



## MacR6 for Ex Zone 0

## data logger for gas meters

MacR6-Z0-V is the device designed to enable remote readings of the gas consumption from standard mechanical gas meters in industry segment.

MacR6-Z0-V can be installed on chosen types of the diaphragm meters using dedicated installation kit and work as a smart extension of the mechanical totalizer of that meter.

MacR6-Z0-V can also cooperate together with any gas meter or Electronic Volume Converter with low frequency pulse output through typical cable connection and also act as an AMR device.

## key benefits

- work in Ex Zone 0
- can work as a Ex telemetry unit for Volume Converters without internal modems
- gas usage profile transmission to the head-end system
- enabling readouts from low accessibility places - high installed meters, closed buildings requiring personal access
- gas flow control and immediate alarming about potential fraud on the object
- enabling access to historical gas consumption in high resolution, consumption even from every minute
- quick installation and minimum effort configuration using modern mobile application

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edition  
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# technical data

<b>dimensions/ weight</b>	146 x 114 x 40 mm/ 0.3 kg
<b>housing material</b>	polycarbonate
<b>relative humidity</b>	maximum 95% at temperature of 55 °C
<b>ambient temperature range</b>	from -30 °C to 55 °C
<b>housing protection class</b>	in accordance with EN 60529 for outdoor installations: IP66
<b>Ex feature</b>	II 1G Ex ia IIA T4 Ga certificates: FTZÚ 16 ATEX 0051X
<b>display</b>	segmented LCD display allowing device diagnostics and showing values: counter, monthly increments and hourly peaks
<b>transmission protocols</b>	GAZ-MODEM 2/3 support for TCP/UDP/NTP
<b>resistance to mechanical and electromagnetic conditions</b>	M2/E2
<b>power supply</b>	replacable lithium battery D-size
<b>transmission</b>	<ul style="list-style-type: none"><li>• optical interface</li><li>• support for 3FF (Micro SIM) or MFF2 (MIM) standard cards</li><li>• LTE-M (LTE Cat.M1): B1/ B2/ B3/ B4/ B5/ B8/ B12/ B13/ B18/ B19/ B20/ B25/ B26/ B27/ B28/B66/ B85</li><li>• NB-IoT (LTE Cat NB2): B1/ B2/ B3/ B4/ B5/ B8/ B12/ B13/ B18/ B19/ B20/ B25/ B28/B66/ B71/ B85</li><li>• EGPRS: 850/ 900/ 1800/ 1900 MHz</li></ul>
<b>compatibility with gas meters</b>	<ul style="list-style-type: none"><li>• direct connection (LF, TS tamper switch):<ul style="list-style-type: none"><li>- via magnetic sensors: Honeywell/ Elster BK-Gxx series, Apator/ Metrix UG/GL series</li><li>- via reed switch sensors: Itron RF1 counter „o” series</li></ul></li><li>• cable connection to any gas meter with reed switch or OC output through LF input (DI1) and magnetic field control contact TS (DI2)</li><li>• cable connection to two independent gas meters with reed switch output, or to be used with Electronic Volume Converter to obtain information about Vb and Vm through OC output</li></ul>
<b>outputs</b>	<ul style="list-style-type: none"><li>• two built-in configurable digital outputs OC type, capable to operate as:<ul style="list-style-type: none"><li>- volume pulse outputs (replication of pulses from two inputs)</li><li>- programmable per each alarm</li></ul></li></ul>

## features

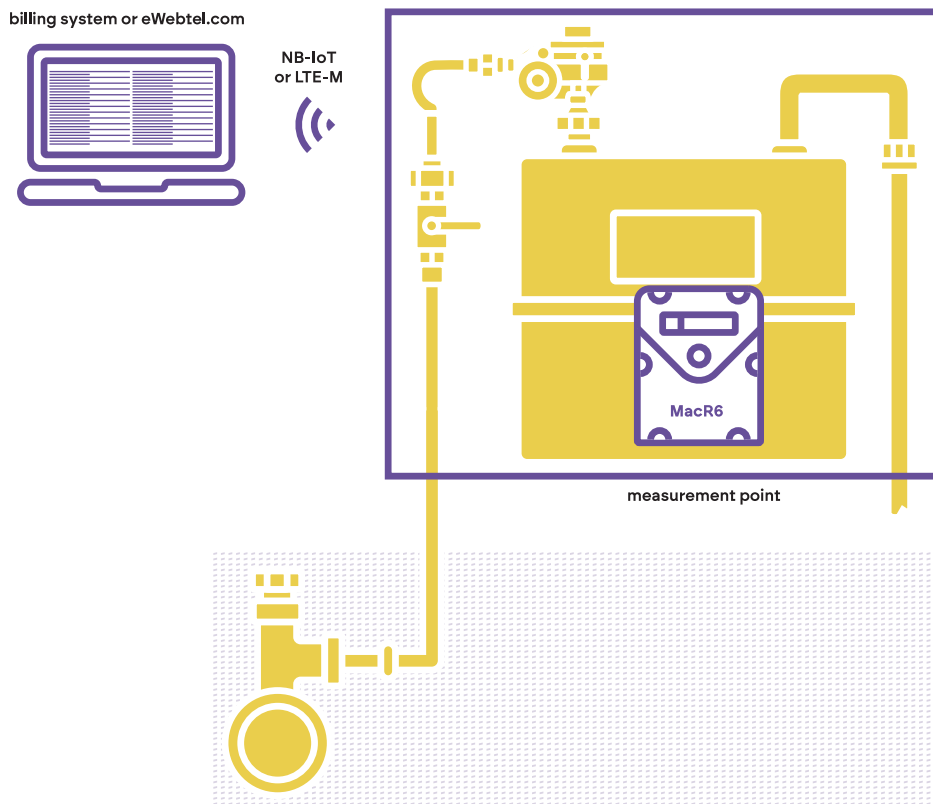
- support for LPWAN mobile network data transmission technologies: LTE-M (LTE Cat.M1) and NB-IoT (LTE Cat NB2)
- supports Mobile Virtual Network Operators (MVNOs)
- standard commercially available D-size lithium battery
- LCD display presenting connection status, network level, battery status and volume increment logging
- optical interface for configuration
- effective data transmission in harsh environments
- dedicated mobile application for device configuration and reading logged data
- cooperation with diaphragm, rotary, and turbine gas meters with reed switch or OC output type
- built in outputs for replication of input pulses and alarm state indication



# application

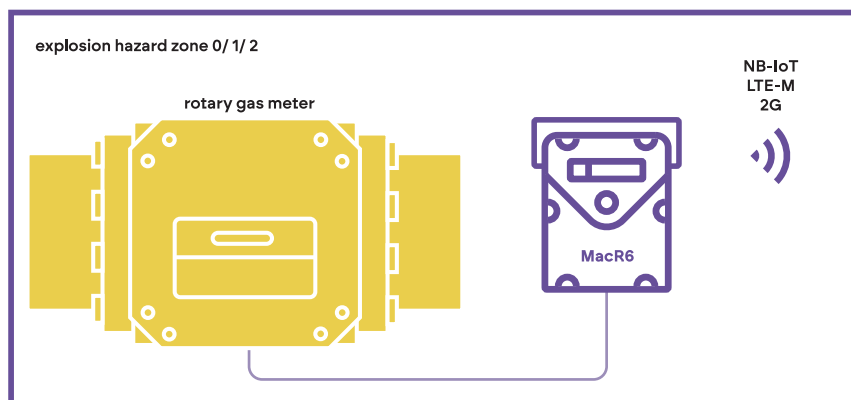
## remote data reading

Direct installation on gas meter totalizer.



## remote data reading

Installation with i.e. rotary gas meter with pulse output. MacR6-Z0-V installed near the gas meter.



## local reading and configuration

