

# 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

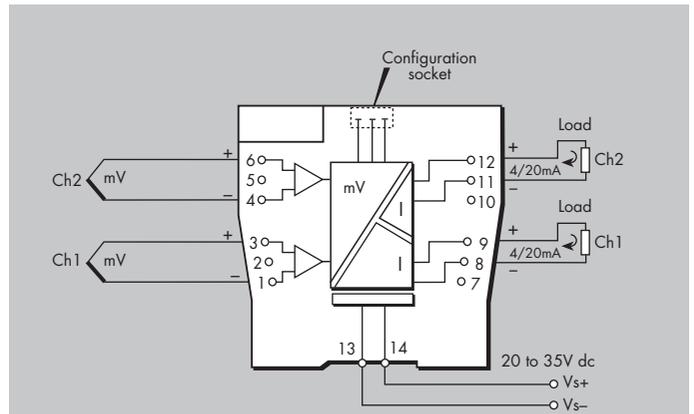
300Ω

#### Response time

Configurable - 500 ms default

(Accuracy at 100/200ms - contact MTL)

### MTL4676-THC



#### 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.



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