ARIELTECH®
MANUFACTURER OF ENCLOSURE CLIMATE CONTROL SOLUTIONS

MECHANICAL THERMOSTATS

Normally Open & Normally Closed
Specification/Sell sheet

Certificates

- CSA and CSAus Listed, File Number 80012071
- UL and cUL Recognized, File Number E484831
- CE Compliant

Application

The TTEC series are thermostat controllers used to regulate the temperature inside industrial control panels or cabinets and control cabinet accessories. The TTEC series control fans, heaters, and switch loads. TTEC-100 and TTEC-200 are identical except the TTEC-100 (Red) is Normally Closed which opens at temperature rise, and turns the Heater off, the TTEC-200 (Blue) is Normally Open which closes at temperature rise, and turns the Fan/Fan Filter on.

Features

- Controls a wide range of enclosure temperatures from 14 °F to 176 °F (-10 °C to +80 °C)
- Both are available in Fahrenheit or Celsius
- Mechanical NC and NO Thermostats
- Flame retardant housing, UL 94-V0
- Mountable on three different sized DIN Rails (DIN Rail 35 mm, DIN Rail 32 mm, and DIN Rail 15 mm)

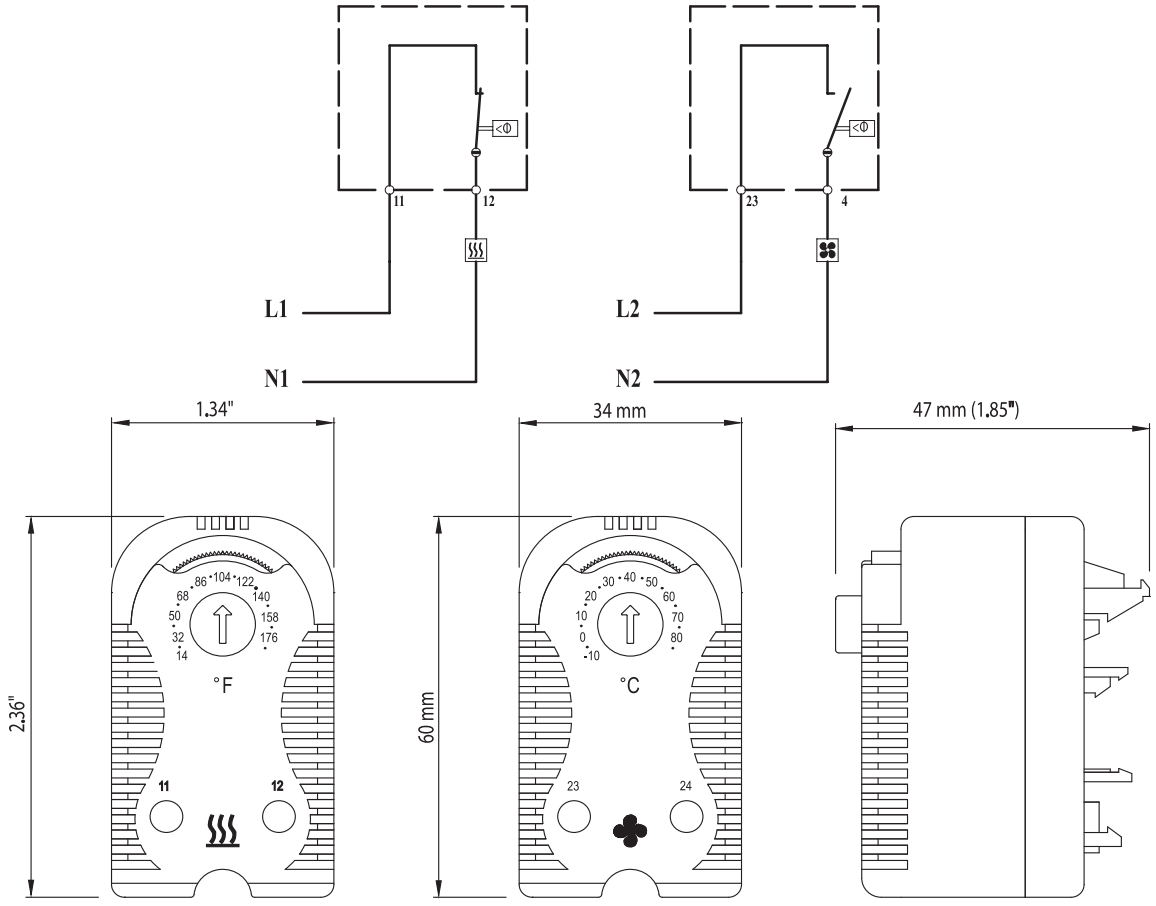
Color

- RAL 7035 - Light Gray

TTEC

E484831

Type	TTEC -100	TTEC - 200
Function	Normally Closed	Normally Open
Terminal Operated	Between 11 & 12	Between 23 & 24
VDE Rating	250 VAC, 14 A, 50 Hz	
UL Rating	125 VAC, 15 A, 60 Hz	
Setting Temperature	-10 to +80 °C (+14 to 176 °F)	
Design and Test Standard	UL 60730-1	
	UL 60730-2-9	
	UL 60730-2-13	
	CAN/CSA-E60730 -1:15	
	CAN/CSA-E60730-2-9:15	
Hi-Pot Test	1800 VAC 0.5 mA, 1 sec	
Mounting	Rail 35 mm according to EN 50022	
	Rail 32 mm according to EN 50035	
	Rail 15 mm according to EN 50045	
Weight	47 gram / 0.103 lb	
Dimensions	60 mm X 34 mm X 47 mm (2.36" X 1.34" X 1.85")	
Color	RAL 7035-Light Gray	
Electrical Connections	2-Pole for wires section of 12 AWG	
Housing Material	PA 6 UL 94-V0	
Environmental	Indoor	
Hysteresis	Approx. ± 5 °C	
Sensing Element	Bimetal	
Control Type	Operating Control, Type 1	
Rated Impulse Voltage	2500	
Operating Temperature	- 20 to +80 °C / -4 to +176 °F	
Shipping and Storage Temperature	- 40 to +80 °C / -40 to +176 °F	



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ARIELTECH

English Version

Thermostat
TTEC series
Installation Instructions

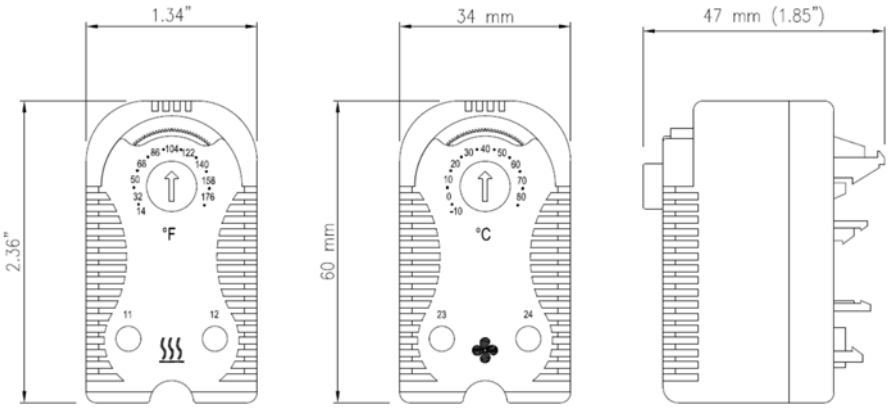
CAUTION:

- TTEC series must only be installed by qualified specialists using power−supply guidelines.
- All safety measures and the electrical contact protection in the connection area is to be ensured through proper installation.
- The technical specifications on the name plate must be observed.
- Operational reliability of the thermostat is to be insured by an operation test
- TTEC series must not be repaired.

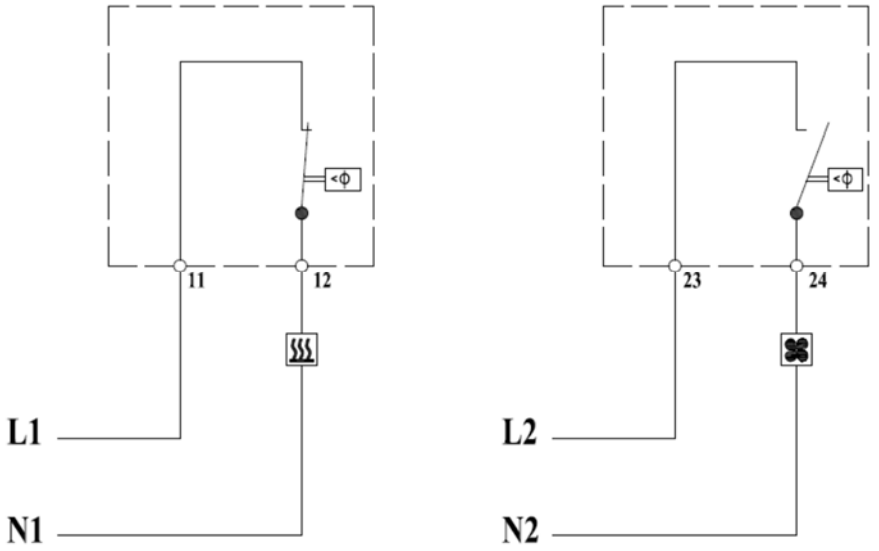
The TTEC series are thermostat controllers used to regulate the temperature inside industrial control panels or cabinets and control cabinet accessories. The TTEC series, bimetallic thermostats, control fans, heaters, and switch loads. TTEC-100 and TTEC-200 are identical except the TTEC-100 is Normally Closed which opens at temperature rise, the TTEC-200 is Normally Open which closes at temperature rise. Both are available in Fahrenheit or Celsius

- TTEC series must not be covered.
- TTEC series must not be operated in environments with aggressive atmospheres.
- TTEC series are snap−mounted onto a 35 mm, 32 mm, and 15 mm mounting rails according to EN 50022, EN 50045, and EN 50035, respectively.
- TTEC series are to be installed vertically, i.e. with the connection terminals at the bottom.
- Operating temperature from -20 to +80 °C (-4 to 176 °F)
- Wires section of 12 AWG.
- Storage temperature from −40 to + 80 °C (−40 to 176 °F)
- The hysteresis of ± 5 °C should be accounted for.

Dimensional Drawing



Wiring Diagram



Ariel Technology Inc.
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EC Declaration of Conformity

Ariel Technology Inc. declares that their Thermostats (**TTEC-100** and **TTEC-200** series) and Hygrostat (**HYTEC-100**) are designed and constructed according to the Essential Health & Safety requirements of the following European directives:

Low-Voltage Directive 2014/35/EU
Electromagnetic Compatibility 2014/30/EU

The following European harmonized standards have been applied:

EN 60730-1, Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements

EN 60730-2-9, Automatic Electrical Controls for Household and Similar Use, Part 2-9: Particular Requirements for Temperature Sensing Controls

EN 60730-2-13, Automatic Electrical Controls for Household and Similar Use, Part 2-9: Particular Requirements for Humidity Sensing Controls

R&D Department
Ariel Technology Inc.
Feb 09, 2018

Subject to change without notice

Ariel Technology Inc.
9-1111 Gorham St., Newmarket, Ontario, Canada, L3Y 8X8
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CERTIFICATE OF COMPLIANCE

Certificate Number	20170504-E484831
Report Reference	E484831-20170503
Issue Date	2017-MAY-04
Issued to:	Ariel Technology Inc 1111 Gorham Street, Unit 9 Newmarket ON L3Y 8X8 CANADA
This is to certify that representative samples of	COMPONENT - TEMPERATURE-INDICATING AND - REGULATING EQUIPMENT See addendum page
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	See addendum page
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

CERTIFICATE OF COMPLIANCE

Certificate Number	20170504-E484831
Report Reference	E484831-20170503
Issue Date	2017-MAY-04

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Operating Control, Thermostat: Models TTEC-100 and TTEC-200
Hygrostat: Model HYTEC-100

Standard(s) for Safety:
UL 60730-1, Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements

UL 60730-2-9, Automatic Electrical Controls for Household and Similar Use, Part 2-9: Particular Requirements for Temperature Sensing Controls

UL 60730-2-13, Automatic Electrical Controls for Household and Similar Use, Part 2-9: Particular Requirements for Humidity Sensing Controls

CAN/CSA-E60730-1:15, Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements

CAN/CSA-E60730-2-9:15, Automatic Electrical Controls for Household and Similar Use, Part 2-9: Particular Requirements for Temperature Sensing Controls

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

Certificate of Compliance

Certificate: 80012071 **Master Contract:** 300557

Project: 80012071 **Date Issued:** 2019-08-22

Issued To: **Ariel Technology Inc.**
9- 1111 Gorham Street
Newmarket, Ontario, L3Y 8X8
Canada

Attention: Ali Malekpour

The products listed below are eligible to bear the CSA Mark shown

Issued by: Grace Gao
Grace Gao

PRODUCTS

CLASS - C482351 - TEMPERATURE INDICATING AND REGULATING EQUIPMENT Appliance Type Controls - Temperature Controls
CLASS - C482387 - TEMPERATURE-INDICATING AND REGULATING EQUIP.-Appliance Type Temperature Controls-Cert to US Stds

Operation control, thermostat, models TTEC-100 and TTEC-200, 125Vac, 60Hz, 15A; 30,000 cycles; Operation ambient temperature: -20ºC to 80ºC

Hygrostat, model HYTEC-100, 120/240Vac, 12 /6A resistive; 10/5 FLA, 45/22.5 LRA, inductive; 30,000 cycles; Operation ambient temperature: 10ºC to 40ºC

Note:

1. The controls above have not been evaluated for safety or limiting applications or to provide protection for the connected loads.
2. The controls above are evaluated as component only which shall be installed in compliance with the enclosure, mounting, spacing, and segregation requirements of the ultimate application.

APPLICABLE REQUIREMENTS

CSA requirements:
CAN/CSA-E60730-1:15 - Automatic Electrical Controls for Household and Similar Use - Part 1: General Requirements - Third Edition
CAN/CSA-E60730-2-9:15 - Automatic Electrical Controls for Household and Similar Use - Part 2-9: Particular Requirements for Temperature Sensing Controls - Second Edition

UL requirements:
UL 60730-1 - Automatic Electrical Controls for Household and Similar Use; Part 1: General Requirements - Fifth Edition
UL 60730-2-9 - Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Temperature Sensing Controls - Fourth Edition
UL 60730-2-13 - Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Humidity Sensing Controls - Third Edition