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

pH calibration parameters Lot No. 1714 (BioLector® II/Pro, filter module ID-202)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	65.52	65.43	65.35	65.26	65.18	65.09	65.00
ϕ max	19.34	19.32	19.30	19.28	19.27	19.25	19.23
dpH	0.48	0.48	0.48	0.48	0.48	0.48	0.48
pH_0	6.81	6.80	6.79	6.78	6.77	6.76	6.75
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	64.92	64.83	64.75	64.66	64.57	64.49	64.40
ϕ max	19.21	19.19	19.17	19.15	19.13	19.11	19.10
dpH	0.47	0.47	0.47	0.47	0.47	0.47	0.47
pH_0	6.74	6.73	6.72	6.71	6.70	6.69	6.68
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	64.32	64.23	64.14	64.06	63.97	63.89	63.80
ϕ max	19.08	19.06	19.04	19.02	19.00	18.98	18.96
dpH	0.47	0.47	0.47	0.47	0.47	0.47	0.47
pH_0	6.67	6.66	6.65	6.64	6.63	6.62	6.61

pH sensor properties

Dynamic range	pH 4.05 – 8.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.55 - 5.20; ± 0.1 pH at pH 5.20 – 7.65; ± 0.25 pH at pH 7.65 – 8.30 (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 HP8-1427-02_3 (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 Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH-DO-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 -1.180 (pH Ser.3111-RD, gain 7)
Date of calibration	2017/09/08

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

DO calibration parameters Lot No. 1714 (BioLector® II/Pro, filter module ID-203)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	71.99	71.94	71.89	71.84	71.79	71.74	71.70
ϕ cal100	45.71	45.49	45.27	45.05	44.83	44.61	44.39
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	71.65	71.60	71.55	71.50	71.46	71.41	71.36
ϕ cal100	44.17	43.95	43.73	43.51	43.29	43.07	42.85
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	71.31	71.26	71.21	71.17	71.12	71.07	71.02
ϕ cal100	42.63	42.41	42.19	41.97	41.75	41.53	41.31

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 PSt3-HG-1426-03_3 (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 = pH-DO-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	DO -360.59 (DO Ser.4103-RD, gain 7)
Date of calibration	2017/09/08

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Sterilization procedure

Sterilization	Gamma irradiation (15 kGy)
BGS-certificate No	408502
Date of sterilization	2017/08/30

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