

IQ-MBus-3

Quick Guide

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Electrocom
Rødeledsvej 95
DK-5700 Svendborg
Denmark
Tel : +45 8880 7580
www.electrocom.dk

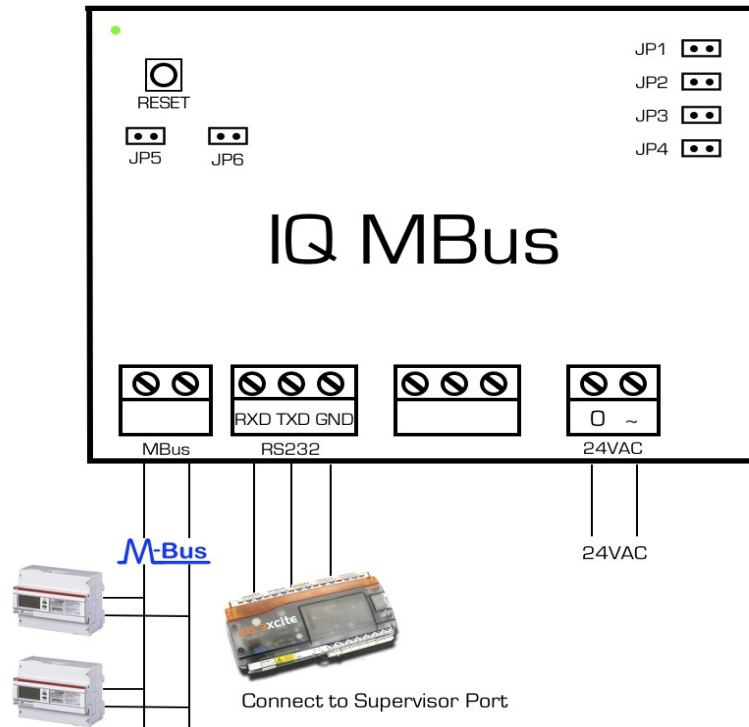


Installing the IQ-MBUS-3 module

PLEASE NOTE:

All steps during installation of the module must take place with power OFF. The M-BUS terminals on the module must NOT be short circuited.

1 STEP 1: Wiring



NOTE: The CNC supervisor port must be set to 0 on the TREND IQ controller.

NOTE: If using a pin code: Set a user pin code to 3532 and level to 99 on the controller.

2 STEP 2: Configure

Set the IQ-MBUS-3 for searching

- Set the jumpers JP1, JP2, JP3 and JP4 on the module. This erases meters from previous searches. The module will search for up to three meters, one for each set jumper (JP1,2 and 3) and read data from the meters every minute (JP4).
- Remove jumper JP5
- Set jumper JP6 according to whether the meters communicate with 300 Baud or 2400 Baud:

JP6 set : Communication with 300 Baud
 JP6 removed : Communication with 2400 Baud

NOTE: Jumpers JP5 and JP6 must not be set at the same time.

Connect supply - 24VAC supply

Supply 24 VAC on the IQ-MBUS-3 module on the screw terminals marked **0** and \sim .

The green LED **POWER** indicates correct voltage supply and the LED JP1 will light for a short period of time.

- After connection the yellow LED will blink. This indicates that the module is scanning the M-BUS network as it searches for meters.
- The red LEDs for jumpers JP1, JP2 and JP3 will light in turn for each meter that is found.
- The meter with the lowest Mbus address will be saved in the lowest available data bank.
- Scanning stops after maximum 5 minutes.

3 STEP 3: Setup for reading

- Remove JP1, JP2 and JP3 from the module. The module will remember the meters it found when searching during start up.
- Set the jumper JP4 "TIMER" according to your preference of retrieving data – every minute or every 15 minutes.
JP4 set : New data every minute.
JP4 removed : New data every 15 minutes.
- Set jumper JP5 (under the RESET button) to retrieve data constantly and as fast as possible.
JP4 and JP5 set : New data constantly - as fast as possible.
JP5 removed : New data dependable on JP4's setting.
- Reset the IQ-MBUS-3 module by pressing the RESET button.

The IQ-MBUS-3 module will write the meter number (serial number) and value type in the label on each node.

Item	Label	Value	Item	Label	Value	Item	Label	Value
A190	31947876 Energy [MWh]	0.00	A200	10655579 Energy [MWh]	730.93	A210	00408260 Energy [MWh]	0.03
A191	31947876 Volume [m3]	0.00	A201	10655579 Volume [m3]	14228.61	A211	00408260 Volume [m3]	0.74
A192	31947876 Flow Temp [degC]	23.30	A202	10655579 Volume U1[m3]	14239.61	A212	00408260 Volume U1[m3]	0.38
A193	31947876 Return Temp[degC]	23.90	A203	10655579 Flow Temp [degC]	78.56	A213	00408260 Flow Temp [degC]	216.00
A194	31947876 Energy U1[MWh]	0.01	A204	10655579 Return Temp[degC]	46.64	A214	00408260 Return Temp[degC]	244.00
A195	31947876 Volume U2[m3]	0.09	A205	10655579 Temp Diff [degC]	31.91	A215	00408260 Temp Diff [degC]	0.00
A196	31947876 ..	0.00	A206	10655579 Volumen Flow [m3_h]	12.40	A216	00408260 On Time [h]	23278.00
A197	31947876 ..	0.00	A207	10655579 Power [kW]	447.77	A217	00408260 Volumen Flow [m3_h]	0.00
A198	31947876 ..	0.00	A208	10655579 HCA Units1[-]	62765432.00	A218	00408260 Power [kW]	0.00
A199	31947876 ..	0.00	A209	10655579 HCA Units2[-]	9345678.00	A219	00408260 HCA Units1[-]	41.00

Examples of readings for three meters to IQ3

Depending on the meter type, the following values will be passed in the listed priority (top to bottom).

Meter value	Meter unit	Trend unit
Energy	Wh	MWh
Energy	J	GJ
Volume	m ³	m ³
Mass	Kg	Kg
On time	Hours	Hours
Flow temperature	°C	°C
Return temperature	°C	°C
Temperature diff.	°C	°C
Power	W	kW
Power	J/h	J/h
Volume flow	m ³ /h	m ³ /h
Mass flow	kg/h	kg/h
Extern temperature	°C	°C
Pressure	Bar	Bar
HCA_Units(Subunit1)	-	-
HCA_Units(Subunit2)	-	-
Volume(Subunit1)	m ³	m ³
Volume(Subunit2)	m ³	m ³
Energy(Subunit1)	Wh	MWh
Energy(Subunit2)	Wh	MWh
Energy(Tarif1)	Wh	MWh
Energy(Tarif2)	Wh	MWh
Power(Peak)	W	kW

Troubleshooting

The module does not find any or only few of the connected meters

- **Are the Mbus wires connected to the meter?**
- **Does each meter have a unique M-bus address between 1 and 249?** Connected meters must not have the same addresses. Contact your supplier for information regarding the M-bus addresses set on the meters.
- **Is the communication rate (speed) set correctly?** Most meters will automatically adjust themselves to a communication rate of 2400 Baud. Try setting the communication rate to 300 Baud by setting the jumper JP5 and then reset the IQ-MBUS-3 module.
- **Is the meter delivered with a M-bus module?**
- **Have the wires on the M-bus short circuited?**
Replace the IQ-MBUS-3 module.

There is no data from the meters in the TREND IQ controller!

- **Is the cable from the IQ-MBUS-3 connected to the TREND controller?**
- **If you are using a pin code: Is the pin code in the TREND controller set to 3532 and level to 99?**
- **Are the IQ-MBUS-3 module and the controller communicating?**

For each meter found during searching, there should be data in the nodes

JP1: A190 to A199

JP2: A200 to A209

JP3: A210 to A219

Write or fill in nodes A190 to A219 with a value such as 9999. Communication between the IQ-MBUS-3 and the TREND controller is working correctly if 9999 is thereafter overwritten.

- **Has the IQ-MBUS-3 module found all the connected meters?**
Run a new search as described in this guide.

There is data from one or two meters, but not from the last one!

- **Has the IQ-MBUS-3 module found all the connected meters during the searching step?**