



PRODUCT NAME : 8v-12v Small DC Submersible Water Pump for Arduino/Raspberry-Pi/Robotics

PRICE : Rs 230.00
SKU : RM0759



DESCRIPTION

A submersible pump (or sub pump, electric submersible pump (ESP)) is a device which has a hermetically sealed motor close-coupled to the pump body. The whole assembly is submerged in the fluid to be pumped. The main advantage of this type of pump is that it prevents pump cavitations', a problem associated with a high elevation difference between pump and the fluid surface. **Small DC Submersible water pumps** push fluid to the surface as opposed to jet pumps having to pull fluids. Submersibles are more efficient than jet pumps.

Working principle:-

- The submersible pumps used in ESP installations are multistage centrifugal pumps operating in a vertical position.
- Although their constructional and operational features underwent a continuous evolution over the years, their basic operational principle remained the same.
- Produced liquids, after being subjected to great centrifugal forces caused by the high rotational speed of the impeller, lose their kinetic energy in the diffuser where a conversion of kinetic to pressure energy takes place. This is the main operational mechanism of radial and mixed flow pumps.
- The pump shaft is connected to the gas separator or the protector by a mechanical coupling at the bottom of the pump. Well fluids enter the pump through an intake screen and are lifted by the pump stages.
- Other parts include the radial bearings (bushings) distributed along the length of the shaft providing radial support to the pump shaft turning at high rotational speeds.

Applications:-

- Single stage pumps are used for drainage, sewage pumping, general industrial pumping and slurry pumping.
- They are also popular with pond filters.
- Multiple stage submersible pumps are typically lowered down a borehole and used for water abstraction, water wells and in oil wells.

Special attention to the type of ESP is required when using certain types of liquids.

Pumps used for combustible liquids or for water that may be contaminated with combustible liquids must be designed not to ignite the liquid or vapors.

ADDITIONAL IMAGES

