



SPECIALTY DEVICES

MPG-3E WIRELESS PULSE GENERATOR

DESCRIPTION

The MPG-3E Wireless Meter Pulse Generator is SSI's third generation Zigbee Pulse Generator housed in a NEMA 4X enclosure. It integrates AMI smart meters with legacy KYZ pulse metering. Using Zigbee® radio technology, the MPG-3E receives usage data from the meter's HAN network, interprets power usage, and converts it into KYZ pulses. With the MPG-3E, pulses are synthesized without having an actual KYZ output in the meter. By using the MPG-3E, utilities can implement the new advanced AMI meters and still provide pulses to customers that may need them.



The MPG-3E features integral Zigbee radio module and two KYZ pulse outputs. As the MPG-3E receives periodic data from utility's meter, the data is read and interpreted to obtain the current demand information. Accumulated energy is computed, and pulses are outputted according to a selected pulse value. All system settings are accomplished through a USB programming port that provides for pulse value, meter multiplier, output mode, and pulse timing. The output is selectable as either Form A (2-Wire) or Form C (3-Wire) and operates in either the momentary or toggle mode, respectively. The momentary mode has six pulse width time settings: 25mS, 50mS, 100mS, 200mS or 500mS and 1000mS. The toggle mode toggles back and forth to the opposite state upon each new pulse being generated. There are two LED's, one red and one green, which show pulse output status.

The output pulse value is selectable from 1 to 99999 watt-hours per pulse. A meter multiplier of 1 to 99999 may be programmed into the MPG-3E using the SSI Universal Programmer software.

A 30mS fixed minimum-off time delay prevents pulses from occurring too rapidly. Bright red, yellow and green LEDs monitor the system communications status and provide an easy and immediate visual system check without test equipment.

The Zigbee module must be paired or "provisioned" with the AMI meter with a HAN network radio, a process that is performed by the participating utility or on the utility's website. Once paired with the meter, the MPG-3E will begin receiving information from the meter and generating pulses.

The MPG-3E is compatible with Self-Contained or Instrument-rated electric meters. The MPG-3E's USB programming port is used to enter the specific site's meter multiplier from 1 to 99999. In addition, the MPG-3E can be configured for Normal mode (kWh delivered only) for unidirectional energy flow, or for Signed mode (kWh delivered and received) for bi-directional energy flow.

FUNCTIONAL SUMMARY

#	IN	OUT
1	2	
TYPE	USB Zigbee® Radio Module	2 Wire or 3 Wire
FORM	---	A or C

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SPECIFICATIONS

ELECTRICAL

Power Input:	120, 208-277 VAC. Burden: 10 VA
Input:	Zigbee HAN Network with AMI meter
Output:	Two Form A (2-Wire) or Form C (3-wire) Solid State dry-contact outputs rated at 100mA at 120V, 800mW maximum, fused at .1A
Maximum Pulse Output Rate:	≈15 Pulses per second (Form C) ≈10 pulses per second (Form A)
Minimum Time between Output Pulses:	30ms
Form A Pulse Width:	25, 50, 100, 200, 500, 1000 mS
Output Pulse Values:	1-99999 Wh/pulse

MECHANICAL

Mounting:	Any position
Size:	8" wide, 9" high, 3" deep NEMA Standard
Weight:	4 pounds

TEMPERATURE

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

AVAILABLE OPTIONS

Input Voltages:	Contact factory
Enclosures:	NEMA 4X fiberglass raintight and dustproof enclosure available. 10.0" high, 8.0" wide, 4.0" deep, includes mounting plate