

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

pH calibration parameters Lot No. 2001321 (BioLector® II/Pro, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ min	69.84	69.90	69.96	70.02	70.08	70.14	70.20
φ max	17.26	17.30	17.33	17.37	17.40	17.44	17.47
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.40	-0.40
pH ₀	5.35	5.34	5.34	5.33	5.33	5.32	5.32
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	70.26	70.32	70.38	70.44	70.50	70.56	70.62
φ max	17.51	17.55	17.58	17.62	17.65	17.69	17.72
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH ₀	5.31	5.31	5.30	5.30	5.29	5.29	5.28
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	70.68	70.74	70.80	70.86	70.92	70.98	71.04
φ max	17.76	17.79	17.83	17.86	17.90	17.93	17.97
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH ₀	5.28	5.27	5.27	5.26	5.26	5.25	5.25

pH sensor properties

Dynamic range	pH 3.75 - 6.50
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH4.05 - 4.25; ± 0.1 pH at pH 4.25 – 6.00; ± 0.25 pH at pH 6.00 - 6.20 (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	15 °C to 40 °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);
Basic material	pH sensor pH51-194150144 (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 2.00 ± 0.01 / pH 3.00 ± 0.015 / pH 7.00 ± 0.01 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic FlowerPlate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	pH -360.68 (pH Ser. 3289-RD, gain 6)
Date of calibration	2020/03/19

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DO calibration parameters Lot No. 2001321 (BioLector® II/Pro, filter module ID-228/428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ cal0	69.35	69.33	69.30	69.27	69.25	69.22	69.19
φ cal100	40.70	40.52	40.34	40.16	39.98	39.80	39.62
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ cal0	69.16	69.14	69.11	69.08	69.06	69.03	69.00
φ cal100	39.44	39.26	39.08	38.90	38.73	38.55	38.37
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ cal0	68.98	68.95	68.92	68.90	68.87	68.84	68.81
φ cal100	38.19	38.01	37.83	37.65	37.47	37.29	37.11

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O ₂ (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O ₂ per day (sampling interval of 6 min)
Response time (t90)	< 30 s
Temperature range	5 – 50°C
Sensor stability	sensor material can be degraded by some microorganisms
Cross-sensitivity to	Organic solvents, such as acetone, toluene, chloroform or methylene chloride, Chlorine gas; high concentration of fluorescent molecules in the visible range can interfere (mCherry, tdTomato, dsRed, Nile red); complex media can cause a DO-shift
Basic material	Oxygen sensor RF-192050140 (at least stable for 7 days with CertiPUR-buffer) DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic FlowerPlate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	DO -360.68 (DO Ser.4170-RD, gain 4)
Date of calibration	2020/03/19

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	739808
Date of sterilization	2020/03/12

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