

MTL4676-THC

TEMPERATURE CONVERTER

mV/THC input, 2-channel

The MTL4676-THC converts low-level dc signals from temperature sensors mounted in a hazardous-area into 4/20mA currents. Software selectable features include linearisation for standard thermocouple types, ranging, monitoring, testing and tagging. Configuration is carried out using a personal computer. The field connections include cold-junction compensation and do not need to be ordered separately.

SPECIFICATION

See also common specification

Number of channels

Two

Signal source

THC types J, K, T, E, R, S, B or N to BS 60584 and XK mV input

Input signal range

-75 to +75mV

Input signal span

3 to 150mV

Cold junction compensation

Automatic or selectable

Cold junction compensation error

≤ 1.0°C

Common mode rejection

120dB for 240V at 50Hz or 60Hz

Series mode rejection

40dB for 50Hz or 60Hz

Calibration accuracy (at 20°C)

(includes hysteresis, non-linearity and repeatability)

Input: ±15µV or ±0.05% of input value (whichever is greater)

Output: ±16µA

Temperature drift (typical)

Input: ±0.003% of input value/°C

Output: ±0.6µA/°C

Safety drive on sensor burnout

Upscale, downscale, or off

Output range

4 to 20mA nominal into 300Ω max. (direct or reverse)

Maximum lead resistance

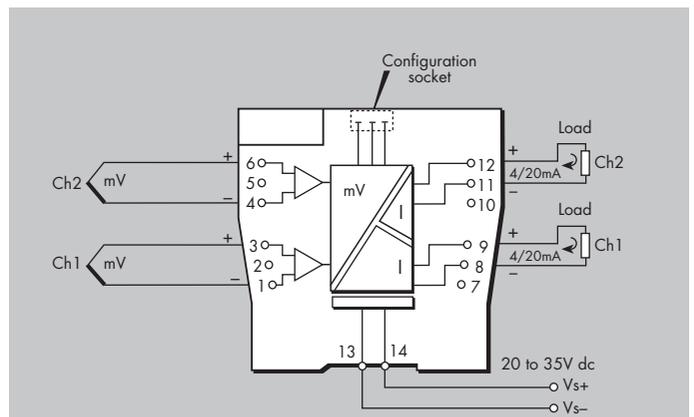
300Ω

Response time

Configurable - 500 ms default

(Accuracy at 100/200ms - contact MTL)

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LED indicator

Green: power and status indication
Yellow: one provided for channel status
Red: alarm indication

Power requirement, Vs with 20mA signal

60mA at 24V

Power dissipation within unit with 20mA signal

1.4W at 24V

Isolation

Functional isolation channel-channel for input and output circuits.

Configurator

A personal computer running MTL PCS45 software with a PCL45USB serial interface.

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.



EUROPE (EMEA): +44 (0)1582 723633
enquiry@mtl-inst.com

THE AMERICAS: +1 800 835 7075
csinfo@mtl-inst.com

ASIA-PACIFIC: +65 6 487 7887
sales@mtlsing.com.sg

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