

## WD2759 Over/Undervoltage Relays

- Function 27/59
- ANSI/IEEE C37.90-1978

### WD2759 Operation

WD2759 AC voltage sensing relays provide voltage monitoring and protection in AC systems from 50 to 400 Hz. Sensing voltages, number of phases, over and undervoltage setpoint, and time delays are user configured. WD2759 voltage relays operate when the externally adjustable trip point is reached. An external time delay control is provided with an adjustment of .5 to 10 seconds. This time delay may be used to prevent false tripping when there are slight variations in the voltage supply. On overvoltage (OV) the output relay energizes when the input signal exceeds the trip point. On undervoltage (UV) the output relay energizes when the input signal goes below the trip point. A green LED indicates power to the relay. Red LED lights indicate the state of the undervoltage and overvoltage trips.

### WD2759 Specifications

**Nominal Operating Range:** 120, 208, 277 or 480 VAC, selectable.  
**Maximum Sensing Range:** 700VAC.  
**Nominal Frequency Range:** 50-400 Hz.  
**Contact Form:** 1 form C (SPDT) for undervoltage and 1 form C (SPDT) for overvoltage.  
**Time Delay Adjustment:** 0.5 to 10 sec.

#### Sense Voltage:

Voltage (nominal)	120	208	277	480
UV Adjustment Range	72-120	125-208	166-277	288-480
OV Adjustment Range	120-168	208-291	277-388	480-672

#### Control Voltage:

Model WD2759	-001	-002	-003
Input Voltage (VDC)	18 to 54	13.5 to 32	100 to 200
Input Voltage (VAC)	-	-	100 to 140

### Ordering Information

Typical Part Number ►

**WD 2759 -002**

#### 1. Basic Series:

WD = DIN mount Protective Relay.

#### 2. Type:

2759 = Over/Undervoltage Relay.

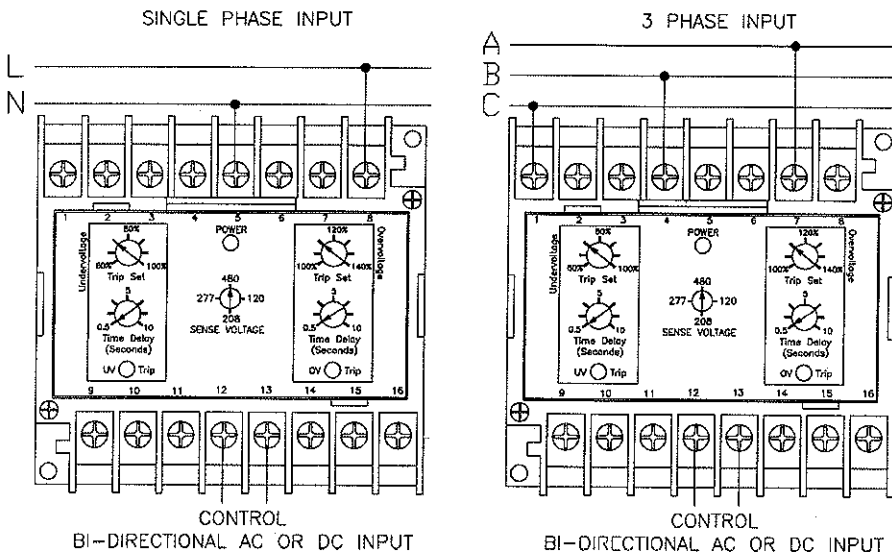
#### 3. Control Voltage:

001 = 18 to 54VDC  
 002 = 13.5 to 32 VDC  
 003 = 100-200VDC or 100-140VAC.

Our authorized distributor is more likely to stock these items.

WD2759-003.

### WD2759 Typical Hookup



### WD2759 Calibration

The calibration marks on the faceplate have a maximum error of 10% and are provided only as guides. Proper calibration requires using an accurate voltmeter in parallel with the input signal. Use the following procedure to calibrate your relay.

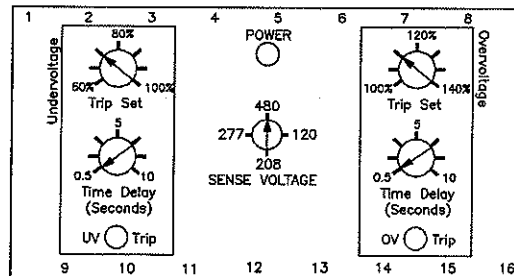
#### OVER VOLTAGE

1. Remove cover.
2. Adjust the TRIP SET control fully clockwise (CW) and the TIME DELAY control fully counterclockwise (CCW).
3. Apply the desired trip voltage to the relay.
4. Slowly adjust the TRIP SET control CCW until the relay trips.
5. Remove the applied voltage (do not change the voltage level) and set the TIME DELAY control to the desired time delay.
6. Apply the trip voltage to the relay and measure the time to trip.
7. Adjust the TIME DELAY and repeat steps 4 and 5 until you have the desired time delay.

#### UNDER VOLTAGE

1. Remove cover.
2. Adjust the TRIP SET control fully CCW and the TIME DELAY control fully CCW.
3. Decrease the applied sensing voltage from the nominal value until the desired tripping voltage is reached.
4. Slowly adjust the TRIP SET control CW until the relay trips.
5. Set the TIME DELAY control to the desired time delay and apply nominal voltage to the relay.
6. Step down the applied voltage from nominal to a level just below the trip level set in Step 3 and measure the time delay.
7. Adjust the TIME DELAY and repeat steps 4 and 5 until the desired time delay is achieved.

### WD2759 Controls



### WD2759 Connections

