



# RSE-A

## User manual





## Preface

Thanks for choosing our products and this manual is suitable for water sensor RSE-A. This manual contains important safety and operation instructions. Read it before any operation/installation and keep it well for future reference.

Product installation and maintenance need to be conducted by a well trained technician or electrician. Please pay more attention to below items:

1. Please use correct voltage to power this product
2. Please insure DC positive and negative are connected correctly. No reverse polarity connection is allowed
3. Please use power cable as short as possible for connection and ensure all connection is well
4. Only TBB engineer or authorized electrician can open the case.



**All products has been well inspected before delivery from manufacturer. If there is faulty for example housing swelling is found when open product box, please contact TBB or TBB's re-seller immediately. The environment condition will also has influence to product performance, please make sure product is used in proper environment condition**

**Remarks: As continuous update on product, this manual might not reflect latest version of product. Please contact TBB or TBB's re-seller if wants to learn most update on product**

## Context

|                                     |   |
|-------------------------------------|---|
| 1. General Safety Instruction ..... | 1 |
| 1.1 Safety instruction.....         | 1 |
| 1.2 General Precaution.....         | 1 |
| 2. Product introduction .....       | 2 |
| 2.1 General introduction.....       | 2 |
| 2.2 Features.....                   | 2 |
| 2.3 Product outlook.....            | 2 |
| 2.4 Dip switch .....                | 3 |
| 3. Installation.....                | 4 |

# 1. General Safety Instruction

## 1.1 Safety instruction

- Please read this manual and remark, sticker on product before installation or operation
- Please abide by required electrical safety procedure and requirement to prevent any damage or injury. Safety instruction in this manual is not equal to these safety procedure and requirement
- Manufacturer takes no responsibility for any consequence of break above safety procedure or requirement
- A warning mark as below represents potential risk or important information



Warning: The operation is critical to system running, please be careful before operation

## 1.2 General Precaution

- Do not expose product to dust, rain, snow or liquids of any type, it is designed for indoor use
- To avoid fire and electric shock, make sure all cables selected with right gauge and being connected well. Smaller diameter and broken cable are not allowed to use

## 2. Product introduction

### 2.1 General introduction

RSE-A is TBB's water sensor with capacitive technology. As part of functions of TBB's system solution, RSE-A has been widely used in recreational vehicle, marine, special vehicle etc. As a electronic type water sensor, RSE-A is able to provide precise water level measurement: every 5% as an interval. RSE-A is also with good performance on anti-interference so it's suitable for application of fresh/clean, grey and black water.

### 2.2 Features

- 1) With one I/O communication port for series connection
- 2) 12V power and working voltage is 9.6-16.0Vdc
- 3) Power consumption is less than 20mA
- 4) Working temperature: 0~85℃
- 5) IP rating: IP65

### 2.3 Product outlook



Fig.2-1 Product outlook

## 2.4 Dip switch

There are three dip switches on product, which used for identification in the same system



*Fig.2-2 Dip switch*

*Table 2-1 Dip switch and its definition*

| Water tank No.  | Dip switch        | Definition   |
|-----------------|-------------------|--------------|
| Water tank No.1 | OFF OFF OFF (000) | Clean tank 1 |
| Water tank No.2 | OFF OFF ON (001)  | Gray tank 1  |
| Water tank No.3 | OFF ON OFF (010)  | Black tank 1 |
| Water tank No.4 | OFF ON ON (011)   | Clean tank 2 |
| Water tank No.5 | ON OFF OFF (100)  | Gray tank 2  |
| Water tank No.6 | OFF ON ON (101)   | Black tank 2 |
| Water tank No.7 | ON ON OFF (110)   | Clean tank 3 |
| Water tank No.8 | ON ON ON (111)    | Gray tank 3  |

### 3. Installation

1. Drill a hole at the cover of service open. The hole dimension can be referred to as below

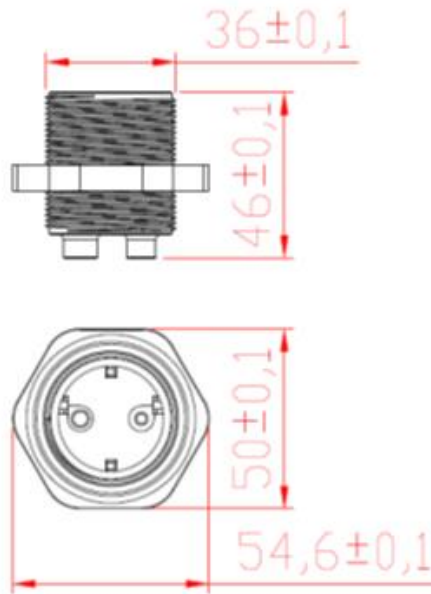


Fig.3-1 Dimension of RSE-A screw and nut (Unit:mm)

2. Pass RSE-A through that hole on service open from bottom to up



Fig.3-2 Pass RSE-A through the hole on service open

3. Pass screw cap of RSE-A through cable and fix it with thread body



Fig.3-3 Pass screw cap of RSE-A through the cable

4. Well fix the screw cap with thread body by proper tool to prevent any leakage or loose

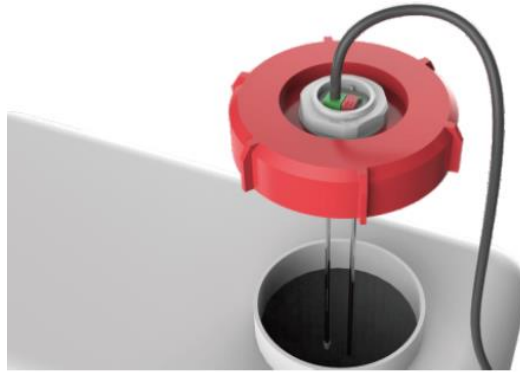


Fig.3-4 Fix screw cap with thread body

5. Also fix cover of service open back. The installation of RSE-A is finished

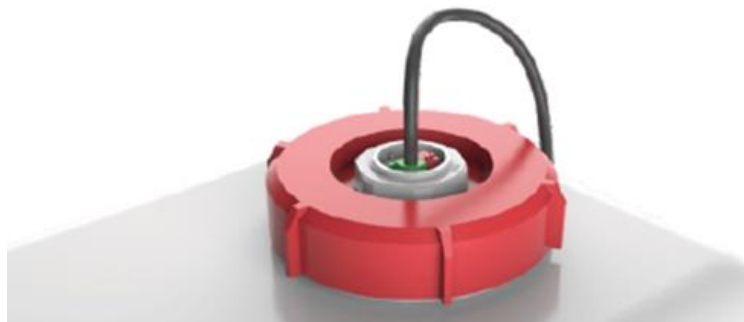


Fig.3-5 Fix back cover of service open

**Remarks**

- 1) Please keep installation of RSE-A away from water inlet with distance at least 10cm. Or it will cause measurement is not accurate
- 2) Please don't remove or damage tube plastic tube on probe, or it will cause malfunction of product
- 3) Please make sure dip switch at the top of product is in right position. The dip switch location has been applied glue for water proof
- 4) The probe length has been calibrated by manufacturer before delivery to customer. It's not allowed to cut probe length by user



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