

Thermal Mass Flowmeter Communication Protocol (MODBUS—RTU)

Command:03 (HOLDING REGISTER)

Floating point:IEEE-754, ;Endianness:3-4-1-2

Holding register:

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|-----------|---------------------------------|---|
| 40001—2: | Floating point, | Medium temperature(°C); |
| 40003—4: | Floating point, | TMF sensor voltage(V); |
| 40005—6: | Floating point, | Standard volcity (Nm/s); |
| 40007—8: | Floating point, | Standard Flow (Nm3/h); |
| 40009—10: | Floating point, | Total of more than one hundred (1234); |
| 40011—12: | Floating point, | Total of less than one hundred (87.89); |
| | | Total = 1234 × 100 + 87.89 = 123487.89; |
| 40013: | Alarm status; | |
| | 0001—Standard flow upper alarm; | |
| | 0002—Standard flow lower alarm; | |
| | 0004—Temperature upper alarm; | |
| | 0008—Temperature lower alarm; | |
| 40014: | Total unit; | |
| | 0000: Nm3; | |
| | 0001: N liter; | |
| 40015—18: | Reserve; | |
| 40019: | Bit | |
| | 0(low):Clock test. | 1:error; 0:ok; |
| | 1 :Power test. | 1:error; 0:ok; |
| | 2 :EEPROM test. | 1:error; 0:ok; |
| | 3 :AD convertertest. | 1:error; 0:ok; |
| | 4 :Parameter test. | 1:error; 0:ok; |
| | 5 :amplifier test. | 1:error; 0:ok; |
| | 6 :TMF sensor test. | 1:error; 0:ok; |
| | 7 :Reserve; | |
| | 8 :Equivalent overflow. | 1:error; 0:ok; |
| | 9 :Total overflow. | 1:error; 0:ok; |
| | 10 :4-20mA output overflow. | 1:error; 0:ok; |
| | 11 :Temperature overflow. | 1:error; 0:ok; |
| | 12 : Reserve; | |
| | 13 : Reserve; | |
| | 14 : Reserve; | |
| | 15 : Reserve; | |
| 40020: | Reserve | |