

E-Mon D-Mon[®] P3 Pulser

INSTALLATION INSTRUCTIONS



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E-MON D-MON® P3 PULSER

Dear Valued Customer,

We are pleased that you chose to buy one of our products, and want you to be just as pleased with owning it. Before installing your new E-Mon product, please read the information on the following pages carefully.

We believe that you will find the E-Mon D-Mon meters easy to install and to use for monitoring and evaluating your electrical usage.

To be sure that you are 100% satisfied with your products, we provide toll-free technical and sales support Monday through Friday, 8:00 am to 7:30 pm, EST: (800) 334-3666. You may also reach us via email at info@emon.com.

If you have questions, we can handle them quickly and effectively with a telephone call. Please let us try to help you BEFORE you remove your meter. And to help us help you, we ask that you have all relevant information on hand when you call (model or part numbers, nature of difficulty, etc.)

Be sure to forward this manual to the owner after installation is complete, so that they may use it as a reference guide when reading the E-Mon D-Mon meter.

Thank you.

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1.0 PRE-INSTALLATION INFORMATION

The E-Mon D-Mon® P3 Pulser is an optically coupled interface that allows E-Mon D-Mon Class 1000 & 2000 kWh/Demand meters to be connected to an energy management system (EMS) or Building Automation System (BAS) for data-gathering and/or load control. The pulse width and value are selected by 2 DIP switches, and can be tailored to fit your specific requirements in the field. A modular plug connects the pulser to the E-Mon D-Mon meter; a two-screw terminal provides easy connection to the EMS/BAS. An LED on the pulser shows the rate and duration of the pulse. The pulser has an operating range of 1.5 to 36 volts AC or DC (supplied by the EMS/BAS.)

Applications:

Pulser data to the EMS/BAS can be used for:

Tenant billing, based on both kilowatt-hour and kilowatt demand information from the E-Mon D-Mon meters through the Pulser.

Near “real-time” demand reading, allowing the user to see the effects of loads as they come on or off-line.

Automatic load shedding/limiting by the EMS/BAS to lower energy usage and costs.

2.0 INSTALLATION INSTRUCTIONS

Connect the P3 pulser to the E-Mon D-Mon meter by inserting the modular plug into the 6-pin jack marked J11 located on the upper right side of the rear electronic board of the meter. A ½” conduit knockout is provided on the top of the meter for convenient access.

The connection to the EMS is located under the sliding access door on the P3 pulser. Wiring from the EMS is connected via the two-screw terminal. In most applications, a twisted pair is used for this connection. The terminal is not polarity dependent.

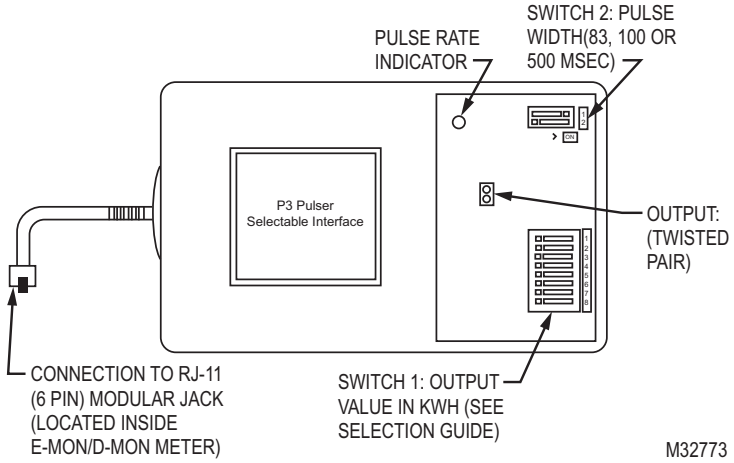


Fig. 1. Pulser Features

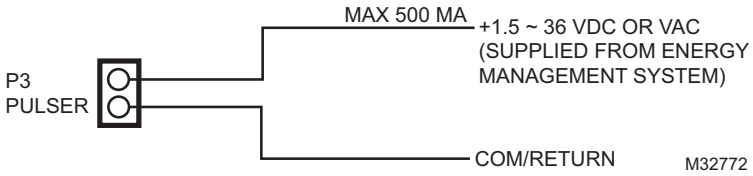


Fig. 2. Typical Wiring Features

3.0 DIP SWITCH SELECTION GUIDE

Switch #1: Output Value

Switch #1 sets the value of the pulse (in kWh) based on the meter size. The default setting is 1 kWh per pulse. If another value is required, move the position of the DIP switch to match that value as shown in the selection guide below. Only one switch should be in the ON position at any one time.

Table 1. Switch #1 Output Value

Selector ON Position	25A	50A	100A	200A	400A	800A	1600A	3200A
1	1*	2	4	8	16	32	64	128
2	.5	1	2	4	8	16	32	64
3	.25	.5	1	2	4	8	16	32
4	.125	.25	.5	1	2	4	8	16
5	.0625	.125	.25	.5	1	2	4	8
6	.03125	.0625	.125	.25	.5	1	2	4
7	.015625	.03125	.0625	.125	.25	.5	1	2
8	.0078125	.015625	.03125	.0625	.125	.25	.5	1

*Pulsar output values are in kWh.

EXAMPLE: If you have a 100 amp E-Mon D-Mon meter, and you require an output of 1 pulse per kWh, selector #3 (position #3) would be set to the ON position, and all other selectors would be OFF.

Switch #2: Pulse Width

Switch #2 sets the width of the pulse in milliseconds (100 msec default). The default setting is position 1 ON. If another value is required, move the position of the DIP switch to match that value as shown in the selection guide below.

Table 2. Switch #1 Pulse Width

Selector 1 Position	Selector 2 Position	Pulse Width (milliseconds)
On	On	83
On	Off	100
Off	On	500

EXAMPLE: If you require a pulse width of 500 msec, selector #2 (position #2) would be set in the ON position, and selector #1 (position #1) would be OFF.

4.0 TECHNICAL SPECIFICATIONS

Table 3. Technical Specifications

Type	Optically coupled, normally open electronic switch (input completely isolated from output)
Pulse Indicator:	LED
Temperature Range:	-20 C to +50 C
Output:	Solid-state switch, N.O. contact equivalent
Dimensions:	3.7"L x 2.3"W x 1"H
Maximum ON Resistance:	2.5 ohms
Minimum OFF Impedance:	100K ohms
Pulse Rate:	DIP switch-selectable (see selection guide)
Pulse Width:	83, 100 or 500 milliseconds (DIP switch selectable)
Customer Supplied Interface Specifications	
Interface Voltage:	1.5 to 36 volts DC or AC
Maximum Interface Current:	500 milliamps

Note: Acceptable for use on meter models with date code earlier than 1202.

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