

Assembly for pH/Redox Measurement *OPA 111*

Immersion and process assembly for open and closed tanks with DN 100 flange



OPA 111 with flange DN 100



OPA 111 with adjustable flange

Areas of application

The immersion and process assembly OPA 111 is intended for universal use in wastewater/water treatment as well as process applications. It is suitable for elevated pressures of up to 4 bar. The bayonet mounting method allows the electrodes to be installed and removed quickly and conveniently. A chemical electrode cleaning system can be integrated without the need to convert the assembly. A whole range of accessories is available: wet bucket, KCl reservoir, calibration cap, mounting frame and adapter for adjustable flange.

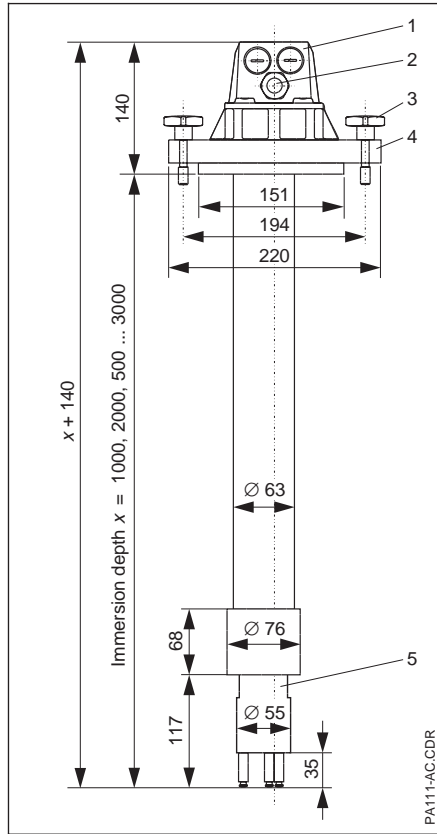
Features and benefits

- Made of environmentally compatible polypropylene material
- Robust construction; can be used with pressures of up to 4 bar
- Flexible immersion depth thanks to adjustable flange; additional bayonet locking mechanism assures easy installation and removal of assembly
- Simple installation and removal of electrode holder due to bayonet lock mounting method
- Three mounting positions for pH/redox electrodes and temperature sensors in standard length of 120 mm
- All accessories can be retrofitted without the need to convert the assembly.

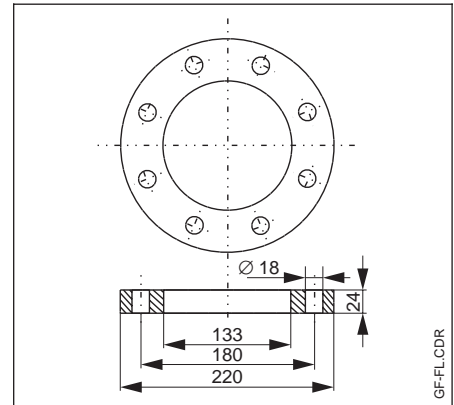
Versions and mounting types

- left:*
 OPA 111-A/C
 1 Assembly head
 2 Pg 13.5
 3 Star handle screws
 4 DN 100 flange
 5 Electrode holder

right:
 DN 100 pressurized flange for OPA 111-C (max. 4 bar)

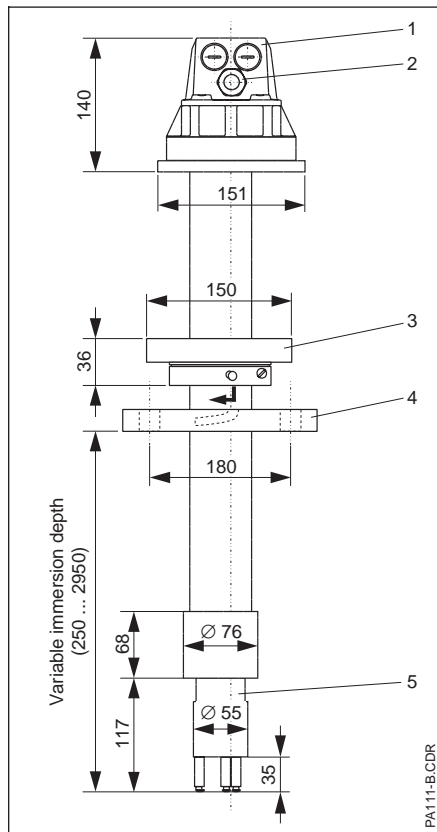


Mounting of the assembly is possible by means of a standard DN 100 flange (mounting type A). The assembly can be attached to a mounting frame by the additional captive star handle screws, allowing convenient installation on basin or channel walls. A special DN 100 pressurized flange is used to install the assembly in closed tanks with pressures of up to 4 bar (mounting type C).

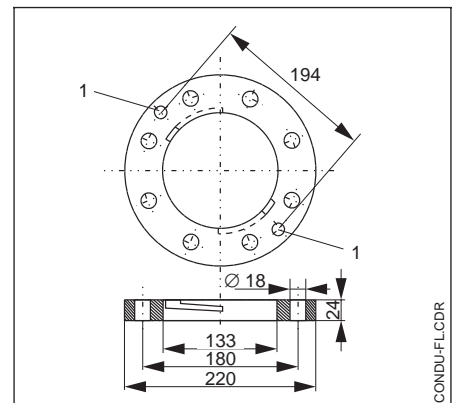


- left:*
 OPA 111-B
 1 Assembly head
 2 Pg 13.5
 3 Adjustable flange
 4 DN 100 flange
 5 Electrode holder

right:
 DN 100 flange for OPA 111-A/B
 1 Through holes for captive star handle screws

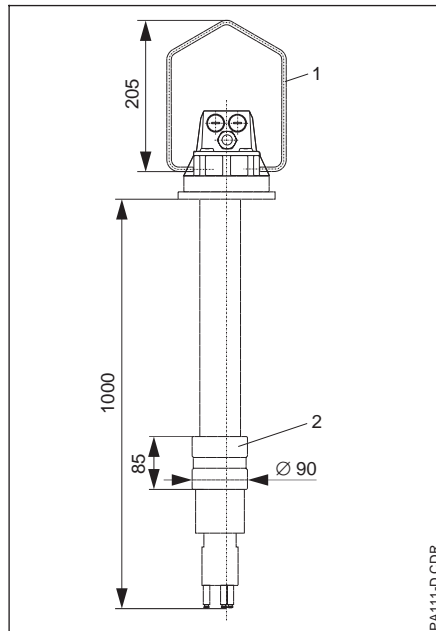


The adjustable flange (mounting type B) can be used to adapt the immersion depth to local conditions. The adapter for adjustable flange is firmly attached in the desired position on the immersion tube. The bayonet lock integrated within the flange allows easy installation and removal of the assembly without the need to dismantle the flange.



Versions and mounting types (continued)

- OPA 111-D
 1 Suspension bracket
 2 Weight (half-shells)



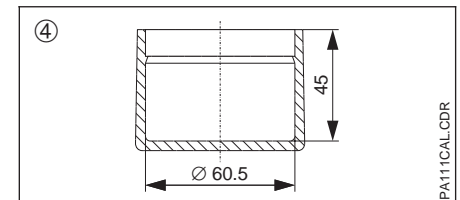
The suspended version of the OPA 111 (mounting type D) can be installed in immersion tanks using assembly holder OYH 101.

The assembly length is fixed to 1 m. The suspension bracket is made of stainless steel 1.4571 (AISI 316Ti). Different immersion depths are possible when used in conjunction with a suspension chain.

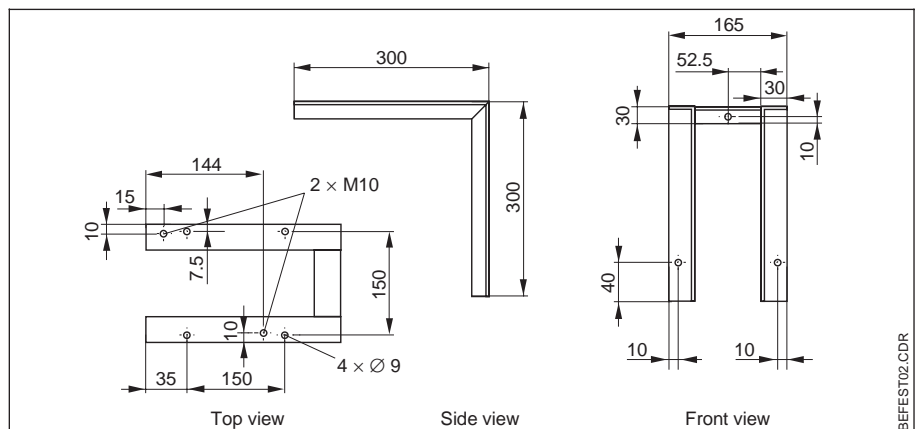
Accessories

- ❑ Spray head OPR 30; can be retrofitted, does not require conversion of assembly
- ❑ Wet bucket; can be used for installation in open channels, keeps electrodes wet at all times (order no. 50066569)
- ❑ Electrolyte vessel OPY 7 for supplying liquid-filled electrodes with KCl electrolyte; max. usable volume 200 ml
- ❑ Calibration cap for calibration of electrodes, easily installed (order no. 50066570)
- ❑ Mounting frame for installation on basin or channel walls; for mounting versions A and B (order no. 50066561)
- ❑ Adapter for adjustable flange to adjust immersion depth (order no. 50070514)

- ① Spray head OPR 30
 Material: PP
- ② Electrolyte vessel OPY 7
- ③ Wet bucket
 Material: PP
- ④ Calibration cap
 Max. filling volume: 70 ml
 Material: PP



- Mounting frame
 Material:
 stainless steel 1.4301
 (AISI 304)



Technical data

Mounting	
Version A	DN 100 flange, with additional captive star handle screws
Version B	adjustable flange DN 100
Version C	DN 100 pressurized flange
Version D	suspension bracket; material: stainless steel 1.4571 (AISI 316Ti)

Materials in contact with medium	
Electrode holder	PP-GF 20
Immersion tube	PP
Potential matching pin	stainless steel 1.4571 (AISI 316Ti)
O-ring	EPDM

Additionally for version D:

Half-shells	grey cast iron, coated with PVC
Cable clamp	stainless steel 1.4401 (AISI 316), plastic-coated

Operating pressure and temperature	
Versions A, B, D	unpressurized, 80 °C
Version C	4 bar at 0 °C, unpressurized at 80 °C

Measures and weight	
Cable gland	1 x Pg 13.5, 2 x Pg 16
Number of electrodes	max. 3
Electrode length	120 mm
Immersion length	standard: 1000, 2000 mm; special length: 500 ... 3000 mm
Required cross-section	DN 100
Weight	approx. 4 kg

Fax ++49 (7156) 26571

Subject to modifications.

Product structure

Immersion assembly OPA 111					
<p>Length of the assembly</p> <p>0 1000 mm 1 2000 mm 2 500 ... 3000 mm (A, C only)</p>					
<p>Material</p> <p>0 Assembly of PP, seal of EPDM</p>					
<p>Mounting types</p> <p>A DN 100 flange of PP-GF 20, unpressurized B DN 100 adjustable flange of PP-GF 20, variable adjustment of immersion depth C DN 100 pressurized flange, max. 4 bar D Suspension bracket of stainless steel 1.4571 (AISI 316Ti) (1000 mm only)</p>					
OPA 111-	<table border="1"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p>complete order code</p>				