

File E164102
Project 12CA39868

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REPORT

On

COMPONENT - TEMPERATURE-INDICATING AND -REGULATING EQUIPMENT
(XAPX2, XAPX8)

STEGO ELEKTROTECHNIK GMBH
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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component - Regulating Thermostats, Series STO 011 and STS 011, models STO 011 and STS 011 followed by five alphanumeric digits.

GENERAL CHARACTER:

These devices are open type thermostats and are provided with adjustable bi-metal SPST thermostat, Normally Open (NO) and Normally Close (NC) contact configurations based on the model type, and are enclosed in a polymeric housing. These devices are provided with one circular adjustment knob for regulating of temperature in degrees Celsius or Fahrenheit.

These devices have not been evaluated for panel-mounted or installed in the end-use equipment with the front part accessible to the user. These devices are intended for DIN rail mounting inside control panel or closed electrical enclosure.

Series STS 011, with normally open contact, is intended for regulating of filter fans and heat exchangers when temperature limit has been exceeded.

Series STO 011, with normally close contact, is intended for regulating heaters.

These devices are provided with pillar terminals used to connect the controlled devices.

These devices are evaluated as OPERATING, non-safety (Type 1 Action) controls, intended to be INCORPORATED in the end use equipment and have not been evaluated for safety or limiting applications.

RATINGS (for more information about client declarations for these products refer to the Constructional Data Form, ILL. 1):

Electrical:

Terminal Identification: 1-2

| Model | Type of Action | Ratings | | | | | Operating Temperature |
|------------------------------------|----------------|---------|-------|----|-----------|--------|-------------------------------------|
| | | V | Hz | A | Load Type | Cycles | |
| STO 011 Series (Normally Close) | 1.C | 250 Vac | 50/60 | 16 | Resistive | 90K | -35°C to +80°C (-31°F to +176°F) |
| STS 011 Series (Normally Open) | 1.C | 250 Vac | 50/60 | 16 | Resistive | 90K | -35°C to +80°C (-31°F to +176°F) |

Environmental condition:

Thermal - Temperature Operating Ambient:

STO 011 Series, NC (Normally Close):

-35°C to +80°C

STS 011 Series, NO (Normally Open):

-35°C to +80°C

Pollution Degree - 2 or better

Overtoltage Category - II or better

NOMENCLATURE SYSTEM DESIGNATION:

| | | | | | | |
|---------|--|----|---|-----|---|----|
| STS 011 | | 16 | . | 0 | - | 00 |
| I | | II | | III | | IV |

I. Base series suffix (product line):

Thermostat STS 011

Thermostat STO 011

II. Version:

15 - Normally Close (NC) for STO 011

16 - Normally Open (NO) for STS 011

III. Supply:

0 - °C (marking on circular knob)

9 - °F (marking on circular knob)

IV. Customization, related to process and customer personalization
(variations with differing switch temperature from minimum minus 35°C to
maximum 80°C and differing housing with or without logo STEGO):

Two numeric digits, from 00 to 30

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by UL LLC.

USR indicates evaluation to UL 60730-1, Standard for Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements jointed to UL 60730-2-9, Standard for Automatic Electrical Controls For Household and Similar Use; Part 2: Particular Requirements For Temperature Sensing Controls.

CNR indicates investigation to Canadian Standard For Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements CAN/CSA-E60730-1 jointed to Canadian Standard for electrical controls for household and similar use - Part 2-9: Particular requirements for temperature sensing controls CAN/CSA-E60730-2-9.

These controls are considered incorporated and were specified by the applicant for installation in a Pollution Degree 2 environment with an Installation Category (Overvoltage Category) II rating.

The units are for use in an extended environment: -35°C to +80°C. They are not intended for field wiring.

Conditions of Acceptability - When installed in the final use equipment, etc., the following are among the considerations to be made:

1. The devices shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate enclosure.
2. The ratings, spacings recorded herein shall be judged in the ultimate application.
3. The wiring terminal connections employed in these devices are considered acceptable for factory wiring only. The acceptability and the secureness of connections to these terminals shall be judged in end use application.
4. These devices were investigated as OPERATING CONTROL and are not capable to reliably provide any type of protective or safety functionality. For other than regulating applications, additional testing and evaluation shall be considered in end use application.
5. These devices are considered open type device and no part of the controls have been investigated to form part of the ultimate enclosure in end use application. These devices shall be entirely enclosed in the end-use equipment enclosure.
6. Per manufacturer declaration, output of these controls is classified to provide TYPE 1.C (Micro Interruption) action based on IEC terminology.

Conditions of Acceptability - (cont'd)

7. These devices have been judged for application in Overvoltage Category II and Pollution Degree 2 or better. For other end use applications, additional testing and evaluation shall be considered.
8. The Actuating Member and Actuating Means Test of Clause 18.9 was performed with a torque value of 0.9 Nm applied to the adjustment knob grip, that has diameter of 33 mm. For other end use applications, additional testing and evaluation shall be considered.