File E164102
Project 4789287089

August 6, 2020

REPORT

on

COMPONENT - Temperature-indicating and -Regulating Equipment - Component

Stego Elektrotechnik Gmbh

Test Report issued under the responsibility of:

TEST REPORT
UL 60730-1, CAN/CSA-E60730-1
Automatic electrical controls for household and similar use

File Number.....:	**E164102**
Project Number. .....:	4789287089
Date of issue.....:	2020-08-06
Applicant's name .....:	**STEGO Elektrotechnik GmbH**
Address.....:	**Kolpingstrasse 21 Schwaebisch Hall, 74523, DE**
Test specification:	
Standard.....:	UL 60730-1: Edition 5.0 – Issue Date 2016/08/03 UL 60730-2-9 Edition 4 - Issue Date 2017/02/14 CAN/CSA -E60730-1:15 Edition 5.0 - Issue Date 2015/12/01 plus Amendment 1 dated November 2017 CAN/CSA -E60730-2-9:18 Edition 4 – Issue Date 2018/08/01
Test procedure .....:	UL/cUL Recognition
Non-standard test method.....:	N/A
Test Report Form No. .....:	Short Form – Based on IEC6730_1H
Test Report Form(s) Originator ....:	UL
Master TRF.....:	Dated 2011-04

Test item description .....:	Temperature Sensing Controls – Regulating Thermostat
Trade Mark.....:	STEGO
Recognized Company Name.....:	STEGO Elektrotechnik GmbH

Model/Type reference .....:	Model Series KTO or KTS followed by 111 followed by 00 or 01, followed by .0 or .9, followed by -00, -01, -02, -03, -04 or -05
Ratings .....:	120 / 250 Vac, 50/60 Hz, max. 16 A inrush, 10 A steady See GPI for additional rating details

List of Attachments (including a total number of pages in each attachment):

Enclosures

Type	Supplement Id	Description
Figure	1	Overall assembled and disassembled view of Family KTO 111 and KTS 111
Illustration	1	Overall dimension of Bottom Housing of Family KTO 111 and KTS 111
Illustration	2	Overall dimension of Top Housing of Family KTO 111 and KTS 111
Illustration	3	Drawing of Screwless terminals Metz model 701088

Summary of compliance with National Differences
List of countries addressed:

United States
Canada

Copy of marking plate (Optional)
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Markings

All markings are either:

A) permanently ink-stamped,
B) molded,
C) die-stamped,
D) paint stenciled,
E) silk-screened,
F) provided on a R/C Marking and Labelling System (PGDQ2/8), suitable for application to the surface involved, and rated 95 °C minimum, or provided on a R/C Printing materials (PGJI2/8) suitable for application to the surface involved; suitable for the ink and printer used; and rated 95 °C minimum.

The following markings are provided on the product:

A) Manufacture's name or Trademark,
B) Model Number;
C) Date Code
D) US and Canadian UL recognition mark

The following information is provided with the product documentation or marked on the product:

A) Rated voltage or rated voltage range, Frequency, Amps or Watts, and types of loads
B) Nature of supply
C) Purpose of control: Regulating Thermostat
D) Construction of control: Incorporated control
E) Operating Temperature Range
F) Method of mounting control
G) Type 1.B Action
H) Pollution Degree 2
I) Rated Impulse Voltage: 2500 V for altitude up to 5000 m
4000 V for altitude up to 2000 m
J) Indication of proper terminal connection

Test item particulars :	
Operating ambient temperature :	-20°C to 80°C
Shipping and storage temperature :	-45°C to 80°C
Control type :	INCORPORATED
Software class :	N/A
Overvoltage category :	II for altitude up to 5000 m III for altitude up to 2000 m
Pollution degree :	2
Rated Impulse Voltage :	2500 V (for OV-category II) 4000 V (for OV-category III)
Maximum phase to ground voltage of the supply source :	250 Vac
Protection against electric shock class :	Control to be incorporated in class I or class II equipment
Environmental :	Open Type
Classification of installation and use :	Fixed
Supply Connection :	Internal conductor
Operating frequency :	50/60 Hz

General remarks:

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

General product information:

The temperature controls (regulating Thermostat) are used to regulate heating equipment, cooling equipment, filter fans and heat exchangers in closed thermoplastic housing.

These devices are bi-metallic single-pole, single-throw snap action, temperature regulating devices with an adjustable setpoint. Depending on the model the contacts can be either normally closed or normally open. The rotary knob adjusts the set point temperature from a minimum to maximum temperature. These temperature regulating devices are intended to function during the normal operation of the end-use appliance. The contacts of these devices operated on temperature rise.

These regulators are suitable for use up to 5000 m in overvoltage category II. In overvoltage category III application, the maximum altitude allowed is 2000 m.

Models difference:

All models covered by this description are provided with same construction and all models have the same features. All models differ for different temperature range (see in the below rating and Designation system) or trip temperature and the type of contacts:

Family KTO111 – Normally closed contact (switching contact opens at rising temperature)
Family KTS111 – Normally open contact (switching contact closes at rising temperature)

Family KTO and KTS

Models	Terminals	Type of load	Current (A)	Voltage (Vac)	No. of cycles	Declaration	Setting Operating Temperature
11100.0-00	1,2	Resistive	10	125/250	100 k	Type 1.B	0 – 60 °C
		General purpose	2				
11101.0-00	1,2	Resistive	10	125/250	100 k	Type 1.B	0 – 60 °C
		General purpose	2				
11100.9-00	1,2	Resistive	10	125/250	100 k	Type 1.B	32 – 140 °F
		General purpose	2				
11101.9-00	1,2	Resistive	10	125/250	100 k	Type 1.B	32 – 140 °F
		General purpose	2				
11100.0-01	1,2	Resistive	10	125/250	100 k	Type 1.B	-10 – 50 °C
		General purpose	2				
11101.0-01	1,2	Resistive	10	125/250	100 k	Type 1.B	-10 – 50 °C
		General purpose	2				
11100.9-01	1,2	Resistive	10	125/250	100 k	Type 1.B	14 – 122 °F
		General purpose	2				
11101.9-01	1,2	Resistive	10	125/250	100 k	Type 1.B	14 – 122 °F
		General purpose	2				
11100.0-02	1,2	Resistive	3	125/250	100 k	Type 1.B	20 – 80 °C
		General purpose	2				
11101.0-02	1,2	Resistive	3	125/250	100 k	Type 1.B	20 – 80 °C
		General purpose	2				

Models	Terminals	Type of load	Current (A)	Voltage (Vac)	No. of cycles	Declaration	Setting Operating Temperature
11100.9-02	1,2	Resistive	3	125/250	100 k	Type 1.B	68 – 176 °F
		General purpose	2				
11101.9-02	1,2	Resistive	3	125/250	100 k	Type 1.B	68 – 176 °F
		General purpose	2				
11100.0-03	1,2	Resistive	10	125/250	100 k	Type 1.B	-15 – 45 °C
		General purpose	2				
11101.0-03	1,2	Resistive	10	125/250	100 k	Type 1.B	-15 – 45 °C
		General purpose	2				
11100.0-04	1,2	Resistive	10	125/250	100 k	Type 1.B	-20 – 40 °C
		General purpose	2				
11101.0-04	1,2	Resistive	10	125/250	100 k	Type 1.B	-20 – 40 °C
		General purpose	2				
11100.0-05	1,2	Resistive	5	125/250	100 k	Type 1.B	10 – 70 °C
		General purpose	2				
11101.0-05	1,2	Resistive	5	125/250	100 k	Type 1.B	10 – 70 °C
		General purpose	2				

(+) Glossary:

Operating - Not intended to provide any safety or protective functionality. A control which starts or regulates the equipment during normal operation.

Type 1 Action - Calibration Verification Testing or Functionality Verification testing not conducted.

A Type ".B" control has been investigated for "micro disconnection" applications. Disconnection of any pole (ungrounded conductor is not specified) for functional security purposes. Clearance distance across the open contacts for this type of disconnect is NOT specified. However, creepage/clearance distances apply to parts separated by the action and electric strength testing is required across the disconnection.

Designation System

Family KTO 111 and KTS 111

KTS	111	00	.0	-00
I	II	III	IV	V

I. Family
   KTS
   KTO

II. Basic Model Number
   111

III. Type of Contact
   00 – always with KTO family
   01 – always with KTS family

IV. Unit of temperature range
   .0 – °C
   .9 – °F

V. Temperature range
   -00 – 0T60°C or 32T140°F
   -01 – -10T50°C or 14T122°F
   -02 – 20T80°C or 68T176°F
   -03 – -15T45°C
   -04 – -20T40°C
   -05 – 10T70°C