

PILOT
E L E K T R O N İ K

M-BUS MASTER

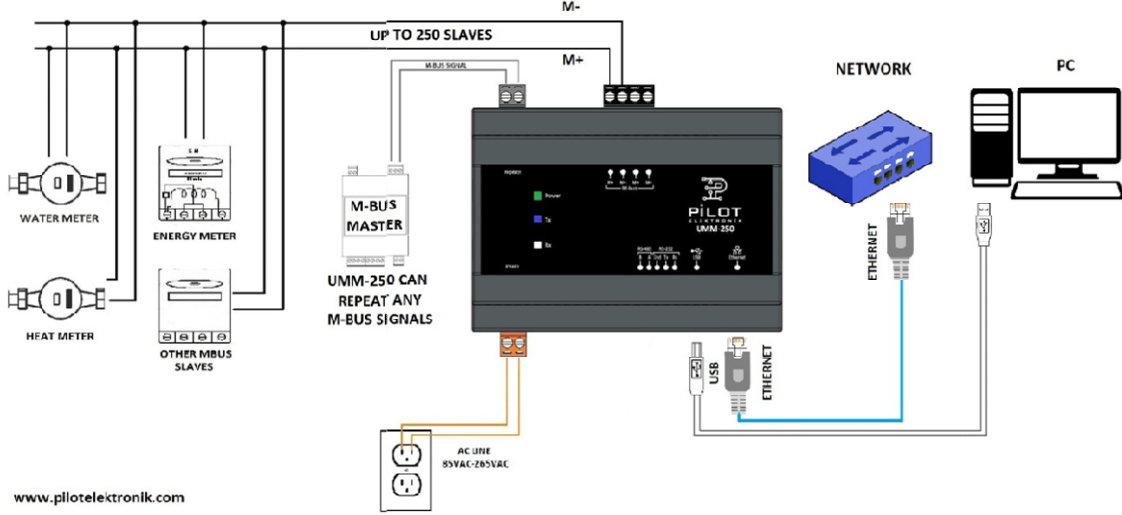
UMM – 250 – Modbus TCP/IP



KULLANMA KILAVUZU

USER MANUAL

UMM-250-Modbus TCP/IP:



AÇIKLAMALAR:

UMM-250- Modbus TCP/IP M-BUS çevirici 50 adet sayaca kadar sayaçların okunmasını sağlar. Kısa devre koruması, yüksek voltaj koruması ve haberleşme hatları üzerinde ESD koruması bulunmaktadır. USB ve Modbus TCP/IP haberleşme arayüzü bulunmaktadır.

DESCRIPTION:

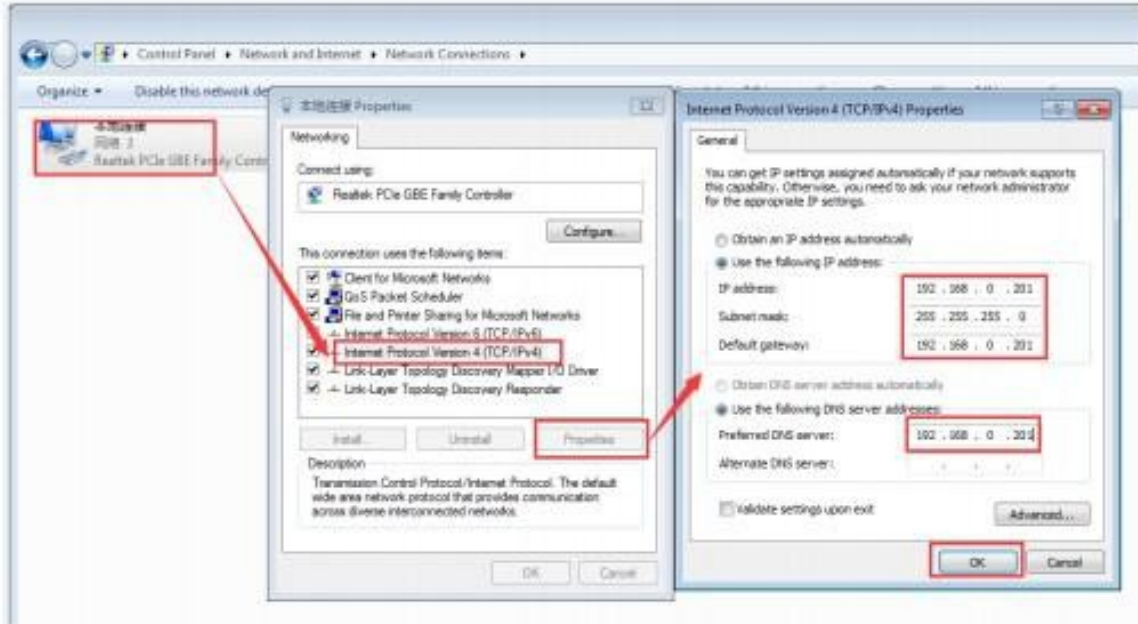
UMM-250-Modbus TCP/IP is a M-BUS master for remote reading of up to 50 M-BUS slaves. It is resistant to short circuit and over voltage. Moreover the communication lines are ESD protected. It has USB and Modbus TCP/IP interfaces.

LED INDICATORS/ LED GÖSTERGELERİ

POWER/GÜÇ	GREEN/YEŞİL	Supply voltage is applied	Cihaz enerjili
TX	BLUE/MAVİ	Device is sending signal	Cihaz sinyal göndermekte
RX	WHITE/BEYAZ	Device is receiving signal	Cihaz sinyal almakta

ETHERNET INTERFACE:

1. Support DHCP, Dynamic Host Configuration Protocol.
2. Support DNS, Domain Name System;
3. WEBSET : Setting parameters through web ;
4. 10/100M auto detect interface;
5. Support AUTO MDI/MDIX, Can use a crossover cable or parallel cable connection;
6. Serial com port bound rate can set up from 300 to 961200,and None,Odd,Even,Mark,Space five check bits;
7. Working model related parameters can be set via a serial port or network;
8. Virtual serial port supported;
9. Unique heartbeat package mechanism to ensure that the connection is reliable, put an end to connect feign death;
10. Across the gateway, across switches, routers;
11. Can work in LAN, also can work on the Internet (external network);



Default Parameter List;

Classes	Details
IP Address	192.168.0.7
Subnet Mask	255.255.255.0
The Default Gateway	192.168.0.1
Baudrate	115200
Parity/Data/Stop	None, 8, 1
Local Port	20108
Remote IP	192.168.0.201
Remote Port	8234
User Name	admin
Password	admin

Open a browser, type and Login above IP address <http://192.168.0.7>, you will enter module's setup webpages. There will be a windows login verify dialog. User name and password are both "admin", this can be modified after login into the system. After you login, you can see webpage as follow,

SERIAL PORT & TCP/IP CONFIGURATION PARAMETERS FOR Modbus TCP/IP:

Firmware Version: V4017 中文

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Be Honest, Do Best!

Current Status
Local IP Config
Serial Port
Expand Function
Misc Config
Reboot

parameter

Baud Rate: 115200 bps
Data Size: 8 bit
Parity: None
Stop Bits: 1 bit
Local Port Number: 502 (0~65535)
Remote Port Number: 7515 (1~65535)
Work Mode: TCP Server
Remote Server Addr: 192.168.1.103 [192.168.1.103]
RESET:
LINK:
INDEX:
Similar RFC2217:

Save Cancel

Help

- **HTTPD URL:**
Module add GET/POST and HTTP/1.1 in URL automatically according to user's setting.
- **HTTPD Packet Header:**
Module add HOST automatically according to user's setting. Add "Content Length" automatically in POST mode.

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Modbus TCP/IP MAPPING:

Writing an slave ID as decimal long;

HOLDING REGISTER WRITE	
1	2
Mbus Slave ID(uint32)	

Reading input register as float;

INPUT REGISTER									
1	2	3	4	5	6	7	8	N-1	N
Data Length (uint32)		Unit(uint32)		Data(float)		Unit(uint32)		Data(float)	
1	2		3		4		5		

UNITS MAPPING		
Unit(uint32)	Unit	DESCRIPTION
0	kWh	Energy
1	kJ	Energy
2	m ³	Volume
3	kg	Mass
4	-	On Time
5	-	Operating Time
6	W	Power
7	J/h	Power
8	m ³ /h	Volume Flow
9	m ³ /min	Volume Flow ext.
10	ml/s	Volume Flow ext.
11	kg/h	Mass Flow
12	°C	Flow Temperature
13	°C	Return Temperature
14	mK	Temperature Difference
15	°C	External Temperature
16	mbar	Pressure
17	-	Time Point
18	-	Time Point
19	-	Units for H.C.A
20	-	Reserved
21	-	Averaging Duration
22	-	Actuality Duration
23	-	Fabrication No
24	-	Enhanced
25	-	Bus Address
26	-	Manufacturer Code

APPLICATION EXAMPLE:

Typical data of a meter-bus as follows;

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Location	Date	Time	Addr.	ID-no.	Man	No.	Value	Unit	Description	Type	Module	St.-No.	Tariff
2		23.01.2019	16:40:59	0	41632974	HYD		1 000000.03	m ³	volume	instant.	0	0	0
3		23.01.2019	16:40:59	0	41632974	HYD		2 0000034.9	l	volume	instant.	0	0	1
4		23.01.2019	16:40:59	0	41632974	HYD		3	0 l/h	volume flow	instant.	0	0	0
5		23.01.2019	16:40:59	0	41632974	HYD		4 000000.03	m ³	volume	instant.	0	0	2
6		23.01.2019	16:40:59	0	41632974	HYD		5 000000.00	m ³	volume	instant.	0	0	3
7		23.01.2019	16:40:59	0	41632974	HYD		6 23.01.19 17:23	Win V	time point	instant.	0	0	0
8		23.01.2019	16:40:59	0	41632974	HYD		7 000000.03	m ³	volume	instant.	0	1	0
9		23.01.2019	16:40:59	0	41632974	HYD		8	31.12.2018	time point	instant.	0	1	0
10		23.01.2019	16:40:59	0	41632974	HYD		9	31.12.2019	time point future value	instant.	0	1	0
11		23.01.2019	16:40:59	0	41632974	HYD		10 100.0	l	increment per output pulse on channel 0	instant.	0	0	0
12		23.01.2019	16:40:59	0	41632974	HYD		11 100.0	l	increment per output pulse on channel 1	instant.	0	0	0
13		23.01.2019	16:40:59	0	41632974	HYD		12 \$00		M-Bus state	instant.			

Writing the meter ID to holding register as decimal long;

Ocean Controls - ModbusView TCP Version 1.61

File Configure Communications Help Register

Start Register: 0001 Variable Type: Holding Registers 4xxxx Status:

Display Length: 100 Display As: Decimal Long Port: InActive

Start Polling Read Write All Write to Register 5 Mode: Master - Binary

REGISTER	1	21	41	61	81
+0	360	0	0	0	0
+1					
+2	41632974	0	0	0	0
+3					
+4	0	0	0	0	0
+5					
+6	0	0	0	0	0
+7					
+8	0	0	0	0	0
+9					
+10	0	0	0	0	0
+11					
+12	0	0	0	0	0
+13					
+14	0	0	0	0	0
+15					
+16	0	0	0	0	0
+17					
+18	0	0	0	0	0
+19					

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Reading the units as decimal long;

Ocean Controls - ModbusView TCP Version 1.61

File Configure Communications Help Register

Start Register: 0001 Variable Type: Input Registers 3xxxx Status: Poll 0 Data OK

Display Length: 100 Display As: Decimal Long Port: Active

Start Polling **Read** Write All Write to Register 1 Mode: Master - TCP

REGISTER	1	21	41	61	81
+0	11	0	1036831948	0	0
+1					
+2	2	18	2	0	0
+3					
+4	1022739087	1309006916	1036831948	0	0
+5					
+6	2	2	0	0	0
+7					
+8	1024389965	1022739087	0	0	0
+9					
+10	8	17	0	0	0
+11					
+12	0	1177648128	0	0	0
+13					
+14	2	17	0	0	0
+15					
+16	1022739087	1177680896	0	0	0
+17					
+18	2	2	0	0	0
+19					

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Reading the data as float;

Ocean Controls - ModbusView TCP Version 1.61

File Configure Communications Help Register

Start Register: 0001 Variable Type: Input Registers 3xxxx Status: Poll 0 Data OK

Display Length: 100 Display As: Floating Point Port: Active

Start Polling Read Write All Write to Register 1 Mode: Master - TCP

REGISTER	1	21	41	61	81
+0	1,54143E-044	0,00000E+000	1,00000E-001	0,00000E+000	0,00000E+000
+1					
+2	2,80260E-045	2,52234E-044	2,80260E-045	0,00000E+000	0,00000E+000
+3					
+4	3,00000E-002	5,61451E+008	1,00000E-001	0,00000E+000	0,00000E+000
+5					
+6	2,80260E-045	2,80260E-045	0,00000E+000	0,00000E+000	0,00000E+000
+7					
+8	3,49000E-002	3,00000E-002	0,00000E+000	0,00000E+000	0,00000E+000
+9					
+10	1,12104E-044	2,38221E-044	0,00000E+000	0,00000E+000	0,00000E+000
+11					
+12	0,00000E+000	1,13590E+004	0,00000E+000	0,00000E+000	0,00000E+000
+13					
+14	2,80260E-045	2,38221E-044	0,00000E+000	0,00000E+000	0,00000E+000
+15					
+16	3,00000E-002	1,13910E+004	0,00000E+000	0,00000E+000	0,00000E+000
+17					
+18	2,80260E-045	2,80260E-045	0,00000E+000	0,00000E+000	0,00000E+000
+19					

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USB ARAYÜZÜ:

Cihazı doğrudan bilgisayara bağlamak için kullanılır. USB-B konektör ile sokete bağlanılır. İletişim hızı USB 2.0 olarak desteklenir. Cihaz bilgisayar üzerinde otomatik COM Port oluşturur. Linux/Android/Windows 7 ve üzeri işletim sistemleri desteklenmektedir. Pilot MStudio veya başka bir M-BUS okuma programı ile bilgisayardan UMM-250-Modbus TCP/IP'e oradan da sayaçlarla bağlantı kurulur.

USB INTERFACE:

USB interface is used for direct connection to the computer. USB-B cable is needed for connection. USB 2.0 speed is supported. The USB connection automatically creates virtual Com Port in the computer. Linux/Android/Windows 7 or higher versions of the operating systems are supported. Thorough the Pilot MStudio or other reading programes UMM-250-Modbus TCP/IP communicates the MBUS slaves.

M-BUS Özellikleri/M-BUS Specifications

Sayaç sayısı/Number of M-BUS Slaves	0'dan 250'e kadar/ 0 to 250
Kısa Devre Koruması/Short circuit protection	>550 mA
Hat voltajı/Bus Voltage	36VDC
İletişim Hızı/Transmission Speed	2400 baud
Max. Hat Uzunluğu/Max. Network expansion	4000m
Max. Sayaç Bağlantısı Uzunluğu/ Max. Slave Distance	1000m

UMM-250 Beslemesi/Power supply

Besleme Voltaj Aralığı/Supply Voltage Range	85-265 VAC
Güç Gereksinimi/Supply Requirements	40W

Çalışma Sıcaklığı/Operating Temperature

Çalışma Sıcaklığı/ Operating Temperature	-20 to +45 °C
Saklama Sıcaklığı/ Storage Temperature	0 to 60 °C

Fiziksel Özellikler:

EnxBoyxy: 126mmx91mmx57mm

IP Sınıfı: IP20

Materyal: Plastik, ABS

Renk: Gri

Materyal Yanıcılığı: UL94 V-0

Kutunun Yerleşimi:

UMM-250-Modbus TCP/IP
DIN EN 50022 standardına
uygun olarak raya monte
edilebildiği gibi masaüstü
kullanıma da uygundur.

Housing:

WxLxH: 126mmx91mmx57mm

IP Class: IP20

Material: Plastic, ABS

Color: Grey

Material Flammability: UL94 V-0

Mounting The Housing:

UMM -250-Modbus TCP/IP can be
mounted on a top-hat rail accoding to
DIN EN 50022 standarts, also the device
is suitable for desktop usage.

Download Links of VCP Drivers;

1. <https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>
 2. <https://www.usriot.com/support/downloads/usr-vcom-virtual-serial-software.html>
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Çamlık Mah. İkbal Cd. Pamuk Sk. No:12-16 D:39 Kaçkar Park Plaza Ümraniye/İSTANBUL