

# VOLTAGE MONITOR RELAYS

## VW SERIES VOLTAGE BAND (WINDOW)

12-120V PLUG-IN



- ◆ Monitors AC single phase and DC voltages
- ◆ Provides voltage band (window) protection
- ◆ Wide range of user-adjustable Over Voltage and Under Voltage settings
- ◆ Fixed or adjustable time delay on drop-out
- ◆ LED indicates output relay status
- ◆ Compact plug-in case utilizing industry standard 8 pin octal socket

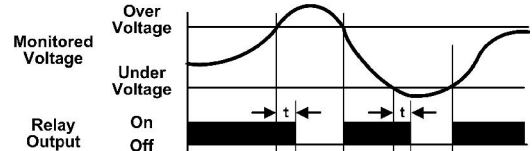
- ◆ 10A DPDT output contacts



(with appropriate socket)

Voltage Band Relays provide protection to equipment that is required to operate within an upper & lower voltage limit. As long as the operating voltage remains within an OVER & UNDER voltage range, the internal relay stays energized. If the operating voltage falls outside this range, the relay will drop-out.

When nominal operating voltage with a value between the UPPER & LOWER setting is applied, the internal relay will energize (Pick-up). If the operating voltage falls outside the preset OVER trip point (adjustable 100-125% of nominal) or UNDER trip point (adjustable 75-100% of nominal) for a period longer than the drop-out time delay (t), the relay will de-energize (Drop-out). When the voltage returns to normal (within the preset OVER & UNDER trip points), the unit automatically resets and the relay energizes. Choose between a unit with fixed drop-out time of 500ms or one with an adjustable 0.5-10 second drop-out time.



### Fixed Drop-Out Time Delay (500ms)

NOMINAL VOLTAGE	OVER VOLTAGE RANGE	UNDER VOLTAGE RANGE*	PRODUCT NUMBER	WIRING/SOCKET
24V AC 120V AC	24-30V AC 120-150V AC	18-24V AC 90-120V AC	VWP024A VWP120A	8 Pin Octal <b>70169-D</b>  MONITORED VOLTAGE <b>DIAGRAM 20</b>
12V DC 24V DC 48V DC 110V DC	12-15V DC 24-30V DC 48-60V DC 110-137V DC	9-12V DC 18-24V DC 36-48V DC 83-110V DC	VWP012D VWP024D VWP048D VWP110D	

### Adjustable Drop-Out Time Delay 0.5 - 10 Seconds

NOMINAL VOLTAGE	OVER VOLTAGE RANGE	UNDER VOLTAGE RANGE*	PRODUCT NUMBER	WIRING/SOCKET
24V AC 120V AC	24-30V AC 120-150V AC	18-24V AC 90-120V AC	VWKP024A VWKP120A	8 Pin Octal <b>70169-D</b>  MONITORED VOLTAGE <b>DIAGRAM 20</b>
12V DC 24V DC 48V DC 110V DC	12-15V DC 24-30V DC 48-60V DC 110-137V DC	9-12V DC 18-24V DC 36-48V DC 83-110V DC	VWKP012D VWKP024D VWKP048D VWKP110D	



800-238-7474

www.macromatic.com  
sales@macromatic.com

Application Data & Dimensions—Page 29  
Sockets & Accessories—Pages 80 & 81

# VOLTAGE MONITOR RELAYS

## VW SERIES VOLTAGE BAND (WINDOW)

### 12-120V PLUG-IN APPLICATION DATA & DIMENSIONS

#### APPLICATION DATA

##### Voltage Tolerance:

+25%/-50% of nominal voltage; AC voltages are 50-60Hz;  
No separate supply (input) voltage is required.

**Load (Burden):** Less than 3VA

##### Voltage Settings:

Over Voltage: 100-125% of Nominal Voltage  
Under Voltage: 75-100% of Nominal Voltage

##### Temperature:

-28° to 55° C (-18° to 131° F)

**Indicator LED:** Red Steady when Relay is energized; Green when Relay is Off.

**Reset:** Automatic.

##### Response Times:

Operate: 500ms

Release: Fixed 500 ms (VWP Series)

Adjustable 0.5 -10 Seconds (VWKP Series)

##### Output Contacts:

10A @ 240V AC/30V DC, 1/2HP @ 120/240V AC (N.O.),

1/3HP @ 120/240V AC (N.C.)

##### Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

##### Transient Protection:

10,000 volts for 20 microseconds

##### Approvals:

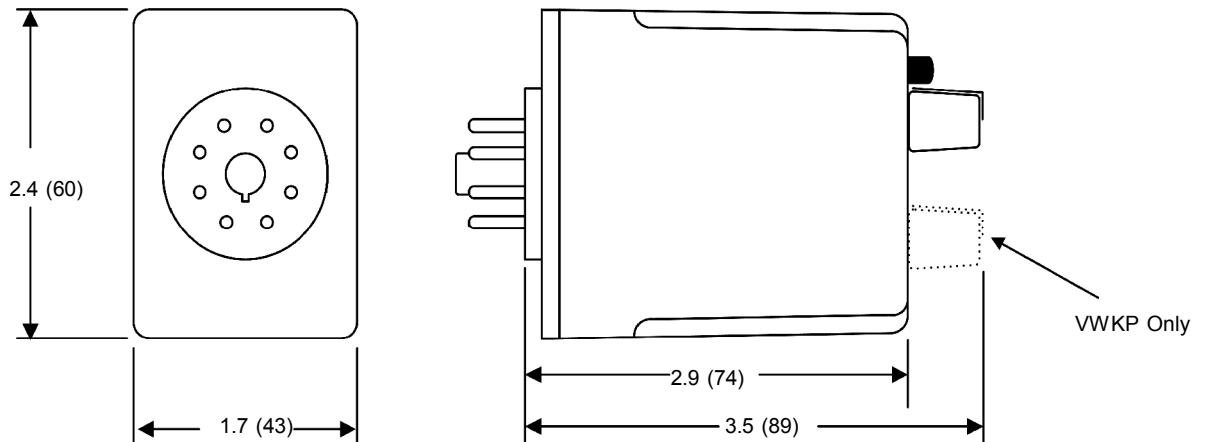


Low Voltage & EMC Directives  
EN60947-1, EN60947-5-1



with  
appropriate  
socket  
File #E109466

#### DIMENSIONS



All Dimensions in  
Inches (Millimeters)