PULSE ISOLATION RELAYS - SOLID STATE

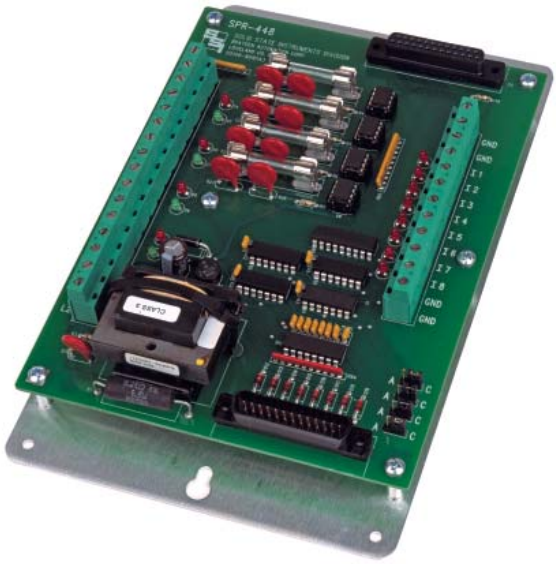
SPR-448 I/O UNIT - LANDIS + GYR MAXSYS 2510 or ELITE METERS

SPR-448

FUNCTIONAL SUMMARY

	IN	OUT
#	4	4
TYPE	2 Wire or 3 Wire	3 Wire
FORM	A or C	C

DESCRIPTION



The SPR-448 is an input/output termination unit designed specifically for the Landis + Gyr MaxSYS 2510 and Elite meters. It includes an integral 4-channel KYZ pulse isolation relay to protect the meter's KYZ output board from transient voltages, induced electrical noise, over-currents (short-circuits), over-voltages and other conditions that might damage the meter. Metal oxide varistor (MOV) transient suppression is provided on each output. In addition, each output is equipped with a standard AGC/3AG style fuse that can be replaced by field personnel.

The input configuration of each input can be independently set on site as either a Form C (3-wire) or Form A (2-wire) input. The meter's pulse output "J3" wire harness plugs directly into the DB-25 connector, allowing for quick and convenient connection. Screw terminals are provided for each output making field wiring a snap.

In addition to the isolation relays on the outputs, the SPR-448 features an 8-input termination section, providing a convenient way to interface external KYZ pulses or other digital inputs with the MaxSYS 2510 or Elite meters. Bright red LED's have been added to display input status, allowing for easy and fast monitoring of all inputs.

The SPR-448 is mounted on an aluminum mounting plate with key-hole mounting slots, making it easy to mount the unit inside another enclosure. Additional mounting holes are provided in each corner of the mounting plate. The board is mounted approximately 9/16" above the mounting plate surface providing excellence isolation from ground. Transient suppression is provided on the power supply.

The SPR-448 is available in two versions: P/N SS5148A-00001 with perpendicular DB-25 connectors that are available from the front of the board, or P/N SS5148A-00002 with parallel DB-25 connectors that are available from the sides of the board.

Optional indoor (NEMA 1) and outdoor (NEMA 3R) enclosures are also available.

ORDERING INFORMATION

SS5148A-00001: Perpendicular "straight up" DB-25 connectors
SS5148A-00002: Parallel DB-25 Connectors

SOLID STATE INSTRUMENTS a division of BRAYDEN AUTOMATION CORP.
6230 Aviation Circle ● Loveland, CO ● Phn: 970-461-9600 ● Fax: 970-461-9605
www.solidstateinstruments.com

SPR-448

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SPECIFICATIONS

ELECTRICAL

Power Input:	120, 208 to 277 VAC. Burden: 10 mA at 120 VAC; 5 mA @ 240 VAC

ISOLATION RELAY

Pulse Input:	Four independent field-selectable inputs. Form A or Form C inputs are provided by Landis + Gyr MaxSYS 2510 or Elite meters through the meter's J3 DB-25 connector. Each input has "Yin" and "Zin" terminals wetted, pulled up with +13VDC. "Kin" terminal is the common return. The Form A input uses the "Yin" terminal, and the Form C input uses the "Yin" and "Zin" terminals for the input from the meter.
Pulse Output:	Four sets of dry contact Form C outputs (K,Y & Z) for energy pulses. K-Y or K-Z may be used for Form A pulses. The relay contacts are solid state with "no bounce" circuitry. Outputs are rated at 125VAC/VDC 1/10th Amp (100 milliamps). Factory fused at 1/10 amp @ 250 VAC with standard 3 AG (AGC) style fuses.
Contact On-State Resistance:	25 ohms maximum, 18 ohms typical
Insulation Resistance:	50 megohms typical
Operate & Release Time:	2 to 3 milliseconds typical
Input/Output Isolation Voltage:	2500Vrms

AUXILIARY INPUT

Eight auxiliary input terminals provided for external pulses. Wetting voltage provided by MaxSYS 2510 or Elite meters and "flows through" to the meter's J4 input terminals. The meter's "E1" jumper must be in the 2-3 position (+VUR) providing the wetting voltage for inputs.
Inputs are activated by dry contacts switching to A-GND
Four A-GND terminals provided
LED indicator on each input to display input status

MECHANICAL

Mounting:	Any position
Board Size:	5.5" wide, 7.5" high, 1.25" deep
Overall Assembly Size:	5.5" wide x 9.0" high x 1.8" deep
Weight:	12 ounces

TEMPERATURE

Temperature Range:	-38° C to +70° C, -36.4° F to +158° F
Humidity:	0 to 98% non-condensing

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