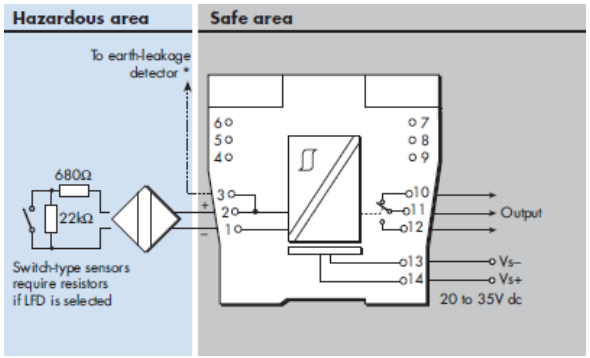
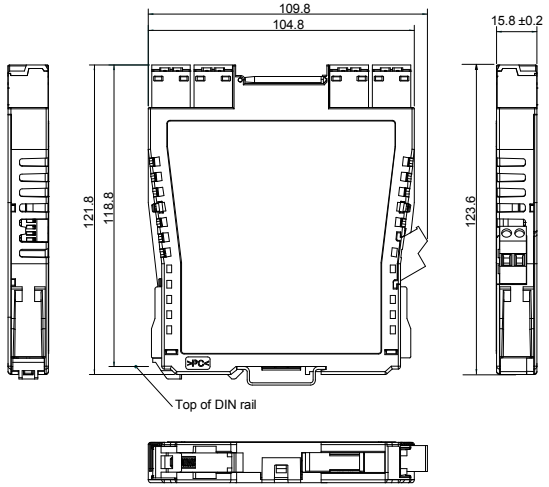
SPECIFICATION

Number of channels
One
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 > 2.1mA (< 2kΩ in input circuit)
Outputs open if input < 1.2mA (> 10kΩ in input circuit)
Hysteresis: 200μA (650Ω) nominal
Line fault detection (LFD) (when selected)
User-selectable via switches on the side of the unit. A line fault is indicated by an LED. The channel output relay is de-energised if an input line fault is detected.
Open-circuit alarm on if Iin < 50μA
Open-circuit alarm off if Iin > 250μA
Short-circuit alarm on if Rin < 100Ω
Short-circuit alarm off if Rin > 360Ω
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
Safe-area output
Single pole relay with changeover contacts
Note: reactive loads must be adequately suppressed
Relay characteristics
Response time: 10ms maximum
Contact rating:
250V ac, 2A, cosO >0.7,
40V dc, 2A, resistive load

Wiring



*Signal plug HAZ1-3 is required for access to this function
LED indicators
Green: power indication
Yellow: channel status, on when output energised
Red: LFD indication, on when line fault detected
Maximum current consumption
25mA at 24V
Power dissipation within unit
0.6W at 24V
Safety description (each channel)
V_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



Isolation
250V rms, tested at 1500V rms minimum, between safe- and hazardous-area terminals.
50V between safe-area circuits and power supply
Supply voltage
20 - 35V dc
Location of units
Safe area
Terminals
Accepts conductors of up to 2.5mm2 stranded or single-core
Mounting
T-section 35mm DIN rail (7.5 or 15mm) to EN 50022
Ambient temperature limits
-20 to +60° C (-6 to +140° F) operating
-40 to +80° C (-40 to +176° F) storage
Humidity
5 to 95% relative humidity
Weight
Approximate (except where indicated)
MTL5500 150g

Connectors
Each unit is supplied with signal connectors, as applicable.
When using crimp ferrules for the hazardous or non-hazardous (safe) signal connectors the metal tube length should be 12mm and the wire trim length 14mm.

REV.	PROJECT NAME:	Cooper Industries Japan K.K.	Model name	MTL5511		
REV.	USER NAME :	TEL: +81-(0)3-5420-1281 FAX: +81-(0)3-5420-2405	SIZE	FSCM NO	Drawing No.	rev
REV.	JOB NAME:	DATE: 2011/May/25			SS-MTL5511	-
	Ref no.:	CHKD T.IWANE	DRAWN K.KUSAKABE	SCALE N/A	SHEET 1 / 1	