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

pH calibration parameters Lot No. 2006121 (BioLector® Pro, filter module ID-202/-402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.83	63.75	63.68	63.61	63.54	63.47	63.39
ϕ max	15.80	15.79	15.78	15.77	15.76	15.75	15.74
dpH	0.47	0.47	0.47	0.47	0.47	0.47	0.47
pH_0	6.29	6.28	6.28	6.27	6.27	6.26	6.26
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	63.32	63.25	63.18	63.10	63.03	62.96	62.89
ϕ max	15.73	15.72	15.70	15.69	15.68	15.67	15.66
dpH	0.47	0.47	0.47	0.47	0.47	0.47	0.47
pH_0	6.25	6.25	6.24	6.24	6.23	6.23	6.23
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	62.82	62.74	62.67	62.60	62.53	62.45	62.38
ϕ max	15.65	15.64	15.63	15.62	15.60	15.59	15.58
dpH	0.47	0.47	0.47	0.47	0.47	0.47	0.47
pH_0	6.22	6.22	6.21	6.21	6.20	6.20	6.19

pH sensor properties

Dynamic range	pH 4.55 - 7.70
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.95 – 5.20; ± 0.1 pH at pH 5.20 – 7.05; ± 0.25 pH at pH 7.05 – 7.30 (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 HP8-1811-01_2 (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 Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = HP8-PSt3-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower (MTP-MF32C-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -1.53 (pH Ser. 3111, gain 7)
Date of calibration	2020/06/03

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

DO calibration parameters Lot No. 2006121 (BioLector® Pro, filter module ID-203/-403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.88	72.84	72.81	72.77	72.74	72.70	72.66
ϕ cal100	43.73	43.53	43.32	43.11	42.90	42.70	42.49
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	72.63	72.59	72.55	72.52	72.48	72.45	72.41
ϕ cal100	42.28	42.08	41.87	41.66	41.45	41.25	41.04
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	72.37	72.34	72.30	72.26	72.23	72.19	72.16
ϕ cal100	40.83	40.63	40.42	40.21	40.00	39.80	39.59

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-1810-01_2 (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 = HP8-PSt3-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower (MTP-MF32C-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.32 (DO Ser.4103, gain 7)
Date of calibration	2020/06/03

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	766620
Date of sterilization	2020/05/25

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