

SPECIFICATION

Number of channels

One

Location of transmitter

Zone 0, IIC, T4-6 hazardous area if suitably certified

Div. 1, Group A hazardous location

Safe-area output

Signal range: 4 to 20mA

Under/over-range: 0 to 24mA

Safe-area load resistance

@ 24mA: 0 to 360Ω

@ 20mA: 0 to 450Ω

Safe-area load (MTLx541S)

Current sink: 600Ω max.

Maximum voltage source: 24V dc

Safe-area circuit output resistance: > 1MΩ

Safe-area circuit ripple

< 50 μA peak-to-peak

Hazardous-area input

Signal range: 0 to 24mA (including over-range)

Transmitter voltage: 16.5V at 20mA

Transfer accuracy at 20° C

Better than 15 μA

Temperature drift

< 0.8 μA/° C

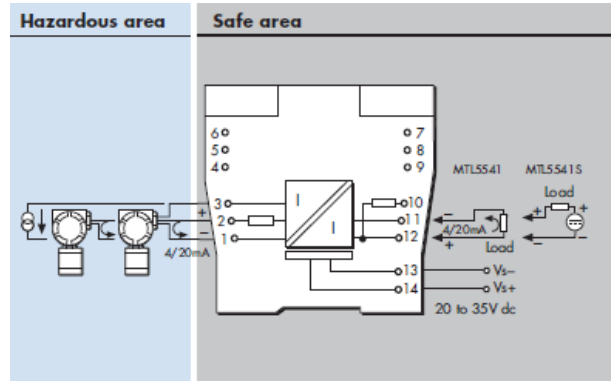
Response time

Settles to within 10% of final value within 50 μs

Communications supported

HART (terminals 1 & 2 only)

Wiring



LED indicator

Green: power indication

Maximum current consumption (with 20mA signal)

51mA at 24V

Power dissipation within unit (with 20mA signal)

MTL5541 0.7W @ 24V dc

MTL5541S 1.0W @ 24V dc

Safety description

Terminals 2 to 1 and 3:

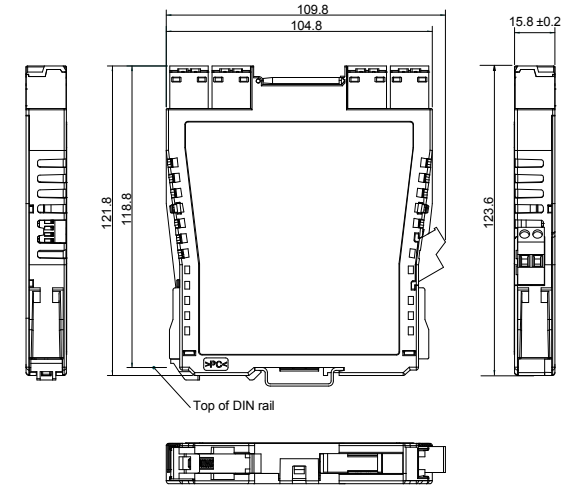
$V_o=28V$ $I_o=93mA$ $P_o=651mW$ $U_m = 253V$ rms or dc

Terminals 1 to 3:

Simple apparatus $\leq 1.5V$, $\leq 0.1A$ and $\leq 25mW$; can be connected without further certification into any IS loop with an open-circuit voltage <28V

SIL capable

These models have been assessed for use in IEC 61508 functional safety applications. See data on MTL web site.



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		MTL5541	
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-MTL5541	-
	Ref no.:	CHKD T.IWANE	DRAWN K.KUSAKABE	SCALE	N/A	SHEET 1 / 1