



SELF-CONTAINED RELAYS (OUTDOOR) - SOLID STATE SOCO MODEL-44

FUNCTIONAL SUMMARY

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

MODEL 44

Originally manufactured by the Southern Companies for their own use, became part of the SSI family in March 2024. This "Super Relay" will do just about any task required in pulse metering from simple multi-channel pulse isolation to totalizing with positive or negative pulses.



The Model 44's four isolated solid-state Form A dry-contact solid state outputs are independently programmed to follow one or more of the four Form A inputs. Each set of output contacts is an electrically isolated Form A (KY pulse) contact with super high input to output isolation dielectric barrier. The typical application is the utility's interface between the KWH meter and a customer-owned energy control system where four types of pulses are used. For example, one input channel might be for watt-hour pulses-Delivered, and the second input channel for var-hours Delivered pulses. In bi-directional applications any channel can be used for Wh or VARh Received metrics. The Model 44 provides four independent isolation relay channels in one ready-to-use weather-resistant package.

Each of the four channels of the Model 44 has three operating modes, Normal Pass-thru, Pass-Through with Value Conversion, or Positive or Negative Totalizing. In the Normal Pass-thru Mode, Form A inputs are passed to the assigned Form A output(s). In Pass-thru Value Conversion Mode, Form A inputs are assigned a pulse value. When the value of the input(s) reaches a corresponding output value a pulse is passed to the assigned output(s). In Totalizing mode, the inputs are assigned a positive or negative value. Once the corresponding output value is reached, a pulse is passed to the assigned output. Each of the four outputs can be "mapped" to any of the four inputs.

The Model 44 contains an internal cover between the electronics and wiring area and the customer area. Once the unit is installed, the internal cover is secured by a meter seal, allowing access by utility metering personnel only. Terminal blocks are provided for Power Supply input connections, input connections, output connections and programming accessibility.

Red and green LEDs, one for each input and output, are located next to the terminal blocks for good visibility and easy interpretation of the state of each input and output. The Model 44's robust solid-state switching device is rated at 800V and 150mA giving maximum protection from lightning or transient voltage damage.

The Model 44 has built-in transient protection for the solid-state switching devices that eliminates the need for external or off-the-board transient suppressors.



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SPECIFICATIONS

ELECTRICAL

Power Input:	120, 208-277 VAC. Burden: 10 mA at 120 VAC
Pulse Inputs:	Two Form A (2-Wire) or C (3-Wire) input with +13VDC wetting voltage on the "Y" and "Z" terminals.
Pulse Outputs:	Four sets of dry contact solid state outputs – located in the customer compartment. The contacts are solid state "no bounce" relays rated at 125VACVDC at 1/4 Amp. The maximum rating of the contacts is 1500 mW. Factory fused at 1/4 amp. (3AG)
Contact On-State Resistance:	12.3 ohms maximum, 18 ohms typical
Insulation Resistance:	50 megohms typical
Operate and Release Time:	Turn on-time - 10 mS MAX Turn off-time - 5 mS MAX
Power Input:	120, 208-277 VAC. Burden: 10 mA at 120 VAC
Input/Output Isolation Voltage:	2500Vrms

MECHANICAL

Mounting:	Any position
Size:	6.0" wide, 8.0" high, 4.50" deep
Weight:	9 pounds
Type/Material:	NEMA 4X Fiberglass Case

TEMPERATURE

Temperature Range:	-38° C to +85° C, -36.4° F to +158° F
Humidity:	0 to 98% non-condensing