

CERTIFICATE OF COMPLIANCE

Certificate Number 20140114-E164102
Report Reference E164102-20140110
Issue Date 2014-JANUARY-14



Issued to: STEGO ELEKTROTECHNIK GMBH
KOLPINGSTRASSE 21
74523 SCHWAEBISCH HALL GERMANY

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 Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. 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. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada:  and 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.

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 Recognized Component Mark on the product.



William R. Carney, Director, North American Certification Programs

UL LLC

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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: Particular Requirements for Temperature Sensing Controls

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

CAN/CSA-E60730-1:13 - Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements

CAN/CSA-E60730-2-9:01 - Automatic Electrical Controls for Household and Similar Use - Part 2-9: Particular Requirements for Temperature Sensing Controls + Amendment 1

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

Electronic Humidity regulating controls:

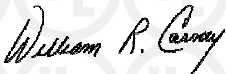
Model EFR, followed by 012, followed by 45 or 46, followed by 0 or 9, followed by two numeric digits.

Model EFL, followed by 012, followed by 45 or 46, followed by 2, followed by two numeric digits.

Electronic Temperature regulating controls:

Model ETR, followed by 011, followed by 31 or 32, followed by 0 or 9, followed by two numeric digits.

Model ETL, followed by 011, followed by 31 or 32, followed by 2, followed by two numeric digits.



William R. Carney, Director, North American Certification Programs

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UL Report on:

File Number	E164102
Volume	3
Section	3
Issued Date	2014-01-10
Applicant	STEGO ELEKTROTECHNIK GMBH
CCN	XAPX2/8
For Use In, Descriptions	-
For Use In, CCNs	-
Certification type	Recognized
Standards	UL 60730-1 Standard for Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements; CAN/CSA-E60730-1:13 Canadian Standard for Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements
Additional Standards	UL 60730-2-9 Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Temperature Sensing Controls; UL 60720-2-13A Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Humidity Sensing Controls; CAN/CSA-E60730-2-9:01 Automatic Electrical Controls for Household and Similar Use - Part 2-9: Particular Requirements for Temperature Sensing Controls and Amendment 1
Intended Use	OPERATING Controls, electronic humidity regulating controls and electronic temperature regulating controls
Function	<p>These devices consist of electronic temperature/humidity regulating thermostat enclosed in a polymeric housing.</p> <p>These devices are electronic temperature and humidity controllers for controlling heaters, heat exchangers and cooling fans, which respond to temperature and humidity sensed by a sensing probe internal. The circuit includes hysteresis function and is designed such that only one load will be on at a time.</p> <p>These devices, per manufacturer declaration, are intended to be installed inside control panels and secured via DIN rail mounting. These devices are declared as open type devices. These devices are provided with main terminal block necessary to connect the board to input supply and to the controlled devices.</p> <p>The line voltage change over relay output is controlled by one electromechanical relay, SPDT configuration, mounted on the board.</p> <p>These devices are evaluated as OPERATING, non-safety (Type 1 Action) controls with software class A and to be incorporated in the end use equipment and have not been evaluated for safety or limiting applications.</p> <p>These devices have been evaluated for indoor applications.</p>
Power Supply Description	100-120 V ac, or 200-230 V ac, 50/60 Hz, line voltage version; 12-48 V dc, Class 2 Source, low voltage version;
Additional information	-

Product Covered

Index	Model Number	Description	Operating Ambient Temperature (°C)	Shipping and Storage Temperature (°C)	Construction	Overvoltage Category	Pollution Degree	Control function/ Software Class	Operating or Protective	Protection against electric shock class	Environmental	Functionality Type	Electrical Ratings Table	Components Table	Figure Number	Additional Parameters
1	EFR 01245.0-xx	Electronic Hygrostat, adjustable humidities, AC 200-230V	-40T60; 40 to 90% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 1	Components 1	1	
2	EFR 01246.0-xx	Electronic Hygrostat, fixed humidity, AC 200-230V	-40T60; 65% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 1	Components 1	2	Same as Model Number 1 except for providing the alternate Circular Fixed Ring of Housing and for not providing the internal humidity sensor; humidity value fixed by uploaded firmware by Manufacturer
3	EFR 01245.9-xx	Electronic Hygrostat, adjustable humidities, AC 100-120V	-40T60; 40 to 90% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 2	Components 1	1	Same as Model Number 1 except for providing alternate component (C3) due to different input voltage. See items 18 and 19 on Component 1 for differences
4	EFR 01246.9-xx	Electronic Hygrostat, fixed humidity, AC 100-120V	-40T60; 65% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 2	Components 1	2	Same as Model Number 3 except for fixed humidity value
5	EFL 01245.2-xx	Electronic Hygrostat, adjustable humidities, DC 12V-48V	-40T60; 40 to 90% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 3	Components 2	1	Same as Model Number 1 for Housing frames except for providing different electronic circuitry in low voltage circuit
6	EFL 01246.2-xx	Electronic Hygrostat, fixed humidity, DC 12V-48V	-40T60; 65% RH	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	HYGROSTAT	Ratings 3	Components 2	2	Same as Model Number 5 except for fixed humidity value
7	ETR 01131.0-xx	Electronic Thermostat, adjustable temperatures, AC 200-230V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 1	Components 1	3, 4, 5	Same as Model Number 1 except for providing different internal sensor (NTC)
8	ETR 01132.0-xx	Electronic Thermostat, fixed temperature, AC 200-230V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 1	Components 1	2	Same as Model Number 7 except for providing the alternate Circular Fixed Ring of Housing and for not providing the internal temperature sensor; temperature value fixed by uploaded firmware by Manufacturer
9	ETR 01131.9-xx	Electronic Thermostat, adjustable temperatures, AC 100-120V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 2	Components 1	3, 4, 6	Same as Model Number 7 except for providing alternate component (C3) due to different input voltage. See items 18 and 19 on Component 1 for differences
10	ETR 01132.9-xx	Electronic Thermostat, fixed temperature, AC 100-120V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 2	Components 1	2	Same as Model Number 9 except for fixed temperature value
11	ETL 01131.2-xx	Electronic Thermostat, adjustable temperatures, DC 12V-48V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 3	Components 2	3, 7	Same as Model Number 5 except for providing different internal sensor (NTC)
12	ETL 01132.2-xx	Electronic Thermostat, fixed temperature, DC 12V-48V	-40T60	-40T85	Incorporated	II	2	A	Operating	To be mounted in Class I Equipment	Open Type	THERMOSTAT	Ratings 3	Components 2	2	Same as Model Number 11 except for fixed temperature value

Conditions of Acceptability (CoAs):

1	Electronic Circuit Faults were performed using Listed supply fuse class CC, non time delay, rated 15 A. Consideration to repeat component fault testing shall be made during the end-product investigation if the control is protected by different type or size of branch circuit fuses.
2	The terminal blocks employed in these devices are suitable for factory wiring only. The acceptability of connection to these terminals, including Temperature, Push/Pull, Securness Test, if necessary, shall be evaluated in the ultimate application.
3	For models supplied by Class 2 Source, the output connections shall be evaluated in end use application considering the interconnection between line referenced circuit and Class 2 Circuit is NOT acceptable. The relay's SPDT outputs shall be connected both in line referenced circuits or both in Class 2 Circuits.