

TS-I2CTemperature Sensor **User Guide**

Manufactured by
TRI-M ENGINEERING
Engineered Solutions for Embedded Applications

P/N: TS-I2C-MAN
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PREFACE

This manual is for integrators of applications of embedded systems. It contains information on hardware requirements and interconnection to other embedded electronics.

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CHAPTER 1 Introduction

The TS-I2C is designed to interface directly with HESC type power supplies, providing remote temperature monitoring.

CHAPTER 2 Features

- Can be directly mounted onto any flat surface.
- 6 to 40VDC power input range.
- Supported by the HESC-UPS firmware

CHAPTER 3 Specifications

3.1 Environmental specifications

Symbol	Description	Minimum	Maximum	Units
Vin	PC/104+ 5V supply voltage	6	40	V
Ta	Ambient temperature	-40	85	°C

3.2 Standards

- 2-Wire SMBus/Standard Mode I2C Protocol-Compatible

3.3 Pin assignments

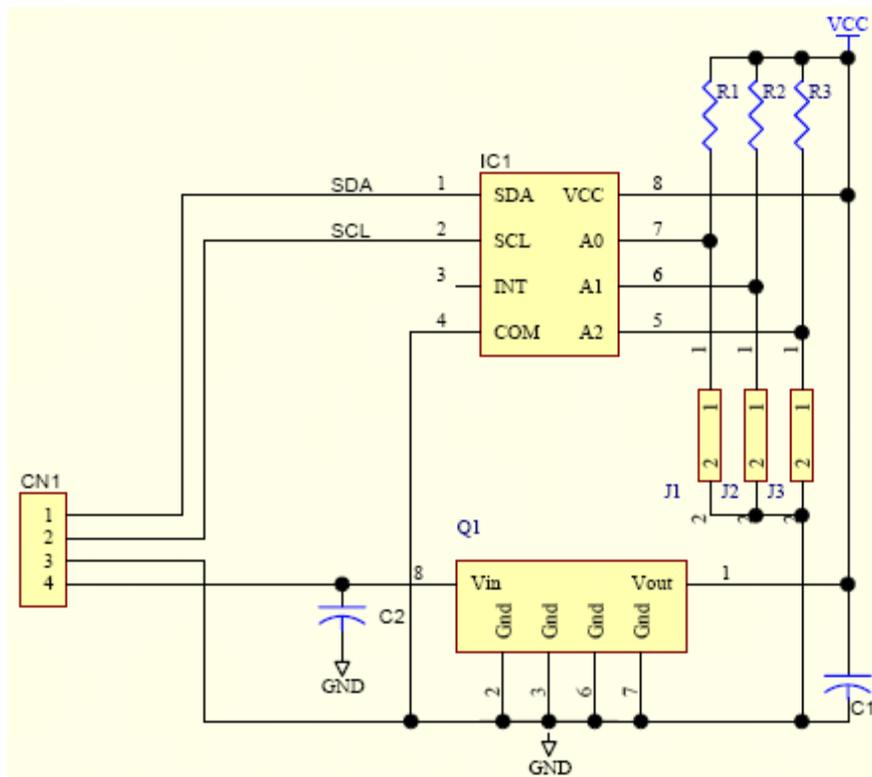
TS-I2C CN1		
Pin	Signal	Description
1	SDA	Bi-Directional Data
3	SCL	Clock signal
5	COM	Power Supply Common
7	Power In	6-40VDC Power Input

CHAPTER 4 Configuration

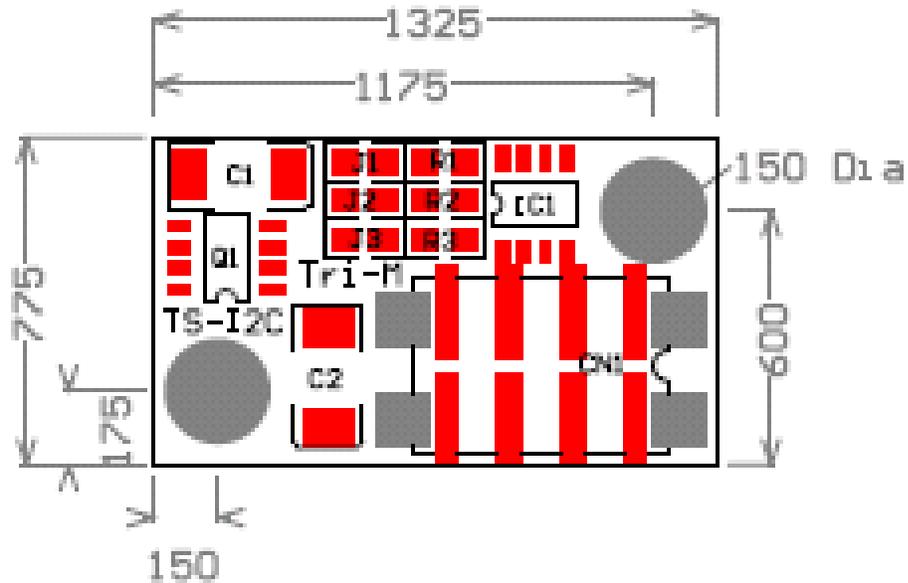
The TS-I2C digital temperature sensor IC1's address is set via A2, A1, and A0 input levels. Eight possible addresses are possible by setting A2, A1 and A0 to logic high or low. To set the address line high, remove the associated pull down jumper. To set the address line low, install the associated pull down jumper. The pull down jumper should have a value less than 1kohm.

Unless requested, the TS-I2C sensor will be factory set for address 0x9E (ie R1, R2, and R3 are factory installed with 100K resistors, and no pull down resistors installed.)

Address	R3	R2	R1	J3	J2	J1
0x90	X	X	X	I	I	I
0x92	X	X	I	I	I	O
0x94	X	I	X	I	O	I
0x96	X	I	I	I	O	O
0x98	I	X	X	O	I	I
0x9A	I	X	I	O	I	O
0x9C	I	I	X	O	O	I
0x9E	I	I	I	O	O	O



CHAPTER 5 Dimensions



All dimension in mils (1000 mil = 1 inch)