

MTL2211 SWITCH OPERATED RELAY

2-channel

The MTL2211 enables two 500VA safe-area loads to be controlled independently through two relays by two light-duty on/off switches in a hazardous area. The two input circuits are independently fully floating and are unaffected by each other. Each relay is provided with two sets of changeover contacts, which are connected in parallel within the unit for maximum reliability. Applications include the operation of medium-powered electrical equipment such as alarms, lights, and small electrical motors, or contactors for controlling higher-powered equipment.

SPECIFICATION

See also 'Common specification'

Number of channels

Two, independently fully floating

Location of switches

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

Voltage applied to each switch

2.5V dc from 680Ω

Input/output characteristics (each channel)

Relay energised if $<200\Omega$ in switch circuit
Relay de-energised if $>500\Omega$ in switch circuit
Hysteresis, nominal 100Ω

Power supply failure protection

Both relays de-energised if supply fails

Broken line protection (each channel)

Relay de-energised if either line broken

Fail-safe earth fault protection (each channel)

(Enabled by connecting terminal 3 or 7 to earth)
Relay de-energised if $<1k\Omega$ to earth, total for both lines
Relay not de-energised if $>7.5k\Omega$ to earth, total for both lines

'No-fail' earth fault protection (each channel)

(Enabled by connecting terminal 3 or 7 to MTL4220)
Fault on either line proclaimed: unit continues working

Response time (each channel)

50ms, nominal

Contacts (each channel)

1-pole changeover, duplicated within unit

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

3×10^5 operations at maximum load

LED indicator (each channel)

ON when associated relay energised (safe condition)

Consumption

1.7 to 2.5W (ac versions)
110mA (24V dc version)

Ambient temperature limits

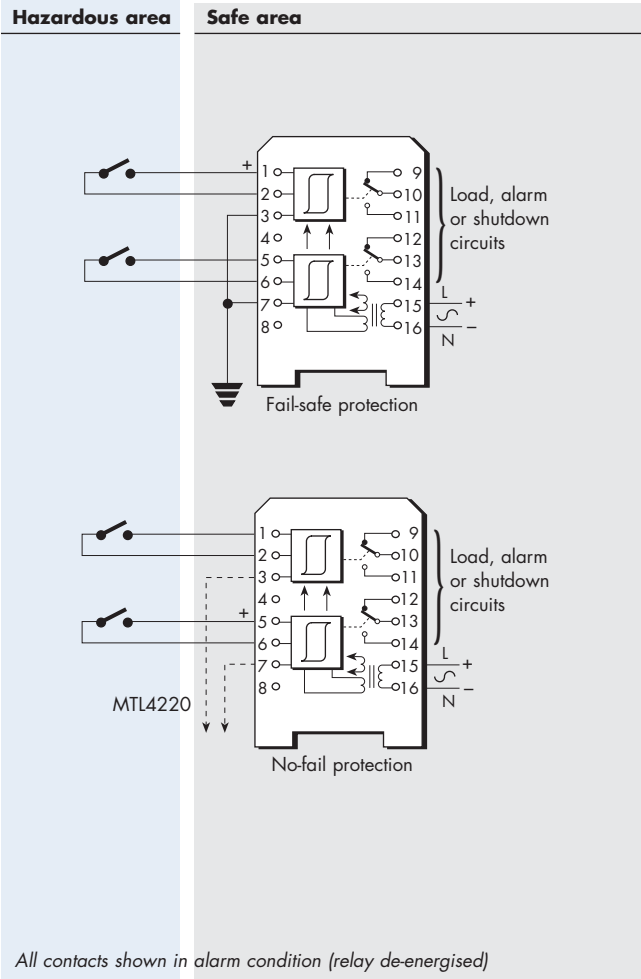
-20 to +50°C (ac versions, close packed)
-20 to +45°C (24V dc versions at 26V, close packed)
-20 to +60°C (all versions, at least 5mm apart)
-40 to +80°C (all versions, storage)

Safety description (each channel)

7V, 300Ω, 22mA

FM max entity parameters (each channel)

$V_{oc} = 8.3V$, $I_{sc} = 21.7mA$, $C_a = 5.5\mu F$, $L_a = 75mH$



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