



SSI STANDARD

PIR-24 DUAL CHANNEL PULSE ISOLATION RELAY

DESCRIPTION

The PIR-24 dual pulse isolation relay is designed to provide four isolated dry-contact, solid state Form A (KY) outputs from two Form A (KY) inputs. The primary application for the PIR-24 is when two independent isolation relay channels are desired, each with two identical and isolated outputs yet bundled in one compact package.



The PIR-24 operates over the standard SSI wide voltage range utilizing the auto-ranging power supply from 90 to 300VAC. The PIR-24 has a built-in off-line switching power supply generating a +13VDC sense voltage. The sense voltage is sent to each electric meter's Y pulse initiator output terminal from the PIR-24's "Y1in" and "Y2in" input terminals, returning to the "K1in" and "K2in" terminals, the common return for both meters. Each output relay follows one of the two inputs, thus allowing each input to control two relays. Output relays 1 and 2 follow input 1, while outputs 3 and 4 follow input 2.

The PIR-24 may be used with electric meters having electro-mechanical or semiconductor output contacts, either high or low voltage. Typical applications include interfaces between utility metering devices and customer-owned energy control systems, demand recorder applications, and supervisory control systems (SCADA) interfaces. The PIR-24 relay is designed for high-speed pulses and can switch up to 36,000 pulses/hour. The outputs are non-latching.

Bright RED LED indicators, one on each input, display each channel's relay status at all times thus allowing a rapid check of the system's performance without requiring any additional test equipment. The PIR-24's input and output terminal strip is a "EURO" type connector. When the stripped wire has been correctly installed in the terminals "slot" no conductive parts are exposed on the surface of the terminal strip, thus allowing the user maximum protection from accidental electrical shock. Each "K" lead of the PIR-24's four outputs is fused to prevent damage to the relays under almost any condition a user might cause such as excessive current, incorrect wiring, etc.

The PIR-24 has built-in MOV transient protection for the solid-state relay contacts which eliminates the need for external or off-the-board transient suppressors. All component parts which have power applied to them, with the exception of the input/output terminal strip are enclosed in a polycarbonate cover for maximum protection.

The mounting base plate is also made of polycarbonate and offers excellent electrical insulation between the circuits and the mounting surface.

FUNCTIONAL SUMMARY

	IN	OUT
#	2	4
TYPE	2 Wire	2 Wire
FORM	A	A

TYPE
FORM

PIR-24



SSI ELITE

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SPECIFICATIONS

ELECTRICAL

Power Input:	90 to 300 VAC. Burden: 10 mA at 120 VAC
Signal Input:	Two Form A inputs. "Kin" is common return. Each input has a "Yin" input terminals for pulse signal from meter.
Outputs:	Four sets of dry Form A contacts (K, & Y) for energy pulses. The contacts are rated at 125VAC/VDC at 100milliamps. The maximum rating of the contacts is 800mW. Each output is factory fused at 1/10 amp. (3AG)
Contact On-State Resistance:	25 ohms maximum, 18 typical
Operate and Release Time:	Turn On Time - .5 mS typical; 3 mS MAX Turn Off Time - .1 mS typical; 1 mS MAX
Input/Output Isolation Voltage:	2500Vrms

MECHANICAL

Mounting:	Any position
Size:	3.27" wide, 5.70" high, 1.50" deep
Weight:	17 ounces

TEMPERATURE

Temperature Range:	-38° C to +70° C, -38.4° F to +158° F
Humidity:	0 to 98% non-condensing

AVAILABLE OPTIONS

Input Voltages:	125 VDC input using the DCS-3 Power Supply. Contact factory for other input voltages.
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