical Life | 1,000,000 operations |
| W eight | 500g (1.20lbs) |
| Colour | Red |

Note: The safety contacts of the Guardmaster switches are described as normally closed (N.C.) i.e., with the guard closed, actuator in place (where relevant) and the machine able to be started.

## Centurion Thumbwheel Operation



Product Selection

| Safety Contacts | Auxiliary Contacts | BBM/MBB | Type | Catalogue Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | M20 Conduit | Quick Disconnect |
| 2 N.C. | 1 N .0. | BBM | Right Hand | 440K-B04025 | 440K-B04046 |
|  |  |  | Left Hand | 440K-B04026 | 440K-B04047 |
|  |  |  | Right Hand Extended Bolt | 440K-B04039 | 440K-B04048 |
|  |  |  | Left Hand Extended Bolt | 440K-B04040 | 440K-B04049 |
|  |  | Recommended mating cable, 2 m (6.5ft). See page 15-10 for details and additional lengths. |  |  | 889D-F8AB-2 |

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


Typical Wiring Diagrams


| Connector Pinout |  | 2 N.C. +1 N.O. |  | Contact Action |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Terminal | Contact | $\square$ Contact O pen $\square$ Contact Closed |  |
|  | 1 | 11 |  | Actuator withdrawal distance from full insertion |  |
|  | 7 | 12 | N.C. |  |  |
|  | 6 | 21 |  | 2 N.C. +1 N.O. (BBM) |  |
|  | 5 | 22 | N.C. | 24. | 20 mm |
|  | 4 | 33 | N | 21/22 |  |
|  | 3 | 34 | N.O. | 33/34 |  |
|  | 8 | Ground |  |  |  |

ABB Allen-Bradley

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