

AT-MBUS-NE module

with pulse output

Pulse module uses modern microprocessor system and makes a part of a remote system of transmitting measurement data from water meters produced by Apator Powogaz SA. The applied solution involving optic scanning of the reflective pointer of the counter eliminates inaccuracies of the reed relay pulse generator. It is completely resistant to the impact of strong external magnetic field.

Application

The pulse modules can be mounted on the counters of water meters produced by Apator Powogaz as a standard suited for mounting of different types of modules. Above mentioned modules are widely applied in remote reads carried out in Water supply and Sewerage Companies, Housing Associations, Industry Plants and Shopping Centres.

Special features

- possible use with water meters suited for module installation,
- easy installation - mounting without interfering in the water meter verification features,
- resistant to external magnetic field,
- protection rating: IP65. Battery life up to 10 years,
- possible configuration – programmable two pulse outputs,
- possibility of optional setting of pulse value depending on water meter type,
- pulse counting taking into account flow direction – forward or backward,
- optional configuration through output 3 (acc. to diagram).



Technical data

Pulse module	AT-MBUS-NE-01		AT-MBUS-NE-02	AT-MBUS-NE-03
Water meter DN	DN40* ÷ DN125	DN150 ÷ DN300	DN15 ÷ DN20	DN25 ÷ DN40
Supported type water meter**	JS 50÷100, MWN/MWN130 40÷300, MK 50÷150		JS/JS90 1,6÷4	JS/JS130 6,3÷16
Connection cable	4-core, standard length - 1,5 m			
Number of pulse outputs	2			
Resistance of connections closing/opening state	30Ω / 200 MΩ			
Outputs	Open collector type (OC) / 0,17 A, 100 V / (max. values)			
Working temperature range	0,1 ÷ 60 °C			
Storing temperature range	-10 ÷ 70 °C			
Maximum frequency of generated pulses	4 Hz (250 ms - stable duration of pulse, change of frequency changes the repetition of signal; pulse is generated when the output contacts are opened)			
Pulse value (in range)	0,1 ÷ 25 m ³ /imp with 0,1 m ³ hop	1 ÷ 250 m ³ /imp with 1 m ³ hop	1 ÷ 250 dm ³ /imp with 1 dm ³ hop	0,1 ÷ 25 m ³ /imp with 0,1 m ³ hop

* refers to flanges

** also applies to the compound water meter MWN/JS 50/4÷150/16

Wiring diagram



Two programmable pulse outputs no 1 and 2

List of possible implementations – pulse emission:

- Every full balance capacity (calculating of capacity as mechanical counter) – marking IB,
- Every full pulse capacity (calculating of capacity as classical NK) – marking PR,
- Every full capacity calculated with the flow in compliance with the direction marked on the water meter – marking WP,
- Every full capacity calculated with the backwards flow – marking WS,
- In case of failure – marking AW,
- For flow direction (forwards, backwards) – marking SK.

Order example

e.g.: for water meter type JS-1,6-02
Pulse overlay AT-MBUS-NE-02 with:

- pulse output No 1 – pulsing every balance capacity - IB,
- pulse output No 2 – volume calculation as in the classic NK - PR,
- pulse value - 1 dm³/imp.

The data here is current on the date of issue.

The manufacturer has the right to modify and improve the products without prior notice.

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