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

pH calibration parameters Lot No. 1721 (BioLector® II/Pro, filter module ID-202)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	65.04	64.95	64.86	64.78	64.69	64.61	64.52
ϕ max	19.72	19.70	19.69	19.67	19.66	19.64	19.63
dpH	0.49	0.49	0.49	0.49	0.49	0.49	0.49
pH_0	6.87	6.86	6.85	6.84	6.82	6.81	6.80
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	64.43	64.35	64.26	64.18	64.09	64.00	63.92
ϕ max	19.61	19.60	19.58	19.57	19.55	19.54	19.53
dpH	0.49	0.49	0.49	0.49	0.49	0.49	0.49
pH_0	6.79	6.78	6.76	6.75	6.74	6.73	6.72
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	63.83	63.74	63.66	63.57	63.49	63.40	63.31
ϕ max	19.51	19.50	19.48	19.47	19.45	19.44	19.42
dpH	0.49	0.49	0.49	0.49	0.49	0.49	0.49
pH_0	6.70	6.69	6.68	6.67	6.66	6.64	6.63

pH sensor properties

Dynamic range	pH 4.10 - 8.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.60 - 5.30; ± 0.1 pH at pH 5.30 – 7.60; ± 0.25 pH at pH 7.60 - 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	2017/11/13

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

DO calibration parameters Lot No. 1721 (BioLector® II/Pro, filter module ID-203)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.01	71.94	71.87	71.80	71.73	71.67	71.60
ϕ cal100	45.21	44.97	44.73	44.49	44.25	44.01	43.77
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	71.53	71.46	71.39	71.32	71.25	71.19	71.12
ϕ cal100	43.54	43.30	43.06	42.82	42.58	42.34	42.10
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	71.05	70.98	70.91	70.84	70.78	70.71	70.64
ϕ cal100	41.86	41.62	41.38	41.14	40.90	40.66	40.42

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	2017/11/13

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Sterilization procedure

Sterilization	Gamma irradiation (15 kGy)
BGS-certificate No	433178
Date of sterilization	2017/11/08

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