

# Specifications

## pH Flow Cells

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### 1 PH SENSOR SPECIFICATIONS

Only valid in physiological solutions (ionic strength = 150mM) at 25°C for 2-point calibrated sensors. Specifications are valid for pH flow-through cells (item no.: **PHFLOW-PK5**, **PHFLOW-PK6**, **PHFLOW-PK7**, **PHFLOW-PK8**).

#### 1.1 General Characteristics

<b>Response Time (<math>t_{90}</math>) at 25°C*</b> Flow > 10mL/min Flow < 10mL/min	<90 sec <120 sec
<b>Temperature Range</b>	-1°C (30°F) to 50°C (122°F)
<b>Pressure Range</b>	0 to 2 bar
<b>Tubing Connectors (Luer-Lock)</b>	ID tubing 3.2 or 4.8 mm
<b>Recommended flow rate</b>	1-500 mL/min
<b>Influence of Salinity‡</b>	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.
<b>Calibration Modes</b>	1-point calibration or 2-point calibration (recommended)
<b>Calibration Solution</b>	PyroScience buffer capsules or a self-made buffer (details on request) must be used
<b>Background Fluorescence</b>	Minimized due to REDFLASH technology
<b>Optical Isolation</b>	The sensor is equipped with an optical isolation to minimize interference from strong external illumination and light-sensitive / fluorescent samples.

<b>Application Areas</b>	Laboratory, industry, research. <b>NOT</b> for medical or any safety-critical application. <b>NOT</b> for application in humans. <b>NOT</b> for application in food intended for human consumption.
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\* 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

### PK5 - Version

Specifications	
<b>Item No.</b>	PHFLOW-PK5
<b>Measuring Range</b>	4.0 - 6.0
<b>Accuracy</b> at pH 5.0	± 0.05 after 2-point calibration
<b>Resolution</b> at pH 5.0	0.003
<b>Drift</b> at pH 5.0	< 0.005 / day at 25°C

### PK6 - Version

Specifications	
<b>Item No.</b>	PHFLOW-PK6
<b>Measuring Range</b>	5.0 - 7.0
<b>Accuracy</b> at pH 6.0	± 0.05 after 2-point calibration
<b>Resolution</b> at pH 6.0	0.003
<b>Drift</b> at pH 6.0	< 0.005 / day at 25°C

### PK7 - Version

Specifications	
<b>Item No.</b>	PHFLOW-PK7
<b>Measuring Range</b>	6.0 - 8.0
<b>Accuracy</b> at pH 7.0	± 0.05 after 2-point calibration
<b>Resolution</b> at pH 7.0	0.003
<b>Drift</b> at pH 7.0	< 0.005 / day at 25°C

**PK8 - Version**

Specifications	
Item No.	PHFLOW-PK8
Measuring Range	7.0 - 9.0
Accuracy at pH 8.0	± 0.05 after 2-point calibration
Resolution at pH 8.0	0.003
Drift at pH 8.0	< 0.005 / day at 25°C

## 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	
Uncharged antifoam agents (e.g. polyethylene glycol, Tween80)			X
Phenol red			X

## 3 CLEANING & STORAGE

Cleaning	Distilled water
Sterilization	delivered pre-sterilized with 25kGy beta-radiation, 2% glutaraldehyde solution treatment is possible, further beta or gamma sterilization is not possible, autoclavation is not possible
Storage	Original packaging: 12 months at room temperature

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