

Please enter these **calibration parameters** and the **Lot No.** into the BioLecton software!

pH calibration parameters Lot No. 2006191 (BioLector® II, filter module ID-202/-402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	64.25	64.19	64.12	64.06	63.99	63.92	63.86
ϕ max	13.91	13.91	13.91	13.92	13.92	13.92	13.93
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH ₀	6.25	6.24	6.24	6.23	6.23	6.22	6.21
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	63.79	63.73	63.66	63.60	63.53	63.47	63.40
ϕ max	13.93	13.93	13.94	13.94	13.95	13.95	13.95
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH ₀	6.21	6.20	6.20	6.19	6.18	6.18	6.17
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	63.34	63.27	63.21	63.14	63.08	63.01	62.94
ϕ max	13.96	13.96	13.96	13.97	13.97	13.97	13.98
dpH	0.51	0.51	0.51	0.51	0.51	0.52	0.52
pH ₀	6.17	6.16	6.16	6.15	6.14	6.14	6.13

pH sensor properties

Dynamic range	pH 4.35 – 7.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.80 – 5.10; ± 0.1 pH at pH 5.10 – 7.00; ± 0.25 pH at pH 7.00 – 7.30 (batch calibration)
Response time (t90)	At 25 °C < 30 s
Drift at pH = 7	< 0.005 pH per day (sampling interval of 6 min)
Temperature range	5 °C to 50 °C
Compatibility	Aqueous solutions, ethanol, methanol (max. 5 % v/v)
Sensor stability	sensor material can be degraded by some microorganisms
Cross-sensitivity	Reduced to ionic strength (salinity); high concentration of fluorescent molecules in the visible range can interfere (GFP, (e)YFP); complex media can cause a pH-shift (peptone, yeast extract)
Basic material	pH sensor HP8-1811-01_2 (at least stable for 7 days with CertiPUR-buffer) pH sensors are light-sensitive; please protect them from direct light!

pH calibration

Buffer	CertiPUR Reference Material Buffer solutions Set (pH 3.00 ± 0.01 / pH 4.00 ± 0.015 / pH 9.00 ± 0.01 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = HP8-PSt3-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -1.53 (pH Ser. 3111, gain 7)
Date of calibration	2020/06/09

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Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	766620
Date of sterilization	2020/05/25

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