

0x01 0x06 0x10 0x03 0x00 0x02 0xFC 0xCB

Flow meter Address Function Code Register Address Register Number CRC Verify Code

4. Error Check

The flow meter only returns one error code 0x02 which means data first address in error.

For example, to read address 1 (0x01) of the flow meter 40002 register data in the RTU mode, the flow meter considers it to be invalid data, and sends the following command:

0x01 0x03 0x00 0x01 0x00 0x01 0xD5 0xCA

Flow meter Address Function Code Register Address Register Number CRC Verify Code

Flow meter returned error code is:

0x01 0x83 0x02 0xC0 0xF1

Flow meter Address Error Code Error Extended Code CRC Verify Code

5. MODBUS Register Address List

The flow meter MODBUS Register has a read register and a write single register.

a) Read Register Address List (use 0x03 function code to read)

PDU Address	Address	Register	Type	Number	No. registers*
S0000	40001	Flow/s - low word	32 bits real	2	
S0001	40002	Flow/s - high word			
S0002	40003	Flow/m - low word	32 bits real	2	
S0003	40004	Flow/m- high word			
S0004	40005	Flow/h - low word	32 bits real	2	
S0005	40006	Flow/h - high word			
S0006	40007	Velocity -low word	32 bits real	2	
S0007	40008	Velocity -high word			
S0008	40009	Positive total -low word	32 bits real	2	
S0009	40010	Positive total -high word			
S000A	40011	Positive total -exponent	16 bits int	1	

 Transit-time Ultrasonic Flow meter

\$000B	40012	Negative total -low word	32 bits real	2	
\$000C	40013	Negative total -high word			
\$000D	40014	Negative total -exponent	16 bits int	1	
\$000E	40015	Net total -low word	32 bits real	2	
\$000F	40016	Net total -high word			
\$0010	40017	Net total -exponent	16 bits int	1	
\$0011	40018	Energy flow -low word	32 bits real	2	
\$0012	40019	Energy flow -high word			
\$0013	40020	Energy total(hot) -low word	32 bits real	2	
\$0014	40021	Energy total(hot) -high word			
\$0015	40022	Energy total(hot) -exponent	16 bits int	1	
\$0016	40023	Energy total(cold) -low word	32 bits real	2	
\$0017	40024	Energy total(cold) -high word			
\$0018	40025	Energy total(cold) -exponent	16 bits int	1	
\$0019	40026	Up signal -low word	32 bits real	2	0 ~ 99.9
\$001A	40027	Up signal -high word			
\$001B	40028	Down signal -low word	32 bits real	2	0 ~ 99.9
\$001C	40029	Down signal -high word			
\$001D	40030	Quality	16 bits int	1	0 ~ 99
\$001E	40031	Error code -char 1	String	1	Refer to "Error Analysis" for detailed codes meanings.

 Transit-time Ultrasonic Flow meter

\$003B	40060	Flow velocity unit -char 1,2	String	2	Only m/s right now
\$003C	40061	Flow velocity unit -char 3,4			
\$003D	40062	Flow rate unit -char 1,2	String	2	Note 1
\$003E	40063	Flow rate unit -char 3,4			
\$003F	40064	Flow total unit -char 1,2	String	1	
\$0040	40065	Energy rate unit -char 1,2	String	2	Note 2
\$0041	40066	Energy rate unit -char 3,4			
\$0042	40067	Energy total unit -char 1,2	String	1	
\$0043	40068	Instrument address-low word	32 bits int	2	
\$0044	40069	Instrument address-high word			
\$0045	40070	Serial number -char 1,2	String	4	
\$0046	40071	Serial number -char 3,4			
\$0047	40072	Serial number -char 5,6	String	4	
\$0048	40073	Serial number -char 7,8			
\$0049	40074	Analog Input AI1 Value- low word	32 bits real	2	Returned temperature value with RTD option
\$004a	40075	Analog Input AI1 Value- high word			
\$004b	40076	Analog Input AI2 Value- low word	32 bits real	2	
\$004c	40077	Analog Input AI2 Value- high word			
\$004d	40078	4-20mA Value- low word	32 bits real	2	Unit: mA
\$004e	40079	4-20mA Value- high word			