MODBUS REGISTER ADDRESSES LIST

Readable Parameters : [Length (Register) : 2 ; Data Structure : Float]

Address	Hex Address	Parameter
30000	0x00	Voltage V1N
30002	0x02	Voltage V2N
30004	0x04	Voltage V3N
30006	0x06	Average Voltage LN
30008	0x08	Voltage V12
30010	0x0A	Voltage V23
30012	0x0C	Voltage V31
30014	0x0E	Average Voltage LL
30016	0x10	Current I1
30018	0x12	Current I2
30020	0x14	Current I3
30022	0x16	Average Current
30024	0x18	kW1
30026	0x1A	kW2
30028	0x1C	kW3
30030	0x1E	kVA1
30032	0x20	kVA2
30034	0x22	kVA3
30036	0x24	kVAr1
30038	0x26	kVAr2
30040	0x28	kVAr3
30042	0x2A	Total KW
30044	0x2C	Total KVA
30046	0x2E	Total KVAr
30048	0x30	PF1
30050	0x32	PF2
30052	0x34	PF3
30054	0x36	Average PF
30056	0x38	Frequency
30058	0x3A	Total net kWh
30060	0x3C	Total net kVAh
30062	0x3E	Total net kVArh
30064	0x40	kW Max Active Power
30066	0x42	kW Min Active Power
30068	0x44	kVAr Max Reactive Power
30070	0x46	kVAr Min Reactive Power
30072	0x48	kVA Max Apparent Power
30074	0x4A	MAX I1 Demand
30076	0x4C	MAX I2 Demand
30078	0x4E	MAX I3 Demand
30080	0x50	MAX Avg Demand

Address	Hex Address	Parameter
30082	0x52	Run hour
30084	0x54	kWh1 (Imp)
30086	0x56	kWh2 (Imp)
30088	0x58	kWh3 (Imp)
30090	0x5A	kWh1 (Exp)
30092	0x5C	kWh2 (Exp)
30094	0x5E	kWh3 (Exp)
30096	0x60	Total kWh (Imp)
30098	0x62	Total kWh (Exp)
30100	0x64	kVArh1 (Imp)
30102	0x66	kVArh2 (Imp)
30104	0x68	kVArh3 (Imp)
30106	0x6A	kVArh1 (Exp)
30108	0x6C	kVArh2 (Exp)
30110	0x6E	kVArh3 (Exp)
30112	0x70	Total kVArh (Imp)
30114	0x72	Total kVArh (Exp)
30116	0x74	kVAh1
30118	0x76	kVAh2
30120	0x78	kVAh3
30122	0x7A	Neutral Current
30124	0x7C	THD of 1st Phase Voltage
30126	0x7E	THD of 2nd Phase Voltage
30128	0x80	THD of 3rd Phase Voltage
30130	0x82	THD of Voltage V12
30132	0x84	THD of Voltage V23
30134	0x88	THD of Voltage V31
30136	0x8A	THD of Current I1
30138	0x8C	THD of Current I2
30140	0x8E	THD of Current I3
30684	0x2AC	Serial no. (Data Structure : Hex)
30700	0x2BC	Phase Sequence Indication
30702	0x2BE	Existing KW MAX Active Power
30704	0x2C0	Existing KW MIN Active Power
30706	0x2C2	Existing KVAr MAX Reactive Power
30708	0x2C4	Existing KVAr MIN Reactive Power
30710	0x2C6	Existing KVA MAX Apparent Power
30712	0x2C8	Existing MAX I1 Demand
30714	0x2CA	Existing MAX I2 Demand
30716	0x2CC	Existing MAX I3 Demand
30718	0x2CE	Existing MAX Avg. I Demand

Formula to find address of individual Harmonic

Constant Parameter	Meaning
0	Voltage V1N
1	Voltage V2N
2	Voltage V3N
3	Voltage V12
4	Voltage V23
5	Voltage V31
6	Current I1
7	Current I2
8	Current I3

{143 + [(Harmonic no-2) x 2] + 60 x Constant Parameter}

For Example,

To find the 14th Harmonic address of Voltage V31 following formula can be used :

Formula with the parameter :
{143 + [(Harmonic no-2) x 2] + 60 x C P}
Eg. {143 + [(14-2) x 2] + 60 x 5} = 467

So, Check the 14th Harmonic of Voltage V31 at 467 address.

Readable / writable parameters : [Data Structure : Integer]

Address	Hex Address	Parameter	Range		Length (Register)
			Min value	**Max value**	
40000	0x00	Password	0	9998	1
			Value	**Meaning**	
40001	0x01	N/W Selection	0x0000	3P4W	1
			0x0002	1P2W-P1	1
			0x0003	1P2W-P2	1
			0x0004	1P2W-P3	1
			Min value	**Max value**	
40002	0x02	CT Secondary (Readable Only)	5	5	1
40003	0x03	CT primary	5	10000	1
40004	0x04	PT Secondary	173	415	1
40005	0x05	PT primary	100	500kV	2
			Value	**Meaning**	
40007	0x07	Slave id	1	255	1
40008	0x08	Baud rate	0x0000	300	1
			0x0001	600	
			0x0002	1200	
			0x0003	2400	
			0x0004	4800	
			0x0005	9600	
			0x0006	19200	
40009	0x09	Parity	0x0000	None	1
			0x0001	Odd	
			0x0002	Even	
40010	0x0A	Stop bit	0x0000	1	1
			0x0001	2	1
			Min value	**Max value**	
40011	0x0B	Backlight OFF	0	7200	1
40012	0x0C	Factory Default	1	Set to factory setting range	1
40016	0x10	Auto Mode Pages	Min Value : 1	Max Value : 21	

MODBUS REGISTER ADDRESSES LIST

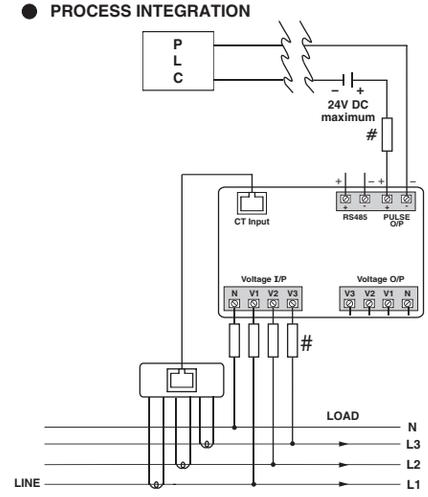
MODBUS register addresses list continued

Readable / writable parameters : [Data Structure : Integer]

Address	Hex Address	Parameter	Range		Length (Register)
			Page No	**Meaning**	
40017	0x11	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40018	0x12	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40019	0x13	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40020	0x14	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40021	0x15	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40022	0x16	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40023	0x17	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40024	0x18	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40025	0x19	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40026	0x1A	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40027	0x1B	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40028	0x1C	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40029	0x1D	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40030	0x1E	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40031	0x1F	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40032	0x20	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40033	0x21	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40054	0x36	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40055	0x37	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40059	0x3B	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
40060	0x3C	Page Address Sequence	1-21	1-First Page ; 21-Last Page	1
			Value	**Meaning**	
40034	0x22	Demand Interval Method	0X0000	Sliding	1
			0X0001	Fixed	
40035	0x23	Demand Interval Duration	MIN Value : 1	MAX Value : 30	1
40036	0x24	Demand Interval Length	MIN Value : 1	MAX Value : 30	1
40043	0x2B	Reset Max	1	Reset all Max power	1
40044	0x2C	Reset Energy	1	Reset all energy to factory setting range	1
40045	0x2D	Reset Run Hour	1	Reset Run hour	1
			Min value	**Max value**	
40057	0x39	Pulse Duration	0.1(sec)	2.0(sec)	1
40058	0x3A	Pulse Weight	00.10	99.99	1
			Value	**Meaning**	
40063	0x3F	Reset Max Current	1	Reset Max Current	1

APPLICATION OF PULSE OUTPUT

● **PROCESS INTEGRATION**



Pulse output from MRJ385-G-PNW meter can be interfaced into a process through a PLC for on line control of energy content in the process.
If the PLC has a self excited digital input, external DC supply is not needed.
The kWh pulse is also used to derive average kWh information at the PLC.

All fuse types : 0.5A class CC UL type
0.5A fast acting 600V

LEFT HAND CT MOUNTING PHASE CORRECTION

The meter phases L1, L2 & L3 are setup as default for the CT to be mounted as an incomer or on the RHside of the board.
Meter display shows rH when "I" is pressed for 3 seconds.
When the CT is mounted on the LH side of the board the phase sequence needs to be reversed.

1. Press "I" for 3 seconds, then release and then press again for 3 seconds. Phase will be reversed and display will show LH
2. Wait 5 seconds for meter to resume online reading. Meter display shows LH when "I" is pressed for 3 seconds.

Meter / CT Ratio Setup -
the meter default CT setting is 160A. to set the meter to other CT sizes follow instructions below.

1. Press ▼ and ▲ keys together for 3 seconds to enter configuration menu.
2. To enter default password 1000 - Press ◀ then press ▲. Press ↵ 4 times to move on and to enter CT primary page 04.
3. Press ◀ or ▶ to select the digit to change and press ▲ or ▼ to raise or lower the CT value. Set to 250, 400 or 800 to match CT.
4. Press ↵ to save settings and move on.
5. Press ▼ and ▲ keys together for 3 seconds to exit configuration menu.

Specifications subject to change as development is a continuous process.

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