

MTL4644D

REPEATER POWER SUPPLY

single channel, 4/20mA, HART®
for 2- or 3-wire transmitters, two outputs

The MTL4644D provides a fully-floating dc supply for energising a conventional 2- or 3-wire 4/20mA transmitter and repeating the current in other circuits to drive two loads. For HART 2-wire transmitters, the unit allows bi-directional transmission of digital communication signals superimposed on the 4/20mA loop current.

SPECIFICATION

See also common specification

Number of channels

One

Output

Signal range: 4 to 20mA
Under/over-range: 0 to 24mA
Load resistance
@ 24mA: 0 to 360Ω
@ 20mA: 0 to 450Ω

Circuit output resistance: > 1MΩ

Circuit ripple

< 50μA peak-to-peak

Input

Signal range: 0 to 24mA (including over-range)
Transmitter voltage: 16.5V at 20mA

Transfer accuracy at 20°C

Better than 15μA

Temperature drift

< 0.8μA/°C

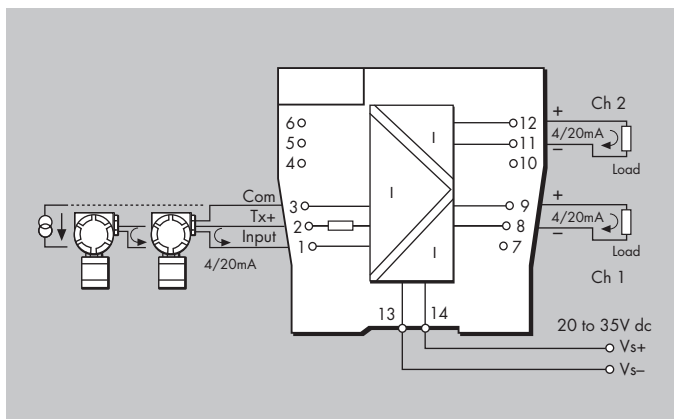
Response time

Settles to within 10% of final value within 50μs

Communications supported

HART (terminals 1 & 2, output Ch 1 only)

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LED indicator

Green: power indication

Maximum current consumption (with 20mA signals)

96mA at 24V dc

Power dissipation within unit (with 20mA signals)

1.4W @ 24V dc

SIL capable

These models have been assessed for use in IEC 61508 functional safety applications. See data on MTL web site.

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.



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