



The main purpose of these instructions for RAV group of products is explaining how to make and assure the correct installation of the products in order to avoid corrosion effect which could later on cause complete malfunction of the products.

We have experienced that main corrosion effect is caused by so called "galvanic" type of corrosion. This type of galvanic corrosion is caused by metal contact between sensor's housing and other metal (e.g. inner wall or plate of heat exchanger) in the presence of water. Metal contact between sensor's housing and other metal causes galvanic cell, which is a "perfect condition" for previously mentioned corrosion (especially when we have a contact of two different metals). Final effect of corrosion is "broken housing" and lost charge (gas). When charge is partly or completely gone, product is not able to provide its specified performance.

Water flow and resulting vibrations in the system can result in so called hammering of the sensor against adjacent metals, which even mechanically accelerates the whole corrosion phenomena.

Please consider the following recommendation supported by relevant figures before you make final installation of RAV products.

- Install sensor part as shown on **figure 1** in order to assure at least 5 mm distance between sensor housing made of brass and other metal parts.
- Consider adequate distance over the whole side length and end part of the sensor (**figure 1**).
- Assure that sensor is properly fixed; larger dimension of capillary tube has to be fixed with stuffing box (2 washers with rubber gasket in between, tightened with screw), (**figure 1**).

- By installation shown on **figure 1** you also assure the optimal arm (distance between stuffing box where sensor is fixed and end part of the sensors inserted in the media in heat exchanger or boiler) which will reduce the risk of vibrations which could cause a metal contact.
- Please avoid installation which is shown on **figure 2** (thinner diameter of capillary tube fits in stuffing box, longer arm etc.).
- If you can not avoid or at least you assume the possibility of metal contact, than you have to use a protecting pocket (sleeve) made of stainless steel (**figure 3**). By using this standard type of accessory you will be faced with longer response time of RAV's performance due to slower heat transition.