

# PM-3033 Quick Start

## 1. Shipping Package

This shipping package contains the following items

1 x PM-3033 module



1 x Quick Start



Screw Driver x 1



### 1.1. Caution & Warning



The meter contains hazardous voltages, and should never be disassembled. Failing to follow this practice will result in serious injury or death. Any work on or near energized meters, meter sockets, or other metering equipment could induce a danger of electrical shock. It is strongly recommended that all work should be performed only by qualified industrial electricians and metering specialist. ICP DAS assumes no responsibility if your electrical installer does not follow the appropriate national and local electrical codes. ICP DAS assumes no liability for any damage resulting from the use of this product. ICP DAS reserves the right to change this manual at any time without notice. The information furnished by ICP DAS is believed to be accurate and reliable. However, no responsibility is assumed by ICP DAS for its use, not for any infringements of patents or other rights of third parties resulting from its use.

## 1.2. Product Warranty & Customer Support

ICP DAS warrants all products free from defects in material and workmanship for a period of one year from the date of shipping. During the warranty period, we will, at our position, either repair or replace any product that proves to be defective. To report any defect, please contact : **+886-3- 597-3366** or [service@icpdas.com](mailto:service@icpdas.com).

### Documentation & Utility:

<http://ftp.icpdas.com/pub/cd/powermeter/pm-3033/>

### 1.2.1. Limitation of Warranty

This warranty does not apply to defects resulting from unauthorized modification, misuse, or use for reason other than electrical power monitoring. The supplied meter is not a user-serviceable product.

## 2. Installation

Please use the soft dry clothes to clean the instrument.

Please do not use any chemical or detergent or volatile solvents to clean the instrument, in order to avoid any possibility of the cover damage.

- Please read this operation manual carefully before using.
- Please re-confirm the measure position.

- Reconfirm the RST (ABC) phase sequence of the power system.
- Meter auxiliary power for PM-3033 series is DC +12V ~+48V.

## 2.1. Voltage Input

1. PM-3033 series: Input Voltage up to 500V.

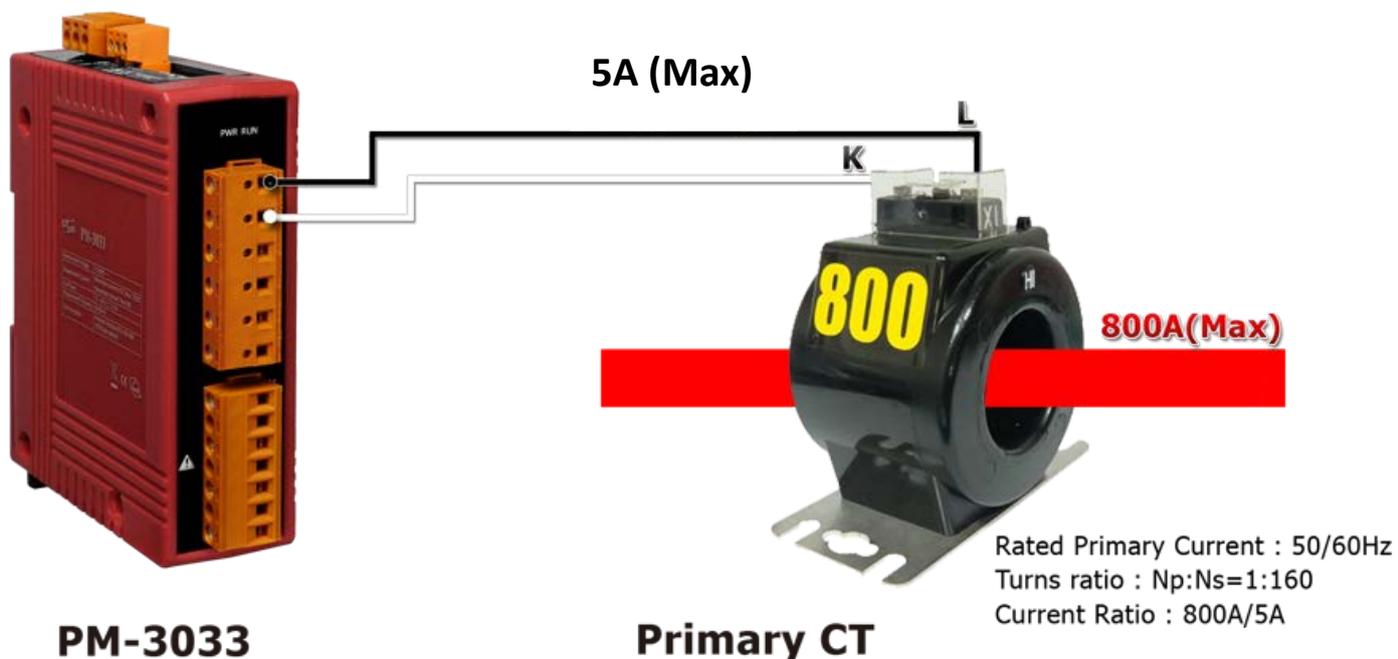
For any higher Input Voltage large than 500V, please add the PT (power transformer), and Change PT RATIO setup.

## 2.2. Confirm the RST (ABC) phase sequence.

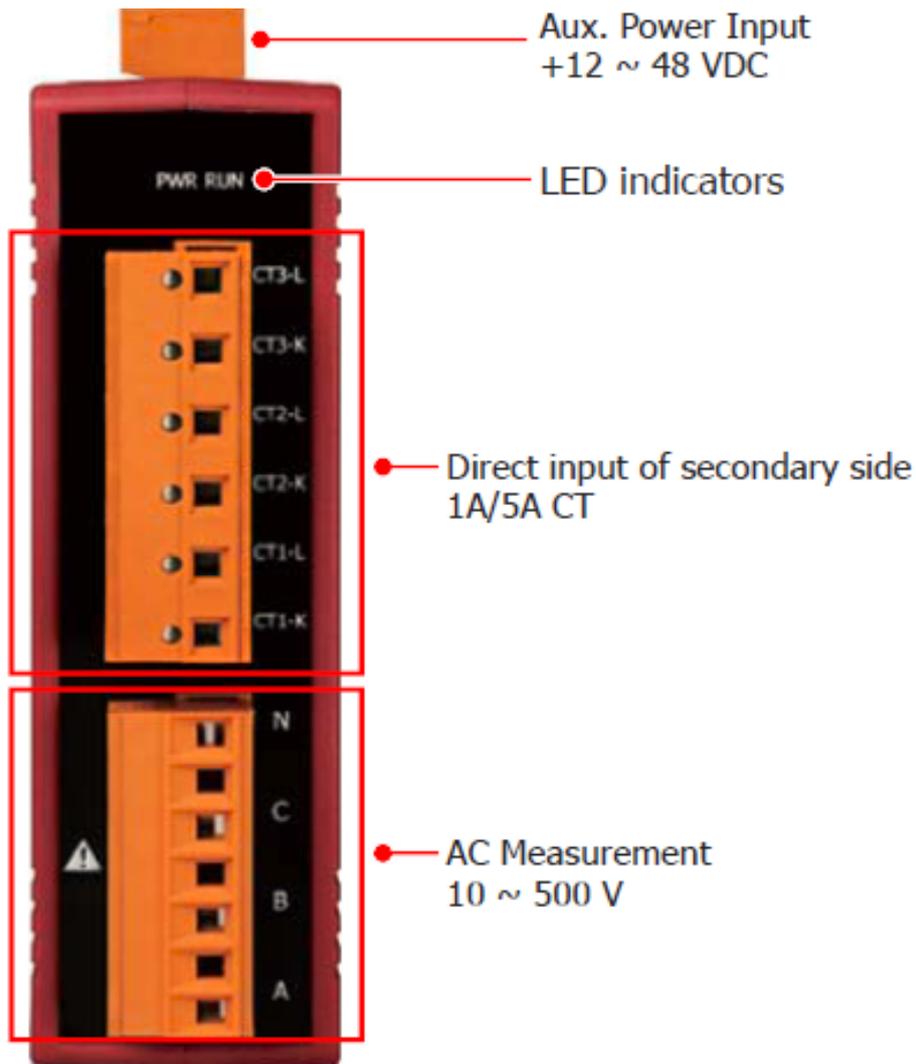
## 2.3. Current Input

1. CT with secondary side output 1A/5A can be connected directly.
2. The current direction must follow K-L marked on CT's.

### 800A/5A Primary CT Installation and Wiring



## 2.4. Connection



Please firstly check the current input terminal.

Make sure the arrow direction sign on Primary CT's follows current flow direction ( K→L ) .

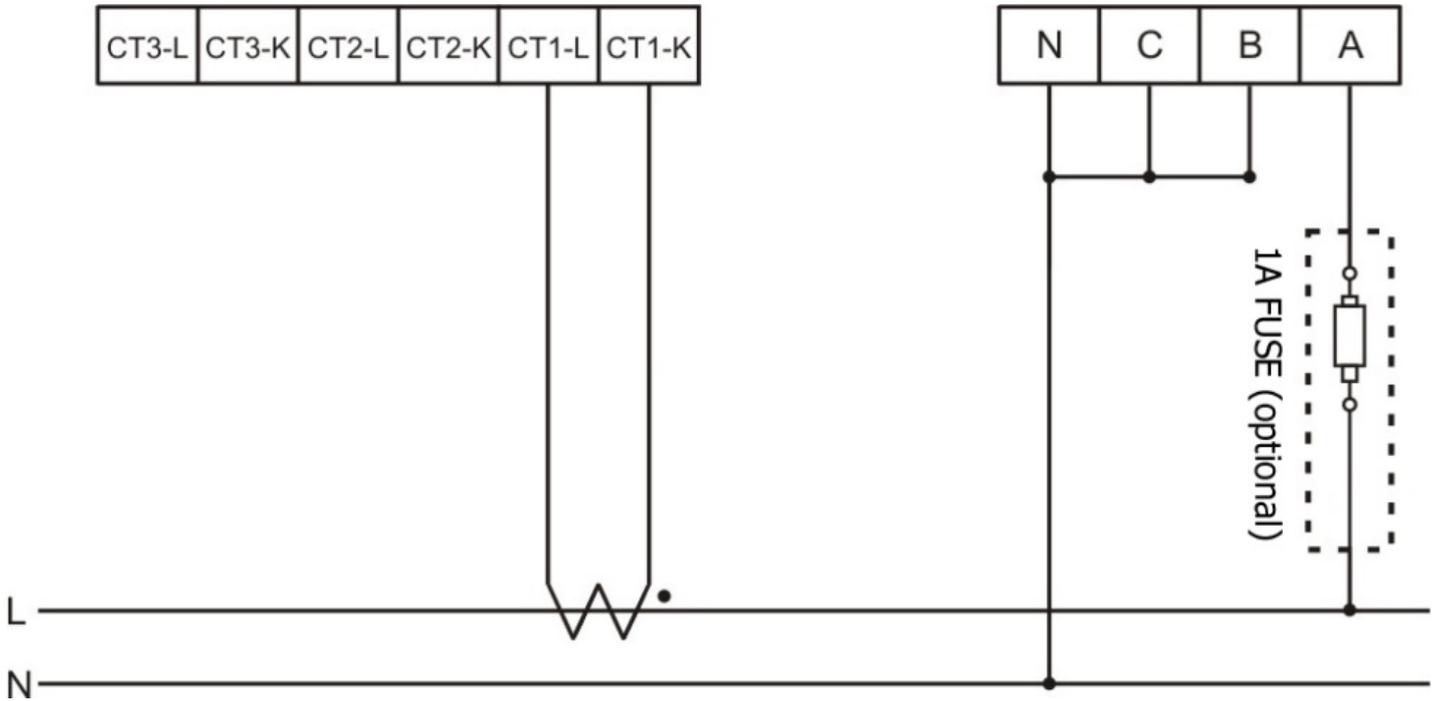
**Note: it must be in the same direction.**

Connect the voltage input terminal N C B A. for PM-3033 series, in the three phase order as follows on N C B A.

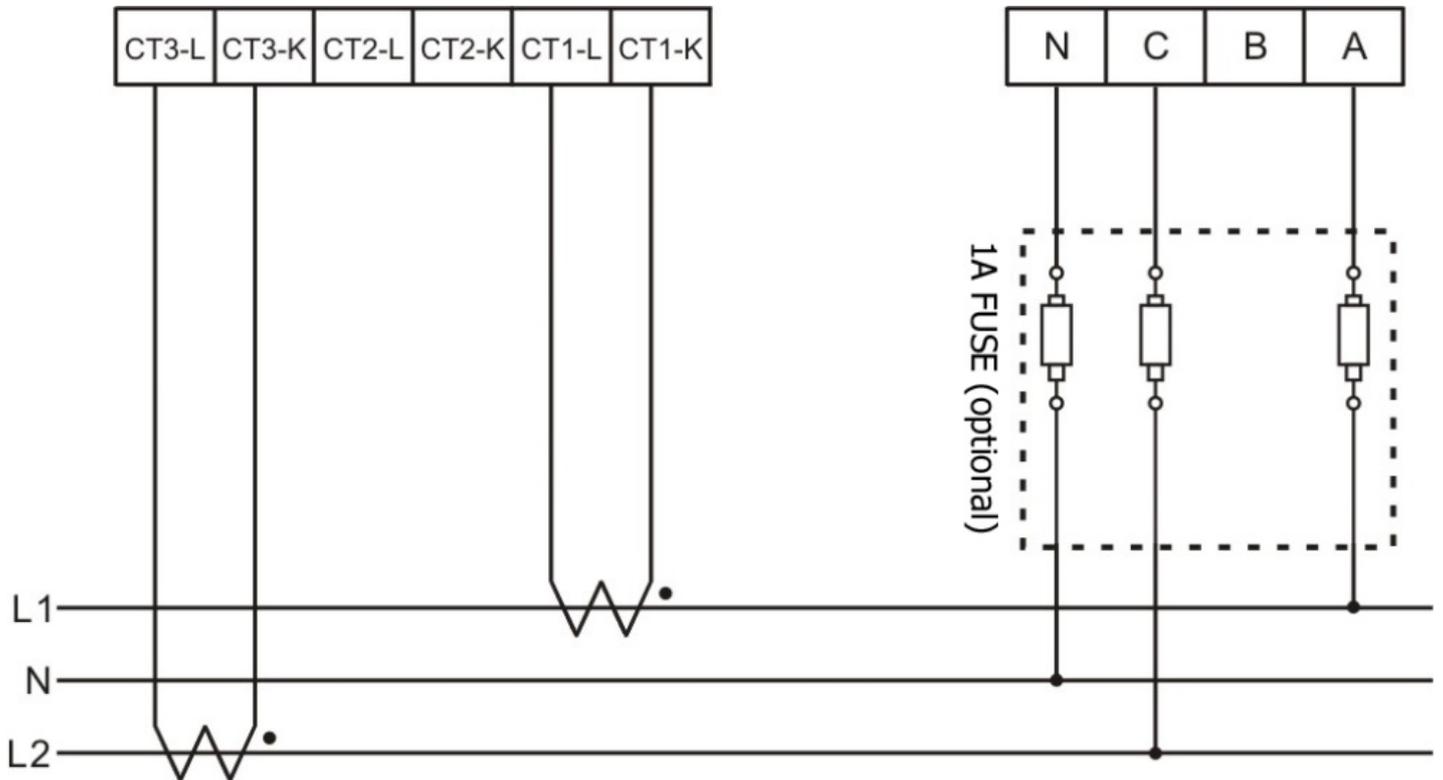
**Attention please!! For 3P3W-2CT, connect in N C A phase sequence, do not connect phase B (Check the diagram).**

## 2.5. Wiring

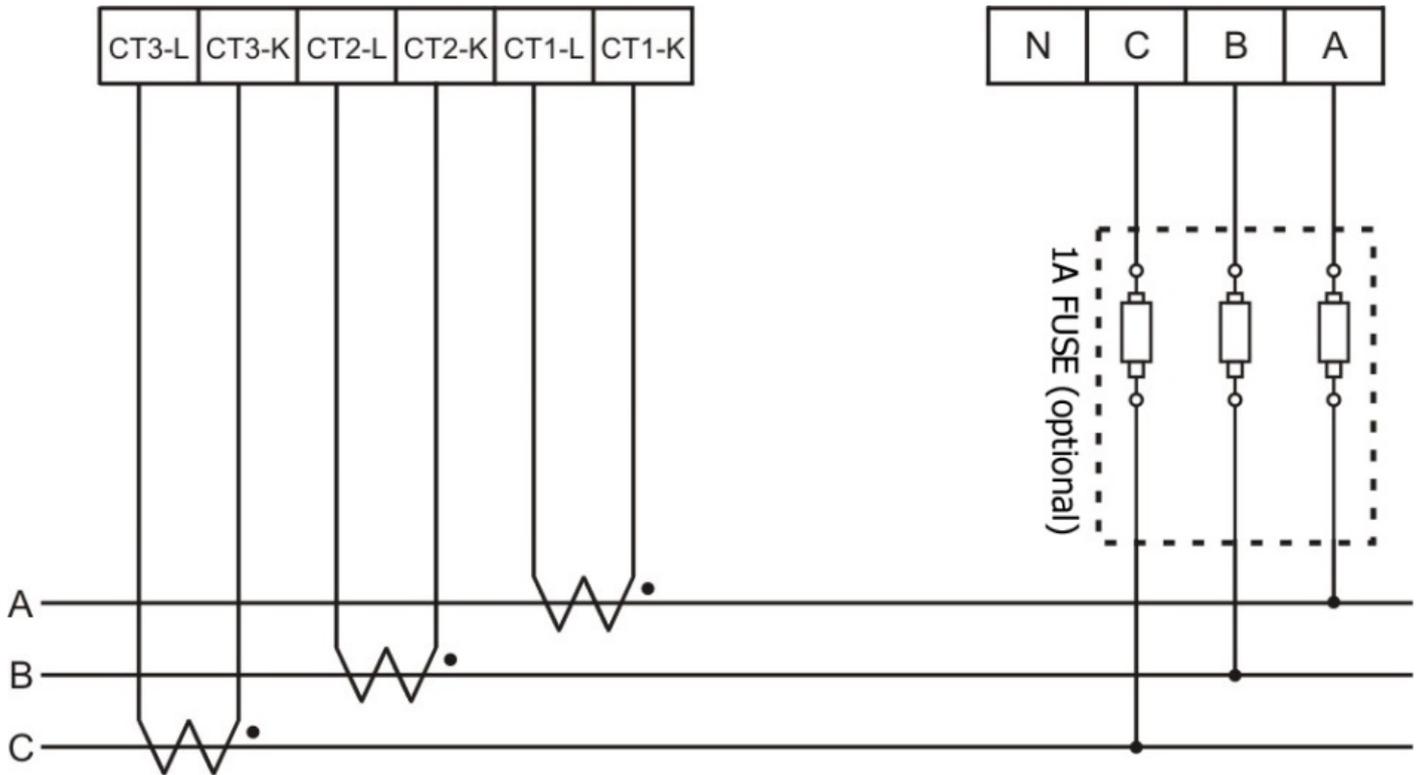
- 1P2W-1CT(PM-3033)



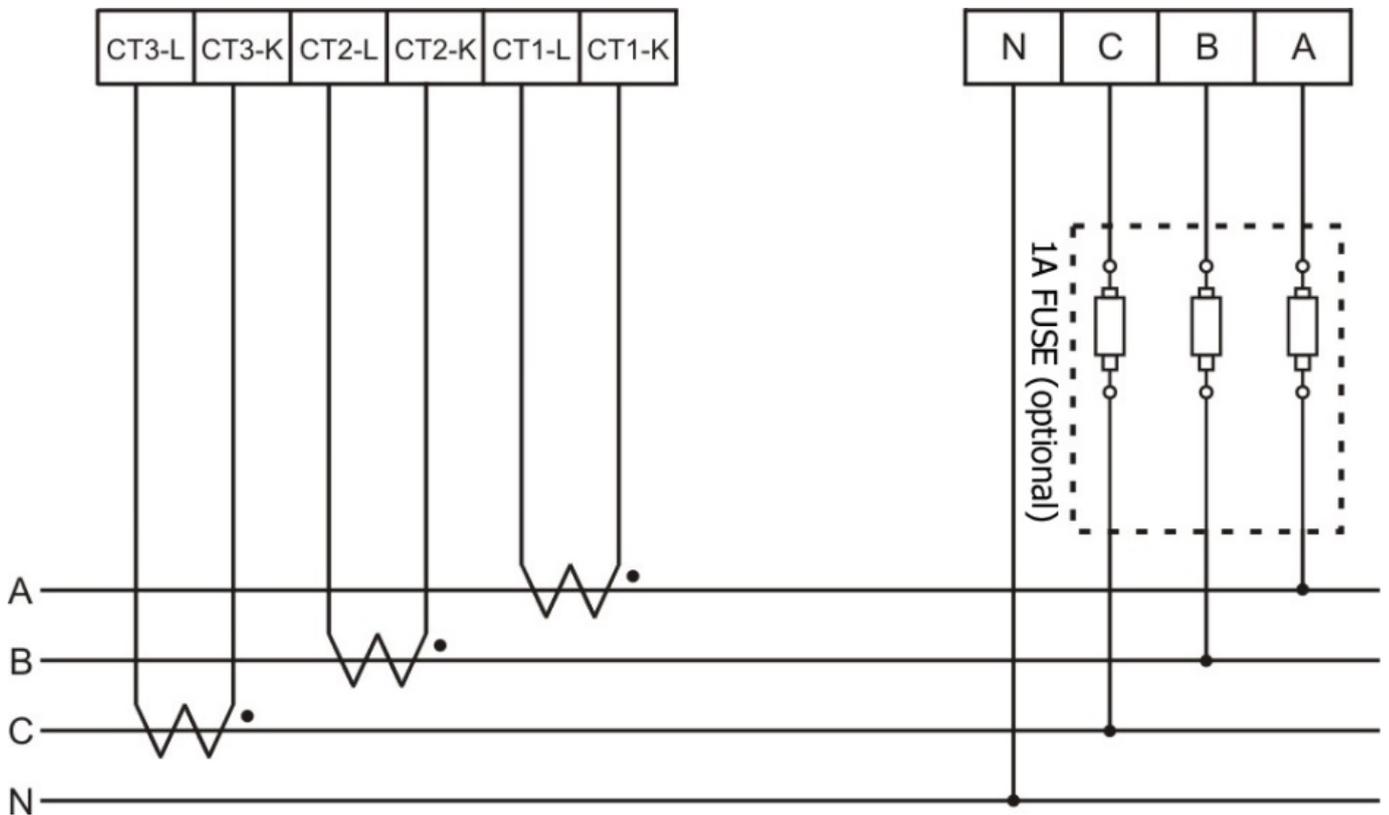
- 1P3W-2CT(PM-3033)



- 3P3W-3CT(PM-3033)



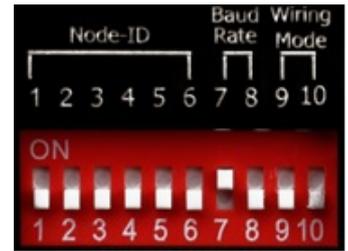
- 3P4W-3CT(PM-3033)



### 3. Communication

#### 3.1. RS-485 & CAN setting

- Default setting for RS-485: **19200, n, 8, 1**, for CAN: **125K bps**
- DIP switch (SW1-SW6) is used for Modbus address(or CANopen Node ID) setting, default is 1, i.e. all OFF  
**For example:** Modbus address(or CANopen Node ID) is 10 , find the table of DIP switch 1-6 is **ON, OFF, OFF, ON, OFF, OFF**
- SW1 – SW6 setting

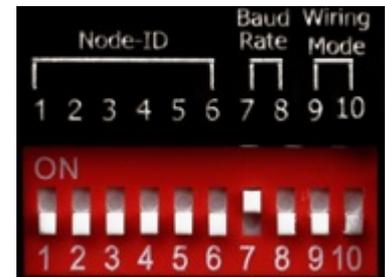


Setting Modbus-RTU address for communication (1-64)

Modbus Address	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6
1	OFF	OFF	OFF	OFF	OFF	OFF
2	<b>ON</b>	OFF	OFF	OFF	OFF	OFF
3	OFF	<b>ON</b>	OFF	OFF	OFF	OFF
4	<b>ON</b>	<b>ON</b>	OFF	OFF	OFF	OFF
5	OFF	OFF	<b>ON</b>	OFF	OFF	OFF
6	<b>ON</b>	OFF	<b>ON</b>	OFF	OFF	OFF
7	OFF	<b>ON</b>	<b>ON</b>	OFF	OFF	OFF
8	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF	OFF	OFF
9	OFF	OFF	OFF	<b>ON</b>	OFF	OFF
10	<b>ON</b>	OFF	OFF	<b>ON</b>	OFF	OFF

- SW7 – SW8 For Baud Rate Setting

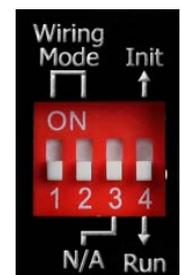
RS-485	CAN	SW 7	SW8
9600 bps	125k(Default)	OFF	OFF
19200 (Default)	250k bps	<b>ON</b>	OFF
38400 bps	500k bps	OFF	<b>ON</b>
115200 bps	1M bps	<b>ON</b>	<b>ON</b>



PM-3033 : Select the different wiring mode

(Please select the Software setting, if 1P2W-1CT or 1P3W-2CT is used)

Models	PM-3033		PM-3033-MTCTP	
	SW 9	SW 10	SW 1	SW 2
Software setting	OFF	OFF	OFF	OFF
3P3W-2CT	<b>ON</b>	OFF	<b>ON</b>	OFF
3P3W-3CT	OFF	<b>ON</b>	OFF	<b>ON</b>
3P4W-3CT	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>



#### 3.2. Add the Bias Resistor on RS-485 Network for stable signal

The RS-485 master is required to provide the bias for PM-30xx series.

Otherwise, the tM-SG4 or SG-785 should be added to provide the bias. All

ICP DAS controllers and converters provide the bias.