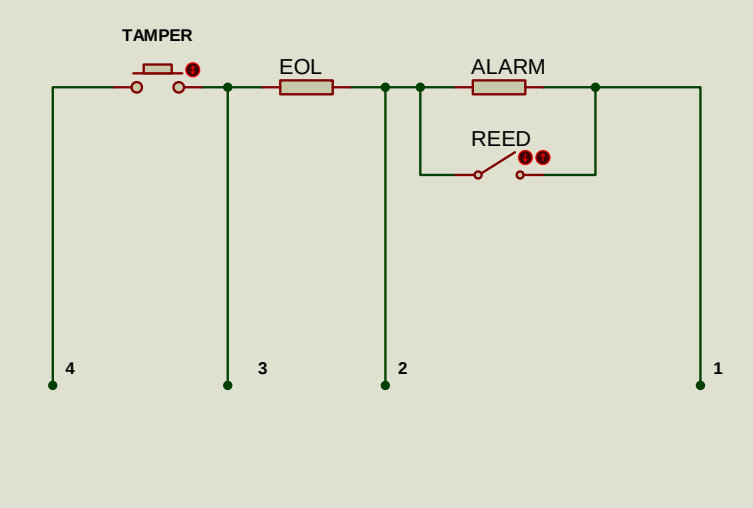
TECHNICAL BULLETIN #0010
XEND21/YEND21 Security Circuit

SINGLE ZONE

The schematic is as shown below.



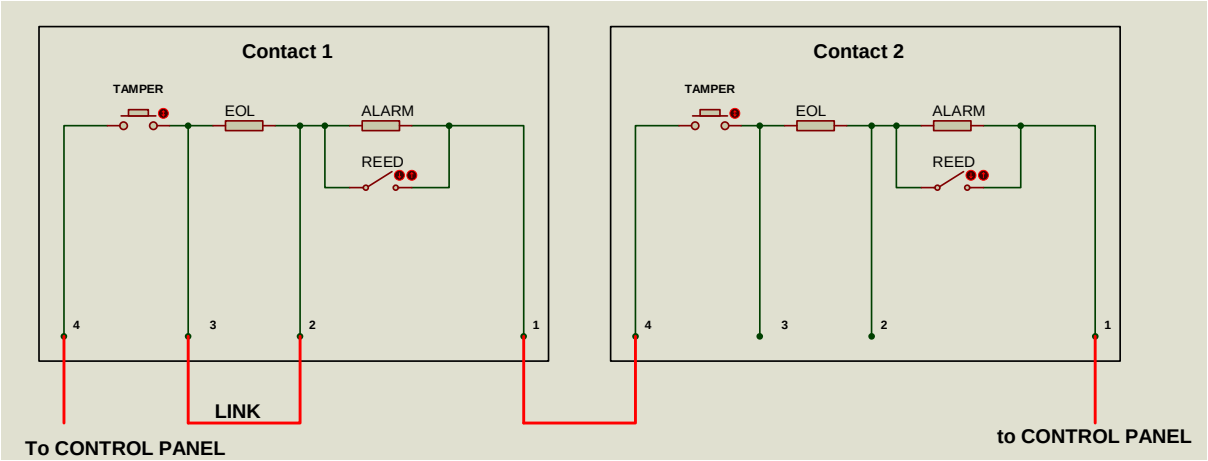
The ALARM PANEL monitors the contacts, usually one contact for each zone, and will be expecting three resistance values. It is connected to the contact at terminals 1 and 4. Terminals 2 and 3 are used where a different configuration is required eg no TAMPER or no EOL.

If there is an open circuit the panel will interpret this as a TAMPER fault. The TAMPER is generated by a tactile switch inside the contact when the lid is removed. It can also be caused by a genuine open circuit eg if the cable is cut.

The EOL, end of line, resistor is a resistance that the panel interprets that the system is OK and the ALARM contact (REED) is closed.

The ALARM resistor is the value that the panel will interpret as an alarm. It is added to the EOL resistance.

SHARED ZONE



TECHNICAL BULLETIN #0010
XEND21/YEND21 Security Circuit

When connecting two contacts in series to share a zone it must be remembered that the panel will still be looking for the same resistance values as for the single zone.
The correct EOL resistance can be achieved by shorting out the EOL resistance in contact 1(LINK). With both contacts SET the panel will then only see the EOL resistance in contact 2. If the alarm goes in contact 1 or contact 2 then the panel will see a correct resistance value and all is well.
However, if both contacts go off then the panel will see BOTH resistance values. How the panel reacts depends on the panel and how it is set-up. If there are no adjustments available it is likely that the panel will give a TAMPER alarm – it is over the value set for a "normal" alarm. If it is possible to set the upper ALARM level then the system could be made to still indicate an alarm.

Knight Fire & Security Products Ltd
Unit 84,
Seawall Road Industrial Estate
Tremorfa, Cardiff CF24 5TH
TEL : 02920 488129
Fax : 02920 489132

www.knightfireandsecurity.com