

POWERSWITCH

1000 VDC TRACTION POWER
CONTROL COMPONENTS

2000 VDC FIBER OPTIC VOLTAGE SENSING RELAY

COPPER RIDGE SYSTEMS - 100900 SERIES

COPPER RIDGE SERIES 100900 FIBER OPTIC VOLTAGE SENSING RELAYS ARE A VARIATION OF THE POPULAR 940150-70 SERIES TO MEET SPECIFICATIONS CALLING FOR HV CONNECTIONS TO BE SEPARATE FROM THE LV CONNECTIONS. THE FIBER CABLE PROVIDES COMPLETE ELECTRICAL ISOLATION AND SURGE PROTECTION BETWEEN HIGH AND LOW VOLTAGE WIRING. A TYPICAL APPLICATION WOULD MOUNT THE SELF POWERED HV SENSORS ON OR NEAR THE HV TERMINALS OF A MOTOR OPERATED SWITCH AND CONNECT THE SENSORS BY FIBER OPTIC CABLES TO THE RELAY MODULE IN THE LV CONTROL ENCLOSURE. SHOWN HERE IS PART **#100910** WHICH IS ARRANGED TO CLOSE TWO SETS OF N.O. CONTACTS WHEN VOLTAGE ON THE SENSOR TERMINALS IS LESS THAN ± 50 VOLTS. THIS IS NORMALLY USED AS AN INTERLOCK TO ENABLE OPERATION OF A MOTOR OPERATED SWITCH ONLY WHEN THE VOLTAGE ON THE SWITCH TERMINALS IS LESS THAN 50 VOLTS. ALTERNATE PART **#100900** IS USED TO TURN ON LOCAL OR REMOTE SIGNAL LIGHTS OR SCADA RELAYS TO INDICATE WHEN THE OCS OR THIRD RAIL VOLTAGE IS 50 VOLTS OR MORE. PART **#100924** IS SAME AS 100910 EXCEPT INPUT VOLTAGE IS 24V.



FEATURES

- DUAL OPTIC AND ELECTROMAGNETIC ISOLATION BETWEEN HV AND INDEPENDENT OUTPUT CONTACTS.
- ALLOWS SEPARATING HV SENSORS AND LV RELAY MODULE WITH OVER 150 FEET OF FIBER CABLE.
- USES LOWEST COST EASY TO INSTALL FIBER OPTIC CABLE REQUIRING NO SPECIAL TOOLS.
- OPERATES WITH EITHER AC OR DC CONTROL POWER.

SPECIFICATIONS

INSULATION:

5 KV DC For 1 Minute With No Leakage

SENSING INPUT CHARACTERISTICS:

Minimum Input Impedance: 960,000 ohms.

Maximum Current Draw: 2 ma @ 2000 VDC.

OUTPUT RELAYS:

Isolated Normally Open Dry Contacts.

Max Switching Voltage = 220 VDC, 250 VAC

Rated Current = 3 Amps

POWER INPUT:

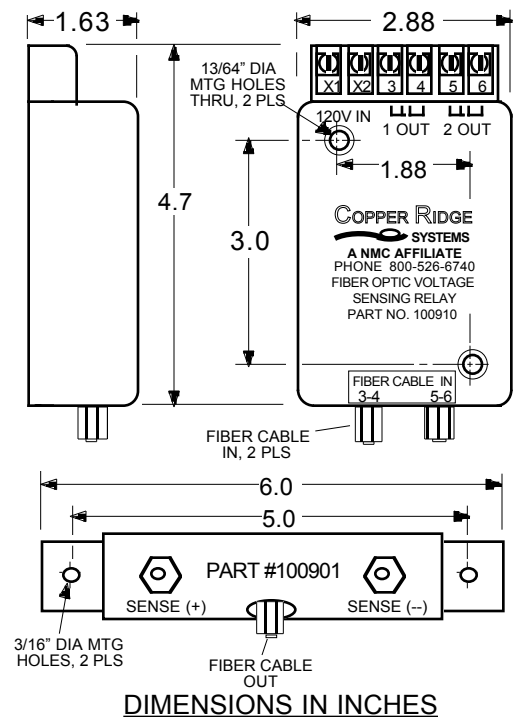
120 Volts AC/DC, 10 Watts Maximum.

TERMINALS:

#6 Screws with Wire Clamps.

RELAY MOUNTING:

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



POWERSWITCH, Inc.

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