# Solar Water Distribution network Plug & Play Plus Kit



#### **Summary**

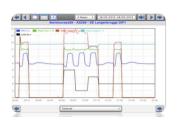
The Water distribution kit is the best tool to simplify and unify your Remote monitoring & Control of the entire water Distribution network.

### **Applications**

The Water distribution kit provides remote monitoring and control of water distribution station.

The kit enables reading water pressure in one or two points, read water flow and total water quantity on predefined periods of time, operates the valve and read back its status. The user can monitor also the quality of the water – CI concentration and pH.

The data is transferred via cellular network to RealiteQ cloud based SCADA.





## **Features**

- Remote monitoring to practically all parameters of Water distribution station.
- Latch Valve control (Open/Close)
- Can be used as stand-alone kit or can be connected to the RealiteQ web based complete SCADA solution,
- Integrate with 3rd Party software's (HMI, BI...)
- System status report in table and graphic forms.
- Alarming via e-mail and SMS; Alarm history
- · Real time & Historical data, trends,
- Support standard protocols
- Solar/battery powered fully independent from main electricity supply
- 2 Analog inputs for water pressure measurement, 3 analog inputs for water flow, CI concentration and pH sensors
- Digital input for valve status
- Digital output for valve open-close control.

#### **Optional**

- Can be set as "Monitoring only" Kit usually for security reasons.
- PLC and/or smart sensors can be connected via serial or Ethernet

#### About Reali Technologies Ltd

An Israeli leader in Industrial IoT, Telemetry, Cloud control & SCADA for energy, water, wastewater, agricultural and industrial applications. The firm operates it's **RealiteQ** platform to allow global operation of remote & secured sites in real time.

#### RealiteQ Technology Platform

A Real Time remote Control full cloud technology; 4<sup>th</sup> generation SCADA; Single source for end-to-end remote control systems; Low CAPEX & OPEX; Simple to operate and maintain; integrative with managerial/operational/Bi existing solutions; Highly secured; No software installation required; Multiplatform & mobile support; Unlimited (No. of user & remote sites), So called Real Time communication.

#### **CUSTOMER BENEFITS**

- Low CAPEX & OPEX
- No need of dedicated infrastructure.
- Maintenance is not required.
- Unlimited users & remote sites.
- One Stop Shop.

# **Economical Model**

- One time Payment for the kit (including Sim card)
- Yearly payment for SAAS (Including cellular Data Package)

#### Web Security

RealiteQ provides highly secured Cloud based solution. Reliable Service – Multiple hosting (US projects are connected to Amazon). Most advanced Security procedures are able FOC to full service).

# Solar Water Distribution network Plug & Play Plus Kit



## **Digital Inputs**

- 8 configurable digital inputs/outputs
- Valve status (open/close) input
- Optional water total pulse counter

## **Digital Outputs**

 Two digital outputs for latch valve control (pulse open/pulse close)

## **Analog Inputs**

- 8 analog inputs 0/4 20 mA; 10 bits
- Two inputs for water pressure measurement
- Water flow
- Cl concentration
- pH
- 3 additional analog inputs available for customer specific needs

#### **LED** indicators

- Modem connected to cellular network
- Modem connected to Internet
- PLC communication status
- Server communication status
- iCEX power supply

## **Solar Panel:**

Max Power at STC: 15W
Eff. Of cell: 16.8%
Optimum operating voltage: 8.88V
Optimum operating current: 1.69A

Item no.	Quantity	Description
1	1	THHLEP0296953 Battery assembly
2	1	THHLEP0296953 MSC assembly
3	1	PV-15W/PV (350*350*18)
4	80cm	PV Outdoor cable 2 wiers 1 mm <sup>2</sup>
5	3	Polyamid cable ST-M 1.5*12 Black
6	3	Aum Polyamid GMP 1.5*12 Black
7	100mm	Black wier 24AWG UL-1007/1569 T-105°C
8	100mm	Red wier 24AWG UL-1007/1569 T-105°C
9	1	Fuse Holder
10	1	Controller
11	3	Crimp Housing, Single Row, Version G, 2 circuits
12	6	SL™ Crimp Terminal 70058, 22-24 AWG
13	1	Enclosure, PC, High base, smoked transparent cover 225*180*125
14	2	Mounting plate for enclosure 180*130*
15	2	Neoprene gasket to PG13
16	2	Um Polyamide gray color to PG13
17	2	PG13.5

## **Power supply:**

- Solar panel type TPVM015009002
- Max. power at STC 15W
- Operating temperature -40 to +85 °C
- Dimensions: 350 x 350 x 18 mm
- Weight: 1.5 kg

### Cellular network

 Quad band 3G (850/900/1800/1900 MHz);
 SIM card interface (relevant SIM card and Data plan included)

## **Interface to optional PLC**

- Ethernet port supports Modbus IP and Siemens protocols
- Serial port RS232/485 supports Modbus RTU, DF1 and SNPX protocols

# **Physical Dimensions:**

For indoor or outdoor installation

### Kit Box:

- Dimensions: 250 x 180 x 130 mm
- Wall mounted mount brackets included.
- Environment protection according to NEMA class 1, 4, 4X, 6, 12, 13; (IP66)

## Junction Box:

- Dimensions 162 x 82 x 55mm
- Environment protection IP67

Cable length between Kit box and Junction box - 1.5 m.

