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

pH calibration parameters Lot No. 2011311 (BioLector® Pro, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	71.00	71.05	71.11	71.16	71.22	71.27	71.33
ϕ max	15.81	15.85	15.90	15.95	16.00	16.04	16.09
dpH	-0.42	-0.42	-0.41	-0.41	-0.41	-0.41	-0.41
pH_0	5.36	5.36	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	71.38	71.44	71.49	71.55	71,60	71.66	71.72
ϕ max	16.14	16.18	16.23	16.28	16.33	16.37	16.42
dpH	-0.41	-0.41	-0.41	-0,41	-0.41	-0.41	-0.41
pH_0	5.33	5.33	5.32	5.32	5.31	5.31	5.30
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	71.77	71.83	71.88	71.94	71.99	72.05	72.10
ϕ max	16.47	16.52	16.56	16.61	16.66	16.70	16.75
dpH	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40	-0.40
pH_0	5.30	5.29	5.29	5.29	5.28	5.28	5.27

pH sensor properties

Dynamic range	pH 3.7-6.6
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.05-4.25 ± 0.1 pH at pH 4.25-6,1; ± 0.25 pH at pH 6.1-6.3 (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 pH51-200950170-171(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 Flower Plate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.00 (pH Ser. 32288, gain 6)
Date of calibration	2020/12/02

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

DO calibration parameters Lot No. 2011311(BioLector® Pro, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	69.46	69.44	69.43	69.41	69.39	69.37	69.35
ϕ cal100	41.85	41.66	41.47	41.28	41.08	40.89	40.70
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	69.34	69.32	69.30	69.28	69.26	69.25	69.23
ϕ cal100	40.51	40.32	40.12	39.93	39.74	39.55	39.36
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	69.21	69.19	69.17	69.16	69.14	69.12	69.10
ϕ cal100	39.16	38.97	38.78	38.59	38.40	38.20	38.01

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-11/2020 (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 Flower (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	2020/12/02

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	829779
Date of sterilization	2020/11/23

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