PH10/ORP10
BVI Adapter Kit

Kit Part Numbers: BS811HZ, BS811JC, BS810FB, and BS810FA

Purpose

This kit contains parts to enable the replacement of an 871A or 871PH sensor with a DolPhin™ PH10 or ORP10 sensor in an existing ball valve insertion assembly.

Kit Inventory

These kits are for use as follows:

<table>
<thead>
<tr>
<th>Kit</th>
<th>Sensor Being Replaced</th>
<th>Existing BVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS811HZ</td>
<td>871A</td>
<td>BS806AN (316 ss)</td>
</tr>
<tr>
<td>BS811JC</td>
<td>871A</td>
<td>BS806EP (titanium)</td>
</tr>
<tr>
<td>BS810FB</td>
<td>871PH</td>
<td>BS805JN (316 ss)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BS805JP (316 ss)</td>
</tr>
<tr>
<td>BS810FA</td>
<td>871PH</td>
<td>BS805JQ (titanium)</td>
</tr>
</tbody>
</table>

Each kit contains a BVI Adapter, a sensor O-ring, silicone O-ring grease, Instruction MI 611-209, and MSDS 140. Kits for 871PH sensor replacement also contain a replacement shaft O-ring.

Spare O-rings can be ordered separately as follows:
- For Kit BS811HZ and BS811JC: Sensor O-ring 2800122
- For Kit BS810FB and BS810FA: Sensor O-ring 2800714 and Shaft O-ring X0145NN.

Installation

--- NOTE ---
1. Insertion depth increases 6.4 cm (2.5 in) when replacing an 871A sensor. There is no change in insertion depth when replacing an 871PH sensor.
2. These adapter kits are not compatible with Variopin quick disconnect connectors.
1. Remove the shaft assembly with the sensor from the ball valve. For the proper procedure refer to MI 611-164 (for 871A) or MI 611-148 (for 871PH).

2. Lubricate the sensor O-ring and place it in the groove closest to the cable end of the sensor as shown in Figure 1 or 2. For an 871PH sensor, replace the shaft O-ring also.

3. For 871A sensors, wrap the 1 NPT thread of the adapter and the 3/4 NPT thread of the sensor with Teflon® tape.
   For 871PH sensors, wrap the 3/4 NPT thread of the sensor with Teflon tape.

4. For 871A sensors, screw the adapter into the shaft and tighten as required.
   For 871PH sensors, screw the shaft into the adapter and tighten as required

5. Insert the cable end of the sensor into the adapter. Screw the sensor into the adapter and tighten as required.

   **NOTE**
   To prevent the cable from twisting, it is recommended that this be done by holding the sensor and turning the adapter.

6. Install the shaft assembly with the new sensor into the ball valve. For the proper procedure, refer to MI 611-164 (for 871A) or MI 611-148 (for 871PH).

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**Figure 1. Installation When Replacing an 871A Sensor**

**Figure 2. Installation When Replacing an 871PH Sensor**