



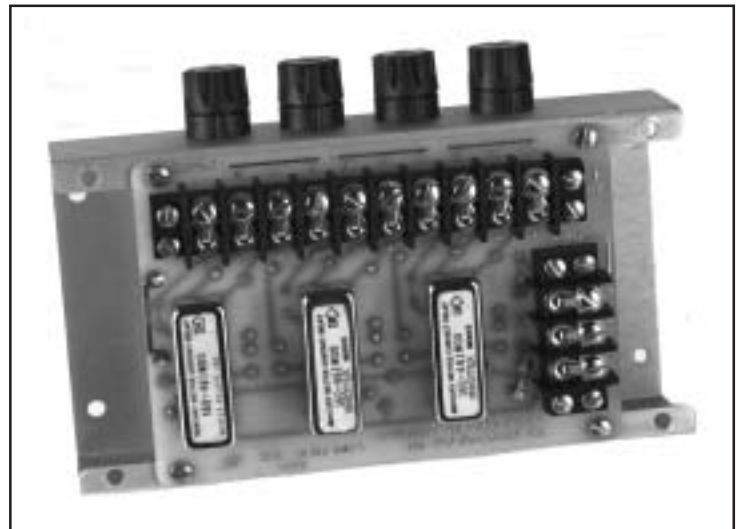
Tomorrow's Telemetry Today!

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G-1994 SERIES ISOLATION RELAYS INSTRUCTION INFORMATION

GENERAL DESCRIPTION

The Isolation Relay, Model G-1994, also known as a contact multiplier, comes in both AC and DC versions with mercury-wetted latching relays. These relays have a minimum life expectancy of 2 billion transitions so for a pulse rate of 100 PPM a minimum operational life of 40 years can be expected. The G-1994-AC unit multiplies a Form-C KYZ contact from a meter into 2 or 3 Form-C outputs. This version uses alternating current (AC) to wet the contact initiator and control the output relays. The G-1994-DC unit also multiplies a Form-C KYZ contact, but uses a direct current (DC) voltage to wet the contact initiator. The G-1994-DC can be configured for 24, 48 or 125 volts DC. A lexan Safety Cover is provided for your protection.



The third isolated output, fused outputs or fused input are available as options on each unit.

INSTALLATION

Input Connections:

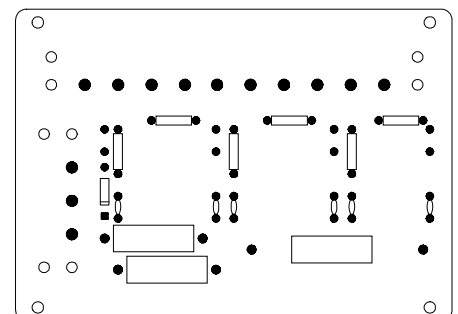
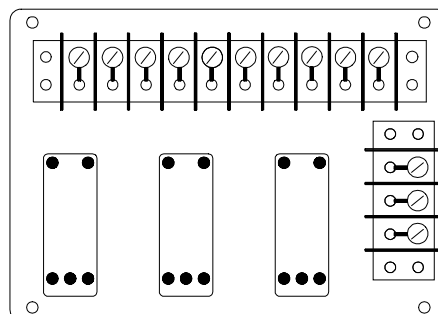
The Z-lead and Y-lead of the contact initiator are connected directly to the input terminals as in the diagram. The K-lead of the initiator connects to one side of the power and the K-lead of the G-1994 to the other side of the power. The unit is not polarity sensitive for either the AC unit or the DC unit.

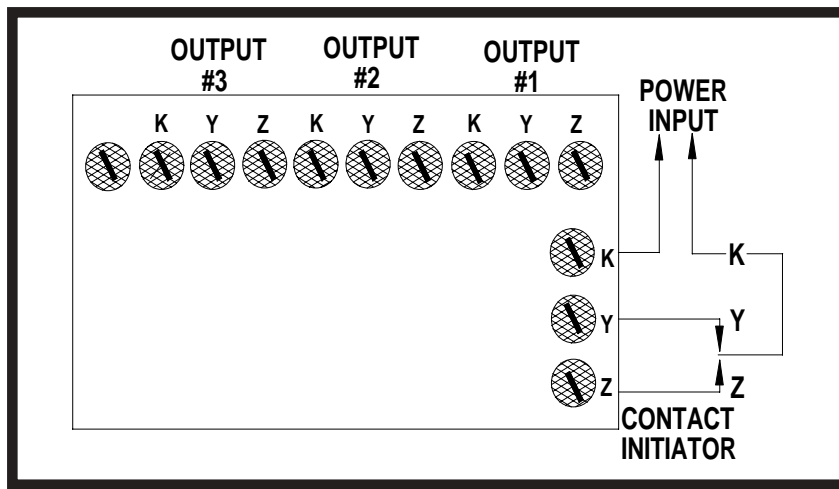
Output Connections:

The Z-lead and Y-lead of the G-1994 connect directly to the inputs on the device driver. The K-lead of the G-1994 connects to one side of the

power that the driver device requires and the K-lead of the device connects to the other side of the power. The G-1994 outputs are not polarity sensitive; however, the driver device may be!

The device must be mounted vertically with the arrows of the relays pointing up.





SPECIFICATIONS

SIZE: 6.5"L x 3.65"W x 1.75"H (without cover).
Add 0.5" with cover.

MOUNTING DIMENSIONS: 2.50" x 6",
3/16"D holes.

MOUNTING REQUIREMENTS: Must be vertically mounted.

OPTIONAL FUSES: 1A, Fast Blow, Panel Mounted.

RELAY CONTACTS:
2 or 3 provided

Rated 500V, 2A, 100VA, maximum
Arc suppression applied

TEMPERATURE RANGE: -40°C to +85°C.

INPUT VOLTAGES:

G-1994-AC:
80-300 Vac, 0.75 VA burden max.
G-1994-DC:
22-28 Vdc (24 Vdc), 44-54 Vdc (48 Vdc),
104-144 Vdc (125 Vdc), 6 mA
required.

SCREW TERMINAL SIZE: 5-40 Screw accommodating up to 0.3" lug for #16 AWG wire.

REPLACEABLE PARTS LIST, G-1994

CIRCUIT SYMBOL	DESCRIPTION	STOCK #
D1	Diode, IN4004	010020
C1-C6	Capacitor, CER., 1000pf, 1kV	040000
C7	Capacitor, MYLAR., 1uf, 200V	050050
K1-K3	Relay, 160461W00	100010
R1,2	Resistor, W.W., 20K, 5W (varies)	120150
R3-R8	Resistor, COMP., 2.2K, 1/2W	130180
F1-F4	Fuseholder, 3AG	190000
F1-F4	Fuse, 3AG, 1A, 313	190120



DA-TEL RESEARCH COMPANY, INC.
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**Equipment and/or components purchased through Da-Tel but manufactured by other companies are covered under the warranties of those manufacturers.*

NOTICE

As of the date of this printing, the specifications for the G-1994 in this Instruction Information sheet apply to all G-1994 Isolation Relays, except as indicated. Because all Da-Tel products are continually being refined and improved, these specifications are subject to change without notice.