Introduction
This publication details part numbers and installation procedures for sensor flow cell mounting accessories for use with 100 GP, 100 ULTRA and 500 PRO series ¾ in pH/Redox (ORP) sensors.

For more information
Publications for the associated sensors and transmitters are available for free download from:

www.abb.com/measurement

or by scanning this code:
1 Safety

Potential safety hazards

The sensor operates on 3.3 V DC. There are no hazardous voltages present in the sensor.

**WARNING**

Before removing a sensor from the process, installing accessories or re-installing, reduce process pressure to zero and ensure the sensor is cool enough to handle.

**WARNING**

Potential high pressure/high temperature

- These procedures must be carried out by suitably trained personnel and in accordance with any local regulations and practices.

2 Specification

Flow cell materials

- Stainless steel flow cell (3KXA163000L0011)
  - 316 stainless steel
  - 30% GF polypropylene
  - Nitrile
- Plastic flow cell (3KXA163000L0012)
  - 30% GF polypropylene
  - ABS
  - Nitrile
- Calibration kit (3KXA163000L0120)
  - 316 Stainless steel
  - Polypropylene

Flow cell process pressure

Maximum operating process pressure: 6 bar (87 psi)

Flow cell process temperature

Maximum operating process temperature: 100 °C (212 °F)

3 Accessory part numbers/kits

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<tr>
<th>Description</th>
<th>Part number</th>
<th>Qty</th>
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<tbody>
<tr>
<td>NPT plastic flow chamber assembly + ¼ in adapter</td>
<td>3KXA163000L0012</td>
<td>1</td>
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<tr>
<td>NPT stainless steel flow chamber assembly + ¼ in adapter</td>
<td>3KXA163000L0011</td>
<td>1</td>
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<tr>
<td>Pack of flow cell o-rings (2 off)</td>
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<td>1 pack</td>
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<td>Flow cell plastic ¼ in NPT adapter</td>
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<td>Flow cell plastic locking ring</td>
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Table 1 Plastic and stainless steel flow chamber for 100 and 500 series sensors
4 Overview

A Flow cell plastic locking ring
B Flow cell plastic ¾ in NPT Adapter
C Flow cell bracket
D Pack of flow cell O-rings (2 off)
E Flow cell chamber body (plastic or stainless steel)
F Flow cell plastic baseplate
G Optional calibration kit

Figure 1 Flow chamber overview

5 Dimensions

Figure 2 Flow chamber dimensions
### 6 Installation

**WARNING**

Before proceeding, reduce process pressure to zero and ensure the local components are cool enough to handle.

Referring to Figure 3:
1. Insert sensor A into flow chamber B and screw into place until hand-tight.
2. Make process connections both sides C and D of flow chamber B using ½ in NPT connectors (not supplied).
3. Prepare the sensor for operation – refer to Operating Instruction OI/100/500-EN.
4. Bring the process back to operational state.

![Figure 3 Installing the flow chamber](image)

### 7 Maintenance

**WARNING**

Before proceeding, reduce process pressure to zero and ensure the local components are cool enough to handle.

Referring to Figure 3:
1. Remove sensor A from flow chamber B.
2. Disconnect process connections both sides C and D of flow chamber B.

Referring to Figure 4:
3. Unscrew both flow cell locking rings A.
4. Clean the flowcell B using a soft cloth.
5. If necessary, remove and clean bracket C.
6. If fitted, remove and clean optional calibration kit G.
7. Before re-assembling, ensure O-rings D are located correctly on base plate E.
8. Tighten flow cell locking rings A until hand-tight.
9. Refer to Section 6 to refit the sensor and bring the process back to operational state.

![Figure 4 Cleaning the flow chamber](image)