



Sensors > Temperature Sensors > Digital Temperature Sensors



Model Number: **TSYS02S**

Digital Temperature Sensor Type: **Digital IC Temperature Sensor**

Digital Temperature Sensor Package: **TDFN8**

Output/Span Resolution: **16 bit**

Digital Temperature Sensor Accuracy: **± .2 °C**

Features

Product Type Features

|                                 |                               |
|---------------------------------|-------------------------------|
| Model Number                    | TSYS02S                       |
| Digital Temperature Sensor Type | Digital IC Temperature Sensor |

Electrical Characteristics

|                                           |             |
|-------------------------------------------|-------------|
| Digital Temperature Sensor Supply Voltage | 2.2 – 3.6 V |
| Supply Current (Max)                      | 18 µA       |

Termination Features

|                          |     |
|--------------------------|-----|
| Wire/Cladding/Connection | SMD |
|--------------------------|-----|

Dimensions

|                                   |                 |
|-----------------------------------|-----------------|
|                                   | .098 in         |
| Digital Temperature Sensor Length | 2.5 mm[.098 in] |
| Digital Temperature Sensor Width  | 2.5 mm          |
| Digital Temperature Sensor Height | .75 mm[.029 in] |

Usage Conditions

|                             |                                                        |
|-----------------------------|--------------------------------------------------------|
| Accuracy T_Range            | -5 – 50 °C                                             |
| Operating Temperature Range | -40 – 125 °C, -40 – 125 °C[-40 – 257 °F][-40 – 257 °F] |

Operation/Application

|                        |        |
|------------------------|--------|
| Output/Span Resolution | 16 bit |
|------------------------|--------|



|                                     |         |
|-------------------------------------|---------|
| Digital Temperature Sensor Accuracy | ± .2 °C |
| Output Interface                    | SDM     |

Packaging Features

|                                    |       |
|------------------------------------|-------|
| Digital Temperature Sensor Package | TDFN8 |
|------------------------------------|-------|

Product Compliance

For compliance documentation, visit the product page on TE.com>

|                                               |                                                                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS Directive 2011/65/EU                  | Compliant                                                                                                                     |
| EU ELV Directive 2000/53/EC                   | Not Yet Reviewed                                                                                                              |
| China RoHS 2 Directive MIIT Order No 32, 2016 | No Restricted Materials Above Threshold                                                                                       |
| EU REACH Regulation (EC) No. 1907/2006        | Current ECHA Candidate List: JAN 2021 (211)<br>Candidate List Declared Against: JAN 2021 (211)<br>Does not contain REACH SVHC |
| Halogen Content                               | Not Yet Reviewed for halogen content                                                                                          |
| Solder Process Capability                     | Not reviewed for solder process capability                                                                                    |

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on requirements for substances in articles' posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

Compatible Parts

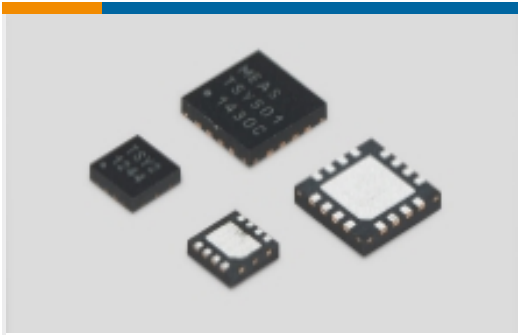
TE Part # G-NIMO-003  
0.2 DEG C ACCURACY I2C TEMP SENSOR

TE Part # G-NIMO-004  
0.2 DEG C ACCURACY PWM TEMP SENSOR

Also in the Series | MEAS TSYS



Digital Component Sensors(4)



Digital Temperature Sensors(10)

Customers Also Bought



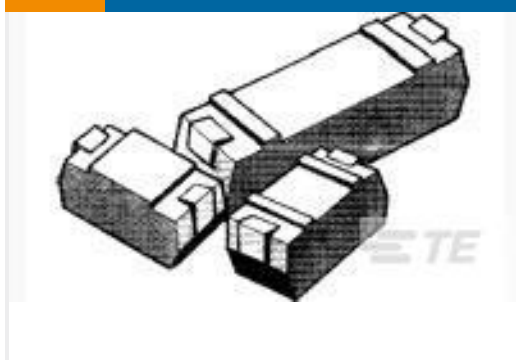
TE Part #1623781-7  
Wirewound Resistor: Vertical Mount



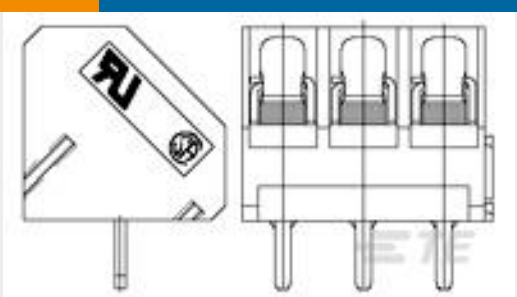
TE Part #2-2205132-5  
CA MINI IO MINI IO TYPE II



TE Part #647306-2  
Polyester Vertical PCB Header: 2.54 mm, Unshrouded, No Mating Alignment



TE Part #1624256-1  
SL1 R033 5% TAPED



TE Part #1776252-4  
45 degree wire inlet, 5.0mm, H



TE Part #1393481-6  
V23529B1225C225=SUB D STIFTLI



TE Part #2-1614893-3  
CPF 0805 21K 0.1% 25PPM 1K RL



TE Part #1977738-1  
MPS1004DPC PSHBTN 0.4VA SPDT



TE Part #2170754-6  
CAGE ASSY, QSFP28 1X1, GASKET, HS, LP



TE Part #2204585-3  
ELCON MINI 3P VERT HEADER,PRESS-FIT,STD

Documents

CAD Files

3D PDF

3D

Customer View Model

ENG\_CVM\_CVM\_G-NIMO-005\_1.2d\_dxf.zip

English

Customer View Model

ENG\_CVM\_CVM\_G-NIMO-005\_1.3d\_igs.zip



English

Customer View Model  
[ENG\\_CVM\\_CVM\\_G-NIMO-005\\_1.3d\\_stp.zip](#)

English

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

Datasheets & Catalog Pages  
[TSYS02S](#)

English