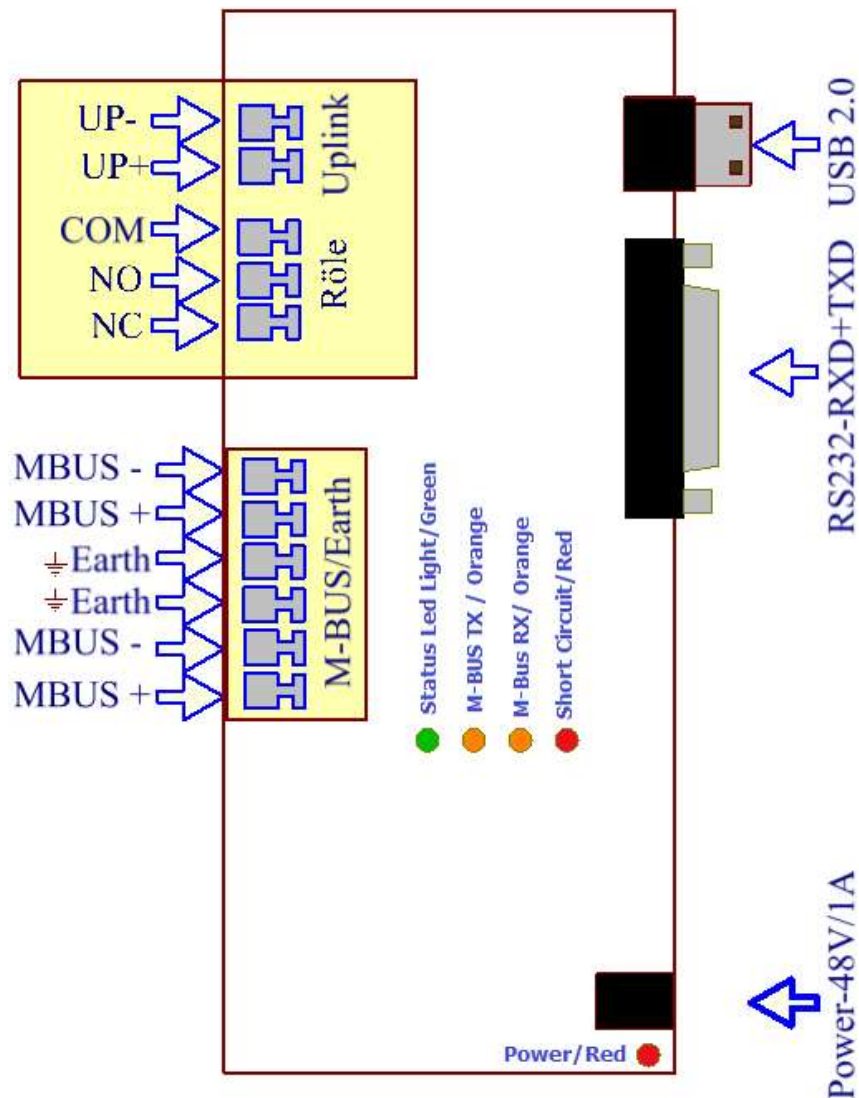




ATLAS M-BUS CONVERTER

Atlas M-Bus converters are produced according to the requirements of M-Bus protocol (EN 1434-3). By the way all kind of meters produced with M-Bus interface can be readed and all datas can be transfered to the Computer by USB interface.

Active output protection feature provides extra protection even there is a short circuit at M-Bus line. ATLAS M-Bus converter has a buzzer warning system for alarming the errors like short circuit. On the other hand it has sleeping mode to save energy when it is out of usage. When there is an inquiry of data reading, it turns itself on from sleeping mode automatically and goes on working regularly.

ATLAS M-Bus Converter can read all kind of datas like flow value, flow speed, input temperature, output temperature, consumption...etc... from the meter by a computer having software for reading and allocating.

ATLAS M-Bus converter has USB 2.0 port by the way it is possible to connect to the computer directly without any other converting devices. Additionally It is easy to use some applications like GSM Modem scada by the external RS232 connection on ATLAS M-Bus converter.

Note: ATLAS M-Bus Converters must be used indoor usages. It can be affected by liquids, moisture and dirty environments.

Technical Features

1. Power input.....DC48V/1A
2. Power Consumption (Active working).....Max 24W
3. Power Consumption (Sleep Mode).....Max 5W
4. M-Bus Voltage.....DC42V
5. Data Transfer Speed.....300-19.200 Baud Rate
6. Working Temperature.....-20°C-70 °C (indoor usage)
7. Meter quantity can be readed by one Device.....Max 250 Meters
8. More efficient working with SMPS type power source
 - Overcurrent protection
 - Shortcircuit protection
 - Shortcircuit alarming by led light and buzzer
 - Internal USB 2.0 interface (USB-RS232)
 - RS232 Interface
 - Led Light for Status sign
 - Compatible with TS EN1434-3 and TS EN13757-2 standards
 - Physical Dimensions 157mmx91mmx58mm Rail type Box
 - Energy saving by Automatic Sleep Mode

Installation Instructions

- The distance between main M-Bus line and meters must be 5m at last. 2x0,22mm cable must be used. If these distance is more than 5m, it can be extended by 4x0,22mm cable.
 - If the distance is short and the meter quantity will be not much, the main line cable can be 2x0,75mm. If the meter quantity is 250 and more, the cable must be 2x1,5mm. If any extension is required, 4x0,75mm or 4x1,5mm cable can be used.
- M-Bus Converter is connected to the computer by USB. If the distance or User quantity increases, the cable cross section must be thickened also.
 - M-Bus line must be installed from the weak current main line of the building, must not be installed onto high current line.

Do not forget to use earth connection if the earth connection is made correctly. If the earth connection is not correct, please make it corrected before to get an excellent reading.

Status led lights and Warnings

1- Power:

It shows if the converter feeding is correct or not. When the power source is connected to the converter, A red light is appeared consistently.

2- Status led light:

It is a green led light that is showing if the M-Bus Converter works properly or not.

3- M-Bus-TX:

It is an orange light that flashes synchronously during the data transfer of PC to M-Bus line.

4- M-Bus RX:

It is an orange light that flashes synchronously during the data transfer of M-Bus line to PC.

5- Short Circuit:

If there is a shortcircuit problem at M-Bus line, red led light of shortcircuit warning flashes one minute. If the problem goes on, red light goes on consistently. If there is no light, it means there is no shortcircuit problem.

Additionally, there is a buzzer warning if there is short circuit problem at M-Bus line. Buzzer alarming takes one minute consistently. Then buzzer stops and M-Bus line must be switched off. It can be switched on after the short circuit problem of M-Bus line is solved.

Possible Error Status and Trouble Shottings

1. Weak Power Supply:

ATLAS M-Bus Converter can not work if it is not powered by required Power Supply. Please ensure the power supply is between the required range before connecting the device and be aware of Power Led is appeared.
Do not use if the power supply is not between the ranges declared by manufacturer.

2. Short circuit trouble at M-Bus line

ATLAS M-Bus converter has its own protection for short circuit and high current. When the device gets itself under protection status due to short circuit or high current, the user is warned by led light or buzzer sound. Please pay attention to these warnings. Short circuit trouble is caused by faulty cable installation or installing too much more meters to the M-Bus line than the maximum meter limits. The upper limit of the meter quantity that can be connect to one ATLAS M-Bus converter is 250pcs. To prevent the short circuit status, please check if the M-Bus Line wiring has been done correctly or if the installed meter quantity is not over the top limit.

3. Data Reading Fault:

- If the M-Bus TX led light is not appeared, there is a problem at PC and M-Bus connection line. Please ensure the USB cable is connected to the PC correctly.
- Even though M-BUS TX led light is flashing but there is no change at M-BUS RX led light, the meter ID (serial number) might have been registered to the reading system incorrectly or it is not registered to the system. Additionally, please check if the meter is wired correctly or not.
- If M-Bus RX led lights flash consistently, there is excessive noise at M-Bus Line or Some of the meter might be damaged. Please ensure if the required earth connection is done correctly or not and ask for a Support from technical team.

ELECTRICAL LIMITS

1. <u>V_{in}</u>	Nom:DC48V Min:DC36V Max: DC50V
2. <u>I_{in}</u>	Nom: 1A Min:0,8A
3. <u>V_{M-Bus}</u>	Nom: DC42V Min:DC32V Max DC48V
4. <u>I_{M-Bus}</u>	Max: 0,6A
5. <u>Working Temperature</u>	-20° C and +70 ° C
6. <u>Meter Quantity can be supported by one device</u>	Max 250
7. <u>RS232 Signal</u>	Max:±12V
8. <u>USB Vcc</u>	Min:4.4V Max: 5V
9. <u>USB signal</u>	Max:5V