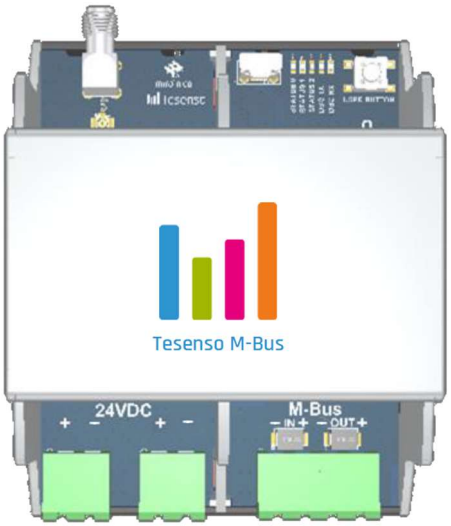
Tesenso

M-Bus

M-Bus to LoRaWAN Interface



versatile M-Bus to LoRaWAN interface for different energy metering applications

The Tesenso M-Bus interface enables the reading of all energy meters with a M-Bus interface according to EN 13757-2, -3.

When connecting existing energy meters in buildings, there is often the issue that the meters are already connected to a building management system, billing system or remote reading system of the energy utility. In the past, M-Bus splitters had to be used to get access to the data. With the Tesenso M-Bus LoRa Bridge we have solved this problem. Just hang in between and receive data for your energy management.

Key Benefits:

- LoRaWAN compliant class C device
- External LoRa antenna
- 24V power supply or battery powered
- Splitting an M-Bus and simultaneous readout via LoRaWAN
- DIN Rail mounting
- Fully configurable via downlink

Applications:

- Smart metering / smart building
- Energy monitoring
- Building automation
- Sub metering
- Utility billing
- Service charge settlement

Document
Information

About:

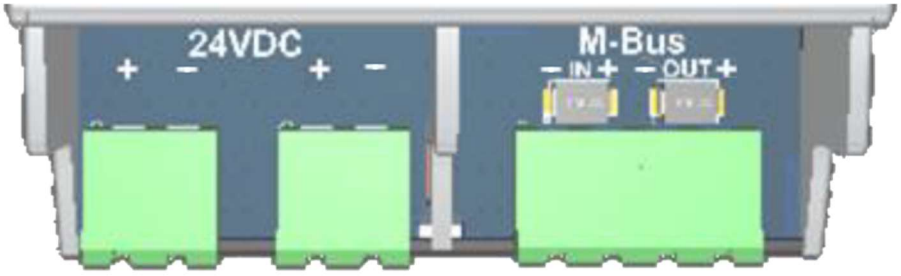
File name	Tesenso M-Bus datasheet
Document type	Datasheet
Date	07.07.2021
Revision	1.0

Revision history:

Date	Release	Changes
07.07.2021	1.0	Initial release

Table of content:

Technical
specifications



1 2 3 4

Interfaces:

1	24V connection for feeding the Tesenso M-Bus
2	24V output for the supply of further field devices
3	IN = M-Bus for forwarding the data to another M-Bus master
4	Output M-Bus from the slaves

Mechanical specifications:

Weight	100g
Dimensions	Width: 35,6 mm, Height: 89,7 mm, Depth: 49,78 mm
Enclosure	Plastic, Aluminium, ABS
Ingress Protection	IP41

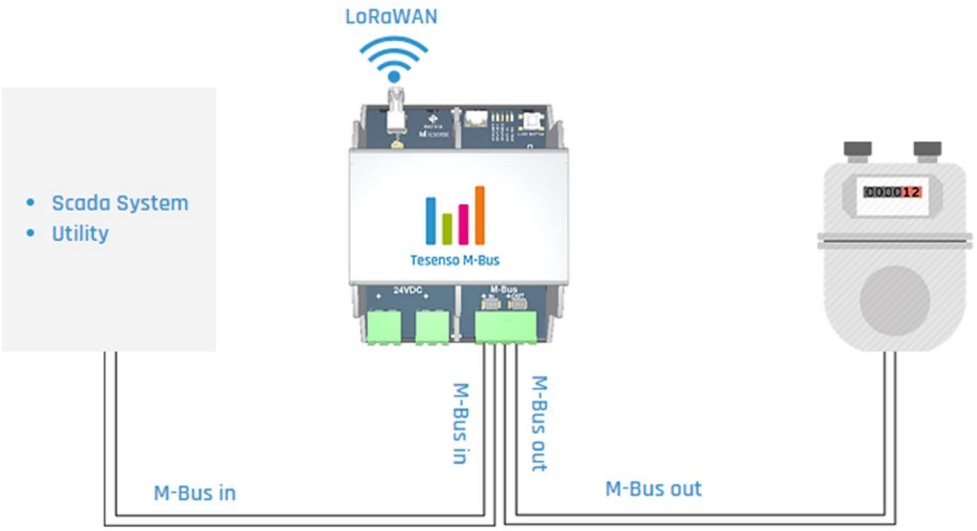
Operational conditions:

Temperature	0 – 80 °C
Humidity	0 – 95% RH, non-condensing

Operational conditions:

Power supply	24 VDC

Functional
Description



The Tesenso M-Bus Interface can be operated in two variants:

direct connection to a meter:

The Tesenso M-Bus Interface is master and regularly reads the data from the slave meter and transmits it via LoRaWAN.

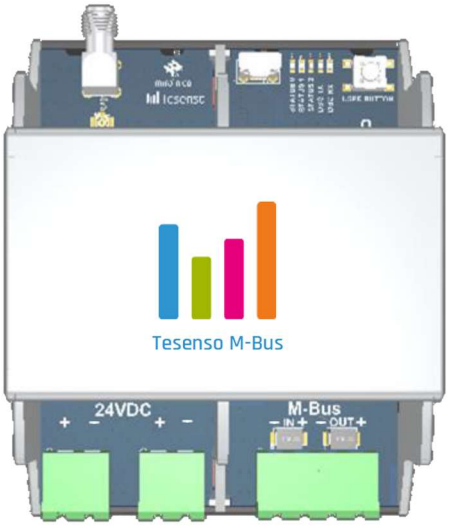
direct connection to one meter and data forwarding via M-Bus to additional systems:

The Tesenso M-Bus Interface is master and regularly reads the data from the slave meter and transmits it via LoRaWAN as well as forwarding to an additional master (e.g. building management system or billing system).

The readout of multiple slave meters is possible as well, but LoRa-Payload packages size needs to be considered in mind.

Device options

Product ID	ISM Band			Options			
	EU868	U915	2.4G	Ext. Ant.	Int. Ant.	Battery power	24VDC power
Tesenso-M-BUS-868-INT	▯				▯	Not available yet	▯
Tesenso-M-BUS-868-EXT	▯			▯		Not available yet	▯



Keep in touch

Tesenso GmbH
Vordersteig 2
CH-8200 Schaffhausen
Switzerland

info@tesenso.ch
www.tesenso.com

Disclaimer:

We reserve the right to make technical changes, which serve to improve the product, without prior notification.

SAFETY-CRITICAL, MILITARY, AND AUTOMOTIVE APPLICATIONS DISCLAIMER: Tesenso products are not designed for and will not be used in connection with any applications where the failure of such products would reasonably be expected to result in significant personal injury or death ("Safety-Critical Applications") without a Tesenso officer's specific written consent. Safety-Critical applications include, without limitation, life support devices and systems, equipment, or systems for the operation of nuclear facilities and weapons systems. Tesenso products are not designed nor intended for use in military or aerospace applications or environments. Tesenso products are not designed nor intended for use in automotive applications unless specifically designated by Tesenso as automotive grade.