## MTLl271

## loop powered thermocouple converter

## l channel for type J and K thermocouple sensors

The MTL1271 is a single channel signal converter which can accept type J or K thermocouple inputs and converts the signal to $4-20 \mathrm{~mA}$ for connection to a powered system input. Ranges are selected by the user using switches on the module.


| Terminals | Function |
| :---: | :---: |
| 1 | Input + |
| 2 | Input - |
| 5 | Current sink+ |
| 6 | Current sink- |


| SPECIFICATION <br> See also common specification |  |
| :--- | :--- |
| Number of channels | One, with fully floating input and output |
| Location of equipment | Safe area |
| Input signal | Type J or K thermocouples |
| Range selection | Via switches, refer to instructions |
| Output signal | $4-20 \mathrm{~mA}$, current sink, maximum load 50 (Vs-17) $\Omega$ |
| Over-range | $>103 \%$ |
| Field input resistance | $>100 \mathrm{~K} \Omega$ |
| Cold Junction Compensation accuracy | $\pm 1^{\circ} \mathrm{C}$ |
| Response time | 500 mS |
| Transfer Accuracy at 20 ${ }^{\circ} \mathrm{C}$ | $+/-((0.65 / \mathrm{Span})+(0.001)) \times 100 \%$ |
| Temperature drift | $<0.01 \% /{ }^{\circ} \mathrm{C}$ |
| Power supply voltage | $18 \mathrm{~V} \mathrm{to} \mathrm{32V} \mathrm{DC}$ |
| Maximum power dissipation within unit | $<0.6 \mathrm{~W}$ @ 32 V dc with $250 \Omega$ load |
| Isolation | 250 V ac or dc functional isolation between power, field and system circuits. (Tested to 1100 Vac$)$ |

Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK
Tel: + 44 (0)1582 723633 Fax: +44 (0) 1582422283 E-mail: mtlenquiry@eaton.com www.mtl-inst.com
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## THE AMERICAS:

+1 8008357075
mtl-us-info@eaton.com

## ASIA-PACIFIC:

+65 66459888
sales.mtlsing@eaton.com

