



**NOTICE OF APPROVAL  
AVIS D'APPROBATION**

E-162

Ottawa, April 9, 1979

WESTINGHOUSE TYPE W-4 POLARIZED RELAY AND  
TYPE W-5 D.C. POWER SUPPLY

W-4 Polarized Relay

Input: A two wire alternate polarity 65 volt d.c. pulse is required to operate the polarized relay.

Output: Single channel form C. SPDT contacts.

Relay Type: CP Clare mercury wetted contact, polarized type, octal base, plated steel cover, type no. HGS 5005 or equivalent.

Operating Voltage: 40 to 150Vd.c.

Contact Rating: 2 amperes maximum, 500 volts maximum, 100 volt-amperes maximum with contact protection.

Coil Resistance: 10,600 ohms  $\pm 10\%$ .

External Resistance: Maximum loop resistance in relay pilot wires or control cable permitted at 65V is 30,000 ohms.

Temperature Range:  $-18^{\circ}$  to  $+65^{\circ}\text{C}$

Mounting: Relay must be mounted within  $15^{\circ}$  of vertical

W-5 Power Supply

Input: 120 volts  $\pm 10\%$ , 60Hz

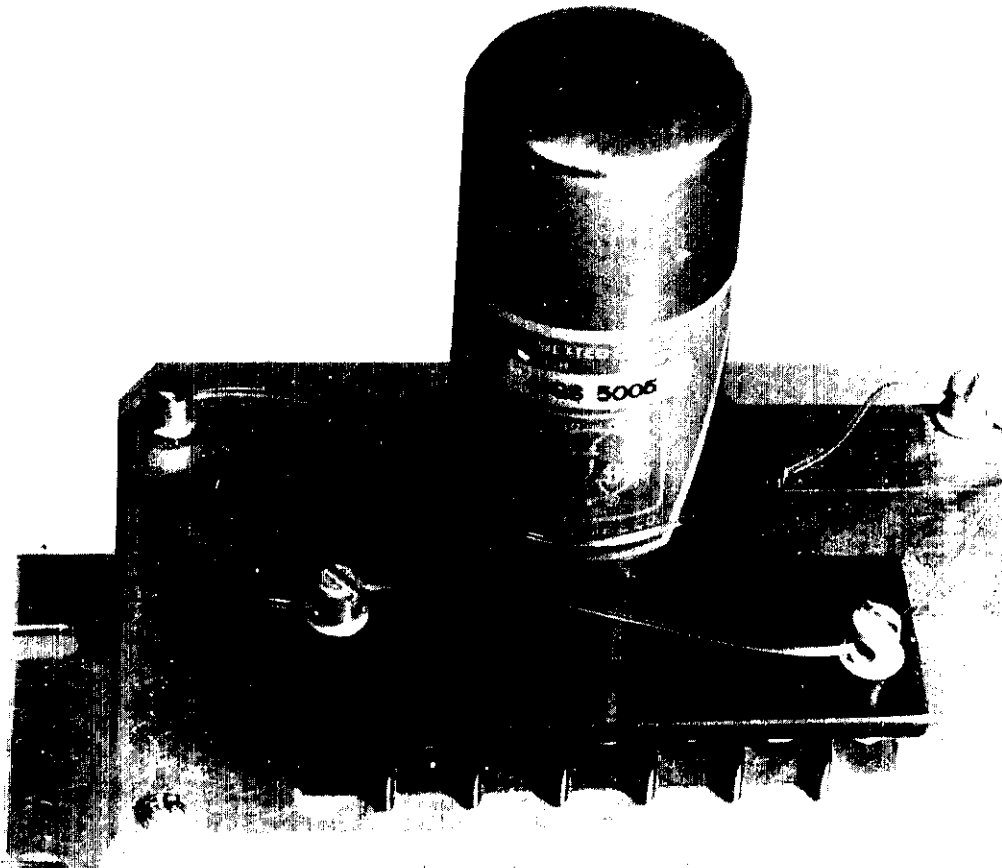
Output: -65 to +65 volts d.c.

Voltage Regulation: No load to full load, 25%

DC Ripple: 10 to 20% unfiltered, depending on load

Burden: With W-4 relay load, 1.7 watts 72% power factor.

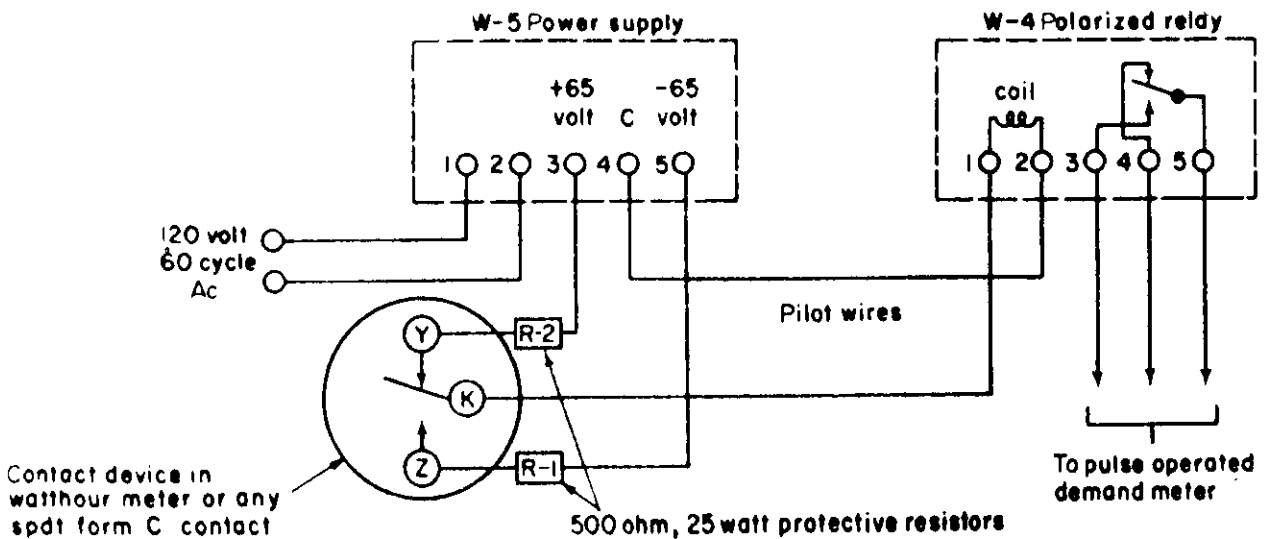
Protection: Input fused at  $\frac{1}{4}$  ampere

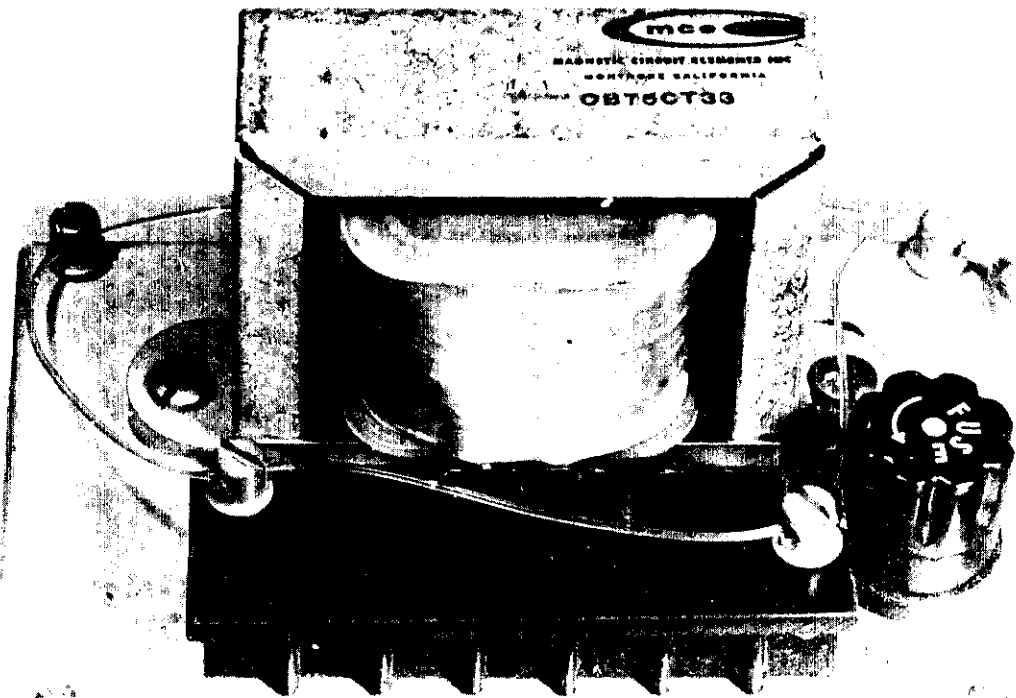


W-4 relay

Type W-4  
Style Number 111C914G01

Wiring Diagram





1 2 3 4 5 6  
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Temperature Range: - 29 to +65°C

Description

The Type W-4 Polarized Relay and the Type W-5 DC Power Supply, when used together, permit transmission of pulses from a 3-wire form C contact device over a 2-wire line to operate remotely various types of pulse equipment requiring a 3-wire input. The direct current power supply is installed at the sending end, while the polarized relay is mounted at the receiving end. The system is free of errors from "contact bounce" and momentary interruptions of the power supply.

Provision is made to seal access to the chassis and terminals of both instruments with sealing wire which passes through the drilled heads of the chassis and terminal cover screws. Withdrawal of the relay is prevented by a metal ring with tabs drilled to accommodate sealing wire which slips down over the flanged portion of the relay at its base.

For outdoor service, both devices must be mounted in weatherproof enclosures.

Approval granted to:

Westinghouse Canada Limited  
Hamilton, Ontario



D. L. Smith  
Chief,  
Electricity and Gas Division  
Legal Metrology Branch

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