meazon
measure | monitor | manage

Meazon MultiUtility Reader

Meazon MultiUtility Reader provides electricity utility meter data to the end user in real time over meter's standardized P1 port. It also reads water or gas meter pulses over its P2 port. Zigbee, Wifi or LTE connectivity makes this device very flexible to make it part of any energy management platform using Meazon's cloud GW API. Available for Single Phase and 3-Phase smart meters.

Architecture	ZigBee Mesh Network NB-IoT LTE CAT M1
Frequency band	Zigbee/Wi-Fi: 2.4 GHz NB-IOT: 20, 8, 3 LTE M1 : 13, 12, 5, 4, 2
Minimum Data reporting interval	5 Seconds (default 1 minute)
Data storage in the device	Yes
Security mechanism	AES encryption 128 bit for ZigBee. VPN for WiFi & NB-IoT
Enclosure certifications	UL746C f1 (UV stabilized enclosure) UL94 V-0 (Flame-retardant enclosure

State-of-the-art smart energy metering is necessary to reduce the waste of energy. EU regulations impose data acquisition from the utility smart meter in almost real time as this is the best way to minimize waste and enable new services for the users.

Description

Meazon's MultiUtility Reader provides a solution, in order to make consumed or produced energy data, available to the user (the data owner) in real time. The installation is easy, and the data are available with a call to the DSO to enable the data flow from the meter to the MultiUtility Rader over P1 interface. Instant energy attributes are available every 5 seconds, and Meazon device is reporting them on user configured report intervals (default 1 minute).

Meazon's MultiUtility Reader collects smart meter's data and makes them available to Meazon's cloud based, management platform. As data are reported from the official utility meter (billing grade) new services are made possible. The capacity to collect other utility data (e.g. gas or water) with a non-battery operated and easily maintainable device, increases the solution's flexibility and efficiency. Users obtain visibility to the usage of their energy resources, whereas new services are supported in an easy and affordable manner.

The open communication protocols allow the integration of P1 with other devices in a way that enhances Smart Home concept.

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ROHS

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Operating Voltage / Frequency	5 VDC
Battery	580mAh, 30minutes lifetime average no power

Electric parameters read	Irms, Vrms, Power factor Active Power & Energy, Reactive Power & Energy, line Frequency.
Build-in data log record	3000 records

Features / functionalities	**P1: Energy monitoring** Time, Logical device name, Serial number, Currently active tariff, Current breaker status, Limiter-for main disconnect, Active energy import, Active energy export, Instantaneous voltage, Instantaneous current, Instantaneous power factor, Instantaneous frequency, Instantaneous active import power, Instantaneous active export power
	P2: Pulse interface (m-bus optional) Incoming Pulse, Unit of Measurement, Pulse Ratio, Tamper Alarm, Number of Alarms

Wireless Coverage	Zigbee mesh topology, Wi-Fi or NB-IoT coverage
Dimensions	100 x 72,6 x 29,5mm
Operating environment	Temperature: -20° C to 60° C, optionally -35°C to 75°C Relative Humidity: 10% to 90% (RH), non-condensing