SPECIALTY DEVICES

MPG-2ES WIRELESS PULSE GENERATOR

DESCRIPTION

The MPG-2ES Wireless Meter Pulse Generator integrates AMI smart meters with legacy KYZ pulse metering. Using Zigbee® radio technology, the MPG-2ES receives streaming usage data from the meter's HAN network, interprets power usage, and generates KYZ pulses that accurately represent energy usage by the customer. With the MPG-2ES, pulses are synthesized without having an actual physical KYZ output at the meter. By doing this, the utility can implement the AMI (advanced meter infrastructure) meters and still provide pulses to customers that need them.

The MPG-2ES features a USB input to host the Zigbee radio module "dongle" (included) and one KY pulse output. As the MPG-2ES receives periodic usage data from the utility's meter, the data is read and interpreted to obtain the current demand information. The accumulated energy is computed and pulses are outputted according to a selected pulse value.

All system settings are accomplished through a USB programming port using the Solid State Instruments Universal Programmer software. This allows the pulse value, multiplier, output mode, and pulse timing to be set to customer requirements. The output is selectable to operate in either the momentary or toggle mode. The momentary mode has six pulse width time settings: 25mS, 50mS, 100mS, 200mS, 500mS, and 1000mS. The toggle mode toggles back and forth to the opposite state upon each new pulse being generated.

The output pulse value is selectable from 1 to 99,999 watt-hours per pulse.

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

The Zigbee transceiver dongle must be paired with the utility's AMI meter equipment with a Zigbee transceiver. The pairing process is usually performed by the utility or on the utility's website. Once paired with the meter, the HAN network is automatically created and the MPG-2ES begins generating pulses.

The MPG-2ES is compatible with self-contained or instrument-rated electric meters. The MPG-2ES's USB programming port is also used to enter the specific site's meter multiplier from 1 to 99999. In addition, the MPG-2ES can be configured for Normal mode (delivered only) for unidirectional energy flow, or for Signed mode (delivered and received) for bi-directional energy flow.

FUNCTIONAL SUMMARY

	IN	OUT kWh, EOI
#	1	1
TYPE	USB Zigbee® Radio Module	2 Wire
FORM	---	A

MPG-2ES

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SPECIFICATIONS

ELECTRICAL

Power Input:	5 VDC, 100mA
Input:	USB Port (host) for Zigbee Dongle
Output:	One Form A (2-Wire) optically isolated Solid State MOSFET dry-contact outputs rated at 100mA at 120V, 800mW maximum
Maximum Pulse Output Rate:	≈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
Meter Multiplier:	1-99999

MECHANICAL

Mounting:	Any position
Size:	4” wide, 4” high, 2.5” deep
Weight:	1 pound

TEMPERATURE

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

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