

Component-Special Use Switches

E36479

**JOHNSON ELECTRIC GERMANY GMBH & CO KG**

AUF DER LOEBKE 10, ECC SWITCHES &amp; SUBSYSTEMS IPG / APG, HALVER 58553 DE

**V4N aq**

Amps	Volts	Hz	Load	Endurance
5	250	60	GP	6K
Temperature(C): <b>65</b>				POL/THR: <b>1/M</b>
PerPole/Circuit Code: <b>-/-</b>				SPCOA: <b>-</b>
<b>aq - w/wo E w/wo /3299, T6, T7, T8, T81, T82, T83, T9 w/wo C2, C4, w/wo suff.</b>				

Report Date:1990-08-20  
Last Revised:2007-01-02

© 2014 UL LLC

**Conditions of Acceptability**

Unless specified otherwise in the individual Recognitions, consideration is to be given to the following Conditions of Acceptability when these components are employed in the end-use equipment.

- The switch terminals have been investigated for use only with copper wire or copper alloy quick-connect terminals.
- Switches employing standard size quick-connect tabs shall be mated with the appropriate standard size quick-connect connector. The tab is provided with a detent. The connector shall be properly matched to the tab.
- The spacings between any connections when installed on the switch terminals and the adjacent mounting surface shall be judged using the spacing requirements contained in the end-product standard.
- For switches employing integral leads, the temperature rating of the leads is 60°C, unless the leads are surface-marked with a higher rating.
- The switch has been subjected to a minimum of 6000 cycles endurance test.

**Special Conditions of Acceptability** (that may apply to the above product)

The following are the Special Conditions of Acceptability for switches identified by number in the individual Recognitions indicated in the "SPCOA" field above. Switches with a Special Condition of Acceptability other than noted below are preceded by a letter and described in the Individual Recognition Report from the manufacturer.

- The switch incorporates nonstandard quick-connect tabs that have been investigated with a specific nonstandard connector attached to wires of a specified size.
- These are lighted switches employing a lamp. The usable lamp life has not been investigated.
- The switch has openings in the housing adjacent to arcing parts. Caution is needed if the end-use application involves combustible dust or adjacent combustible materials that could be ignited by switch arcing.  
These are diaphragm-actuated water level switches suitable for use at a maximum temperature (shown within parentheses in degrees Celsius) and for exposure to typical laundry detergent. If the switch is mounted below the water level and has an integral metal case, the metal case shall be considered a live part.
- These are speed control switches investigated only as to the switching function. Suitability of the speed control circuit for a particular appliance shall be investigated in the end-use application.  
The switch employs screw-type pressure wire connectors or push-in terminals. The terminals have been investigated for use with solid and/or solder-dipped stranded conductors of a specified size (shown within parentheses in AWG).  
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 shall be investigated for compliance with the end-use product standard.
- The switch employs auxiliary contacts that have not been investigated.

**Special Conditions of Acceptability for File E36479**

(that may apply to the above product)

The following are the Special Conditions of Acceptability for switches specific to this file number. The "SPCOA" field above indicates which of these special conditions apply to the product shown.

- Note 1 - This special condition of acceptability applies only to Catalog No. 4CRQR. The spacing between any terminal and the metal switch enclosure has been judged in accordance with the standard for Special Use Switches (UL 1054). However, the spacing requirements between the connection when installed on the terminal and the metal switch enclosure shall comply with the end-use standard spacings.
- Note 10 - These switches have been investigated for pilot duty requirements in accordance to UL1077 with the following load adjustment: the AC rating was tested 230Vac with 2A normal current and 12A inrush current with a PF: less than 0.35. The DC ratings were tested as a "DC13" pilot duty rating.
- Note 2 - The switches are provided with terminals for printed circuit board connection. These terminals have not been investigated. The suitability of these terminals should be determined in the end-use application.
- Note 3 - The switch terminals have only been investigated for use with copper wire.
- Note 4 - Cat. Nos. XG, XGA, XGM with silver or silver-cadmium oxide contacts (Suffixes -81, -82) have been evaluated for 100,00 (make and break) capability.

Note 5 - X4 Series with suffix A was tested using 250V to ground, therefore may be marked with the voltage rating single or double underlined.

Note 9 - These switches have been investigated as a changeover (CO) switch. These switches may be used to control the same load at the normally open contact and at the normally closed contact, with the ON- and OFF-period being approximately 50% of an operating cycle, concurrently. The suitability of the changeover function for a particular appliance shall be investigated in the end-use application.

Note A - Each circuit may carry up to the rating of the switch.

Note A1 - Quick-tab terminals shall be used only with insulated female tabs.

Note B - Cat. No. X3M f/b suffixes, f/b A, f/b additional suffixes have been subjected to a 100K cycle endurance test at 15A, 250Vac.