

# POWER MONITORING & PROTECTION

## METER PULSE-TO-ANALOG TRANSDUCER

### MPA-2

#### DESCRIPTION

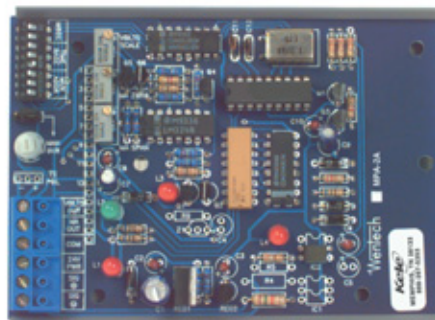
The **Model MPA-2** Meter Pulse-to-Analog Transducer accepts kWh totalizer pulses from a utility meter and calculates kW demand using a 5, 15, or 30-minute sliding window averaging scheme. The average kW demand value is provided as a milliamp or voltage signal, which can be read by a BAS. The average kW demand can also be displayed using panel meter indicators such as the LPI Series.

#### FEATURES

- *Converts kWh pulses to an analog kW signal*
- *Both milliamp and VDC signals available*
- *5, 15, or 30-minute sliding window selection*
- *24 VAC/VDC power*
- *Adjustable zero and span*
- *Snap track-mounted*
- *Furnished with complete instructions*

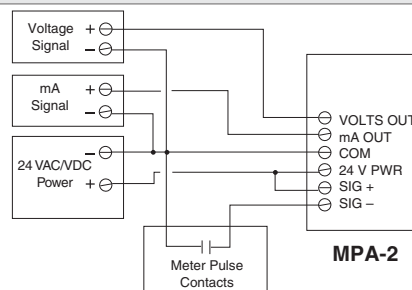
#### OPERATION

The **Model MPA-2** accumulates all the input pulses for the previous sliding window time period (i.e., 15 minutes). It calculates an average kW value over this time period and outputs an analog signal representing this kW. The sliding window pulse count is updated on one-second intervals with the input from the oldest interval constantly being replaced by the input pulses from the most recent interval.



MPA-2

#### WIRING



##### Notes:

1. Meter pulse contact can switch either negative or positive signal connection.
2. Any 24V power supply may be used to power the signal input from the meter pulse contacts, including the **MPA-2** power supply as shown.

#### SPECIFICATIONS

<b>Supply Voltage</b>	24 VAC $\pm 10\%$ or 24 VDC $\pm 10\%$
<b>Supply Current</b>	120 mA maximum @ 24 VAC 50 mA Maximum @ 24 VDC
<b>Dip Switches</b>	Sliding window size is DIP switch-selectable for 5-, 15-, or 30-minute periods; kWh pulses to produce full-scale output are DIP switch selectable from 10 pulses per period to 18,000 pulses per period
<b>Input Signal</b>	24 VAC/VDC switched through electronic or mechanical contact closure
<b>Input Current</b>	15 mA non-inductive at 24V
<b>Max Pulse Rate</b>	10 pulses/seconds
<b>Output Signal</b>	4-20 mA factory set, adjustable 0-20 mA zero and span; 2-10 VDC factory set, adjustable 0-18 VDC (both outputs can be used simultaneously)

<b>Output Impedance</b>	Maximum output resistance 650 $\Omega$ for mA output; maximum current available from voltage and current outputs combined is 25 mA
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#### LED Indication

##### Green status LED (L2)

**Steady green**

Normal

**Slow flashing green**

Calibration mode

**Rapid flashing green**

kW demand overflow

**Red signal LED (L1)**

Contact closure on the utility meter kWh contacts (LED is off when contacts open)

**Note:** L3 and L4 stay ON during operation

#### Mounting

3.25" (8.3 cm) snap track (supplied with unit)

#### Dimensions

3.25"H x 4.6"W x 1"D  
(8.3 x 11.7 x 2.54 cm)

#### Weight

0.39 lb (0.17 kg)

#### Warranty

18 months

#### ORDERING INFORMATION

**MODEL**  
**MPA-2**

**DESCRIPTION**  
Meter pulse-to-analog transducer