**OEM Automatic Ltd**
Address: Whiteacres, Whetstone Leicester, LE8 6ZG
0116 284 9900 | Orders@oem.co.uk | www.oem.co.uk

# IDEM TONGUE INTERLOCK SAFETY SWITCHES INCH-3

INCH-3

223002
INCH-3 QC M12 8way '2NC 1NO'



- 8 actuator entry positions
- Rotatable stainless steel 316 head
- 3 pole contact blocks
- Plastic housing with IP67 ingress protection
- 25mm x 79mm 22mm fixing

### PRODUCT DESCRIPTION

Features
·IDEM INCH-3 Compact Safety Interlock switches are designed to provide position interlock detection for small moving guards
·They are designed to fit to the leading edge of sliding, hinged or lift off machine guards
·The rugged Stainless Steel actuator profile is designed to match a cam mechanism to provide a positively operated not easily defeated interlock mechanism
·The compact body, 18mm fixing profile and rotatable head make them easy to install where space is restricted
·The rotatable heads have dual actuator entry positions to give up to 8 different entry positions
·3 conduit entry points are available to give flexible mounting options
·Contact blocks are replaceable

Application
IDEM Tongue operated Safety Interlock switches are designed to fit to the leading edge of sliding, hinged or lift off machine guards to provide positively operated switching contacts and provide a tamper resistant, not easily defeatable key mechanism.
They are designed to provide robust position interlock detection for moving guards.
Depending upon the risk assessment for the application, they can be used independently to provide positively operated contacts to EN60947-5-1 or they can be used in combination with any dual channel safety monitoring relays to provide up to Category 4 PLe ISO13849-1 or SIL3 EN62061.
They are available in various materials and housing styles to provide complete flexibility of choice depending upon the application.
They offer a choice of contact blocks (including Explosion Proof) and various actuators to aid installation and maintain durability.

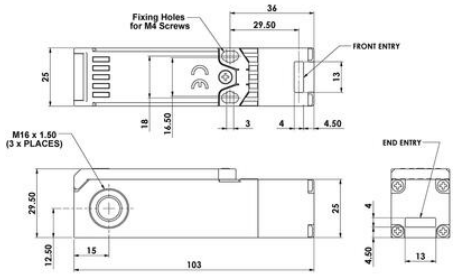
Operation
The switch is rigidly mounted to the frame of the guard or machine. The actuator is fitted to the moving part (frame) of the guard and is aligned to the switch entry aperture. The actuator profile is designed to match a cam mechanism within the switch head and provides a positively operated not easily defeatable interlock switch. When the actuator is inserted into the switch the safety contacts close and allow the machine start circuit to be enabled. When the actuator is withdrawn from the switch the safety contacts are positively opened and the machine circuit is broken. Standard versions use high specification plastic or die-cast housings and are sealed to IP67 and provide long term protection against moisture ingress. For harsh applications like Food Processing, Pharmaceutical and Petro-Chemical Industries the Stainless Steel 316 range offers protection up to IP69K for use in high pressure chemical cleaning or CIP/SIP applications.

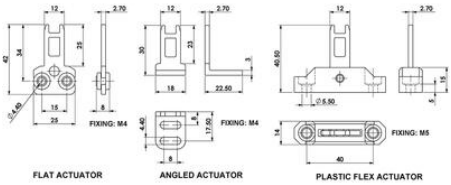
# TECHNICAL DATA

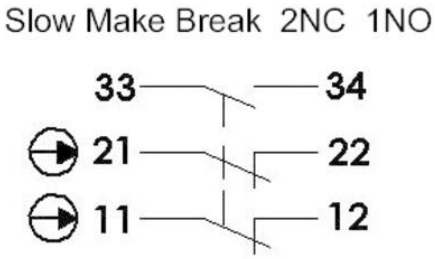
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|---|---|
| **Actuator** | Not included |
| **Annual usage** | 8 cycles per hour/24 hours per day/365 days |
| **Approvals** | ISO 14119, EN60947-5-1, EN60204-1, ISO 13849-1, EN62061, UL 508 |
| **ATEX approved** | No |
| **Conduit entry** | M12 8 Pole |
| **Contacts** | 2NC 1NO |

| | |
|---|---|
| **Head material** | Stainless steel 316 |
| **Housing material** | Glass fibre polyester |
| **IP class** | IP67 |
| **Maximum approach / withdrawal speed** | 600 mm/s |
| **Mechanical reliability B10d** | 2.5 x $10^{6}$ operations at 100mA load |
| **Mounting** | 2 x M4 |
| **MTTFd** | 356 years |
| **Operating temperature** | -25..80°C |
| **PFHd** | 3.44 x $10^{-8}$ |
| **PL** | e acc. ISO13849-1 |
| **Rated insulation voltage** | 600V ac |
| **SIL** | 3 acc. EN62061 |
| **Thermal current (Ith)** | 5 A |
| **Travel for positive opening** | 6 mm |
| **Withstand voltage** | 2500V ac |



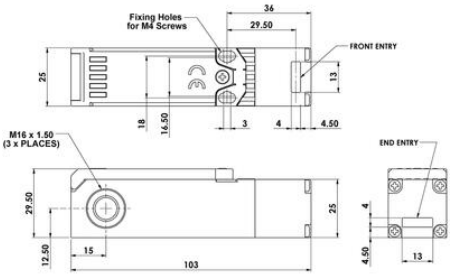









# Slow Make Break 2NC 1NO

