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

pH calibration parameters Lot No. 2007311 (BioLector® Pro, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	70.66	70.73	70.79	70.86	70.92	70.99	71.05
ϕ max	17.20	17.24	17.28	17.33	17.37	17.41	17.45
dpH	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44
pH_0	5.28	5.28	5.27	5.27	5.26	5.26	5.25
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	71.12	71.18	71.25	71.31	71.38	71.44	71.51
ϕ max	17.49	17.54	17.58	17.62	17.66	17.70	17.75
dpH	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44
pH_0	5.25	5.24	5.24	5.23	5.23	5.22	5.22
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	71.57	71.64	71.70	71.77	71.83	71.90	71.96
ϕ max	17.79	17.83	17.87	17.91	17.96	18.00	18.04
dpH	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44	-0.44
pH_0	5.21	5.21	5.20	5.20	5.19	5.19	5.18

pH sensor properties

Dynamic range	pH 3.55 – 6.60
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 3.95 – 4.15; ± 0.1 pH at pH 4.15 – 6.00; ± 0.25 pH at pH 6.00 – 6.25 (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 pH51-194150158 (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 9.00 ± 0.01 / pH 10.00 ± 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-09-000F-0032
Calibration phase offset	pH -360.09 (pH Ser. 3288, gain 6)
Date of calibration	2020/08/18

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

DO calibration parameters Lot No. 2007311 (BioLector® Pro, filter module ID-228/-428)

Temperature	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**
ϕ cal0	70.44	70.44	70.43	70.43	70.42	70.42	70.41
ϕ cal100	42.64	42.48	42.31	42.14	41.97	41.81	41.64
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	70.41	70.40	70.40	70.39	70.39	70.38	70.38
ϕ cal100	41.47	41.30	41.14	40.97	40.80	40.64	40.47
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	70.37	70.37	70.36	70.36	70.35	70.35	70.34
ϕ cal100	40.30	40.13	39.97	39.80	39.63	39.46	39.30

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-m2p-A 200950183 (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-09-000F-0032
Calibration phase offset	DO -360.44 (DO Ser.4302-RD, gain 4)
Date of calibration	2020/08/18

Sterilization procedure

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

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