



Online Instrumentation for Water Analysis



# **Transmitters & Sensors**

Conductivity
Resistivity
Dissolved Oxygen
pH
Redox Potential (ORP)

## Resistivity/ Conductivity

## Conductivity



SWal 0.216,5

Pharmacon SWa 0.263µ5 0.277µ5

### **Transmitters**

### **Application**

### Sensor **Connections**

### **Temperature Compensations**

### Measurement **Parameters**

### **High Purity Water**

Two-electrode sensor with built-in NTC temperature probe

Selectable for various different sample properties

- **Specific Conductivity** 0.055 to 1000 μS/cm
- Resistivity 0.001 to 200 MΩ/cm

### **Water Steam Cycles**

Two-electrode conductivity sensor with integrated Pt1000 temperature sensor

Selectable for various different sample properties

**Specific Conductivity** 0.055 µS/cm to 30 mS/cm

### Purified water (PW) and water for injection (WFI) in Pharmaceutical Applications

Two-electrode sensor with integrated Pt1000 temperature probe

Selectable for various different sample properties

Displays uncompensated and temperature-compensated (25°C) conductivity simultaneously

**Specific Conductivity** 0.005 to 2000 μS/cm

- **Languages Available** 
  - Chinese, English, French, German, Spanish
- **Power Supply only for Powercon & Pharmacon** AC Version: 100-240 VAC, DC Version: 10-36 VDC



### **Sensors**

#### Accuracy

### **Miscellaneous**



- $\pm$  0.5 % up to 20  $\mu$ S/cm
- $\pm$  0.5 % up to 20 M $\Omega$ /cm



- ± 1 % or ± 1 % or  $\pm 0.001 \,\mu \text{S/cm} \pm 0.02 \,\mu \text{S/cm}$
- Titanium electrode

Stainless steel electrode for applications with retractable wet-tap valve



- $\pm$  2 % up to 500  $\mu$ S/cm
- $\pm$  3 % above 500  $\mu$ S/cm
- 1 1/2" sanitary clamp or 34" NPT thread connection



## Chemical, Food & Dairy, Refinery, Pulp & Paper, Metal Finishing and Wastewater

Inductive (toroidal) conductivity sensor with built-in Pt1000 temperature probe

With selectable coefficient or nonlinear function for natural waters according to EN 27888/DIN 38404

- Conductivity
  0.1 to 2000 mS/cm
- NaCl, NaOH and acidsConcentration in %
- Salinity as NaCl Concentration in %
- TDS as NaCl Concentration in %

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### Surface-, Potable- and Cooling Water

Four-electrode conductivity sensor with built-in Pt1000 temperature probe

With selectable coefficient or nonlinear function for natural waters according to EN 27888/DIN 38404

Conductivity
0.055 μS/cm to 100 mS/cm



± 0.01 %

PFA Teflon® with 2" sanitary clamp or polypropylene (PP) with ¾" NPT thread connection



± 1.5 % or ± 0.2 μS/cm

Sample temperatures up to 90°C

± 1 % or ± 0.2 μS/cm

Sample temperatures up to 120°C

## Dissolved Oxygen



### **High-Purity Water**

Oxytrace G oxygen sensor with integrated NT5k temperature probe

Automatic compensation of temperature and air pressure

- **Oxygen Dissolved** 0 ppb to 20 ppm
- **Saturation** 0 to 200 %



 $\pm 0.3 \%$ 

### Common features of **Swan AMU Transmitters**



**Dimensions** 

96 x 96 x 120 mm (DIN 43700) - designed for panel installation in a Noryl® resin enclosure

Input

Potential-free contact for hold, remote off or sample

flow meter

**Output** 

Two scalable current outputs (0/4 - 20 mA)

**Alarm Contacts**  Potential-free alarm contact as summary alarm indication for programmable alarm values and for instrument

faults

**Contacts** 

Two potential-free contacts programmable as limit switch or PID-control





### **Transmitter**

**Sensor** Connections

pH or ORP sensor Reference Electrode Pt1000 temperature

**Temperature Compensations** 

Automatic temperature compensations according to Nernst with or without correction functions

Programmable values for pH buffer and redox calibration solutions

**Measurement Parameters** 

- pH Range 0 to 14
- ► Redox Potential (ORP)

-500 to +1500 mV



### **Sensors**

**Application** 

Potable Water, Swimming Pools

**Waste Wate** 

**Power Plants** 

**High Purity Water** 



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