

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

pH calibration parameters Lot No. 1804-S (BioLector® II/Pro, filter module ID-221)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	68.36	68.27	68.17	68.08	67.99	67.90	67.80
ϕ max	12.92	12.83	12.75	12.66	12.57	12.48	12.39
dpH	0.75	0.75	0.75	0.75	0.75	0.75	0.75
pH ₀	6.35	6.34	6.33	6.32	6.31	6.30	6.29
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	67.71	67.62	67.53	67.43	67.34	67.25	67.15
ϕ max	12.30	12.21	12.12	12.03	11.94	11.85	11.77
dpH	0.75	0.75	0.74	0.74	0.74	0.74	0.74
pH ₀	6.28	6.27	6.26	6.25	6.24	6.23	6.22
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	67.06	66.97	66.88	66.78	66.69	66.60	66.51
ϕ max	11.68	11.59	11.50	11.41	11.32	11.23	11.14
dpH	0.74	0.74	0.74	0.74	0.74	0.74	0.74
pH ₀	6.21	6.20	6.19	6.18	6.17	6.16	6.15

pH sensor properties

Dynamic range	pH 2.45 - 8.80
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 3.45 - 5.45; ± 0.1 pH at pH 5.45 – 6.40; ± 0.25 pH at pH 6.40 – 8.15 (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 LG1- 1737-01 (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 1.00 ± 0.01 / pH 2.00 ± 0.015 / pH 9.00 ± 0.01 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrate-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = FlowerPlate (MTP-48-BOH)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	pH -360.78 (pH Ser.3188-RD, gain 8)
Date of calibration	2018/02/16

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	469217
Date of sterilization	2018/02/13

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