Application:
IDEML Magnetic Non Contact EX Safety Switches are designed to interlock hinge, sliding or removal guard or hatches. They are specifically advantageous when:
- a) poor guard alignment exists
- b) high hygiene requirements exist e.g. food industry hose down
- c) a long mechanical life is required (no moving or touching parts).

Operation:
All IDEML Explosion Proof Non Contact EX Safety Switches are designed to conform to EN60079-0 and IEC60079-18. They have a magnetic sensing system which provides a wide sensing distance and provides a high tolerance to misalignment after sensing. They can be fitted behind stainless steel fittings and can operate in extreme environments of temperature and moisture.

Specific Conditions of Use:
1. The supply must include a fuse capable of interrupting a 1500A short circuit current.
2. When rated at 2A the switches are suitable for use in an ambient temperature range of -20°C to +60°C.
3. When rated at 1A or lower the switches are suitable for use in an ambient temperature range of -20°C to +80°C.

Installation of all IDEML Non Contact EX Safety Switches must be in accordance with a risk assessment for the individual application.

The use of a Safety Relay is recommended for monitoring IDEML Magnetic switches. These relays monitor 2 redundant circuits as per ISO 13849-1 up to Cat4/PLe protection. IDEML Magnetic switches are designed to operate with most Dual Channel Safety Modules to satisfy IEC 947-5-3 PDF-S. Depending upon the risk assessment for the application, the switches may be connected to other devices e.g. contactors or control software. The maximum switching current and external fusing should be observed for each type of switch (see table). Always fit in a position to avoid mechanical impacts.

Tightening torque for mounting bolts to ensure reliable fixing is 1.5 Nm. Always mount on to Non Ferrous materials. The recommended setting gap is 5mm. After installation always check each switch function by opening and closing each guard individually in turn and ensuring that the LED’s on the Safety Modules are illuminated when the switch is closed and are extinguished when the switch is open.

Whether a Safety Relay is used or some other control device, always check that the machine stops and cannot be re-started when each switch is open.

Actuator operating directions:

Maintenance:
Monthly: Check alignment of actuator and look for signs of mechanical damage to the switch casing. Check wiring for signs of damage.

Every 6 months: Check each switch function by opening and closing each guard individually in turn and ensuring that the LED’s on the Safety Modules are illuminated when the switch is closed and are extinguished when the switch is open. Check that the machine stops and cannot be re-started when each switch is open.

Never repair any switch, actuator or integral cables. Replace any switch displaying signs of mechanical damage to the casing or cables.

Certification Standards:

<table>
<thead>
<tr>
<th>Certification Standards</th>
<th>Certificate Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 60079-0 (EN60079-0)</td>
<td>Baseefa1ATEX0234X</td>
</tr>
<tr>
<td>IEC 60079-18 (EN60079-18)</td>
<td>IECEx BAS11.0115X</td>
</tr>
</tbody>
</table>

Classification:
- WM1-EX (Zones 0,20,1,21,2,22)
- I 1G Ex ma IIC T6 Ga
- I 1D Ex ma IIC T80 Da
- CM1-EX CM2-EX CM3-EX LM-EX RM-EX (Zones 1,21,2,22)
- II 2G Ex mb IIC T6 Gb
- II 2D Ex mb IIC T80 Db

Safety Channels NC:
- WM1-EX 250V.ac/dc 0.6 A Max. (Internally fused)
- WM2-EX 250V.ac/dc 2.0 A Max. (Internally fused)
- CM1-EX 250V.ac/dc 2.0 A Max. (Internally fused)
- CM2-EX (1NC versions) 250V.ac/dc 1.0 A Max. (Internally fused)
- CM3-EX 250V.ac/dc 0.6 A Max. (Internally fused)
- LM-EX 250V.ac/dc 0.6 A Max. (Internally fused)
- RM-EX 250V.ac/dc 0.6 A Max. (Internally fused)

Auxiliary Channel NO:
- 250V.ac/dc 0.2 A Max.
Explosion Proof Non Contact Safety Switches

Manufacturer:
IDE M SAFETY SWI TCHES Ltd., 2 Ormside Close, Hindley Industrial Estate, Hindley Green, Wigan, UK. email: info@idemsafety.com

The following products conform to the Essential Health and Safety Requirements of the European Machinery Directive (98/37/EC and 2006/42/EC), the requirements of the Low Voltage Directive (2006/95/EC), the requirements of the Directive for Equipment intended for use in potentially explosive atmospheres (94/9/EC) and the relevant requirements of the stated standards:

Devices: Explosion Proof Non Contact Interlock Switches

Types
- WM1-EX
- WM2-EX
- CM1-EX
- CM2-EX
- CM3-EX
- RM-EX
- LM-EX


EC Type Certificate Number: Baseefa11ATEX0234X Date: 30/11/2011 Certified Body: Baseefa Ltd, Buxton, Derbyshire, UK SK17 9RZ (Notified Body Number 1180).

Materials used in the manufacture of these products are RoHS compliant in accordance with Directive (2002/95/EC).

M. Mohtasham, Managing Director 1st June 2012 Dwg. 910563-EX Iss.4