



# UltraE – M-bus protocol

## 1 General information

M-Bus connection	
Primary Address	1~250, default 0
Baud rate	300~9600 switchable, default 2400
M-Bus load	< 1.5mA

## 2 Primary Addressing

Default M-Bus slave primary address is set to 00h.

Address FDh: Used for secondary addressing.

Address FEh: Used for testing. All slaves should reply to this address.

Address FFh: No M-Bus slaves will reply to this address, but all will receive the message. ( Init slave / Reset application / Change baud rate / date & time sync)

## 3 Registers

Sheet - Normal readout		
Start	68h	
L-field	4Fh	
L-field	4Fh	
Start	68h	
C-field	08h	Code for RSP_UD
A-field	00h	Primary Address: 00
CI-field	72h	
Id-no	52h	Serail Number: 30000052
	00h	
	00h	
	30h	
Manu.	2Eh	"DYN" for Dynaflox
	13h	
Version	02h	Firm version 2.0
Device	04h	Heat meter
Access	01h	Increase by 1 after each RSP_UD
Status	6Eh	Error code
Signature	00h	
	00h	
DIF	0Ch	BCD 8
VIF	03h	Energy unit



Value	00h 00h 00h 00h	Energy forward 0 Wh
DIF	0Ch	BCD 8
VIF	03h	Energy unit
Value	00h 00h 00h 00h	Energy return 0 Wh
DIF	04h	32bit Integer
VIF	28h	Power unit
Value	00h 00h 00h 00h	0 mW
DIF	04h	32 bit integer
VIF	38h	Flow unit
Value	00h 00h 00h 00h	Flow
DIF	0Ch	BCD 8
VIF	10h	Volume unit
Value	00h 00h 00h 00h	Volume forward
DIF	0Ch	BCD 8
VIF	10h	
Value	00h 00h 00h 00h	Volume return
DIF	04h	32 bit integer
VIF	58h	Temperature unit
Value	00h 00h 00h 00h	Temp forward
DIF	04h	32 bit integer
VIF	5Ch	Temperature unit



Value	00h 00h 00h 00h	Temp return
DIF	04h	32 bit integer
VIF	22h	Working hours
Value	00h 00h 00h 00h	
DIF	04h	32 bit integer
VIF	6Dh	Date & Time
Value	01h 21h 21h 01h	
DIF	01h	8 bit integer
VIF	FDh	
VIFE	17h	Error flags
Value	6Eh	Error code
Checksum	89h	
Stop	16h	

## Appendix Unit

Energy				Power			
DIF	VIF	VIFE	Description	DIF	VIF	VIFE	Description
0x0C	0x03		WH	0x0C	0x28		mW
0x0C	0x04		10WH	0x0C	0x29		10mW
0x0C	0x05		100WH	0x0C	0x2A		100mW
0x0C	0x06		KWH	0x0C	0x2B		W
0x0C	0x07		10KWH	0x0C	0x2C		10W
0x0C	0x87	0x77	100KWH	0x0C	0x2D		100W
0x0C	0x86	0x7D	MWH	0x0C	0x2E		KW
0x0C	0x0E		MJ	0x0C	0x2F		10KW
0x0C	0x0F		10MJ	0x0C	0xAF	0x77	100KW
0x0C	0x8F	0x77	100MJ	0x0C	0xAE	0x7D	MW
0x0C	0x8E	0x7D	GJ				
TotalVolume				VolumeFlow			
0x0C	0x10		mL	0x0C	0x38		mL/H
0x0C	0x11		10mL	0x0C	0x39		10mL/H
0x0C	0x12		100mL	0x0C	0x3A		100mL/H
0x0C	0x13		L	0x0C	0x3B		L/H
0x0C	0x14		10L	0x0C	0x3C		10L/H
0x0C	0x15		100L	0x0C	0x3D		100L/H
0x0C	0x16		M3	0x0C	0x3E		M3/H
0x0C	0x17		10M3	0x0C	0x3F		10M3/H
0x0C	0x18		100M3				
Flow Temp				Return Temp			
0x0C	0x58		m °C	0x0C	0x5C		m °C
0x0C	0x59		10m °C	0x0C	0x5D		10m °C
0x0C	0x5A		100m °C	0x0C	0x5E		100m °C
0x0C	0x5B		°C	0x0C	0x5F		°C



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