

# MTL2210B SWITCH OPERATED RELAY

## 1-channel

The MTL2210B enables two 500VA safe-area loads to be controlled in separate circuits simultaneously by one light-duty on/off switch in a hazardous area. Alternatively, it can be arranged to latch for pushbutton stop/start control of an electric motor, the relay then being energised by brief closure of one switch contact and de-energised by the brief opening of another. The stop switch overrides the start switch, even if the start circuit is closed, making sure that the motor can be turned off under all conditions. In this application, the second pair of changeover output contacts enables the status of the motor to be fed to a computer or data logger.

## SPECIFICATION

See also 'Common specification'

### Number of channels

One, fully floating

### Location of switch(es)

Zone 0, IIC, T6 hazardous area  
Div 1, Group A, hazardous location

### Voltage applied to switch(es)

5.6V dc from 1.5k $\Omega$

### Input/output characteristics

Relay energised if <200 $\Omega$  between tmnls 1 & 2 and 3 & 4  
Relay de-energised if >500 $\Omega$  between tmnls 1 & 2\* or 3 & 4  
Hysteresis, nominal 100 $\Omega$

### \*Non-latching mode

### Latching facility

(Enabled by linking terminals 5 & 6)  
Relay then latches ON when energised (shorts tmnls 1 & 2)  
Relay de-energised if unlatch circuit broken (latching)

### Power supply failure protection

Relay de-energised if supply fails

### Broken line protection

Relay de-energised if either line broken (non-latching)  
Relay de-energised if unlatch circuit broken (latching)

### 'Fail-safe' earth fault protection

(Enabled by connecting terminal 8 to earth)  
Relay de-energised if <1k $\Omega$  to earth, total for all 3 lines  
Relay not de-energised if >7.5k $\Omega$  to earth, total for all 3 lines

### 'No-fail' earth fault protection

(Enabled by connecting terminal 8 to MTL4220)  
Fault on any line proclaimed: unit continues working

### Response time

50ms, nominal

### Contacts

2-pole changeover

### Contact rating

250V:5A:500VA (ac) (resistive loads, reactive loads must be suppressed)  
250V:5A:250W (dc) (resistive loads, reactive loads must be suppressed)

### Contact life expectancy

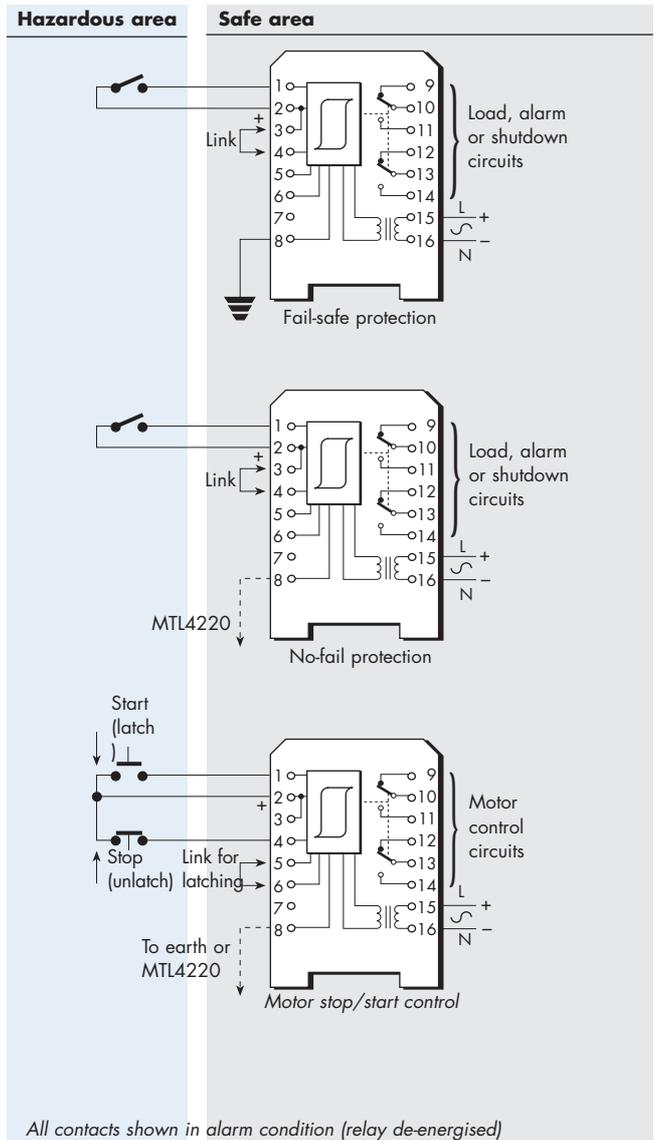
2 x 10<sup>5</sup> operations at maximum load

### LED indicator

ON when relay energised

### Consumption

0.9 to 1.4W (ac versions)  
60mA (24V dc version)



### Ambient temperature limits

-20 to +55°C (all versions, close packed)  
-20 to +60°C (all versions, at least 5mm apart)  
-40 to +80°C (all versions, storage)

### Safety description

7V, 300 $\Omega$ , 22mA

### FM max entity parameters

V<sub>OC</sub> = 8.3V, I<sub>SC</sub> = 26mA, C<sub>a</sub> = 7 $\mu$ F, L<sub>a</sub> = 47mH



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