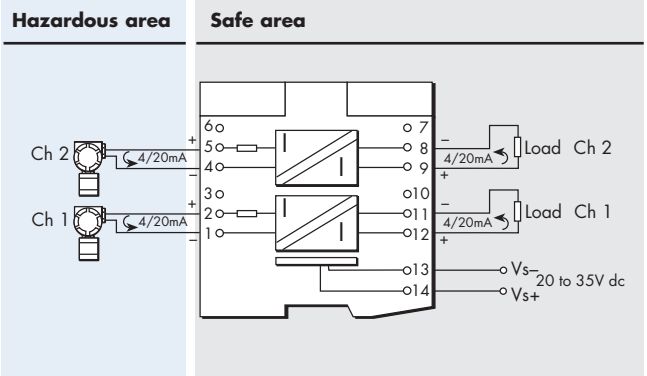
MTL5344 REPEATER POWER SUPPLY

two channel, for 2 wire transmitters

CE

The MTL5344 provides a fully floating dc supply for energising two conventional 2 wire 4/20mA transmitters located in the hazardous area, and repeats the current in other circuits to drive safe-area loads.



SPECIFICATION

See also common specification

Number of channels
Two

Location of transmitters
Zone 1, IIC, T4-6, hazardous area if suitably certified

Safe-area output

Signal range:	4 to 20mA
Over / under range:	0 to 20.1mA
Safe-area load resistance:	0 to 550Ω
Safe-area output resistance:	2MΩ

Safe-area circuit ripple
<125µA peak-to-peak

Hazardous-area input
Signal range: 0-20 1mA (including over-range)
Transmitter voltage: >14V at 20mA

Transfer accuracy at 20°C
Better than 20µA (typically 5µA)

Temperature drift
<1µA/°C

Response time
Settles within 10% of final value within 250µs

Terminal	Function
1	Input -ve(channel 1)
2	Input +ve(channel 1)
4	Input -ve(channel 2)
5	Input +ve(channel 2)
8	Output -ve(channel 2)
9	Output +ve(channel 2)
11	Output -ve(channel 1)
12	Output +ve(channel 1)
13	Supply -ve
14	Supply +ve

LED indicator
Green: one provided for power indication

Supply voltage
20 to 35V dc

Power requirement, Vs
122mA at 24V
150mA at 20V
90mA at 35V

Power dissipation within unit
2.0W max

Isolation
250V between safe and hazardous area circuits, and power supply.

Safety description

Terminals 1 and 2 or 4 and 5
[EExib] IIC
U_o = 19V, I_o = 24mA (non-linear), P_o = 450mW
[(C_o = 120nF, L_o = 3mH) Group IIC]
U_m=253V rms or dc

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