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Project 99RT6831

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REPORT

on

COMPONENT - TEMPERATURE-INDICATING
AND REGULATING EQUIPMENT

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PRODUCT COVERED:

*USR, CNR Component - Appliance Thermostat, Model No. SP or NSP series followed by 0 or 1, followed by 0-9, followed by 0 or 1, **may be** followed by 3 **alphanumeric characters**.

GENERAL:

*These devices are non-enclosed, manual reset thermostats. The thermostats are capillary type controls, single-pole and single-throw **or single pole double-throw**. **For SPST devices the contact opens on temperature rise.**

SP series thermostats are intended for safety or limiting purposes.

NSP series thermostats are intended for regulating purposes.

RATINGS:

Models SP or NSP with plastic cover:

- * NC contact: 240 V ac, 16 A resistive, 60 Hz.
- NO contact: 240 V ac, 0.5 A, resistive, 60 Hz.

Models SP with metal cover:

- NC contact: 250 V ac, 20 A resistive, 60 Hz.
- NO contact 250 Vac, 1A resistive, 60 Hz.

*Maximum cut out temperature **for models provided with plastic cover 299 °C. Maximum cut out temperature for models provided with metallic cover 340 °C.**

NOMENCLATURE:

*SP	0	1	1	A0	ZZZ
I	II	III	IV	V	VI

I. Construction series

- * SP - Fail safe
- * NSP - No fail safe

II. Cover material

- 0 - plastic, **SP and NSP models.**
- * 1 - metallic, **SP models.**

*III. **Max** length of capillary tube

- | | |
|-------------|-------------|
| 0 - 450mm | 5 - 2,050mm |
| 1 - 850mm | 6 - 2,350mm |
| 2 - 1,150mm | 7 - 2,650mm |
| 3 - 1,450mm | 8 - 2,950mm |
| 4 - 1,750mm | 9 - 3,250mm |

IV. Capillary tube material

- 0 - copper
- 1 - stainless steel

V. **Internal** Options

VI.

*

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

CNR indicates investigation to Canadian Standard C22.2 No. 24-1991.

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

1. The device shall be installed in compliance with the enclosure, mounting, spacing, and segregation requirements of the ultimate application. The cover has not been evaluated for use as the ultimate enclosure.
2. The acceptability of the terminals and connections to these terminals shall be determined in the ultimate application.
3. The device completed 1000 cycles of endurance under load and 5000 without load. Calibration test was conducted before and after endurance test.
4. Maximum cut out temperature is 299 °C **for SP and NSP models provided with plastic cover, and 340°C for SP models provided with metallic cover.**
- *5. **SP series** have been investigated for safety or limiting requirements.
6. This device has been evaluated to UL 8730-1 and UL 8730-2-9. The SP series control has been evaluated such that breakage of the sensing element, or any other part between the sensing element and the switch head opens the contacts.
7. Maximum ambient temperature **for models provided with plastic cover** 125°C. **Maximum ambient temperature for models provided with metal cover** 120°C.
8. **SP series** were evaluated for breakage of capillary tube. Contacts automatically opened after breakage.
9. This manual reset thermostat did not automatically reset as a result of temperatures of minus 35 °C.
10. The manual reset action is trip free. The reclosing check was verified at minus 35°C with positive result.
11. **NSP series have been investigated for regulating purposes since contacts do not switch when there is a loss of fluid in the capillary tube.**