

# MTL5546Y-T ISOLATING DRIVER

for 4–20mA HART® valve positioners  
with line fault detection

The MTL5546Y-T 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 circuit in the field wiring: if this occurs, the current taken into the terminals drops to a preset level.

## SPECIFICATION

*See also common specification*

### Number of channels

One

### Location of I/P converter

Zone 0, IIC, T4–6 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)

### 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

< 1.0μA/°C

### Input characteristics

Field wiring state	MTL5546Y-T
Normal	< 6.0V
Open-circuit	< 0.5mA
Short-circuit	N.A.

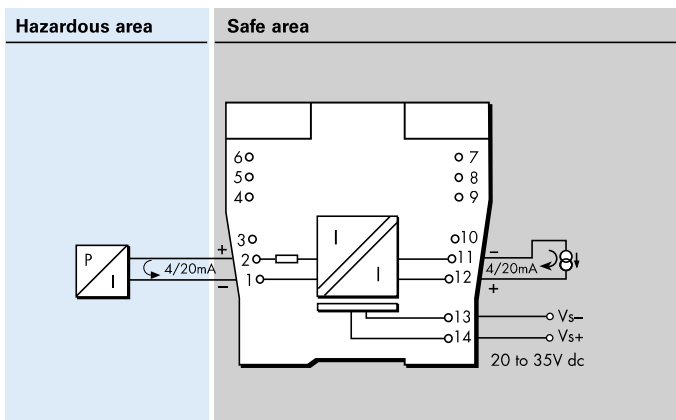
### Response time

Settles within 200μA of final value within 100ms

### Communications supported

HART

## MTL5546Y-T



### LED indicator

Green: power indication

### Maximum current consumption (with 20mA signals into 250Ω load)

35mA at 24V dc

### Power dissipation within unit (with 20mA signals into 250Ω load)

0.8W at 24V

### Operating temperature range

-20°C to + 65°C (-6 to + 149°F)

### Safety description

$U_o=28V$   $I_o=93mA$   $P_o=0.65W$   $U_m = 253V$  rms or dc



Powering Business Worldwide

### Eaton Electric Limited,

Great Marlings, Butterfield, Luton  
Beds, LU2 8DL, UK.  
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283  
E-mail: [mtlenquiry@eaton.com](mailto:mtlenquiry@eaton.com)  
[www.mtl-inst.com](http://www.mtl-inst.com)

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### EUROPE (EMEA):

+44 (0)1582 723633 [mtlenquiry@eaton.com](mailto:mtlenquiry@eaton.com)

### THE AMERICAS:

+1 800 835 7075 [mtl-us-info@eaton.com](mailto:mtl-us-info@eaton.com)

### ASIA-PACIFIC:

+65 6 645 9888 [sales.mtlisng@eaton.com](mailto:sales.mtlisng@eaton.com)

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