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

pH calibration parameters Lot No. 1928 (BioLector® II/Pro, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	66.03	66.07	66.12	66.16	66.21	66.25	66.30
ϕ max	13.52	13.54	13.56	13.57	13.59	13.60	13.62
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.35	5.35	5.35	5.35	5.34	5.34	5.34
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	66.34	66.38	66.43	66.47	66.52	66.56	66.61
ϕ max	13.64	13.65	13.67	13.69	13.70	13.72	13.74
dpH	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.34	5.34	5.33	5.33	5.33	5.33	5.33
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	66.65	66.69	66.74	66.78	66.83	66.87	66.92
ϕ max	13.75	13.77	13.78	13.80	13.82	13.83	13.85
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.32	5.32	5.32	5.32	5.32	5.32	5.31

pH sensor properties

Dynamic range	pH 3.85 - 6.50
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.15 - 4.30; ± 0.1 pH at pH 4.30 – 6.05; ± 0.25 pH at pH 6.05 - 6.20 (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	15 °C to 40 °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);
Basic material	pH sensor pH51-1845000010 (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 2.00 ± 0.01 / pH 3.00 ± 0.015 / pH 7.00 ± 0.01 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic FlowerPlate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	pH -360.68 (pH Ser. 3289-RD, gain 6)
Date of calibration	2019/05/22

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

DO calibration parameters Lot No. 1928 (BioLector® II/Pro, filter module ID-228/428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	67.97	67.96	67.95	67.94	67.94	67.93	67.92
ϕ cal100	42.02	41.92	41.81	41.70	41.59	41.49	41.38
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	67.91	67.91	67.90	67.89	67.89	67.88	67.87
ϕ cal100	41.27	41.17	41.06	40.95	40.85	40.74	40.63
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	67.86	67.86	67.85	67.84	67.83	67.83	67.82
ϕ cal100	40.53	40.42	40.31	40.21	40.10	39.99	39.89

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-12/2018 (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 = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic FlowerPlate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-02-000F-0032
Calibration phase offset	DO -360.39 (DO Ser.4170-RD, gain 4)
Date of calibration	2019/05/22

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Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	625276
Date of sterilization	2019/05/07

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