

# TEKSAN

## TEKSAN M-BUS CONVERTER



## USER MANUAL

## Dear Guest,

First of all thank you for purchasing our product. Please read the instructions and warnings in this manual carefully. This guide contains necessary warnings and important informations about the connection of product. Keep this manual in a safe and accessible place for use in case it is needed.

TEK M-BUS Reader fully compatible with all models of meters manufactured by the M-Bus protocol and can be communicate to a computer via USB interface.

Remote meter reading and billing support GPRS modem connectivity (optional). In addition, the device do not need external power adapter and works with 85 ~ 265VAC, due to the active output protection, even though the M-Bus line is short circuit, protecting itself and meters. Within the registered consumption meter inlet flow rate, inlet water temperature, return water temperature can be read through all of the information such as the computer program, "Energy Efficiency Law" and are billed according to the relevant regulations

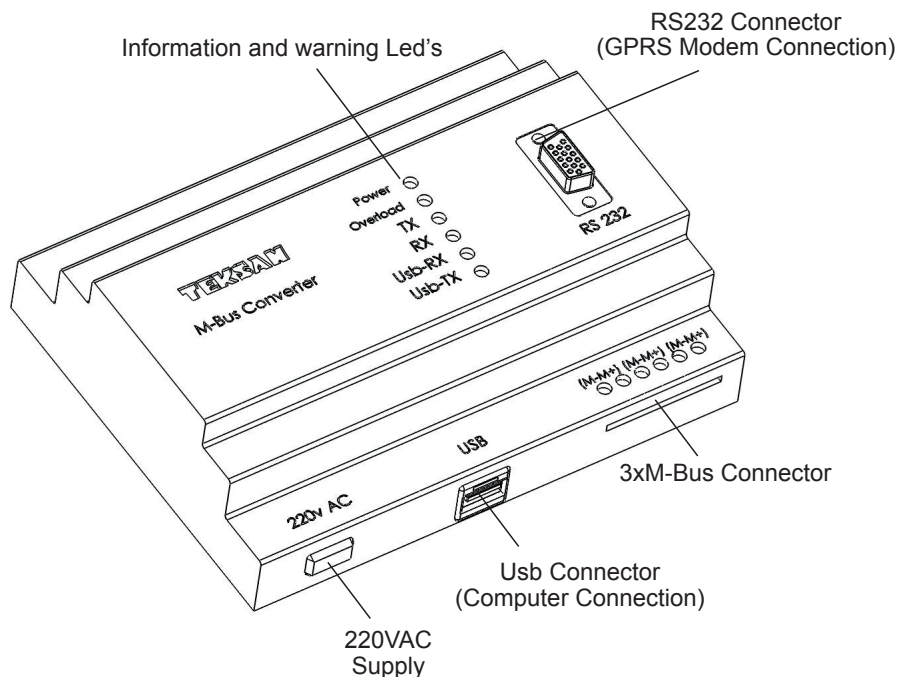
### **Technical Specifications**

- 85~265 VAC Universal Input SMPS supply(Isolated supply)
- Max output 15 Watt
- Max 250 M-Bus slaves connections
- 320-2400-9600 Baud Rate Signalling
- Operational temperature range -10, +60 C
- 3x M-Bus Connectors
- 1xRS232, 1x USB Connector
- Protection against Network Fluctuating Interference and peak load and inrush conditions
- Short Circuit Protection of MBUS Line
- Signalling information LED's
- Power, Overload information Led's
- Remote Monitoring(optional) by using GPRS modem
- Optional web Base reading and billing software
- Dimensions 157x91x58 mm
- MBUS EN 1434-3 compatible

## Type Of Connection

- Main line cable to be furnished in regards of Distance between Meter to M-BUS Line junction point must not exceed 1 meter (optional 5 meters)
- 2x0,75 mm ~ 2x1,5 mm diameter cables are recommended for main bus line.
- M-BUS line can be connected to one of 3 M-BUS reader terminals (M+M-)
- M-BUS Reader USB Port is for Computer connection. Data transfer by using TEKSAN reading program
- RS-232 port is for optional Teksan GPRS Modem connection. Billing to be done by using TEKSAN remote reader and billing software.
- M-BUS line must be established in low voltage line shaft. Keep away from high voltage shaft.

NOTE: Cable diameter must be increased when number of end user or distance of connections increased under technical limitations. Consult technical service for detailed information and to avoid any possible application mistakes.



## **STATUS AND MEANING of LED's**

### **Green LED (Power Led):**

1- Flash: Normal operational status

2-Blinking: Blinks while communication in case of shortcut on output or any malfunction on device. Cut power than remove BUS line from reader in such case

3-Constant off: No Power or reader malfunction

### **Yellow LED : (Overload LED)**

1. Constant off: Normal operational status. Short light up than becomes off when reader to be powered up

2.Blinking : Blinks if number of meters on BUS line close to maximum limit and it reads. It is normal operational status

3. Continous Flash: Overload alarm when light continuously on. Means over 250 meters connected. Reduce number of meters

## **TX and RX, USB\_TX and USB\_RX LED's**

1- Continues Off :

a. Constant Off is normal status while device on standby mode.

b. Shows problem if its off during communication mode. Meters and connections need to be checked

2- Blinking: It is normal operational status for communication mode

3- Continuous flash while stanby: There is problem on Communication circuit. Change reader

### **Carry And Storage Instructions**

- Product must be transport with its own package as this to be protect device against any possible physical damage
- Must not put any heavy stuff on device package, Device might be effected
- Device might be permanently malfunction or broken in case of drop
- Protect device any kind of moist or liquid
- Do not pour any liquid or insert any object into package.
- Do not try to open device with any kind of tool which might cause electrical schock.
- There is no harm for health during operation of device
- Excessive cold or heat might cause defect on device, might shorten life or malfunction of electronic circuits

### **Device Maintenance**

There is no special maintenance requirement for TEK M-Bus Converter. Consult only to authorized service center if necessary

### **Package Content**

1xMBUS Converter

1xUSB Cable

# TEKSAN

## TEKSAN M-BUS CONVERTER USER MANUAL

**TEKSAN TEKNOLOJİK ÖLÇÜM SİSTEMLERİ SAN. ve TİC. A.Ş.**  
Çatalmeşe Mahallesi Reşadiye Caddesi 185. Sokak No: 6 34794  
Alemdağ / Çekmeköy / İstanbul / Türkiye  
Tel: +90 216 484 40 40 Faks: +90 216 484 42 62  
[www.teksan.com.tr](http://www.teksan.com.tr) [bilgi@teksan.com.tr](mailto:bilgi@teksan.com.tr)