# **VOLTAGE MONITOR RELAYS**

VW Series Vol tage Band 12-120V Pl ug-in







- Monitors AC single phase and DC voltages
- u Provides voltage band (window) protection
- Wide range of user-adjustable Over Voltage and Under Voltage settings
- u Fixed or adjustable time delay on drop-out
- u LED indicates output relay status
- Compact plug-in case
   utilizing industry standard 8
   pin octal socket
- u 10A DPDT output contacts





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

Adjustable Drop-Out Time Delay 0.5 - 10 Seconds

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



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# **VOLTAGE MONITOR RELAYS**

VW Series Vol tage Band 12-120V Pl ug-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 (-20° to 131° F)

Indicator LED: Red Steady when Relay is energized; Green

when Relay is Off.

Reset: Automatic. Contact Macromatic for information on

units with Manual Reset.

#### **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:

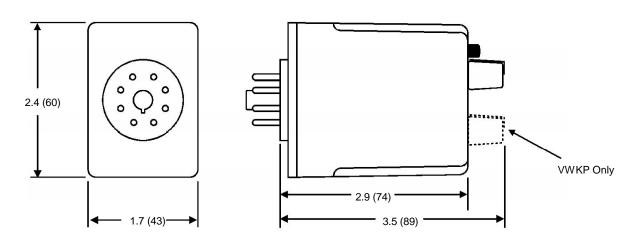




Low Voltage & EMC Directives EN60947-1, EN60947-5-1

with appropriate socket File #E109466

#### Dimensions



All Dimensions in Inches (Millimeters)

1/09