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

pH calibration parameters Lot No. 1723 (BioLector® II/Pro, filter module ID-221)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	67.09	66.90	66.71	66.52	66.33	66.14	65.95
ϕ max	6.21	6.15	6.09	6.03	5.97	5.91	5.85
dpH	0.67	0.67	0.67	0.67	0.67	0.67	0.67
pH_0	5.78	5.77	5.76	5.76	5.75	5.74	5.73
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	65.76	65.57	65.38	65.19	65.00	64.81	64.62
ϕ max	5.79	5.73	5.66	5.60	5.54	5.48	5.42
dpH	0.67	0.67	0.67	0.67	0.67	0.67	0.67
pH_0	5.72	5.71	5.70	5.70	5.69	5.68	5.67
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	64.43	64.24	64.06	63.87	63.68	63.49	63.30
ϕ max	5.36	5.30	5.24	5.18	5.12	5.06	5.00
dpH	0.67	0.67	0.67	0.67	0.67	0.67	0.66
pH_0	5.66	5.65	5.64	5.64	5.63	5.62	5.61

pH sensor properties

Dynamic range	pH 2.25 - 8.40
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 2.95 - 3.95; ± 0.1 pH at pH 3.95 – 6.65; ± 0.25 pH at pH 6.65 - 7.70 (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 LG1-1629 (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 1.00 ± 0.01 / pH 2.00 ± 0.015 / pH 9.00 ± 0.01 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrate-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 = Microfluidic FlowerPlate (MTP-MF32-BOH)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	pH -360.78 (pH Ser.3188-RD, gain 8)
Date of calibration	2017/11/21

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

DO calibration parameters Lot No. 1723 (BioLector® II/Pro, filter module ID-228)

Temperature	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**
ϕ cal0	68.17	68.14	68.10	68.07	68.04	68.01	67.97
ϕ cal100	45.34	44.99	44.65	44.30	43.95	43.60	43.25
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	67.94	67.91	67.88	67.84	67.81	67.78	67.75
ϕ cal100	42.90	42.55	42.20	41.85	41.50	41.15	40.80
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	67.71	67.68	67.65	67.62	67.58	67.55	67.52
ϕ cal100	40.45	40.10	39.75	39.40	39.05	38.71	38.36

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-01/2017 (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 = Microfluidic FlowerPlate (MTP-MF32-BOH)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	DO -360.52(DO Ser.4170-RD, gain 4)
Date of calibration	22017/11/21

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Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	437557
Date of sterilization	2017/11/17

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