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

pH calibration parameters Lot No. 2009201 (BioLector® II/Pro, filter module ID-221/-421)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	68.57	68.50	68.42	68.35	68.28	68.21	68.14
ϕ max	10.17	10.12	10.07	10.02	9.97	9.92	9.87
dpH	0.66	0.66	0.66	0.66	0.66	0.66	0.66
pH_0	6.15	6.14	6.12	6.11	6.10	6.09	6.08
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	68.07	68.00	67.93	67.86	67.79	67.72	67.65
ϕ max	9.82	9.77	9.72	9.67	9.62	9.58	9.53
dpH	0.66	0.66	0.66	0.66	0.66	0.65	0.65
pH_0	6.07	6.06	6.05	6.04	6.02	6.01	6.00
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	67.58	67.51	67.44	67.37	67.30	67.23	67.16
ϕ max	9.48	9.43	9.38	9.33	9.28	9.23	9.18
dpH	0.65	0.65	0.65	0.65	0.65	0.65	0.65
pH_0	5.99	5.98	5.97	5.96	5.95	5.94	5.92

pH sensor properties

Dynamic range	pH 3.75 - 7.95
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.35 - 4.75; ± 0.1 pH at pH 4.75 – 6.95; ± 0.25 pH at pH 6.95 - 7.35 (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 LG1-1840-01_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 2.00 ± 0.01 / pH 3.00 ± 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 = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.15 (pH Ser. 3305, gain 8)
Date of calibration	2020/09/28

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

DO calibration parameters Lot No. 2009201 (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	70.02	70.00	69.99	69.97	69.96	69.94	69.92
ϕ cal100	42.86	42.65	42.44	42.23	42.02	41.82	41.61
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	69.91	69.89	69.87	69.86	69.84	69.82	69.81
ϕ cal100	41.40	41.19	40.99	40.78	40.57	40.36	40.15
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	69.79	69.78	69.76	69.74	69.73	69.71	69.69
ϕ cal100	39.95	39.74	39.53	39.32	39.11	38.91	38.70

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-m2p-A 200950182 (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 = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.44 (DO Ser.4302-RD, gain 4)
Date of calibration	2020/09/28

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	803678
Date of sterilization	2020/09/16

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