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Operating instructions



The unit complies with the corresponding EU guidelines



Fig. 1: Water pump for experiment chamber and ecosystem 64837-10.

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1 SAFETY PRECAUTIONS



- Carefully read these operating instructions completely before operating this instrument. This is necessary to avoid damage to it, as well as for user-safety.
- Ensure that the mains voltage specified on the rating plate of the appliance matches that of your mains supply.
- Only use the instrument for the purpose for which it was designed.
- Do not start up this instrument should there be visible signs of damage to it.
- Corrosive, highly flammable, aggressive or explosive pumped liquids (such as petrol, petroleum or nitro thinner), salt water and foodstuffs must not be pumped. The temperature of the pumped liquid must not exceed 35 °C.

2 PURPOSE AND CHARACTERISTICS

The water pump is suitable for use with the PHYWE experiment chamber and the PHYWE ecosystem, e.g. for setting up a greenhouse. The soil moisture is measured with the SMARTsense Soil Humidity Sensor and the water supply is controlled by the water pump via the SMARTsense Code controller.

3 NOTES ON OPERATION



This high-quality instrument fulfills all of the technical requirements that are compiled in current EC guidelines. The characteristics of this product qualify it for the CE mark.

This instrument is only to be put into operation under specialist supervision in a controlled electromagnetic environment in research, educational and training facilities (schools, universities, institutes and laboratories). This means that in such an environment, no mobile phones etc. are to be used in the immediate vicinity. The individual connecting leads are each not to be longer than 2 m.

The display may go outside of the given tolerances when the instrument is used in the vicinity of fields from strong high frequency emitters (e.g. radios). ESD's (electrostatic discharges), bursts of energy (rapid interference signals from the line) and high frequency fields can cause changes to the operating mode of the instrument and the loss of data. The following measures reduce or do away with disturbances: Avoid fitted carpets; ensure potential equalization; carry out experiments on a conductive, earthed surface, use screened cables, do not operate high-frequency emitters (radios, mobile phones) in the immediate vicinity. After a total blackout, carry out a "Reset" (new start) of the complete system.

4 TECHNICAL DATA

- Power supply: 5.5 - 12 V
- Output: 1 - 3 W
- Hmax: 0.4 - 1.5 m
- Qmax: 200 l/h
- 4 mm plug for connection to a power supply
- Cable length: 135 cm

5 WASTE DISPOSAL

The packaging consists predominately of environmentally compatible materials that can be passed on for disposal by the local recycling service.



Should you no longer require this product, do not dispose of it with the household refuse. Please return it to the address below for proper waste disposal.

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