



MEAS | MEAS TS

TE Internal #: G-TPCO-031

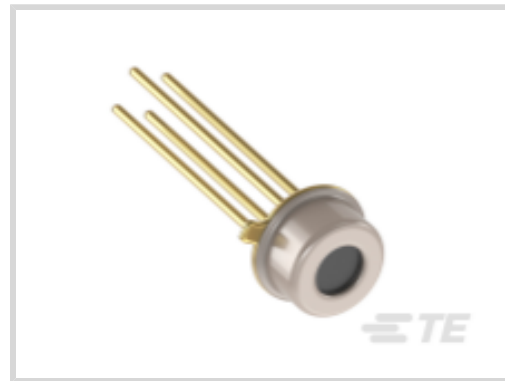
TE Internal Description: Analog Thermopile TO-18, FOV 110,RTD

Ref

Analog Infrared (IR) Thermopile Sensor

[View on TE.com >](#)

Sensors > Temperature Sensors > Thermopile Infrared Sensors > Analog Infrared (IR) Thermopile Sensor



Model Number: **TS318-1B0814**

Thermopile Infrared Sensor Type: **Thermopile Temperature Element**

Thermopile Infrared Sensor Package: **TO-18**

Thermopile Infrared Sensor Wire Length: **13.5 mm [.53 in]**

TP Voltage (T_BB/T_amb): **8.4 ± 2.1 mV**

[All Analog Infrared \(IR\) Thermopile Sensor \(3\)](#)

Features

Product Type Features

Wire/Cladding Type	Metal Pin
Model Number	TS318-1B0814
Thermopile Infrared Sensor Type	Thermopile Temperature Element
Filter Type	Long Wave Pass 5.5µm

Electrical Characteristics

TP Voltage (T_BB/T_amb)	8.4 ± 2.1 mV
-------------------------	--------------

Dimensions

Thermopile Infrared Sensor Wire Length	13.5 mm[.53 in]
Thermopile Infrared Sensor Diameter	5.3 mm[.21 in]
Thermopile Infrared Sensor Length	2.7 mm[.106 in]

Usage Conditions

Ambient Temperature Range	-20 – 85 °C[-4 – 185 °F]
Target T_Object Range	-40 – 300 °C
T_BB/T_amb for TP Voltage	100/25 °C
TP Resistance (at T_ref)	70 ± 30 kΩ
Thermistor Type	Nickel-RTD



R_Thermistor (at T_ref)	100 ± 5 kΩ
-------------------------	------------

T_ref for R_Thermistor	25 °C
------------------------	-------

T1/T2 for β-Value of NTC	0 – 50 °C
--------------------------	-----------

Operation/Application

T_BB/T_amb Responsivity	+100 and +25 °C
-------------------------	-----------------

Responsivity (T_BB/T_amb)	122
---------------------------	-----

T_ref for TP Resistance	25 °C
-------------------------	-------

Packaging Features

Thermopile Infrared Sensor Package	TO-18
------------------------------------	-------

Other

Field of View at FWHM	110 °
-----------------------	-------

Optics	Flat Window
--------	-------------

β-Value (at T1/T2) NTC	3955 %
------------------------	--------

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: JUL 2021 (219) Candidate List Declared Against: JAN 2021 (211) SVHC > Threshold: Not Yet Reviewed
--	---

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 # CAT-IR0001
Analog Infrared (IR) Thermopile Sensor



TE Part # G-TPCO-035
TS418-1N426




TE Part # G-TPMO-014
TSEV0108L39

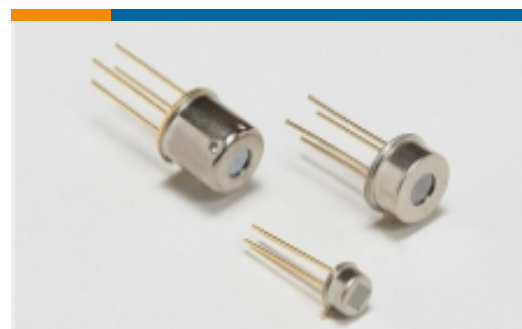


TE Part # G-TPCO-019
TS105-10L5.5MM

Also in the Series | MEAS TS



Digital Component Sensors(3)



Thermopile Infrared Sensors(9)

Customers Also Bought



TE Part #G-TPCO-033
Analog Infrared (IR) Thermopile Sensor



TE Part #20009605-11
FX293X-040B-0100-L



TE Part #5103308-8
A/L LOW PRO HDR 40P VERT BLACK



TE Part #61134-3
110 FASTON TAB TPBR



TE Part #9-1879212-8
CPF 0402 24R9 0.1% 25PPM 1K RL



TE Part #8-1879215-3
CPF 0402 33K2 0.1% 25PPM 1K RL



TE Part #G-TPMO-101
TSD305-1C55 Digital Thermopile Sensor



TE Part #ZPF000000000016706
DTS 24 W 13-35 SN



Documents

CAD Files

[3D PDF](#)

3D

Customer View Model

[ENG_CVM_CVM_G-TPCO-031_A.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_G-TPCO-031_A.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_G-TPCO-031_A.3d_stp.zip](#)

English

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

Datasheets & Catalog Pages

[Datasheet Analog Infrared Thermopiles](#)

English