

# Product Specification

**Part Number**

**VRS Series**

- 1) **Rating:** AC 125V 0.3A
- 2) **Operating Temperature Range:** -10°C ~ +70°C  
**Storage Temperature:** -40°C ~ + 85°C
- 3) **Electrical Performance:**

	Test Conditions	Performance
Contact Resistance	Shall be measured at 1KHz±200Hz (Max 20mV, Max 50mA) or 5V DC, 1A by a voltage drop method	50mΩ Max.
Insulation Resistance	Shall be measured by applying 500V DC, between all terminals and between the terminals and the frame for 1minute±5sec.	100MΩ Min.
Withstand Voltage	500V AC (50~60Hz,2mA) shall be applied between all terminals and the frame for 1minute ±5sec.	Without damage to parts arcing or breakdown

- 4) **Mechanical Performance:**

	Test Conditions	Performance
Control Wobble	Shall be measured by applying a static load of 100gf.cm to the tip of control unit.	Less than 1mm
Shaft stopper strength	N/A	More than 5 kgf.cm
Bushing mount strength	N/A	9 kgf.cm MIN
Operating life under no load	10,000 cycles of operating shall be performed continuously at a rate of 15~20 cycles per minute without load. After operating life test, shall be in accordance with the following specifications.	(1) Contact resistance: 200mΩ Max. (2) Insulation Resistance: 50MΩ Min. (3) Withstand Voltage: AC 250V for 1 minute. (4) Operating force: Less than +10%~-30% for initial operating force
Operating life under load	10,000 cycles of operating shall be performed continuously at a rate of 15~20 cycles per minute with resistive load of AC 125V 0.3A. After operating life test, shall be in accordance with the following specifications	Contact resistance: Less than 500mΩ. Other specifications are the same as operating life under no load

## 5) Environmental Characteristics:

	Test Conditions	Performance
Soldering Test	Regarding preheating, the entire flow duration should not exceed 2 minutes, and soldering surface temperature (undersurface PCB) shall be settled with 100°C. Temperature of solder 260±5°C Duration of dipping 4±0.5 sec.	More than 90% of the dipped part shall be covered by solder
Soldering heat resistance	Flow soldering condition: to be performed in 4±0.5 sec. Max within 260±5°C. Manual soldering in 3±0.5 sec. Max within 350±5°C	No abnormalities shall be observed in appearance and operation shall be assured.
Test Condition (Unless otherwise specified) Temperature: 5°C - 35°C Humidity: 45% - 85% R.H.		