File E98133 Vol. 1 Sec. 50 Page 1 Issued: 2008-02-18 and Report

DESCRIPTION

GENERAL:

PRODUCT COVERED:

USR, CNR Component - Special-Use Switches.

| Cat No. | Electrical Ratings | Temp °C | POL/ THR | PP | ENDUR | SPCOA |
|---|-----------------------|------------|-------------|----|-------|-------|
| P1 f/b 2, f/b 4, 7, N, P, R, S, T or V, f/b 3 | 2 A, 125 Vac | 65 | 1-2/1 | PP | 6K | 2 |

EXPLANATION OF PRODUCT COVERED TABLE:

Abbreviations f/b - followed by

if ww/o - with or without

used Res. - Resistive load. 98-100 percent power factor.

POL/THR - No. of Poles/No. of Throws. "M" stands for Multi-Pole or

Multi-Throw, e.g. 2/M indicates 2 Pole, Multi-Throw.

PP - "PP" Stands for Per Pole. PP in this column indicates that each

pole is capable of switching the rated current.

ENDUR - Endurance Rating

SPCOA - Special Conditions of Acceptability; the applicable

special

COAs are indicated in this column in number form. The corresponding COAs are given in the following pages.

File E98133 Vol. 1 Sec. 50 Page 2 Issued: 2008-02-18 and Report

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

The devices covered by this Report are single or double-pole, single throw, special use switches.

Products designated USR have been investigated using requirements contained in Underwriters Laboratories Standard for Special Use Switches, UL 1054.

Products designated CNR have been investigated using requirements contained in Canadian Standard C22.2 No. 55-M1986.

Use - The switches covered by this Report are for use only in complete equipment where the suitability of the combination is determined by $\operatorname{Underwriters}$ Laboratories $\operatorname{Inc.}$

File E98133 Vol. 1 Sec. 50 Page 3 Issued: 2008-02-18 and Report

NOMENCLATURE BREAKDOWN AND RATINGS:

 $\frac{2}{II}$ ĪII ĪV

I - P1

II - 2

III - Wiring diagrams

4 - Single-pole momentary switch
7 - Double-pole momentary switch

Illuminated single-pole momentary switch independent light
 Single-pole momentary switch dependent light

- Double-pole momentary switch dependent light R

S - Single-pole momentary switch dependent light

- Double-pole momentary switch dependent light

- Illuminated single-pole momentary switch independent light

IV - 3

See Illustration 1 for nomenclature breakdown of Cat. No. P1.

File E98133 Vol. 1 Sec. 50 Page 4 Issued: 2008-02-18 and Report

STANDARD CONDITIONS OF ACCEPTABILITY

 $\mbox{\tt General}$ - The following five Conditions of Acceptability apply to all switches covered by this Report.

- 1. The switch terminals have been investigated for use only with copper wire or copper alloy quick-connect terminals.
- 2. A standard sized quick-connect tab (per Table 8.1 of UL 1054) is to be mated with the appropriate standard size quick-connect connector. The tab is provided with a detent that shall be properly matched to the connector.
- 3. The spacing between any terminals and a flat mounting surface has been judged in accordance with UL 1054 (Special Use Switches). However, the spacing requirements between the connection when installed on the terminal and the mounting surface shall comply with the end-use Standard spacings.
- 4. For switches with integral leads, the temperature rating of the leads is 60°C minimum unless the leads are surface marked with a higher rating. The suitability of the wire size and temperature rating must be determined in accordance with the end use product standard.
 - 5. The switch has been subjected to a minimum 6000 c endurance test.

SPECIAL CONDITIONS OF ACCEPTABILITY

General - One or more of the following Conditions of Acceptability apply as indicated in the Product Covered table on Page 1 of this Report under the SPCOA (Special COA's) column.

- 1. The nonstandard quick-connect tabs (i.e., other than noted in Table 8.1 of UL 1054) have been investigated with a specific nonstandard connector attached to wires of a specified size.
- 2. These are lighted switches employing a lamp. The lamp life should be evaluated when required by the end-use product Standard.
- 3. The switch has openings in the housing adjacent to arcing parts. The end-use application may involve environments (such as excessive dust or adjacent combustible material) that would exclude an opening in the switch housing.
- 4. These are diaphragm activated water level switches. Samples of the diaphragm have been subjected to aging tests for use at a specific temperature (shown within parenthesis in °C) and have also been examined for tensile strength and elongation after exposure to detergent. However, if the switch is mounted below the level of water which indirectly actuates it and the switch has an integral metal case, the metal case is to be considered a live part.
- 5. These are speed control switches. The investigation was limited to the switching function of the switch. In the final application it should be determined that the speed control circuit can be used with a particular appliance without resulting in a hazardous condition such as overheating of a motor or the switch in other than the full speed position. Open and shorted components of the speed control circuit shall be evaluated for compliance with the end-use Standard.
- 6. The switch employs screw-type pressure wire connectors or push-in terminals. These have been evaluated for use with solid and/or solder dipped stranded conductors of a specified size (shown within parenthesis in AWG).
- 7. These switches employ an integral potentiometer. The investigation was limited to the switching function of the switch. The insulating materials and spacings of the integral potentiometer should be investigated for compliance with the end-use product Standard.
- 8. The switch employs auxiliary contacts located externally of the main switch contact chamber. The auxiliary contacts were not tested as part of this investigation. The suitability of the auxiliary contacts must be determined in accordance with the end product Standard.