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

pH calibration parameters Lot No. 1820 (BioLector® II/Pro, filter module ID-202)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	65.03	64.97	64.91	64.85	64.79	64.73	64.67
ϕ max	16.88	16.89	16.90	16.91	16.91	16.92	16.93
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH_0	6.48	6.48	6.47	6.47	6.46	6.46	6.45
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	64.61	64.55	64.48	64.42	64.36	64.30	64.24
ϕ max	16.94	16.95	16.95	16.96	16.97	16.98	16.99
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH_0	6.45	6.44	6.44	6.44	6.43	6.43	6.42
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	64.18	64.12	64.06	64.00	63.94	63.88	63.82
ϕ max	16.99	17.00	17.01	17.02	17.03	17.03	17.04
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH_0	6.42	6.41	6.41	6.40	6.40	6.39	6.39

pH sensor properties

Dynamic range	pH 3.85 - 8.55
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.30 - 4.85; ± 0.1 pH at pH 4.85 – 7.55; ± 0.25 pH at pH 7.55 - 8.10 (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_4 (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 -1.40 (pH Ser.3111-hc, gain 7)
Date of calibration	2018/07/13

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

DO calibration parameters Lot No. 1820 (BioLector® II/Pro, filter module ID-203)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	71.88	71.85	71.82	71.79	71.76	71.73	71.69
ϕ cal100	44.21	44.05	43.89	43.73	43.57	43.41	43.25
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	71.66	71.63	71.60	71.57	71.54	71.50	71.47
ϕ cal100	43.09	42.93	42.77	42.61	42.44	42.28	42.12
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	71.44	71.41	71.38	71.35	71.31	71.28	71.25
ϕ cal100	41.96	41.80	41.64	41.48	41.32	41.16	41.00

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-1742-01 (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 -360.25 (DO Ser.4103-hc, gain 7)
Date of calibration	2018/07/13

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Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	518330
Date of sterilization	2018/07/01

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