



SSI STANDARD

# ETR-3 EVENT TIME-BASE RELAY

## DESCRIPTION

The ETR-3 Event Time-Base Relay is a device designed to divide down 60 Hz line frequency to time base pulses of a specific number of pulses per interval. For example, the ETR-3A can output 1 pulse per second, while the ETR-3B outputs 1 pulse per minute. An enable line is available to allow the count to be started and stopped. One application would be to count the elapsed time a particular device has operated. The output pulse duty cycle is 50/50. Upon receiving each pulse from the meter, the ETR-3's circuitry counts the incoming pulses and keeps in a running count in the count register. When the count register reaches the pre-determined count then a pulse is outputted the next count cycle begins.



LED lights are included to monitor system status. A Red LED shows that the input count is enabled. A Yellow LED shows the input pulses from the line. This of course appears to be in a constant "on" state but is actually turning on and off at 60 Hz, and generally indicates that pulses are present and being received from the power line. It is not intended to be a indication of individual pulses. A Green LED on the output of the divider indicates the pulses being outputted at the pre-determined rate.

Typical applications include interfaces between utility metering devices and SCADA systems, recorders or programmable logic controllers. A +13VDC wetting voltage is provided on the Enable input terminal and is suitable for connection to any dry contact output, open-collector bipolar transistor or open-drain FET outputs. Two standard non-polarized isolated Form A (2-wire) pulse outputs are provided. Each output is rated at .1A (100mA) at 120V with a total contact VA rating of 800mW.

### FUNCTIONAL SUMMARY

	IN	OUT
#	1	2
TYPE	2 Wire	2 Wire
FORM	A	A

# ETR-3



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### SPECIFICATIONS

#### ELECTRICAL

Power Input:	120VAC; 208-277VAC. Burden: 10 MA. at 120 VAC, 60 Hz
Enable Input:	One KY Form A (2-wire) input with +13VDC wetting voltage compatible with dry contact relay output, open-collector transistor output, or open-drain FET output for enable input.
Output:	Two KY Form A (2-wire) outputs rated at 125VAC/VDC at 100mA. Maximum power rating of each contact is 800mW. Factory fused at .1A with standard 1-1/4" 3AG (AGC) type fuses.
Output On-State Resistance:	25 ohms maximum, 18 ohms typical
Input to Output Isolation Voltage:	2500 Vrms
Contact Resistance:	50 megohms typical
Operate and Release Time:	2-3 mS typical

#### MECHANICAL

Size:	3.27 inches wide, 5.70 inches high, 1.50 inches deep
Weight:	8 Ounces

#### TEMPERATURE

Temperature Range:	-38° C to +85° C, -36.4° F to +185° F
Humidity:	0 to 98% non-condensing

#### MODELS AVAILABLE

ETR-3A:	Output 1 pulse per second
ETR-3B:	Output 1 pulse per minute
Other Times Available:	Contact factory

#### AVAILABLE OPTIONS

Input Voltages:	12 & 24 VAC, 60 Hz – Contact factory
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