

## Wastewater and rainwater flow meter AQUA LOGGER FLOW MODBUS



- Non-contact measurement of flow filling and velocity
- High energy efficiency
- Quick and easy installation
- Maintenance-free design
- Two protection classes for the data logger housing: IP67 and IP68
- Built-in GSM/GPRS modem for data transmission
- Data review and remote station configuration via web browser
- Possibility of data transmission to client server or directly to SCADA system
- Configurable text message and e-mail alarms
- Possibility to increase the measurement frequency and data transmission for alarm conditions

The Aqua Logger FLOW Modbus station is dedicated to measure the volumetric flow rate of wastewater or water. Two radar probes are used for this purpose. The first probe is used to measure the filling level and the second one to measure the velocity at which the medium moves. Measured values of flow velocity and water table level, taking into account the actual shape of canal, allow to calculate the volumetric flow rate of water. The measurement is performed with the use of non-contact method, thanks to which the installation is easy and no installation of any elements on the water or wastewater side is required.

## Technical Specifications

Data transmission type	GSM / GPRS; RS232, RS485 (option) supported frequencies: 850/900/1800/1900 MHz
Device power supply	12 – 55Ah 12V battery (depending on the measurement and data transfer frequency expected by the user)
Duration of a single flow measurement	25 – 60 seconds depending on flow conditions
Transmission modem activity time	18 – 22 seconds typically
Measurement frequency	user-definable from 1 minute to 24 hours
Transmission frequency	user-definable from 1 minute to 24 hours
Recorded service parameters	electronics temperature, power supply voltage, GSM signal strength, modem activity time at last data transmission, alarm states
Text message alerts	adjustable for level, velocity, flow rate and selected service parameters possibility of setting independent measurement and data sending frequencies depending on defined alarm thresholds of selected parameters
Logger housing	polyester 220x120x90mm, protection class IP67 or IP 68
Logger operating temperature	-40....+60°C
Internal memory	> 100 000 records
Measurement probes protection class	IP68

### FMR20 Modbus RS485 radar level probe ENDRESS+HAUSER

Level measurement range	0 – 10m
Level measurement accuracy	± 2mm
Operating frequency and transmission power	K-band ( 26GHz), at 1m distance: <12 nW/cm <sup>2</sup> , at 5m distance: <0.4 nW/cm <sup>2</sup>
Level measurement beam angle	12°
Level probe configuration	via any Bluetooth-enabled device running Android or Mac OS X
Communication	Modbus RS485

### RSS-2-300W GEOLUX radar velocity probe

Flow velocity measurement range	0.05 – 15m/s, flow measurement in two directions and flow direction detection
Flow velocity measurement accuracy	± 2% of the measured value or ±0.02 m/s, whichever is greater
Flow velocity radar range	max. 50m
Flow velocity probe operating frequency	K-band in the range of 24.125 – 24.200 GHz
Flow velocity probe beam angle	horizontal: 12°, vertical: 24°
Influence of device position on measurement	Built-in internal tilt sensor, automatic registration and compensation of angle change, optimal tilt angle in the range of 30-60°
Communication	RS232, RS485

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