

# POWERSWITCH

1000 VDC TRACTION POWER  
CONTROL COMPONENTS

## 1000 VDC FAILSAFE VOLTAGE SENSING RELAYS

COPPER RIDGE FAILSAFE VOLTAGE SENSING RELAYS WERE CREATED TO PROVIDE A MORE RELIABLE INTERLOCK TO ENABLE OPERATION OF A NO-LOAD BREAK MOTOR OPERATED SWITCH ONLY WHEN THE SWITCH IS DE-ENERGIZED. THIS RELAY IS SIMILAR TO THE 940150 DEVICE EXCEPT THE NORMALLY OPEN INTERNAL CONTACTS ARE HELD CLOSED ONLY WHEN THE SENSE VOLTAGE IS LESS THAN THE FACTORY SET VALUE. THE ISOLATED, FAILSAFE, N.O.. CONTACTS WILL NOT CLOSE IF CONTROL POWER IS INTERRUPTED OR AN INTERNAL FAILURE OCCURS PROVIDED THAT THE SENSE CONNECTION IS MAINTAINED.

PART NUMBER **940170** N.O.. CONTACTS ARE HELD CLOSED WHEN THE SENSE VOLTAGE IS LESS THAN 50 VOLTS.

PART NUMBER **940171** IS SIMILAR TO 940170 EXCEPT THE CONTACTS ARE HELD CLOSED WHEN THE VOLTAGE IS LESS THAN 150 VOLTS.

PART NUMBER **940470** IS SIMILAR TO 940170 EXCEPT THE CONTACTS ARE OPEN WHEN THE SENSED VOLTAGE IS MORE THAN 100V AND DO NOT RE-CLOSE UNTIL SENSE VOLTAGE IS LESS THAN 40 V. THIS SIMULATES THE RANGE OF VOLTAGE INDICATION OBTAINED WHEN MAGNETIC RELAYS WERE USED FOR THIS APPLICATION.

## FEATURES

DUAL OPTO-COUPLED AND ELECTROMAGNETIC ISOLATION BETWEEN HV AND INDEPENDENT OUTPUT CONTACTS.

HIGH SENSE VOLTAGE INPUT IMPEDANCE, NO FUSES NEEDED.

ISOLATED DRY CONTACTS ARE NORMALLY OPEN FAIL SAFE.

OPERATES WITH EITHER AC OR DC CONTROL POWER.

## SPECIFICATIONS

INSULATION: HV TO OUTPUT, and HV TO INPUT

5 kV DC For 1 Minute With No Leakage

SENSING INPUT CHARACTERISTICS:

Maximum Forward Voltage: +1000 VDC.

Maximum Reverse Voltage: -1000 VDC.

Minimum Input Impedance: 480,000 ohms.

Maximum Current Draw: 2 mA @ 1000 VDC.

OUTPUT RELAY:

Two Isolated Normally Open Dry Contacts

Max Switching Voltage = 220 VDC, 250 VAC

Rated Current = 3 Amps

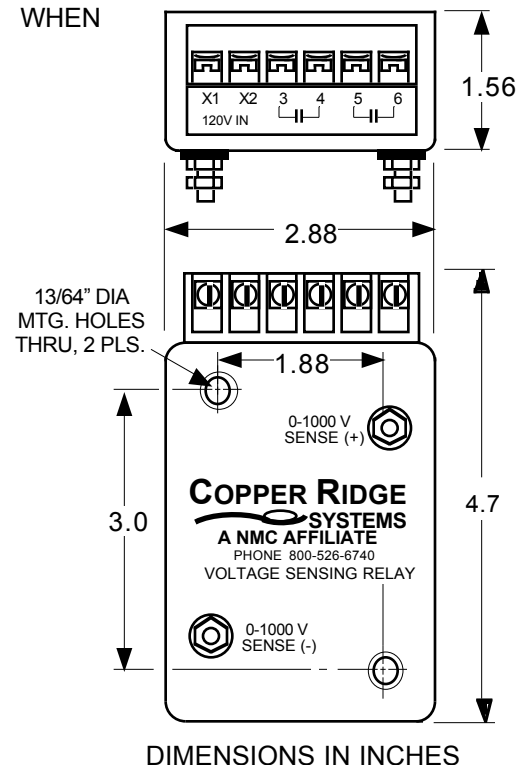
POWER INPUT:

120 Volts AC/DC, 10 Watts Maximum.

TERMINALS: HV - #8-32 Brass Studs.

LV - #6 Screws with Wire Clamps.

MOUNTING: (2) #10 x 2 inch long machine screws.



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**POWERSWITCH, Inc.**

815 E. CHERRY STREET <> TROY, MO 63379 <> 1-800-526-6740

[www.normandymachine.com](http://www.normandymachine.com)