

Specifications pH Minisensor

1 PH MINISENSOR SPECIFICATIONS

Only valid in physiological solutions (ionic strength = 150mM) at 25°C for 2-point calibrated sensors. Specifications are valid for fixed fiber pH minisensors (item no.: PHF-PKx).

1.1 General Characteristics

| Response Time (t ₉₀) at 25°C* | <10 sec | | |
|---|---|--|--|
| Temperature Range | -1°C (30°F) to 50°C (122°F) | | |
| Influence of Salinity‡ | Specified for measurements between 20-500 mM ionic strength. Response time and accuracy at lower or higher salinities are not specified. Rough compensation is enabled in the software. | | |
| Calibration Modes | 2-point calibration | | |
| Calibration Solution | PyroScience buffer capsules or a self-made buffer (details on request) must be used | | |
| Background Fluorescence | Minimized due to REDFLASH technology | | |
| Optical Isolation | The sensor is NOT equipped with an optical isolation. The sensor tip has to be protected from direct light. | | |
| Sensor Dimensions Length without cable (ca.) Sensor tip diameter (ca.) Cable length (ca.) | PHF-PKx 10 cm 500 μm 2 m | | |
| Application Areas | Laboratory, industry, research. NOT for medical or any safety-critical application. NOT for application in humans. NOT for application in food intended for human consumption. | | |

^{*} time for 90% of the total sensor signal change in stirred media

‡ PK8T versions are specified for measurements between PSU 30-40

1.2 Specifications

PK6.5 - Version

| Specifications | |
|----------------------|---------------------------------|
| Item No. | PHF-PK6.5 |
| Measuring Range | 5.5 - 7.5 |
| Accuracy at pH 6.5 | ± 0.1 after 2-point calibration |
| Resolution at pH 6.5 | 0.003 |
| Drift at pH 6.5 | < 0.02 / day at 25°C |

PK8 - Version

| Specifications | |
|----------------------|---------------------------------|
| Item No. | PHF-PK8 |
| Measuring Range | 7.0 - 9.0 |
| Accuracy at pH 8.0 | ± 0.1 after 2-point calibration |
| Resolution at pH 8.0 | 0.003 |
| Drift at pH 8.0 | < 0.02 / day at 25°C |

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2 APPLICABILITY AND CROSS-SENSITIVITY

| | Applicability | Cross-Sensitivity | NO Cross-Sensitivity |
|---|---------------|-------------------|----------------------|
| Water/Aqueous solutions | X | | |
| Diluted Ethanol (<5%) | short-term | | |
| Other organic solvents | | X | |
| Charged surfactants (e.g. sodium dodecyl sulfate) | | X | |
| Calibration buffers for pH electrodes | | X | |
| Certified reference materials (CRMs) for pH electrodes | | Х | |
| Uncharged antifoam agents (e.g. polyethylene glycol, Tween80) | | | X |
| Phenol red | | | X |

Do not use in solid or semisolid samples like sediments.

3 CLEANING & STORAGE

| Cleaning | Distilled water |
|---------------|---|
| Sterilization | 2% glutaraldehyde solution |
| Storage | Original packaging (unpacked): 6 months at room temperature |

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