

EN1434 communication protocol(M-BUS, RS-485)

During transmission, the baud rate is 2400bps, even number when check, data bit is 8 bits and stop bit is 1 bit (2400.8. E.1). The same byte is transmitted first to the low bit and then to the high bit, and the same frame is transmitted first to the low byte and then to the high byte.

1. Read data

10 7B 01 7C 16

10 Short frame identification 10H

7B is "C"

01 is "A"

7C is checksum

16 is the end byte

The normal response data of heat meter is:

68 73 73 68 08 01 72 78 56 34 12 E5 3A 64 0C 00 00 00 00 0C 05 18 50 00 00 0C 14
12 25 00 00 0B 2C 23 15 00 0B 3B 25 15 00 0B 59 30 50 00 0B 5D 30 40 00 0B 61 00
10 00 8C 01 05 18 50 00 00 8C 02 05 18 60 00 00 8C 03 05 18 70 00 00 8C 04 05 18
80 00 00 8C 05 05 18 90 00 00 8C 06 05 18 00 01 00 8C 07 05 18 10 01 00 8C 08 05
18 20 01 00 8C 09 05 18 30 01 00 C7 16

68

Identify for long frames

73 73

Is the length byte

68

Identify for long frames

08 01 72

78 56 34 12

is serial number: 12345678

E5 3A

is supplier code: NWE (E5 3A)

64

is software version: 100

0C

Intermediate code: heat meter 【inlet installation】 0C
【outlet installation】 04

00 00 00 00

0C 05 18 50 00 00

Is the accumulated heat: DIF -> 0C 8-digit decimal number
VIF -> 05 0.0kW.h

501.8kW.h

0C 14 12 25 00 00

is accumulated flow :DIF -> 0C 8-digit decimal number
VIF -> 14 0.00M3

25.12M3

0B 2C 23 15 00

is power :DIF -> 0B 6-digit decimal number
VIF -> 2C 0.00kW

15.23kW

0B 3B 25 15 00

is flow rate: DIF -> 0B 6-digit decimal number
VIF -> 3B 0.000M3/h

1.525M3/h

0B 59 30 50 00 is inlet temperature: DIF -> **0B** 6-digit decimal number
VIF -> **59** 0.00 °C
50.30 °C

0B 5D 30 40 00 is outlet temperature: DIF -> **0B** 6-digit decimal number
VIF -> **5D** 0.00 °C
40.30 °C

0B 61 00 10 00 is temperature difference:
DIF -> **0B** 6-digit decimal number
VIF -> **61** 0.00 °C
10.00 °C

8C 01 05 18 50 00 00 Is the accumulated heat of last January
: DIF -> **8C** 8-digit decimal number
VIF -> **01 05** 0.0 kW.h
501.8 kW.h

8C 02 05 18 60 00 00 Is the accumulated heat of last February
DIF -> **8C** 8-digit decimal number
VIF -> **02 05** 0.0 kW.h
601.8 kW.h

8C 03 05 18 70 00 00 Is the accumulated heat of last March:
DIF -> **8C** 8-digit decimal number
VIF -> **03 05** 0.0 kW.h
701.8 kW.h

8C 04 05 18 80 00 00 Is the accumulated heat of last April:
DIF -> **8C** 8-digit decimal number
VIF -> **04 05** 0.0 kW.h
801.8 kW.h

8C 05 05 18 90 00 00 Is the accumulated heat of last May:
DIF -> **8C** 8-digit decimal number
VIF -> **05 05** 0.0 kW.h
901.8 kW.h

8C 06 05 18 00 01 00 Is the accumulated heat of last June
DIF -> **8C** 8-digit decimal number
VIF -> **06 05** 0.0 kW.h
1001.8 kW.h

8C 07 05 18 10 01 00 Is the accumulated heat of last July
DIF -> **8C** 8-digit decimal number
VIF -> **07 05** 0.0 kW.h
1101.8 kW.h

8C 08 05 18 20 01 00 Is the accumulated heat of last August
DIF -> **8C** 8-digit decimal number
VIF -> **08 05** 0.0 kW.h
1201.8 kW.h

8C 09 05 18 30 01 00 Is the accumulated heat of last September
DIF -> **8C** 8-digit decimal number
VIF -> **09 05** 0.0 kW.h
1301.8 kW.h

C7 is Checksum

16 Is the end byte