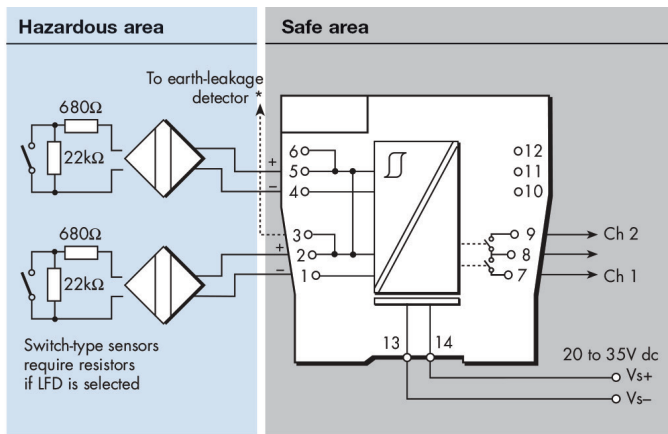


## MTL4516/C – MTL5516C SWITCH/ PROXIMITY DETECTOR INTERFACE

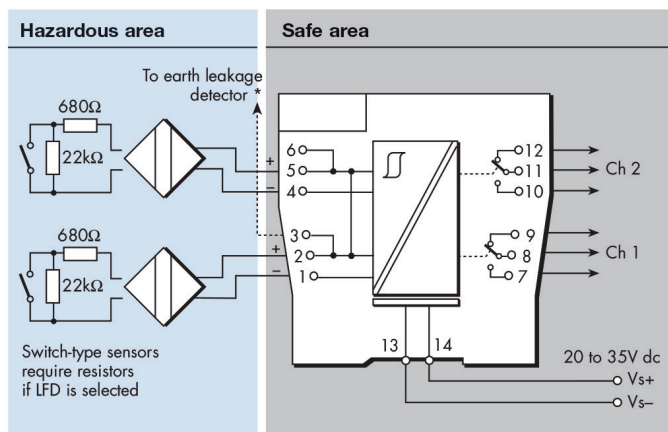
2-channel, with line fault detection

The MTLx516/C enable two safe-area loads to be controlled by a switch or proximity detector located in a hazardous-area. When selected, open or short circuit conditions in the field wiring are detected by the line-fault-detect (LFD) facility and also indicated on the top of the module. Phase reversal for each channel is selected by a switch on the side of the module and output is provided by changeover relay contacts.

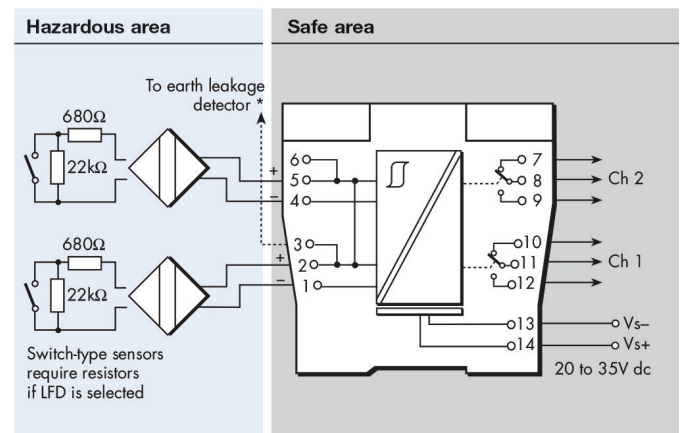
### MTL4516



### MTL4516C



### MTL5516C



\* Signal plug HAZ1-3 is required for access to this function

### SPECIFICATION

See also common specification

Number of channels	Two
Location of switches	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 > 2.1 mA (< 2kΩ in input circuit) Outputs open if input < 1.2 mA (> 10kΩ in input circuit)  Hysteresis: 200µA (650Ω) nominal
Line fault detection (LFD) (when selected)	User-selectable via switches on the side of the unit. Line faults are indicated by an LED for each channel. The channel output relay is de-energised if an input line fault is detected.  Open-circuit alarm on if I <sub>in</sub> < 50µA Open-circuit alarm off if I <sub>in</sub> > 250µA Short-circuit alarm on if R <sub>in</sub> < 100Ω Short-circuit alarm off if R <sub>in</sub> > 360Ω  <i>Note: Resistors must be fitted when using the LFD facility with a contact input 500Ω to 1kΩ in series with switch 20kΩ to 25kΩ in parallel with switch</i>

Safe-area output	Two single-pole relays with changeover contacts <i>Note: reactive loads must be adequately suppressed</i>		
Relay characteristics		MTL4516/C	MTL5516C
	Response time:	10ms maximum	10ms maximum
	Contact rating:	10W, 0.5A, 35V dc	250V 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. See data on MTL web site.		