

# HOCHIKI MARINE APPROVED ESP SENSOR RANGE INSTALLATION INSTRUCTIONS



**Products Covered: ALG-EM, ACB-EM, YBN-R/3M, YBO-R/SCIM**

## Introduction

The analogue Sensors listed above use a Common Mounting Base (YBN-R/3M), which is electronics free, and the Short-Circuit Isolator Base (YBO-R/SCIM). The ACB-E polling LED can be turned off at the Control Panel (Control Panel compatibility needs to be checked to verify if this facility is supported). Follow the guidelines below before installation and maintenance. Hochiki cannot guarantee a sensor's performance if these guidelines are not followed.

## Caution

Hochiki Marine Approved ESP Range of Sensors cannot be used to prevent fire itself, they are only intended to detect certain characteristics of fire. The ACB-EM sensor is used to detect conditions and changes in temperature and cannot detect smoke and other phenomena. When installing the sensor, check that the location of each one has been planned according to appropriate fire regulations or recommendations. Please note that the ACB-EM Multi-Heat Sensor default mode is optical/heat, if this sensor is to be programmed to change modes i.e.: - optical to heat then the ACB-EM should be spaced as a standard Heat Sensor. The sensor and base combination should be installed to the following guidelines:

- Ensure the Sensor and Base are both installed in accordance with Local Standards or Regulations.
- Sensor and Base combinations should only be installed where ambient temperatures are between -10°C to +50°C (-10°C to +70°C for ACB-EM) and where the condensation and moisture levels are between 10% to 95% RH – Non-condensing (at 40°C).
- Only install in suitable environments, the following should be avoided.
  - Situations in which condensation exists.
  - Situations in which corrosive gases exist.
  - Situations in which dust or steam exists.
  - Situations in which obstacles exist, which could impede airflow to the sensor.
  - Hazardous areas.
- Do not use a high voltage tester on any Sensor or any Base with electronics (YBO-R/SCIM).

Certain actions can cause permanent damage to the sensor. If the sensor is subjected to any of the following it should not be used:

- Disassembly and re-assembly.
- Impact or shock.
- Touching the thermistor (ACB-EM Heat sensor only).

If damage is suspected after a fire has occurred, the sensor should be replaced. After installation, all sensors on the fire alarm system should be tested to confirm correct operation. Installation and maintenance should only be carried out by suitably trained engineers. Sensor operation should not be tested with a naked flame or open fire. Operation should only be checked by equipment that is capable of exceeding the required detection threshold.

The sensor must be subject to periodic maintenance during regular service visits. This period should be outlined in the appropriate standards or recommendations. If there are no such standards existing, Hochiki recommend that the minimum period of maintenance should be 1 year and that the following should be taken into account:

- A regular operation test should be performed.
- A visual check for staining and mechanical damage should be made.

A dust cover is included with the sensor to prevent contamination during installation. **The dust cover must be removed for the sensor to operate.**

## Setting the Address

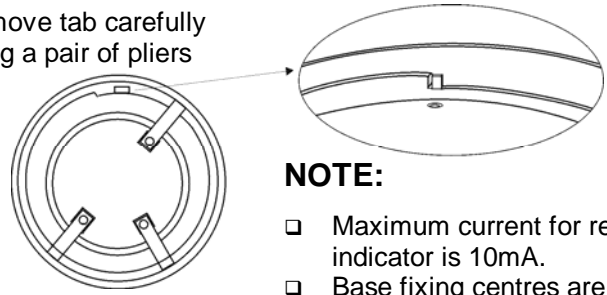
Each sensor must have its address set before system operation. Using the installation plan that shows the proper location for each sensor, find the address for the sensor to be installed. Check that the address and location on the plan match correctly. Address is any number from 1 to 127. For address setting, use the address programmer and write the number on the label of the sensor after setting. When changing addresses, renew the number on the label. See the TCH-B100 device address programmer instructions for further details of the address setting method.

## Wiring and Head Locking Mechanism

The bases should be wired as shown in Fig 2 below. The ESP Marine Approved Range of Sensors can also be locked onto the relevant base by removing a plastic lug on the underside of the sensor, please refer to Fig 1. The Sensor can then be removed by using a special Removal Tool (TSC-A100/ALG), which is available from Hochiki Europe (UK) Ltd.

Fig.1

Remove tab carefully using a pair of pliers



### NOTE:

- ❑ Maximum current for remote indicator is 10mA.
- ❑ Base fixing centres are 48mm to 74mm
- ❑ Maximum wire thickness is 2.5mm<sup>2</sup>/terminal

A: Loop (+) B: Loop (-) C: Cable Screen

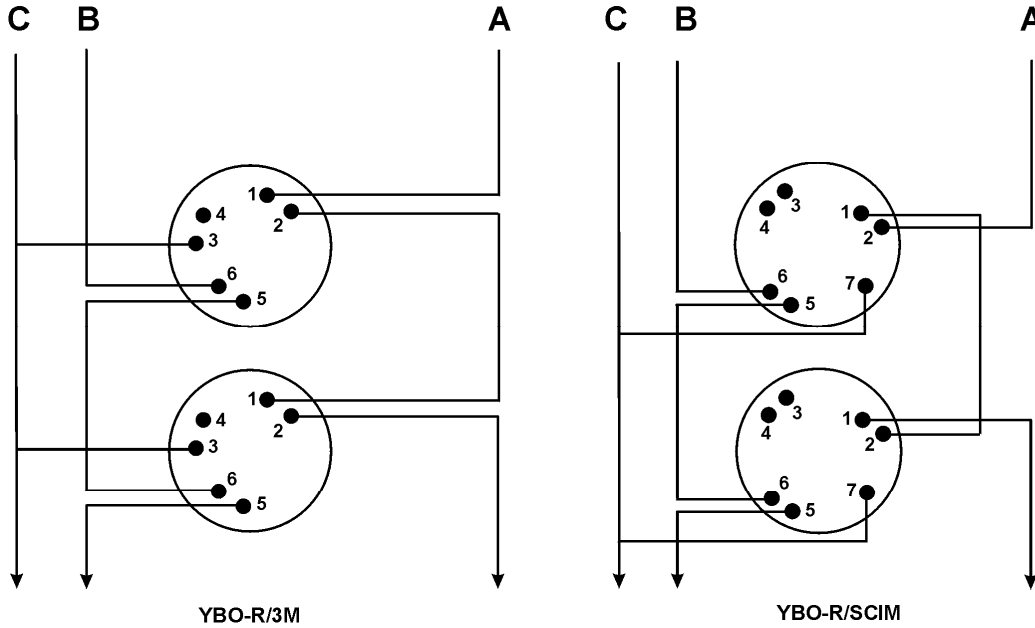
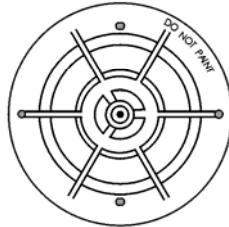
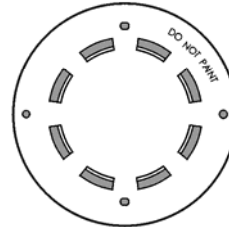
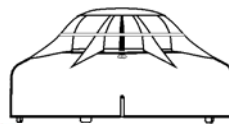


Fig.2

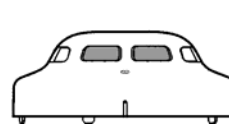
## ESP MARINE RANGE SENSORS



ANALOGUE HEAT SENSOR  
ACB-EM



ANALOGUE PHOTO-ELECTRIC  
SMOKE SENSOR - ALG-EM



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