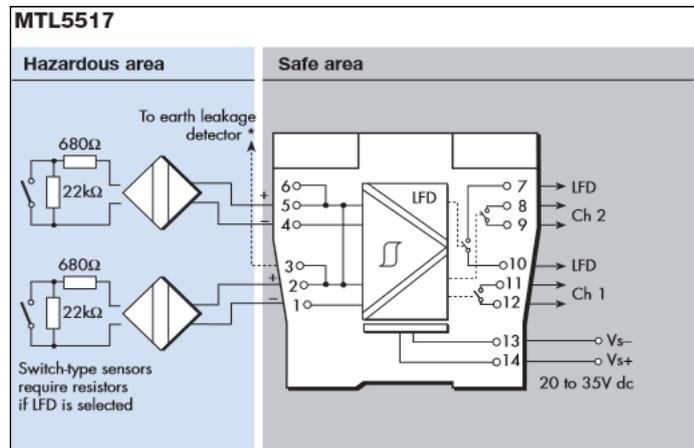


MTL 5517 IS Barrier

The MTL5517 enables two safe-area loads to be controlled, through a relay, by proximity detectors or switches located in a hazardous area.

Line faults are signalled through a separate relay and indicated on the top of the module.

Switches are provided to select phase reversal and to enable the line fault detection.



SPECIFICATION

Number of channels:	Two
Location of switch:	Zone 0, IIC, T6 hazardous area Div.1, Group A, hazardous location
Location of proximity detector:	Zone 0, IIC, T4-6 hazardous area, if suitably certified Div.1, Group A, hazardous location
Hazardous-area inputs:	Inputs conforming to BS EN60947-5-6:2001 standards for proximity detectors (NAMUR) Voltage applied to sensor 7 to 9V dc from 1kΩ ±10%
Input/output characteristics:	Normal phase Outputs closed if input > 2.1mA (< 2kΩ in input circuit) Outputs open if input < 1.2mA (> 10kΩ in input circuit)
Line fault detection (LFD):	Hysteresis: 200μA (650Ω) nominal User selectable by switches on the side of the module. Line faults are indicated by the LED for each channel. Line fault relay is energised and channel output relay de-energised if input line-fault detected. Open-circuit alarm on if $I_{in} < 50\mu A$ Open-circuit alarm off if $I_{in} > 250\mu A$ Short-circuit alarm on if $R_{in} < 100\Omega$ Short-circuit alarm off if $R_{in} > 360\Omega$ <i>Note: Resistors must be fitted when using the LFD facility with a contact input</i> 500Ω to 1kΩ in series with switch 20kΩ to 25kΩ in parallel with switch
Safe-area output:	Channel: Two single-pole relays with normally open contacts LFD: Single pole relay with changeover contacts <i>Note: reactive loads must be adequately suppressed</i>
Relay characteristics:	Response time: 10ms maximum Contact rating: dc250V ac, 2A, $\cos\phi > 0.7$, 40V dc, 2A, resistive load
LED indicators:	Green: power indication Yellow: two: channel status, on when output energised Red: two: LFD indication, on when line fault detected
Maximum current consumption:	35mA at 24V
Power dissipation within unit:	0.84W at 24V
Safety description (each channel):	$U_o=10.5V$ $I_o=14mA$ $P_o=37mW$ $U_m= 253V$ rms or dc
SIL capable:	These models have been assessed for use in IEC 61508 functional safety applications.

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