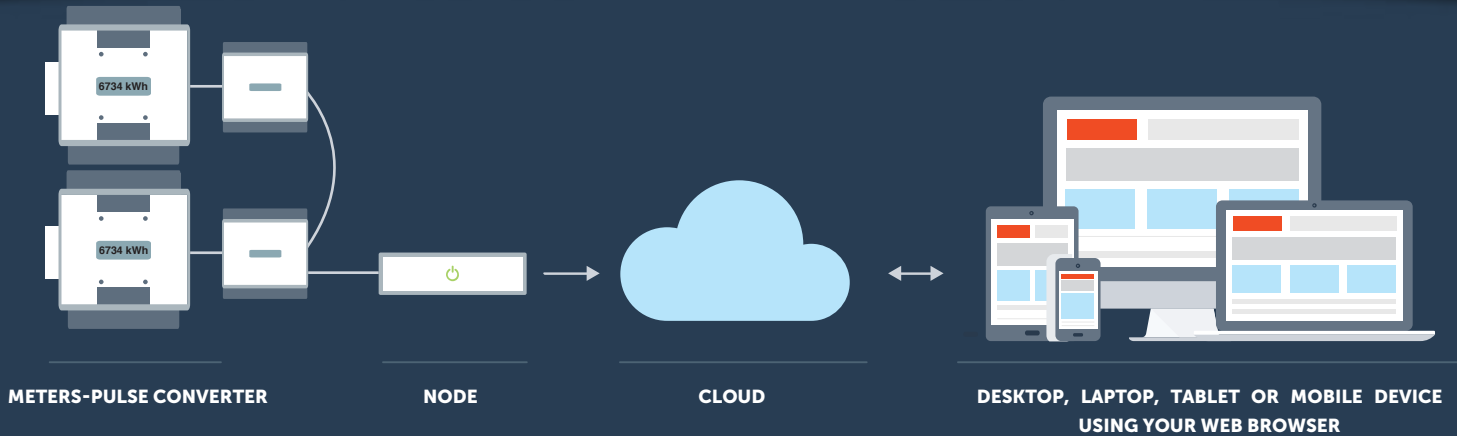


## Pulse To Digital Converter

The Entronix pulse to digital converter can be connected to any pulse or dry-contact sensor, including electric, water, BTU, or gas meters. The converter can capture events as short as 1 ms and functions as a slave device with any Modbus master.



### SOFTWARE

Usage data captured by the EPC is easily accessible through the Entronix software. Simply navigate to your meter list and choose from EPC power, gas, or water meters. Preconfigured registers populate automatically when adding a new meter, a process which takes only a few seconds.



### COMMUNICATION

The EPC utilizes a 2-Wire RS485 Modbus Protocol. Dip Switches have been provided which allow selection of baud rates (9600, 19.2K and 38.2K at 8N1). Address selection is accomplished via two decimal rotary switches making it unnecessary to convert your address to binary or hex.



### MOUNTING

For convenience of installation the EPC comes with a precut snap track for mounting. Mounting the snap track only requires a minimum of two pan head screws. The EPC can be installed in any orientation, and can be mounted in a 4 Square 2 1/8" deep electrical junction box or enclosure. For equipment longevity and optimal operation, mount in a dry, non-condensing location.



### FEATURES

**STORAGE** - 8MB storage which can accumulate pulse totals should communications fail.

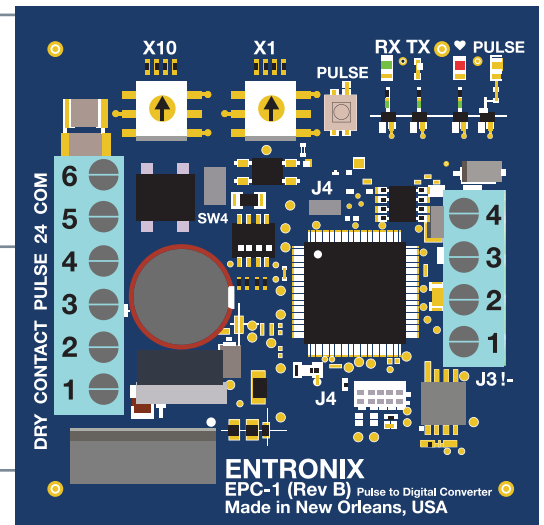
**CONNECTIVITY** - 1 DC Powered or 1 Dry Contact Pulse.

**CYCLING** - 1ms pulse feature width 2ms shortest pulse cycle (500 pulses per second)

**CONFIGURABLE** - Device can handle commands FC03 (read holding registers) and FC16 (Preset multiple registers).

**POWER** - 24-VAC/DC @ 0.01 Amps.

**PRINT/EMAIL/VIEW REPORTS AND LIVE DATA ON ANY MEDIA DEVICE.**



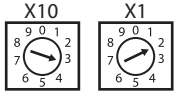
**LIFETIME WARRANTY**



Pulse Button - Simulates pulse input for fine adjustments when matching meter totals to EMP total consumption

Switch X10 - Addresses 1 through 9

Switch X1 - Addresses 10 through 90



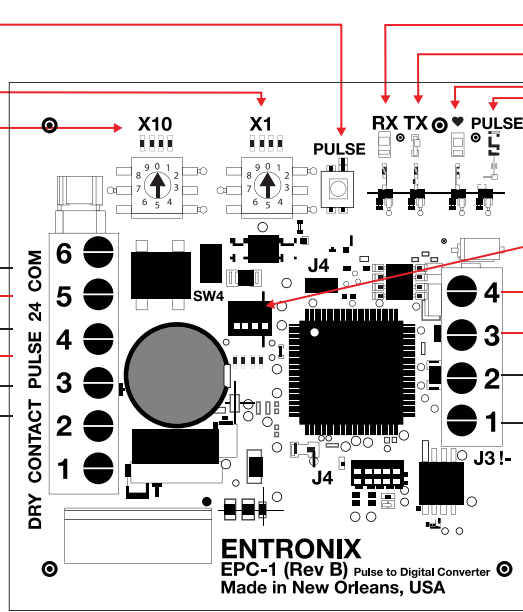
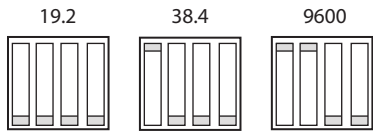
EXAMPLE, SET ADDRESS OF 32

24 VAC or DC power source  
.03 Amps at 24VDC

DC Powered Electronic Pulse  
P/Pulse -  
P/Pulse +

Dry Contact Pulse Input  
Pulse  
Pulse

SW4 - BAUD RATE SETTINGS



RX-LED flashes when receiving data  
TX-LED flashes when sending data  
Heartbeat-LED flashes once per second when EPC software is running. Constant ON or rapid flash indicates firmware or software failure.

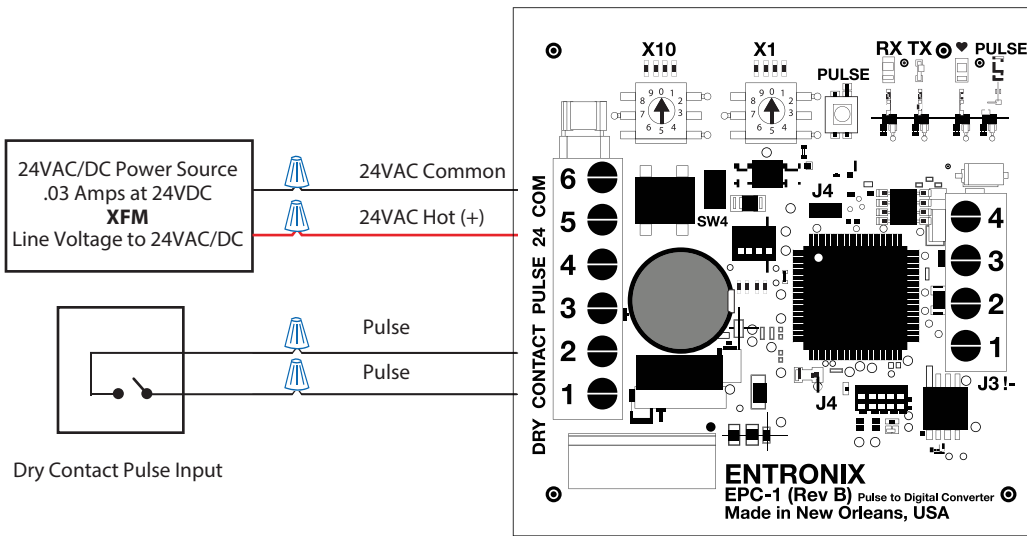
Pulse-LED, Flashes when receiving a pulse input  
Switch SW4 - Baud rate 19.2K Switch position

485+ - Communication From/To Next Modbus Device  
485+ -  
485- - Communication To/From Previous Modbus Device or Node 485 Converter  
485-

BASIC MODBUS REGISTER ASSIGNMENT

TYPE	REGISTER	HARDWARE REGISTERS
U32	110/111	PULSES (READ/WRITE)
F	112/113	RAW PULSES (READ)
F	114/115	ENERGY (READ)
F	116/117	POWER (READ)
F	118/119	MULTIPLIER (READ/WRITE)

Drawing 2-1 EPC Dry Pulse 24 VAC/DC Power Installation Detail



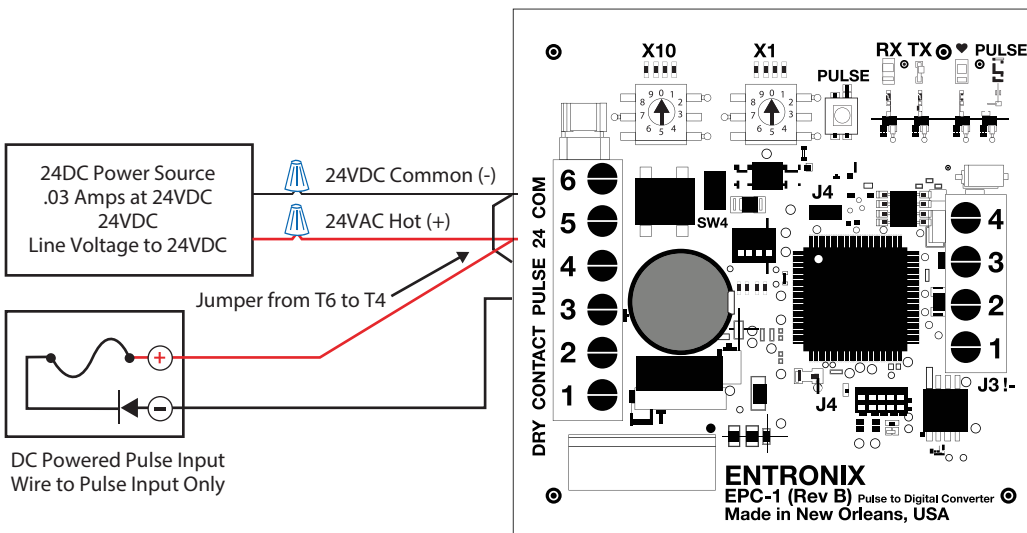
DRY FORM A (SPST) CONTACT PULSE WIRING  
EPC Terminal Blocks can accept 16-24 gauge stranded or solid wires. Pulse inputs can be 500 ft away from EPC.

Dry contact pulse input: terminate dry contact pulse inputs from pulse meter to terminals 1 and 2 on the left side of EPC. Terminals are not polarity sensitive using dry contact inputs. DO NOT POWER DRY CONTACT PULSE INPUT.

A 24VAC/VDC power source is required. Should the EPC be the only connected device, the transformer can be as small as a 20 VA transformer. Connect power to top two terminals (T6 & T5) on the left side of EPC. Observe termination polarity anytime the common from the transformer is grounded on a secondary safe.

For convenience, four communication terminals are located on the right side of the EPC. The top two terminals are for the 485 +, and the next two terminals down are for the 485 - termination.

Drawing 2-2 EPC-1 Powered Pulse 24 DC Power Installation Detail - Addressing and Baud Rate Settings



POWERED PULSE INPUT WIRING

EPC Terminal blocks can accept 16-24 gauge stranded or solid wires. Pulse inputs can be up to 500 ft from EPC.

The powered electronic pulse terminates between the 24VDC power source and terminal 3. Install jumper BETWEEN T6 and T4 as shown.

Note: Observe polarity and termination as detailed.

A 24VDC power source is required. Should the EPC be the only connected device, the transformer can be as small as a 20 VA transformer. Connect power to top two terminals on left side of EPC.

For your convenience, four 485 communication terminals are located on the right side of the EPC. Top two terminals are for 485 +, next two terminals down are for the 485 - termination.