

# pH/ORP Sensors

A robust range of pH and ORP combination electrodes available with and without Memosens digital connectivity for industrial and processing applications.

## Benefits

- Patented KNO<sub>3</sub> electrolyte bridge resists electrode poisoning from ions such as S<sup>2-</sup> or CN<sup>-</sup>
- Available flat pH membrane resists wear in abrasive applications
- Top and bottom ¾" NPT threaded connection allows for insertion and dip type installations
- Memosens pH sensors include integrated temperature sensor
- Robust probe guard protects against damage from process borne solids etc.
- Full range of installation fittings and accessories available
- Memosens data saved in the sensor for plug and play connectivity

## Applications

### Mining Operations

- Flotation
- Leaching
- Process Water

### Industrial Wastewater Treatment

- Coagulation Optimization
- Neutralization
- Wastewater Outlet Monitoring

### Pulp and Paper

- Wastewater Monitoring



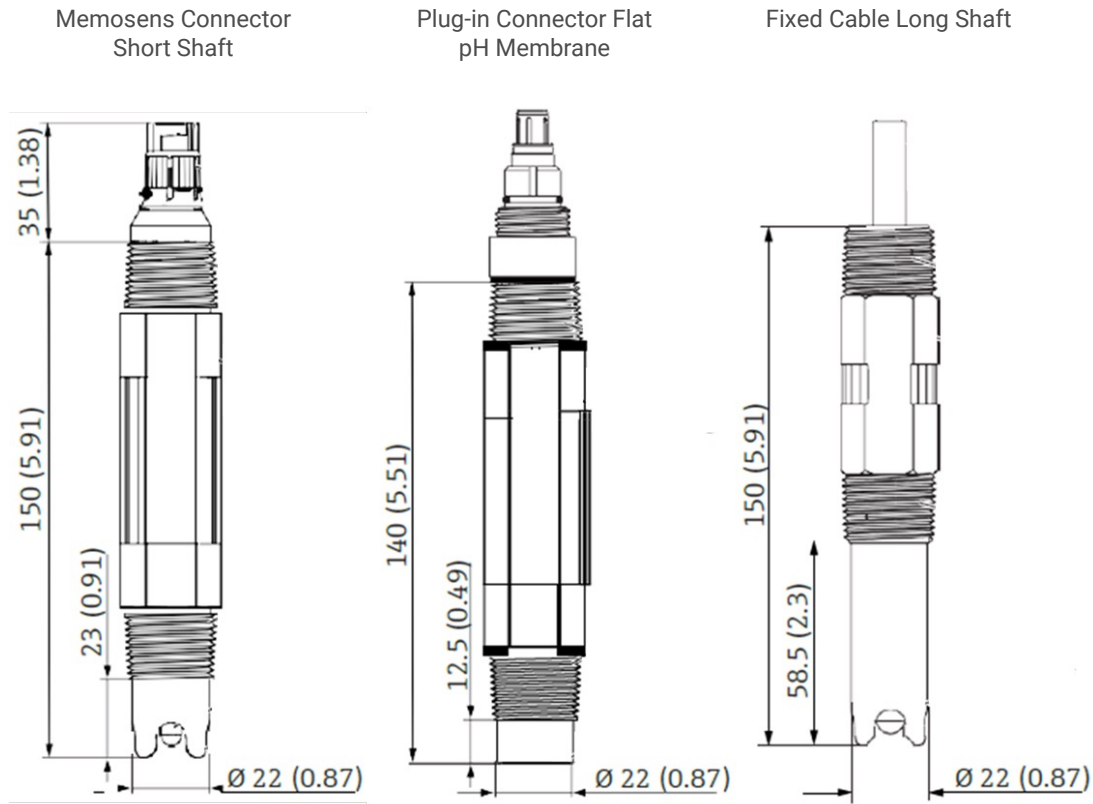

## General Specifications

| Parameter                 |                | pH  |                               | ORP                               |                               |
|---------------------------|----------------|---|-------------------------------|-----------------------------------|-------------------------------|
| Model                     |                | OCPF81E   | OCPF81                        | OCPF82E                           | OCPF82                        |
| Process Connection        |                | ¾" NPT male thread                                    |                               |                                   |                               |
| Measured Values           | Version L      | 0...14 pH   |                               | —                                 |                               |
|                           | Version N      | 0...11pH  | 0...14pH*                     | —                                 |                               |
|                           | Version P      | —   |                               | -1500...+1500 mV                  |                               |
| Process Temp. Range       | Temp. Sensor   | Included  | Optional                      | Included                          | —                             |
|                           | Version L      | 0...110°C / 32...230°F                                |                               | —                                 | —                             |
|                           | Version N      | 0...80°C / 32...176°F                                 |                               | —                                 | —                             |
|                           | Version P      | —   | —                             | 0...80°C / 32...176°F             |                               |
| pH Impedance              |                | 150 MΩ at 25°C / 77°F                                 |                               | —                                 |                               |
| Process Pressure Range    |                | 0.8...11 bara / 11.6...159.5 psia                     | 1...10 bara / 15...145 psia** | 0.8...11 bara / 11.6...159.5 psia | 1...10 bara / 15...145 psia** |
| Ambient Temperature       |                | Risk of freezing below 0°C / 32°F                     |                               |                                   |                               |
| Storage Temperature       |                | 0...50°C / 32...122°F                                 |                               |                                   |                               |
| Ingress Protection        | Memosens       | IP68  | —                             | IP68                              | —                             |
|                           | Plug-in Head   | —   | IP68                          | —                                 | IP68                          |
|                           | Fixed Cable    | —   | IP67                          | —                                 | IP67                          |
| Insertion length          | Short Shaft    | 23mm / 0.91"  |                               |                                   |                               |
|                           | Long Shaft     | 58.5mm / 2.3"   |                               |                                   |                               |
|                           | Flat Membrane  | 12.5mm / 0.49"  |                               | —                                 |                               |
| Process Contact Materials | Housing        | PPS (Polyphenylene sulfide)                           |                               |                                   |                               |
|                           | pH Sensor      | Lead-free glass                                       |                               | —                                 |                               |
|                           | ORP Sensor     | —   |                               | Platinum/Glass                    |                               |
|                           | Reference Sys. | PTFE Ring Junction, Double Chamber, KNO3 and KCl/AgCl |                               |                                   |                               |
| Cable Length***           |                | —   | Std: 15', 30'                 | —                                 | Std: 15', 30'                 |

\* 11 to 14 pH with reduced accuracy

\*\* Process pressure range derates from 10 bara to 3.5 bara / 145 to 50.8 psia between 80°C / 176°F and 110°C / 230°F

\*\*\* Memosens and plug-in cables sold separately. Custom fixed lengths and extension cables available



(Dimensions: mm (in))

## Related Equipment and Accessories

- OCM44 Memosens pH Transmitter
- Memosens Cables
- OPM223/253 Analog Transmitters
- pH Cables/Extension Cables
- Dip Holder Assemblies
- In Line Flow Tees
- Calibration Buffers

**Contact us for details**