

WEx-S-02 water tank weight measuring system with external on- off switch



WEx-S-02 system is designed to automatically provide water supply using water wells and reservoirs. The system ensures optimal operation of pumps and maintenance of pressure at the outlet of the tanks.

WEx-S-02 system equipped with a timer module to ensure regular watering of plants using a remotely controlled sprinkler system.

WEx-S-02 system is intended to work with electric motor of a single water pump, connected directly to diesel electric generator operating in on/off mode.

The system consists of two main parts, supplied separately depending on the water supply scheme:

- 2 * EMS151-133.4kN strain gauge sensors for installation on water tank to monitor water level and pressure.
- CAB1-4C-65F-PM commutation cable
- SZZK timer relay module

The system provides outdoor operation, protected from rain, snow, sun and low temperatures.

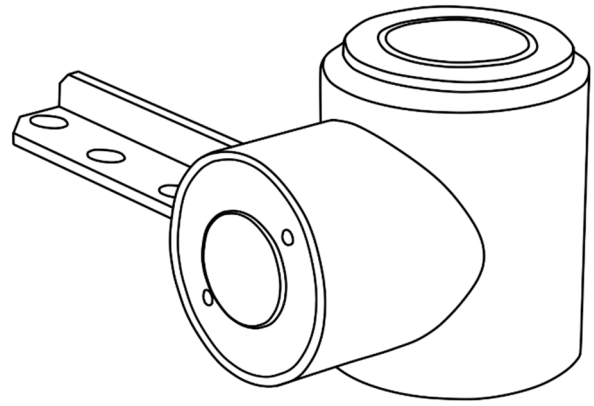
The system involves connecting third-party motors and power supplies equipped with standard 220-240V or 12-24V inputs.

WEx-S-02 is easy to install and maintain.

NOTE: WEX-S-02 WATER TANK WEIGHT MEASURING SYSTEM WITH EXTERNAL ON-OFF SWITCH COMPONENTS CAN BE SUPPLIED SEPARATELY.

Strain gauge sensor

EMS151-133.4kN strain gauge sensor is designed for organizing and automating water supply by means of an artesian well. The sensor is installed on the water tank of the water tower, allowing to automatically maintain the optimal water level and protecting the well pump.



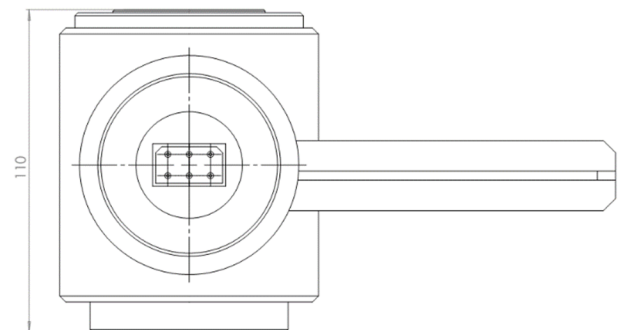
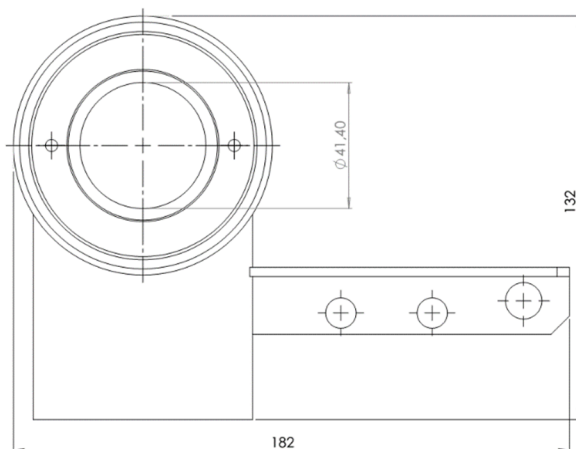
The sensor measures the weight of the water tank and controls the pump of the artesian well in the "on/off" mode

The sensor is made in a sealed housing, resistant to corrosion.

Set includes 2 * EMS151-133.4kN strain gauge sensors.

Specifications

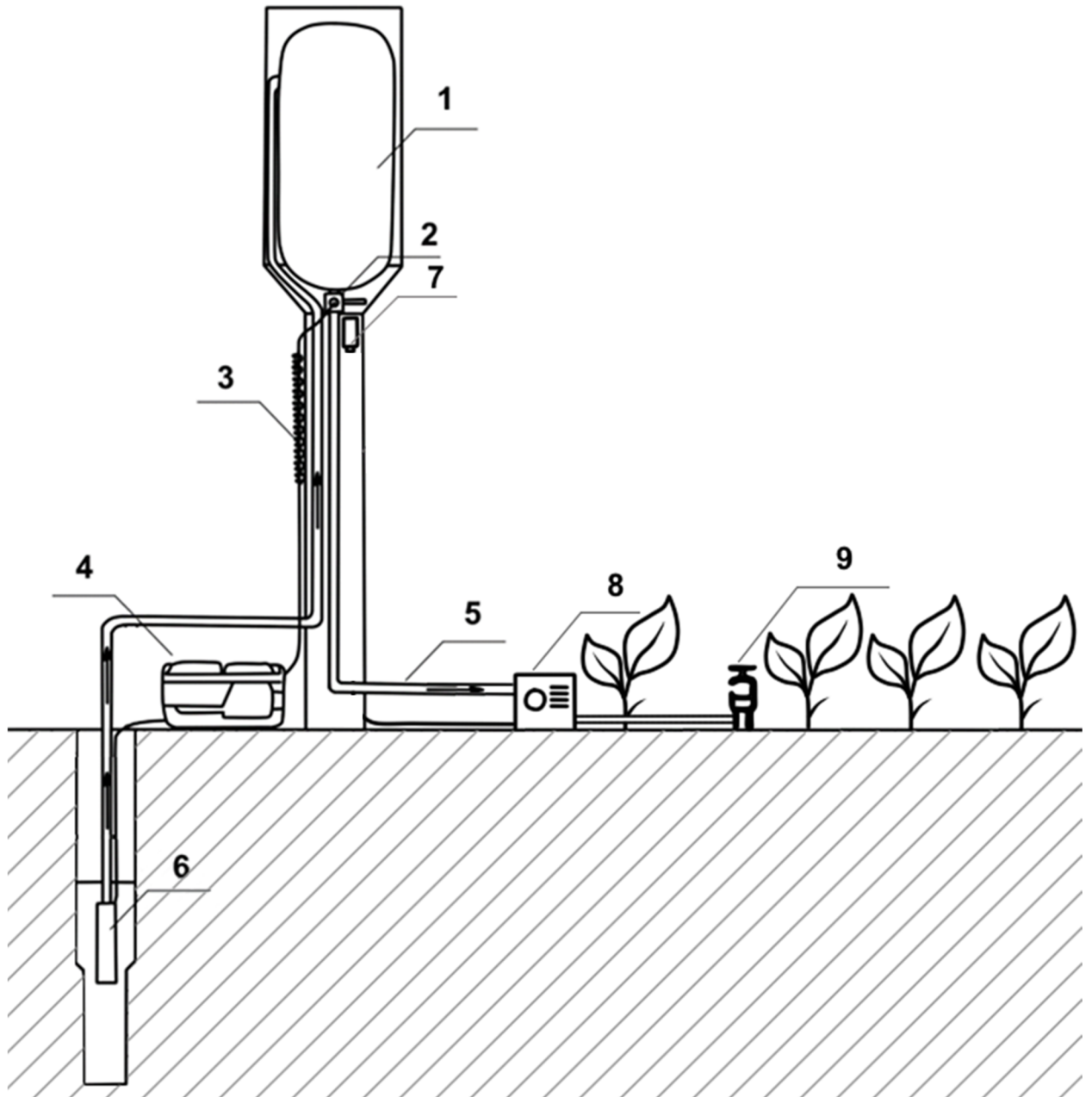
Working temperature	-40°C to +85°C
Humidity	0-100%
Cutoff level	1000kg 3000kg 5000kg 10000kg
Protection against external influences	IP65
Load measurement accuracy	0,5%
Working voltage	9-18V
Insulation resistance	> 5000 MΩ
Weight	3,00 kg



The sensor must be installed between the base and the water tank so that the full weight of the water tank falls on the sensor.

Depending on the installation location, it may be necessary to use the spherical washers supplied with the sensor in order to properly place the weight.

The sensor must be connected to the power supply of the submersible pump or directly to the pump by means of armored commutation cable, according to the wiring diagram.



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|-----------------|------------------------------|------------------------|
| 1 - Water tank | 2 - Strain gauge sensor | 3 - Pump control cable |
| 4 - Generator | 5 - Pressurized water outlet | 6 - Submersible pump |
| 7 - Timer relay | 8 - Remote control valve | 9 - Sprinklers |

The relay timer is installed on the strain gauge sensor in the corresponding socket and fastened by using the included coupling. The commutation cable from the timer relay is connected to the remote-controlled valve on the water outlet line from which water is supplied to the sprinklers.

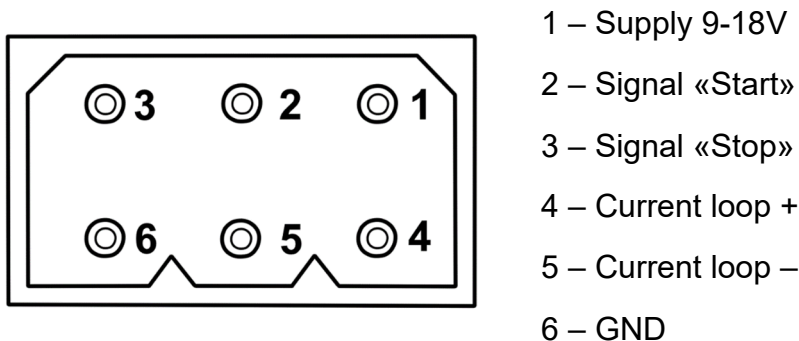
When installing the sensor, it is necessary to avoid skewing the water tank.

The commutation cable may be laid outdoors.

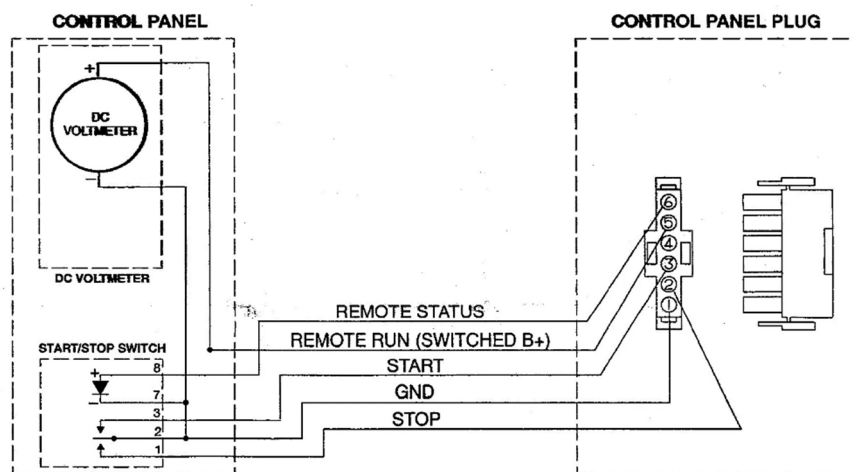
Kinking and sagging should be avoided when laying the cable.

If the pump is powered by a separate generator, do not connect the sensor power to the same generator.

The sensor carries out control in two ways - by separate signals "start" and "stop" and by means of an output of the "current loop" type, where - start - presence of current, stop - lack of current.



The pump-side connection is made according to the pump manual.

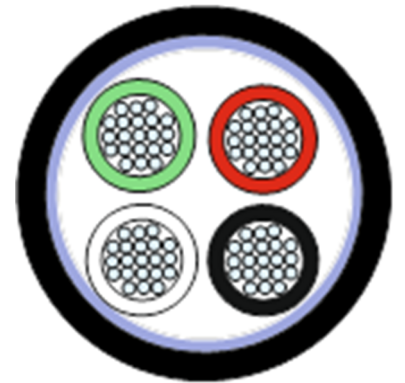
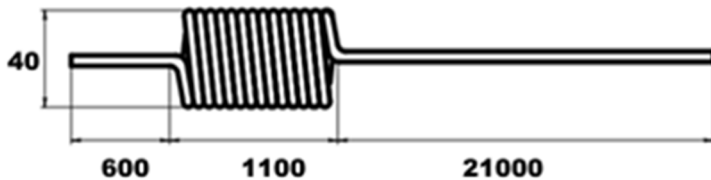


Commutation cable

An all-weather CAB1-4C-65F-PM cable is supplied with the tank full sensor for connection to the water pump motor control panel.

Construction of cable is straight part at a certain place turns into spiral(optional) and then again to the straight. The cable consists of 4 tinned copper conductors in tinned copper shielding with optical coverage 95%. On one side of cable is mounted Molex 03-09-1064 connector, on the other side are 4 wires and shielding.

Cable is intended for outdoor use.



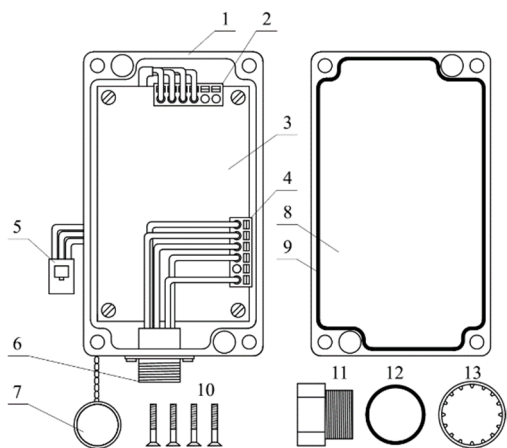
SZZK timer relay

Timer relay module serves to expand the capabilities of the automatic water supply system, providing the ability to automatically water plants using a system of remotely controlled sprinklers on a schedule or at specified periods of time.

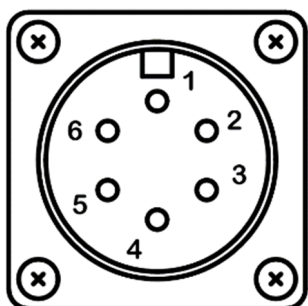
The module is intended for installation outdoors in conditions of high humidity and possible water splashes.

When installing, all joints must be coated with silicone sealant





1 – Case; 2 – Contacts for connecting to strain gauge sensor; 3 – Relay timer board; 4 – Contacts for connecting to the remote-control socket; 5 – Connector for connecting to a strain gauge sensor; 6 – Remote control socket; 7 – Connector cover; 8 – Case cover; 9 – Seal; 10 – Screws for fastening the cover; 11 – Bushing; 12 – O-ring; 13 – Grover washer



Pin	Net
1	VCC+
2	VCC-
3	Valve control loop +
4	Valve control loop -
5	Programmable port RX
6	Programmable port TX

(To be filled in upon sale)

Serial number

Date of manufacturing

Date of sale

(stamp of manufacturer)

(stamp of distributor)

If the device does not meet or ceases to meet the declared characteristics during the warranty period (10 years from the date of manufacture or 5 years from the date of sale by the distributor), the manufacturer undertakes to replace the device with a serviceable one.

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