

pulsonic® II mbus – for more possibilities



The pulsonic® II mbus is a decisive factor for the flexibility of the symphonic mbus system by **ista**. Equipped with a transmitter, the pulsonic® II mbus allows the integration of conventional devices with contact output. In addition to the combination with the M bus, this results in an even larger application spectrum.

The pulsonic® II mbus is simply connected to a measuring device with contact output, saves the measuring values and performs the data transmission to the level converter. It can be connected via an SO interface acc. to DIN 43864. This makes it possible to also integrate already installed devices into the M bus system. These may be conventional devices made by **ista**, but also external devices like gas, oil and electricity meters.

Technical data

Device type	pulsonic® II mbus
Art. no.	19407
Device dimensions in mm (W x H x D)	137 x 93 x 20
Impulse input	1 x potential-free contact, open collector ($R_i < 20 \text{ k}\Omega$); frequency max. 2 Hz/impulse duration at least 30 ms; 1 x SO interface (DIN 43864); frequency max. 16.667 Hz/impulse duration at least 30 ms.
Display	12345.678
Interfaces	1 x optical interface (EN 61107)/1 x M bus input
Power supply	3-V lithium battery
Reading cycle	96 x per day at 2.400 baud (bit/s)
Service life	10 years operating time + 1 y. storage time + 1 y. reserve with 1 reading/day 5 years operating time + 1 y. storage time + 1 y. reserve with more than 1 reading/day
Data backup	non-volatile memory (EEPROM)
Parameterizing	PC software
Parameterizing data	Impulse valency (0.001–1.000 units/pulse in 0.001 m ³ , 0.001 kWh, 0.001 MWh, 0.001 GJ); Resolution for register size (energy/volume); Units for register size (energy/volume); meter count (start value/zero reset); Billing date (transmission date)
Registration data	Energy volume (total volume)
Protection class	IP 54 (DIN 40050)
Ambient temperature	0...55 °C
Ambient conditions	Class C (DIN EN 1434)

pulsonic® II mbus – display loops

The pulsonic® II has a very precise LC display with eight digits and various special characters. Just like with all other electronic *ista* devices, the display is activated by touching the sensor button. With a brief push, you switch between the different display types. By pressing the button longer (more than two seconds), you go

from one main loop to the next. To save battery power, the display switches off automatically 60 seconds after the last press of a button. All relevant data is displayed in three display loops.

The measuring values are shown on an 8-digit LC display. The decimal points are marked by a frame. Some special characters can only be activated in certain application cases. They are only visible during the LCD test after activation of the display.

Loop	Display
1	Measuring
3	Type plate
4	Statistic

Measuring

The diagram illustrates the sequence of display loops for the Measuring function. It shows the following displays and their corresponding labels:

- LCD test:** 88888888 GJm³, kWh, 88* Δ ∇ °C °F, fr³ gal, gpm
- Current consumption:** 1234567.8 kWh, IR
- Consumption last billing date:** 1234567.8 kWh, lb
- Consumption second to last billing date:** 1234567.8 kWh, lC
- Next billing date:** 30-06-00, ld
- Date of last billing date:** 30-06-99, lb
- Date second to last billing date:** 30-06-98, lC
- Serial number:** 12345678, 3A
- Impulse valency:** PPL 1.678, 3b
- Time for averaging:** 0.250 h, 3C
- M bus address:** 1, 3d
- Temperature constant:** 90 °C, 3E

Statistic

12 end-of-month values: Switching the display to the previous months' consumption values

The diagram shows the transition from a date display (30-04-99, 4A) to a consumption display (1234567.8 kWh, 4A) for the Statistic function.