



MEAS | MEAS TS

TE Internal #: G-TPCO-033

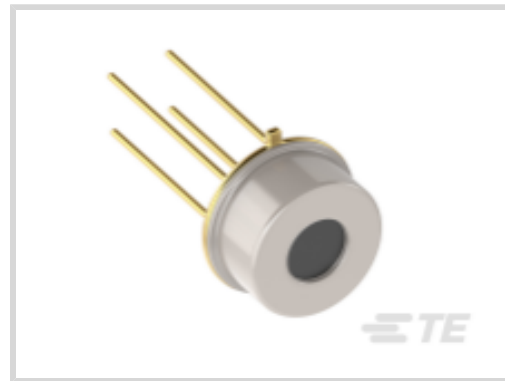
TE Internal Description: Analog Thermopile TO-05, FOV 88, NTC

Ref

Analog Infrared (IR) Thermopile Sensor

[View on TE.com >](#)

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



Model Number: **TS305-11C55**

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

Thermopile Infrared Sensor Package: **TO-5**

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

TP Voltage (T\_BB/T\_amb): **7 ± 2.1 mV**

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

## Features

### Product Type Features

Wire/Cladding Type	Metal Pin
Model Number	TS305-11C55
Thermopile Infrared Sensor Type	Thermopile Temperature Element
Filter Type	Long Wave Pass 5.5µm

### Electrical Characteristics

TP Voltage (T_BB/T_amb)	7 ± 2.1 mV
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### Dimensions

Thermopile Infrared Sensor Wire Length	13.5 mm[.53 in]
Thermopile Infrared Sensor Diameter	9.1 mm[.36 in]
Thermopile Infrared Sensor Length	4.4 mm[.173 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	NTC



R_Thermistor (at T_ref)	100 ± 5 kΩ
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T_ref for R_Thermistor	25 °C
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T1/T2 for β-Value of NTC	0 – 50 °C
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### Operation/Application

T_BB/T_amb Responsivity	+100 and +25 °C
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Responsivity (T_BB/T_amb)	122
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T_ref for TP Resistance	25 °C
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### Packaging Features

Thermopile Infrared Sensor Package	TO-5
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### Other

Field of View at FWHM	88 °
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Optics	Flat Window
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β-Value (at T1/T2) NTC	3955 ± .3 %
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### Product Compliance

[For compliance documentation, visit the product page on TE.com>](#)

EU RoHS Directive 2011/65/EU	Compliant
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EU ELV Directive 2000/53/EC	Not Yet Reviewed
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China RoHS 2 Directive MIIT Order No 32, 2016	No Restricted Materials Above Threshold
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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
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Halogen Content	Not Yet Reviewed for halogen content
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Solder Process Capability	Not reviewed for solder process capability
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#### 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

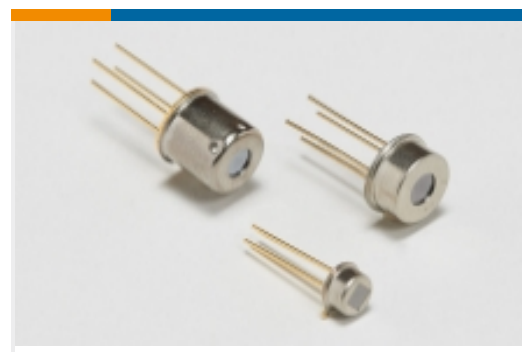


TE Part # G-TPCO-019  
TS105-10L5.5MM

## Also in the Series | MEAS TS



Digital Component Sensors(3)



Thermopile Infrared Sensors(9)

## Customers Also Bought



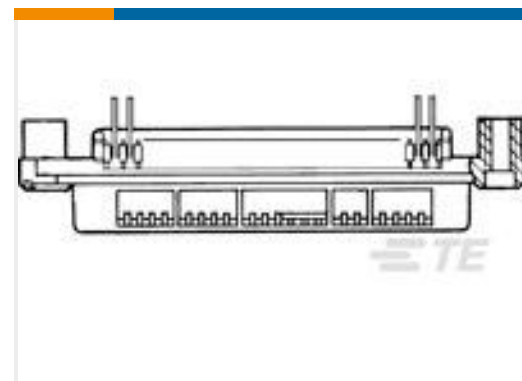
TE Part #3-647166-5  
5P MTA100 HDR ASSY,SM,FL,LF



TE Part #1-292253-0  
CT CONN MT HDR ASSY H 10P NAT



TE Part #5-1775443-6  
EMIX CONN., 1.5MM PITCH, HDR, V /T, 6P



TE Part #5552235-1  
ASSY, RCPT, 36 POS, VERT MTG




TE Part #DT15-6P-G003  
HDR, 6P, GRY, ST, AU/NI/CU



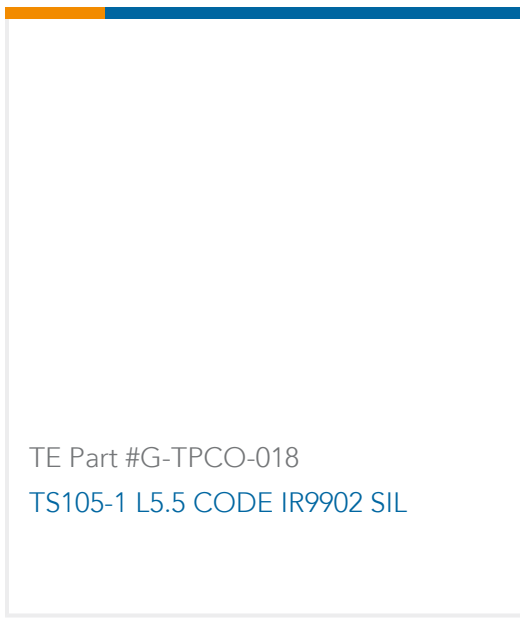
TE Part #825440-7  
MOD 2 PINHDR 2X07P.



TE Part #6-1879133-4  
RN 0603 4K02 0.1% 10PPM 1K RL



TE Part #G-TPCO-016  
TS105-1 CODE IR9902



## Documents

### CAD Files

#### 3D PDF

3D

#### Customer View Model

[ENG\\_CVM\\_CVM\\_G-TPCO-033\\_A.2d\\_dxf.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_G-TPCO-033\\_A.3d\\_igs.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_G-TPCO-033\\_A.3d\\_stp.zip](#)

English

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### Datasheets & Catalog Pages

#### Datasheet Analog Infrared Thermopiles

English