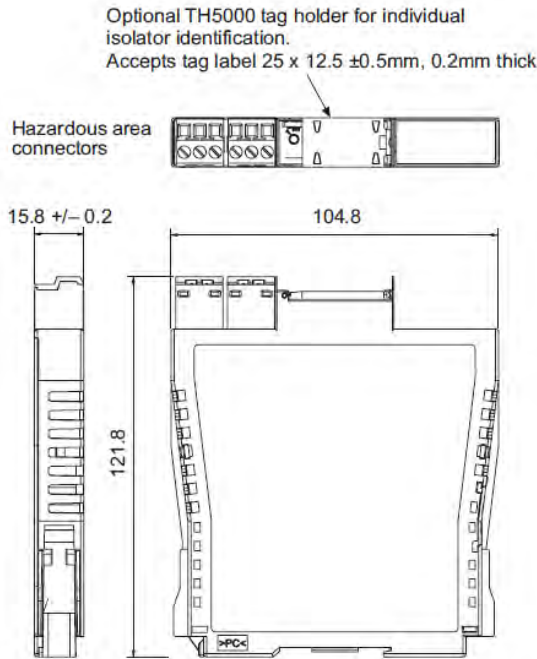


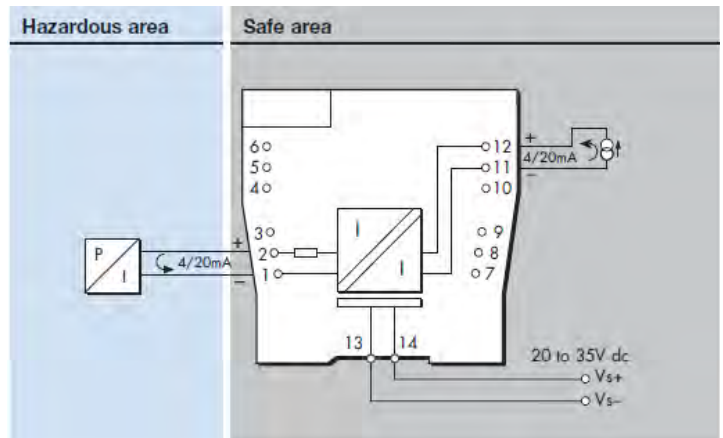
MTL4546Y ISOLATING DRIVER

For 4-20mA HART® valve positioners with line fault detection

I. Dimensions(mm)



II. Application example



III. Specification

The MTLx546 accepts a 4/20mA floating signal from a safe-area controller to drive a current/pressure converter (or any other load up to 800Ω) in a hazardous area. For HART valve positioners, the module also permits bi-directional transmission of digital communication signals. Process controllers with a readback facility can detect open or short circuits in the field wiring: if these occur, the current taken into the terminals drops to a preset level.

Number of channels

One

Location of I/P converter

Zone 0, IIC, T4-T6 hazardous area if suitably certified
Div. 1, Group A hazardous location

Working range

4 to 20mA

Digital signal bandwidth

500Hz to 10kHz

Maximum load resistance

800Ω (16V at 20mA)

Minimum load resistance

90Ω (short-circuit detection at <50Ω)

Output resistance

>1MΩ

Under/over range capability

Under range = 1mA

Over range = 24mA (load < 520Ω)

Input and output circuit ripple

<40μA peak-to-peak

Transfer accuracy at 20°C

Better than 20μA

Temperature drift

<1μA/°C

Input characteristics

Normal: <6.0V

Open-circuit: <0.5mA

Short-circuit: N.A.

Response time

Settles within 200μA of final value within 100ms

Communications supported

HART

LED indicator

Green: power indication

Maximum current consumption (with 20mA signal)

35mA at 24V dc

Power dissipation within unit (with 20mA signal)

0.8W at 24V

Safety description

V₀=28V, I₀=93mA, P₀=651mW, U_m=253V rms or dc

SIL capable

These models have been assessed for use in IEC 61508 Functional safety applications.

REV.						
PROJECT NAME:	Cooper Industries Japan K.K.			Title		
	Tokyo, Japan			MTL4546Y SPECIFICATION		
USER NAME:	TEL: +81-(0)3-6434-7890			SIZE	FSCM NO	Drawing No.
	FAX: +81-(0)3-6434-7871					rev
JOB NAME:	DATE:	2010/11/29		SS-MTL4546Y(E)		
Ref no.:	CHKD	K.T	DRAWN	I.S	SCALE	N/A
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