

MTL4044D REPEATER POWER SUPPLY

one channel, two outputs
for 2-wire transmitters



The MTL4044D provide sa fully floating dc supply for energising a conventional 2-wire 4/20mA or 'smart' transmitter located in a hazardous area, and repeats the current in other circuits to drive two safe-area loads. Bi-directional transmission of 'smart' data and 4/20mA is available using output 1 whilst output 2 repeats only the 4/20mA.

SPECIFICATION

See also common specification, cable parameters and approvals

Number of channels

One

Location of transmitter

Zone 0, IIC, T4-6, hazardous area if suitably certified
Div 1, Group A, hazardous location

Voltage available for transmitter and lines

1.5V minimum at 20mA

Note: maximum open-circuit voltage is 28V

Input and output signal range

0.5mA to 22mA

Digital signal bandwidth

Hazardous-to-safe: dc to 10kHz

Safe-to-hazardous: 2Hz to 10kHz

Safe-area circuit load resistance

Conventional transmitters: 0 to 300Ω

Smart transmitters: 250Ω ±10%

Safe-area circuit output resistance

>1MΩ

Safe-area circuit ripple

<50μA peak-to-peak up to 80kHz

Transfer accuracy at 20°C

Better than 20μA

Temperature drift

<1μA/°C

Response time

Settles within 200μA of final value within 20ms

LED indicator

Green: one provided for power indication

Power requirement, Vs

95mA at 24V dc

Power dissipation within unit

1.2W at 24V dc

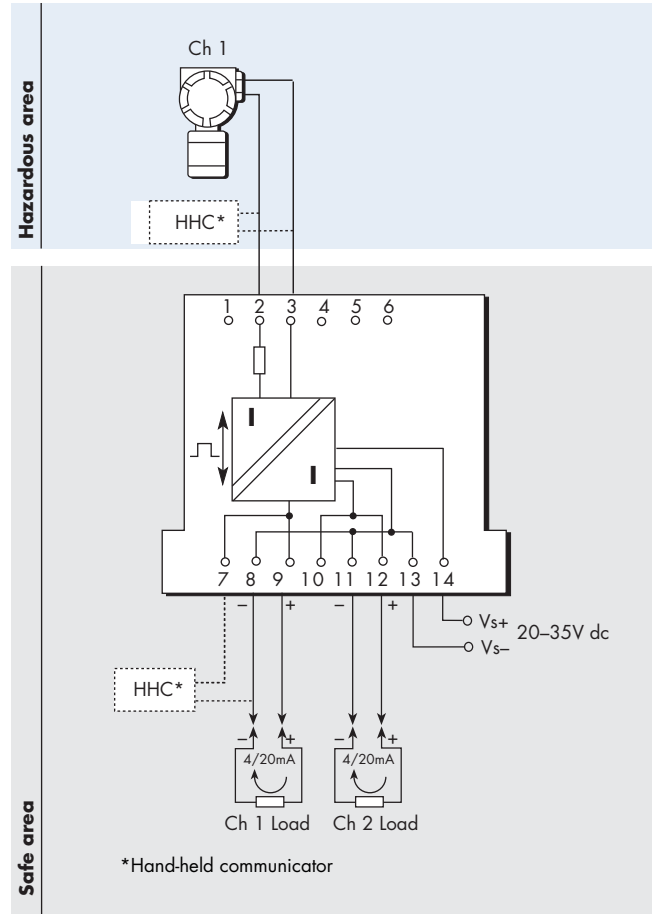
Isolation

250V ac between safe- and hazardous-area circuits

Safety description

Terminals 2 to 3

28V, 300Ω, 93mA



Terminal	Function
2	Ch1 tx supply +ve
3	Ch1 tx supply -ve
7	Ch1 optional HHC connection +ve
8	Ch1 output -ve/HHC connection -ve
9	Ch1 output +ve
10	Ch2 output +ve
11	Ch2 output -ve
12	Ch2 output +ve
13	Supply -ve
14	Supply +ve (internally connected to terminals 8 and 11)



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