# MTL4644/S

# REPEATER POWER SUPPLY

2-channel, 4/20mA, HART®, 2- or 3- wire transmitters

The MTL4644 provides fully-floating dc supplies for energising two conventional 2-wire or 3-wire 4/20mA or HART transmitters, and repeats the current in other circuits to drive two loads. For smart transmitters, the unit allows bi-directional transmission of digital communication signals superimposed on the 4/20mA loop current. Alternatively, the MTL4644S acts as a current sink rather than driving a current into the load.

## **SPECIFICATION**

See also common specification

## **Number of channels**

Two

## Output

Signal range: 4 to 20mA Under/over-range: 0 to 24mA

Load resistance (MTL4644)

 @ 24mA:
 0 to 375Ω

 @ 20mA:
 0 to 465Ω

Load (MTL4644S)

 $\begin{array}{ll} \text{Current sink:} & 600\Omega \text{ max.} \\ \text{Maximum voltage source:} & 24V \text{ dc} \end{array}$ 

Circuit output resistance: > 1MΩ

## Circuit ripple

< 50µA peak-to-peak

## Input

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

Transmitter voltage: 20V at 20mA

# Transfer accuracy at 20°C

Better than 20 $\mu$ A 4-20mA (Terminals 1 & 2 / 4 & 5) Better than 30 $\mu$ A 4-20mA (Terminals 1 & 3 / 4 & 6)

## Temperature drift

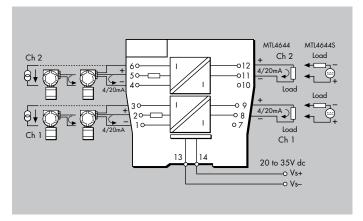
< 0.8µA/°C

## Response time

Settles to within 10% of final value within 50µs

## **Communications supported**

#### MTL4644 / MTL4644S



HART (terminals 1 & 2 and 4 & 5 only)

## **LED** indicator

Green: power indication

Maximum current consumption (with 20mA signals)

100mA at 24V dc

Power dissipation within unit (with 20mA signals)

MTL4644 1.5W @ 24V dc MTL4644S 2.0W @ 24V dc

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.

