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

pH calibration parameters Lot No. 2007111(BioLector® Pro, filter module ID-202/-402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	64.14	64.09	64.03	63.97	63.92	63.86	63.81
ϕ max	13.97	13.97	13.97	13.97	13.97	13.98	13.98
dpH	0.55	0.55	0.55	0.55	0.55	0.55	0.55
pH_0	6.36	6.35	6.34	6.33	6.33	6.32	6.31
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	63.75	63.69	63.64	63.58	63.52	63.47	63.41
ϕ max	13.98	13.98	13.98	13.98	13.99	13.99	13.99
dpH	0.55	0.55	0.55	0.55	0.55	0.54	0.54
pH_0	6.30	6.30	6.29	6.28	6.27	6.27	6.26
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	63.35	63.30	63.24	63.18	63.13	63.07	63.01
ϕ max	13.99	13.99	13.99	14.00	14.00	14.00	14.00
dpH	0.54	0.54	0.54	0.54	0.54	0.54	0.54
pH_0	6.25	6.24	6.24	6.23	6.22	6.21	6.21

pH sensor properties

Dynamic range	pH 4.35 – 7.85
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.85 – 5.15; ± 0.1 pH at pH 5.15 – 7.10; ± 0.25 pH at pH 7.10 – 7.40 (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 HP8HP8-1811-01_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 Plate (MTP-MF32-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -1.46 (pH Ser. 3111, gain 7)
Date of calibration	2020/08/19

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

DO calibration parameters Lot No. 2007111 (BioLector® Pro, filter module ID-203/-403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.67	72.64	72.62	72.60	72.58	72.56	72.54
ϕ cal100	43.63	43.45	43.26	43.07	42.88	42.70	42.51
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	72.52	72.50	72.48	72.46	72.44	72.42	72.40
ϕ cal100	42.32	42.13	41.95	41.76	41.57	41.38	41.19
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	72.38	72.36	72.34	72.32	72.30	72.28	72.26
ϕ cal100	41.01	40.82	40.63	40.44	40.26	40.07	39.88

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 Plate (MTP-MF32-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.26 (DO Ser.4103, gain 7)
Date of calibration	2020/08/19

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	787233
Date of sterilization	2020/07/30

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