



GPR-1P

GAS PULSE RELAY

The GPR-1P gas pulse relay is designed to provide a single "dry", mercury wetted form "C" (K, Y, & Z) contact from a three wire pick-up head on a gas meter. The GPR-1P is usually used in conjunction with a "HALL-EFFECT" or reed relay type "lowest digit" pick-up device mounted on a gas meter's dial. The GPR-1P relay may be located up to 1000 feet distance from the pick-up head device/meter. The power source to the GPR-1P is 90 to 135 VAC. The GPR-1P built-in power supply provides a source voltage for the pick-up device located on the gas meter.



Typical applications include interfaces between utility and customer metering circuits, demand recorder applications, and supervisory control systems (SCADA) interfaces. A set of bright red and green LED lamps indicates the systems status at all time thus allowing a rapid visual check of the systems performance without the need of any additional tools or meters. An output delay time is built-in the circuitry to allow a correct minimal pulse output to the recorder to occur regardless of the shortness of the meters initial contact closure timing. The length of this timing may be changed by the user by changing the values of a single resistor and/or a capacitor.

The input and output circuit's terminal strip is color coded for error free wiring in the field. The "K" lead of the GPR-1P's output is fused to prevent damage to the relay under almost any condition a user might cause such as excessive current, incorrect wiring, etc. The GPR-1P has built-in transient protection for the mercury wetted relay contracts which eliminates the need for off-board transient suppressors.

The GPR-1P is mounted in a R-3 type rain resistant enclosure meant to be mounted outside in all types of weather. The GPR-1P must be mounted in a vertical position because of the mercury wetted relay used in its construction will not operate in positions greater than 30 degrees out of the vertical plane. The output of the GPR-1P may be use to feed other SSI relays such as the RPR-2P or RPR-3P where multiple output are required. The MPT-4 totalizer may be used to totalize a group of GPR-1P outputs with various different values of cubic feet of gas per pulse to a single total value for all meters.

SOLID STATE INSTRUMENTS

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GPR-1P SPECIFICATIONS

ELECTRICAL

Power Input: Power Supply 85 to 135 VAC. at 20 MA

Signal: 3-wire from a "Hall Effect" pick-up device; 2-wire from a reed switch pick-up device

Output: To Pick-up 13 VDC at 10 m

Relay Contacts: One set of "dry" form "C" contacts ("K, Y & Z") factory fused at 1/2 amp. The relay's contacts are mercury wetted "no bounce" rated at 500 VDC or 350 VAC 2 Amps. break, 5 amps carry. The maximum rating of the contacts is 100 VA. Factory fused at 1/2 amp. (3AG)

Contact Resistance: 50 milliohms maximum, 12 to 14 typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 2.5 milliseconds typical operate; 3.0 milliseconds typical release

MECHANICAL

Mounting: Within 30 degrees of vertical

Size: 6.000 inches wide, 8.000 inches high, 4.000 inches deep

Weight: 3 pounds

TEMPERATURE

Temperature Range: -38° C to +70° C, -36.4° F to +158° F

Humidity: 0 to 98% non-condensing

OPTIONS

Input Voltages: Contact Factory



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