# **Burgess**

## **V9 Series Sealed Miniature Micro Switches**

Single-pole, snap-action, changeover micro switches which are sealed against the ingress of liquid and are pressure tested. Their screw terminals are arranged in a channel provided with a removable insulated cover which facilitates the running-in of sealing compound on site. Three models have metal cases and two have plastic cases, the use of the latter being recommended when insulation resistance of a high value is required. Metal cased models with factory-connected and potted wires and which carry an explosion-proof component approval are listed in the Explosion-Proof Switches section, see page 199.



Plunger actuator metal case



Roller-lever actuator metal case



Plain lever actuator metal case



Plunger actuator nylon case



Roller-lever actuator nylon case



Insulated cable box

Individual descriptions of these switches appear on the pages shown.

### Construction

#### Mechanism

Single-pole, snap-action, using a coil spring as an energy store. Changeover working, with normally open only or normally closed only working available. The moving contact is silver and the fixed contacts are silver cadmium oxide.

### Enclosure

Either a metal or plastic. Insulation and base cover plate in plastic. Synthetic rubber plunger cowl.

#### Actuators

Integral levers in stainless steel. Roller in plastic.

### **Terminals**

Three 6 BA screws with captive washers are located in stepped channels able to accommodate single-core cables up to 3 mm outside diameter.

### **Electrical Ratings**

Ratings are recommended maxima and are in amperes.

Voltage	Resistive Load	Tungsten Lamp Load NC   NO		Inductive Load
AC				
125	10	2	1	10
250	10	1.5	1	10
DC				
Up to 15	15	3	1.5	15
30	10	3	1.5	10
50	3	0.8	0.8	2.5
75	1 1	0.6	0.6	0.5
125	0.5	0.5	0.5	0.1
250	0.25	0.25	0.25	0.05

### Installation and Service

#### Mounting

Two side-mounting holes for M3 or #4 screws.

### Diagram of Connections



### **Environmental Data**

The mechanism enclosure is sealed and pressure tested. When terminals and wire tails are protected with a suitable approved compound the complete units conform to IEC Code IP67, NEMA Type 6. Switches with factory-attached wires—see page 199—are supplied to this degree of protection.

#### Service

Regular checks for cleanliness and security are advocated.

### **Approvals**

Metal-cased models are CSA and UL Approved. Consult Burgess about plastic-cased models.

### **Cross References**

BASEEFA approved metal cased models with factory-fitted wires – pages 74-76 and 199.

Unsealed compact switches – pages 46 and 136-137.

# **V9NLR**



Actuator Mechanism

Integral lever with free-running roller Changeover Terminals

Three 6BA screws with captive washers. Detachable base cover provided. Insulated cable box

available - see below

**Electrical Rating** 

Recommended maximum 10A on

125 or 250 vac.

Full ratings on page 47

Free Position (max) 29.2 mm 1.15 in Operating Position 27.2 1.07 in

±0.4 mm

Movement Differential (max)0.4 mm0.016 inAvailable Overtravel0.76 mm0.03 inActuating Force (max)7.2 N26 ozfRelease Force (min)1.1 N4 ozf

Mechanical Life In excess of 10 million

operations

Enclosure Nylon case protects sealed

mechanism which is pressure

tested

When suitable compound is run into the terminal channels after making connections, the unit will conform to IEC Code IP67,

NEMA type 6 -10° to +85°C.

Temperature  $-10^{\circ}$  to + Weight 26 g max

Approvals\* UL

This model and similar models in the V9 Series are described in detail on page 47

