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*Legacy Technology*

**BWB+ISI Legacy  
pH/ORP Technologies**

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## OCPF81/82 - Technical Information

Compact pH and ORP SENSORS with 3/4" MNPT  
housing for flow and immersion installation

For process applications, industrial water and wastewater



*Diamond  
in the Ruff*



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## OCPF81/82 - Technical Information

### Application

- Process monitoring and control
- Industrial and municipal wastewater treatment
- Water treatment
- Mining processes (flotation and leaching processes)

### Your benefits

- **Second electrolyte bridge for improved protection against electrode poisons such as S<sup>2-</sup> or CN<sup>-</sup> ions**
- **Protection guard against damage**
- **Threaded connection NPT 3/4" top and bottom for easy installation at user end**
- **OCPF81: Suitable for measurements within pH range 0 to 14 and within temperature range 0 to 110°C (32 to 230°F)**
- **OCPF82: Suitable for measurements within ORP range -1500 mV to 1500 mV**
- **Available with flat membrane for viscous, fibrous media.**  
Order P/N OCPF81-LH21E21-ISI
- **FDA approved thermoplastic molded body**
- **Millions produced over time. Over 100,000 in service currently**

### Input

#### Measured variables

pH value  
Temperature  
ORP

#### Measuring range

pH 0 to 14  
Temperature 0 to 110°C (32 to 230°F)

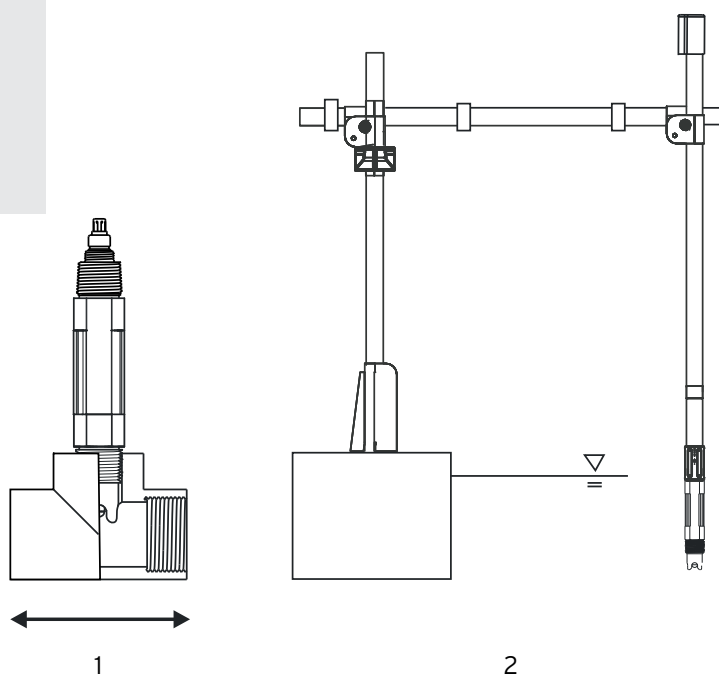
ORP:  
-1500 to 1500 mV  
Temperature 0 to 110°C (32 to 230°F)

**Please note the process operating conditions.**

### Installation

- 1 Flow installation
- 2 Immersion installation

**Make sure to follow the installation instructions in the Operating Instructions of the used assembly.**



## Environment

### Ambient temperature

#### NOTICE

#### Danger of frost damage

The sensor must not be used at temperatures below 0°C (32°F).

### Storage temperature

0 to 50°C (32 to 120°F)

### Degree of protection

Fixed cable version: IP67

## Process

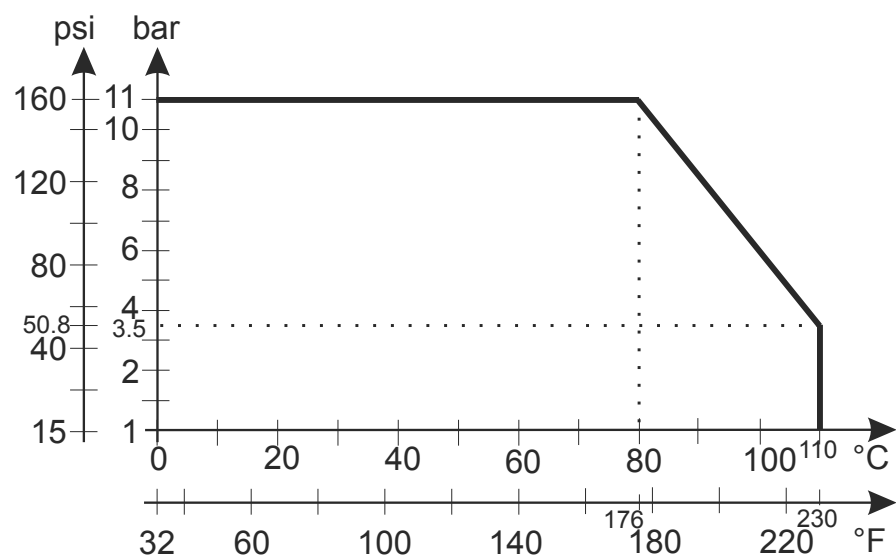
### Process temperature

0 to 110°C (32 to 230°F)

### Process pressure

1 to 11 bar (15 to 160 psi), absolute

### Pressure temperature load curve



### Minimum conductivity

Min. 50 µS/cm



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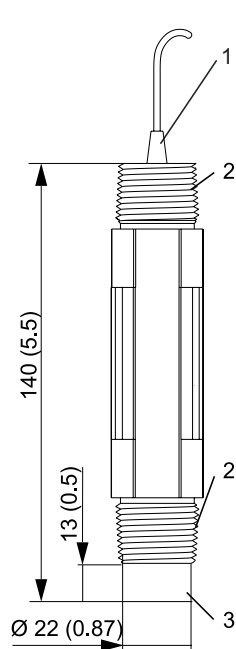


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## OCPF81/82 - Technical Information

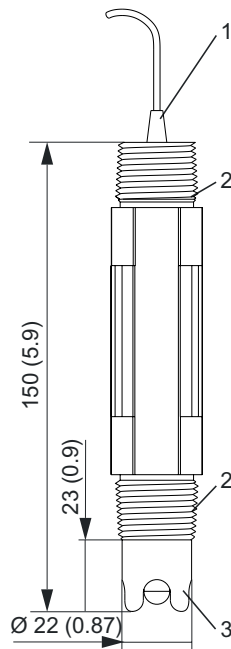
### Mechanical construction

#### Design, dimensions



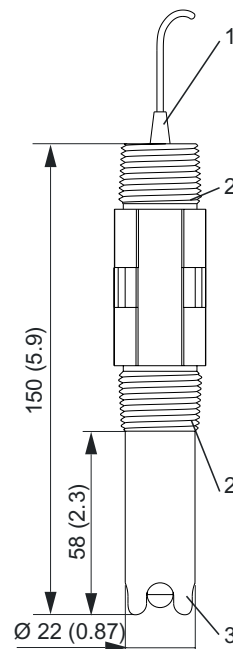
Fixed cable, short shaft,  
flat membrane

- 1 Fixed cable
- 2 NPT 3/4" thread
- 3 Flat membrane



Fixed cable, short shaft,  
protection guard

- 1 Fixed cable
- 2 NPT 3/4" thread
- 3 Protection guard



Fixed cable, long shaft,  
protection guard

- 1 Fixed cable
- 2 NPT 3/4" thread
- 3 Protection guard

#### Weight

0.27 to 0.91 kg (0.6 to 2.0 lbs, depending on version and without cable)

#### Materials

Housing, electrode shaft  
pH electrode (in contact with medium)

PPS  
Lead-free membrane glass,  
suitable for process applications

ORP electrode (in contact with medium):

Platinum

Double chamber reference system:

KN03 and KCl/AgCl

Process connection

NPT 3/4"