

MODBUS Register List

Solution: SmartHub / Single Meter SmartHub

No.	Standard MODBUS Register	Data Type (all 32 bit)	Description (e.g. three element EDM I Atlas MK10A, MK10E meters)	Comments (for two element HV EDM I Atlas MK10E meters)	Comments (for single phase EDM I Atlas MK7C meter)
1	40002	Long Integer	Serial Number		
2	40004	Float	Export Wh total ch0 *		
3	40006	Float	Import Wh total ch1 *		
4	40008	Float	Export Varh total ch2 *		
5	40010	Float	Import Varh total ch3 *		
6	40012	Float	Va		
7	40014	Float	Vb	Derived value	Not applicable
8	40016	Float	Vc		Not applicable
9	40018	Float	Ia		
10	40020	Float	Ib	Derived value	Not applicable
11	40022	Float	Ic		Not applicable
12	40024	Float	Angle a		
13	40026	Float	Angle b	Derived value	Not applicable
14	40028	Float	Angle C		Not applicable
15	40030	Float	Va – Ia Angle		
16	40032	Float	Va – Ib Angle	Not applicable	Not applicable
17	40034	Float	Va – Ic Angle		Not applicable
18	40036	Float	Va – Va Angle	Always zero	
19	40038	Float	Va – Vb Angle		Not applicable
20	40040	Float	Va – Vc Angle		Not applicable
21	40042	Float	Phase A Watts		
22	40044	Float	Phase B Watts	Not applicable	Not applicable
23	40046	Float	Phase C Watts		Not applicable
24	40048	Float	Phase A Vars		
25	40050	Float	Phase B Vars	Not applicable	Not applicable
26	40052	Float	Phase C Vars		Not applicable
27	40054	Float	Phase A VA		
28	40056	Float	Phase B VA	Not applicable	Not applicable
29	40058	Float	Phase C VA		Not applicable
30	40060	Float	Frequency		
31	40062	Float	Power factor		

N.B. – standard registers apply where the cells are left blank

Holding register examples

Each returned value is 4 bytes in length returning 2 MODBUS registers, with the most significant byte first. For example:

Description / Value	First MODBUS Register	No of returned Registers	Returned Bytes	Returned Registers	
				Most Significant Byte	Least Significant Byte
Va	40012	2	4	Va	40012
Vb & Vc	40014	4	8	Vb Vc	40014 40016

Response Time: Allow six seconds between reads and / or retries to allow sufficient time for the meter to respond to the request.

Data request format: The start address and the number of registers must be an even number greater than zero and the maximum number of registers must not exceed 62 else there will be no response from the MODBUS device

Protocol: MODBUS-RTU

BMS communication settings

Baud rate	9600	Stop bits	1
Data bits	8	Parity	None

To find out what Metering Dynamics can do for your business, contact us:

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