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

pH calibration parameters Lot No. 1823 (BioLector® II/Pro, filter module ID-202)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	64.62	64.57	64.52	64.47	64.42	64.37	64.32
ϕ max	17.36	17.37	17.38	17.39	17.40	17.41	17.42
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
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	64.27	64.23	64.18	64.13	64.08	64.03	63.98
ϕ max	17.42	17.43	17.44	17.45	17.46	17.47	17.48
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.45	6.45	6.44	6.44	6.43	6.43	6.43
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	63.93	63.88	63.83	63.78	63.73	63.68	63.63
ϕ max	17.49	17.50	17.51	17.52	17.53	17.53	17.54
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.42	6.42	6.41	6.41	6.40	6.40	6.40

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 – 7.50; ± 0.25 pH at pH 7.50 - 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	2018/07/16

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

DO calibration parameters Lot No. 1823 (BioLector® II/Pro, filter module ID-203)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	71.80	71.77	71.74	71.70	71.67	71.64	71.61
ϕ cal100	43.51	43.37	43.23	43.10	42.96	42.82	42.68
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	71.58	71.55	71.52	71.49	71.46	71.43	71.40
ϕ cal100	42.54	42.41	42.27	42.13	41.99	41.85	41.72
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	71.37	71.34	71.31	71.28	71.25	71.22	71.19
ϕ cal100	41.58	41.44	41.30	41.17	41.03	40.89	40.75

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	2018/07/16

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Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	518342
Date of sterilization	2018/07/01

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