The POC-7D and POC-95D are detectors that combine a polarographic DO (dissolved oxygen) electrode holder and pulse air jet cleaner as a single unit.

- The pulse air cleaning system cyclically blows intermittent emission of compressed air onto the sensitive part of the electrode in the sample water. Efficient cleaning and removing the foul matter of sensitive part can be done by the high speed water flow produced by the rapid expansion of the pulse-jet compressed air. In addition, this water flow and contained air bubbles removes crystalline scale, such as a hydroxide, from the sensitive part of the electrode.

- This system is also effective in removing the foul matter produced by organic substances and microorganisms at not only wastewater treatment plants, but also sewage treatment plants. As a result, cleaning of electrode become easily.

- There are two main types: the immersion type for depths of up to 3 meters (POC-7D), and the drop-in type for deep tanks (POC-95D).

- Compressed air can be externally supplied by a plant air system installed at the plant. If no plant air system is available, internal air pump to supply compressed air can be provided as an option.

- Internal timer for cleaning can be purchased as an option for transmitter ODM series which doesn’t equipped a cleaning control function.

<table>
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<th>Standard Specifications</th>
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<td><strong>Measurement object</strong></td>
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<tr>
<td><strong>Cleaning method</strong></td>
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<td><strong>Supported electrodes</strong></td>
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<td><strong>Air requirements</strong></td>
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<td><strong>Power requirements</strong></td>
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<td><strong>Wetted part materials</strong></td>
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<tr>
<td><strong>Control unit construction</strong></td>
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<tr>
<td><strong>Detector weight</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Cleaning timer</strong></td>
</tr>
<tr>
<td>(optional)</td>
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<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
**System Configuration**

**External supply of compressed air (plant side)...Type A**

- 4-wire transmitter OBM-162
- Transmission/Control contact point output
- AC power source
- Control unit Type A
- Air supply from plant air

**External supply of compressed air (plant side), cleaning timer included...Type B**

- 2-wire transmitter Example of ODM-135A
- DC power source/Transmission output
- AC power source
- Control unit Type B
- Air supply from plant air
- Cleaning timer included

**Internal supply of compressed air via an internal air pump, cleaning timer included...Type C**

- 4-wire transmitter Example of ODM-136A*
- Transmission output
- AC power source
- Control unit Type C
- Cleaning timer and air pump included

*4-wire ODM and panel OBM-102A can also be used.

*2-wire ODM, 4-wire OBM, and panel OBM can also be used.

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**Flow diagram**

- **Type A**
  - Cleaning control signals from OBM-162
  - Control unit
  - Air tank
  - Power source 100V AC
  - 0.2 MPa
  - Cleaning nozzle

- **Type B**
  - Control unit
  - Power source 100V AC
  - 0.2 MPa
  - Air inlet
  - Cleaning nozzle

- **Type C**
  - Control unit
  - Power source 100V AC
  - Air pump
  - Air inlet
  - Air filter
  - Cleaning nozzle
Connecting the cleaning timer

Time chart

- Cleaning start (via an internal timer or by an external signal)
- Cleaning cycle (Factory setting: 0.5 hours)
- Number of air pulses
  Factory setting: 1 pulse
- Standby time after cleaning (Factory setting: 0.5 min)
- Measurement

Control unit (Type A/B)

- Dimensions
  Unit: mm

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>300</td>
</tr>
<tr>
<td>Height</td>
<td>300</td>
</tr>
<tr>
<td>Depth</td>
<td>210</td>
</tr>
<tr>
<td>2B pole</td>
<td></td>
</tr>
</tbody>
</table>

- Connection points:
  - Cleaning start signal input (Pulse signal: 100 mS or longer)
  - Cleaning stop signal input (Normally closed. Open: Stop)
  - Under cleaning signal output (Closed: Under cleaning 125V AC 1A or less.)
  - Power supply, 100V AC, 50/60Hz

- Cleaning air inlet, Rc 1/4
- Cleaning air outlet, ø6 x ø11 tube joint

Connecting the cleaning timer

Type B/C example of connecting the transmitter ODM-136A

- Cleaning timer
- Transmitter ODM-136A
- Power supply

- Cleaning start signal input (Pulse signal: 100 mS or longer)
- Cleaning stop signal input (Normally closed. Open: Stop)
- Under cleaning signal output (Closed: Under cleaning 125V AC 1A or less.)
- Power supply, 100V AC, 50/60Hz

- Grounding connection terminal

Drop-in type detector POC-95D (Type C)
(Air pump equipped)

- Rubber cap
- Electrode holder
- Cleaning air lead-in tube
- Mounting bracket
- Rubber stopper
- Cleaning nozzle
- Hose joint
- Electrode
- Cleaning air lead-in tube
- Mounting bracket
- Protection pipe

L (2~6m)
### Notes related to all models

**1.** Available transmitter vary according to the method for supplying compressed air (Type A, B, or C)

| Type A          | Type B            | Type C
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OBM-162</td>
<td>ODM-135A/136A</td>
<td>OBM-162</td>
</tr>
<tr>
<td>OBM-102A</td>
<td>ODM-135A/136A</td>
<td>OBM-162</td>
</tr>
<tr>
<td>ODM-102A</td>
<td>ODM-135A/136A</td>
<td>OBM-162</td>
</tr>
</tbody>
</table>

**2.** Specify a voltage between 110V, 115V and 120V AC for B. Specify a voltage between 200V, 220V, 230V and 240V AC. (The step down transformer is set in the controller.)

**3.** For internal cleaning timer, a ceramic surge arrester must be mounted on the power line.

---

### About the product

- **Product code:** POC7D-0-
- **Compressed air supply method:**
  - Type A: External supply
  - Type B: External supply, pressure reducing valve fitted with a filter
  - Type C: Self-supply via an internal air pump, cleaning timer included

<table>
<thead>
<tr>
<th>Power supply voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100V AC, 50/60 Hz</td>
</tr>
<tr>
<td>Specified in a range of 110V to 120V AC, 50/60 Hz*2</td>
</tr>
<tr>
<td>Specified in a range of 200V to 240V AC, 50/60 Hz*2</td>
</tr>
</tbody>
</table>

- **Electrodes combined and included**
  - No electrode
  - General use and sewage treatment 7533L
  - Night soil treatment 7538L

<table>
<thead>
<tr>
<th>Electrode lead (ELW-32) length</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 m</td>
</tr>
<tr>
<td>3.0 m</td>
</tr>
<tr>
<td>4.0 m</td>
</tr>
<tr>
<td>5.0 m</td>
</tr>
</tbody>
</table>

- **Protection pipe material**
  - SUS304
  - SUS316

- **Hood (Sunshade for control unit)**
  - None
  - Equipped

- **Arrester**
  - None
  - Provided*3

### Markings

- **Japanese**
- **English**

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**Note 1.** Sample water conditions
- Temperature: Max. 45°C
- Pressure: Atmospheric pressure

**Note 2.** We recommend using the drop-in type POC-95D when a total detector length of 2 m or more is required.

**Note 3.** If needed, the pole stand ZB-1 and the following mounting brackets can be ordered separately.
- Mounting bracket: Holder length of 1.5 m or less: ZC-2
- Holder length of 2 m or more: Use the ZC-1/C together with the support bracket ZN-7.