

pH / ORP Measurement

Reliable with convenient calibration



pH is one of the most important parameters measured throughout the water, wastewater and many process industries. In the biological treatment of wastewaters, for example, the acidic or alkaline condition of the waste water has an essential influence on the activity of the microorganisms; continuous online pH control is required. Precise and reliable systems for pH monitoring and control are also necessary in drinking water plants and in a variety of industrial process technologies.

Fields of application:

- Wastewater Treatment Facilities
- Water Treatment Utilities
- Neutralization Plants
- Surface Waters and Groundwater
- Industrial Processes
- Food Industry
- Pharmaceutical industry

see also <https://www.xylymanalytics.com/en/parameters/ph-and-orp-redox>



SensoLyt® System Design

Especially in difficult conditions, which are often found in sewage treatment facilities, high demands towards the continuous pH/ORP measurements are made. These concern in particular the reliability and the operational safety of the employed systems. Especially developed for these harsh applications, the SensoLyt® sensors are precision engineered assemblies, which consist of a submersible housing with a built-in preamplifier and the appropriate combination of pH or ORP electrode. In combination with our WTW controllers they form a reliable pH/ORP measuring system, which represents the highest standard with regard to accuracy, EMC noise immunity and economy.



SensoLyt® 700 IQ



- Stable signals by digital signal processing
- Convenient calibration in the lab and glass breakage detection
- Reliable measurements by integrated temperature sensor



Digital

To be connected to the digital, modular, and expandable IQ SENSOR NET as well as to the single parameter controller 181.



SensoLyt® 700 IQ

for the IQ SENSOR NET



SensoLyt® 700 IQ SW

for use in corrosive media



SensoLyt® 700 IQ F

fixed cable model for IQ SENSOR NET system 181



Ordering Information

Model	Description	Order No.
SensoLyt® 700 IQ	Digital pH/ORP fitting for SensoLyt® electrode, with integrated preamplifier and temperature sensor (please order cable separately)	109170
SensoLyt® 700 IQ SW	Like the SensoLyt® 700 IQ, but as a sea water model	109171
SensoLyt® 700 IQ F	Like the SensoLyt® 700 IQ, but can be connected to DIQ/S 181(/24 V), with 10 m fixed cable	109177



For technical data please see datasheet D2.03 and D2.21

Alternatives and accessories see brochure "Product Details" and website

Information about IQ SENSOR NET system see from page 42

Analog pH/ORP fitting see from page 14

Analog

To be operated with analog transmitters.

SensoLyt® 650

Passive fitting without preamplifier for the high-impedance measuring process. The fitting is connected directly to the high ohm input of the WTW pH monitor pH 298 NTC.

SensoLyt® 650 EX

Version for explosive areas of zone 1, to be connected to the Stratos Pro A 201 X pH controllers.



SensoLyt® 650

Ordering Information

Model	Description	Order No.
SensoLyt® 650-7	pH/ORP armature with high-impedance signal transmission and integrated temperatur sensor, cale length 7 m	109195
SensoLyt® 650-7 EX	as above, but for explosion-endangered area (Ex ib IIC T6 Gb X), connectable to StratosProA201XpH-0(-1). Electrodes need to be ordered separately	109195EX



For technical data please see datasheets D3.03 and D4.04

Alternatives and accessories see brochure "Product Details" and website

Analog monitors see from page 56



Controllers / isolated amplifier for EX area see from page 60

Combination Electrodes

SensoLyt® electrodes for all applications - from drinking water to wastewater.

Armed Versions

for connection with SensoLyt® armature: **SEA(-EX/-HP), TFA, ECA, DWA, and PtA.**

Electrode without armor

to be installed into flow cells; can be connected directly to pH 298 transmitters.



SEA-HP



EC

SensoLyt®



Ordering Information

Model	Description	Order No.
SensoLyt® SEA	pH electrode for heavily loaded wastewater, to be connected to SensoLyt® armature, range 2 ... 12 pH	109115
SensoLyt® SEA EX	Like model SEA, but for explosion-endangered area (only when connected to SensoLyt® 650-7 EX Sensor)	109115EX
SensoLyt® TFA	Like model SEA, but for not typically municipal or industrial wastewater	109114
SensoLyt® DWA	Like model SEA, but for drinking water, range 0 ... 14 pH	109119
SensoLyt® PtA	ORP electrode for heavily loaded wastewater, to be connected to SensoLyt® armature, range ±2000 mV	109125
SensoLyt® SE	Like model SEA, but unarmored, to be installed by example in flow cells	109100



For technical data please see datasheets D3.04 and D4.04

Alternatives and accessories see brochure "Product Details" and website

Analog monitors see from page 56

SensoLyt® armature see page 13

Analog ProcessLine® Combination Electrodes

The special construction of the ProcessLine® electrodes brings them very close to the optimum for liquid electrolyte electrodes with respect to their accuracy, stability, fast response time and durability. To be installed in a flow cell or in a retractable armature.



PL 81-225pHT VP



- Low maintenance
- Without contamination or blocking of the reference electrode
- Fast and stable readings



Ordering Information

Model	Description	Order No.
PL 80-120pH	pH electrode with S8 plug head, measuring range 0 ... 14 pH	109233
PL 80-225pH	as above, but can be installed in CHEMTrac 830 M retractable armature	109234
PL 81-225pHT VP	as above, but with VP plug head	109236
PL 82-225pHT VP	as above	109239
PL 89-225Pt	ORP electrode with S8 plug head, measuring range ±2000 mV, can be installed in CHEMTrac 830 M retractable armature	109235



For technical data please see datasheet D3.05

Alternatives and accessories see brochure "Product Details" and website

Combination electrodes for SensoLyt® fittings see from page 14

Analog monitors see from page 56

Analog SenTix® Electrodes

To measure pH and ORP in drinking water, WTW offers analog sensors to be connected to analog transmitters pH 298 and MULTILINE 1000.

The pH electrode **SenTix® ML 70** ist equipped with a thread PG 13.5 and a S7 plug head. The ORP sensor **SenTix® ML RP** provides a measuring range of -2000 ... +2000 mV and a temperature range of 0 ... 80 °C.



- Economic
- With thread for pipe installation
- Easy handling



Ordering Information

Model	Description	Order No.
SenTix® ML 70	pH combination electrode with gel electrolyte, S7 plug head, glass-shaft; PG 13.5 screw thread	104100
SenTix® ML ORP	ORP combination electrode with gel electrolyte, S7 plug head, glass-shaft; PG 13.5 screw thread	104150



For technical data please see datasheet D7.04

Alternatives and accessories see brochure "Product Details" and website

Analog monitors see from page 56

Analog pH electrodes see from page 14