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

pH calibration parameters Lot No.2215301 and 2215391 (BioLector II/Pro Microbioreactor, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	66.88	67.03	67.17	67.31	67.45	67.59	67.73
ϕ max	14.84	14.87	14.91	14.95	14.98	15.02	15.05
dpH	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37
pH_0	5.35	5.34	5.34	5.33	5.32	5.32	5.31

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	67.87	68.01	68.15	68.29	68.43	68.57	68.71
ϕ max	15.09	15.13	15.16	15.20	15.24	15.27	15.31
dpH	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37	-0.36
pH_0	5.31	5.30	5.29	5.29	5.28	5.27	5.27

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	68.85	68.99	69.14	69.28	69.42	69.56	69.70
ϕ max	15.34	15.38	15.42	15.45	15.49	15.52	15.56
dpH	-0.36	-0.36	-0.36	-0.36	-0.36	-0.36	-0.36
pH_0	5.26	5.26	5.25	5.24	5.24	5.23	5.23

pH sensor properties

Dynamic range	pH 3.95 - 6.40
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.20-4.40; ± 0.1 pH at pH 4.40-5.95; ± 0.25 pH at pH 5.95-6.15 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 pH51-211650293 (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 ± 0.02 / pH 3.00 ± 0.02 / pH 7.00 ± 0.02 / 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 = Flower Plate (MTP-48-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.09 (pH Ser. 3288, gain 6)
Date of calibration	2022-12-13

Contact us

If you have any questions, contact Beckman Coulter Customer Support Center:

· Worldwide, find out in our website at: www.beckman.de/support/technical

· In the USA and Canada, call us at 1-800-369-0333

· Outside the USA and Canada, contact your local Beckman Coulter representative

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

DO calibration parameters Lot No.2215301 and 2215391 (BioLector II/Pro Microbioreactor, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.75	70.73	70.70	70.68	70.65	70.63	70.60
ϕ cal100	41.07	40.91	40.74	40.58	40.42	40.26	40.09

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.58	70.55	70.53	70.50	70.48	70.45	70.43
ϕ cal100	39.93	39.77	39.60	39.44	39.28	39.11	38.95

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.40	70.38	70.35	70.33	70.30	70.28	70.25
ϕ cal100	38.79	38.62	38.46	38.30	38.13	37.97	37.81

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O2 (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O2 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-222757000 (at least stable for 7 days with CertiPUR-buffer) **DO sensors are light-sensitive; please protect them from direct light!**

DO calibration

Calibration	1.0 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 = Flower Plate (MTP-48-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.39 (DO Ser. 4302-RD, gain 4)
Date of calibration	2022-12-13

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3130
Date of sterilization	2022-12-06

Contact us

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