

MTL4641/S

REPEATER POWER SUPPLY

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

The MTL4641 provides a fully-floating dc supply for energising a conventional 2- or 3-wire 4/20mA transmitter and repeating the current in another floating circuit to drive a load. For HART 2-wire transmitters, the unit allows bi-directional communications signals superimposed on the 4/20mA loop current. Alternatively, the MTL4641S acts as a current sink rather than driving a current into the load.

SPECIFICATION

See also common specification

Number of channels

One

Output

Signal range:	4 to 20mA
Under/over-range:	0 to 24mA
Load resistance (MTL4641)	
@ 24mA:	0 to 375Ω
@ 20mA:	0 to 465Ω
Load (MTL4641S)	
Current sink:	600Ω max.
Maximum voltage source:	24V dc
Circuit output resistance:	> 1MΩ

Circuit ripple

< 50μA peak-to-peak

Input

Signal range:	0 to 24mA (including over-range)
Transmitter voltage:	20V at 20mA (MTL4641)
	16.5V at 20mA (MTL4641S)

Transfer accuracy at 20°C

Better than 20μA	4-20mA (Terminals 1 & 2)
Better than 30μA	4-20mA (Terminals 1 & 3)

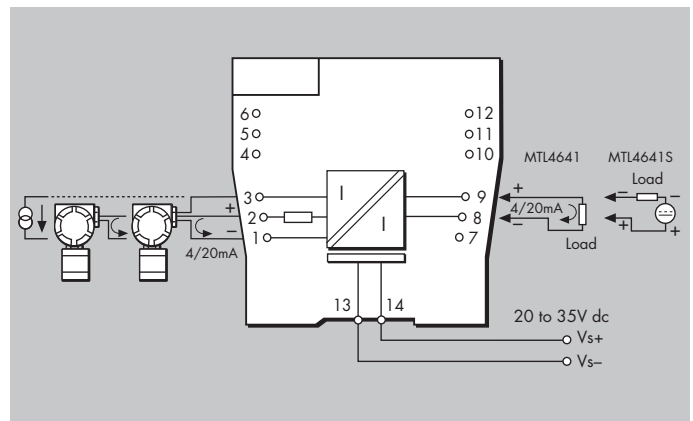
Temperature drift

< 0.8μA/°C

Response time

Settles to within 10% of final value within 50μs

MTL4641 / MTL4641S



Communications supported

HART (terminals 1 & 2 only)

LED indicator

Green: power indication

Maximum current consumption (with 20mA signal)

53mA at 24V

Power dissipation within unit (with 20mA signal)

MTL4641	0.8W @ 24V dc
MTL4641S	1.0W @ 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.



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
www.mtl-inst.com

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EUROPE (EMEA):

+44 (0)1582 723633 mtlenquiry@eaton.com

THE AMERICAS:

+1 800 835 7075 mtl-us-info@eaton.com

ASIA-PACIFIC:

+65 6 645 9888 sales.mtlsing@eaton.com