

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

pH calibration parameters Lot No.2215101 (BioLector II/Pro Microbioreactor, filter module ID-202/402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.44	63.35	63.26	63.17	63.08	62.99	62.90
ϕ max	15.11	15.13	15.15	15.17	15.19	15.21	15.23
dpH	0.50	0.50	0.50	0.50	0.50	0.50	0.50
pH ₀	6.49	6.48	6.48	6.47	6.47	6.46	6.45

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	62.82	62.73	62.64	62.55	62.46	62.37	62.29
ϕ max	15.25	15.27	15.30	15.32	15.34	15.36	15.38
dpH	0.50	0.50	0.50	0.50	0.50	0.50	0.50
pH ₀	6.45	6.44	6.44	6.43	6.42	6.42	6.41

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	62.20	62.11	62.02	61.93	61.84	61.75	61.67
ϕ max	15.40	15.42	15.44	15.46	15.49	15.51	15.53
dpH	0.50	0.50	0.50	0.50	0.50	0.50	0.50
pH ₀	6.41	6.40	6.39	6.39	6.38	6.38	6.37

pH sensor properties

Dynamic range	pH 4.65 - 7.90
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.10 - 5.35 ; ± 0.1 pH at pH 5.35 - 7.20 ; ± 0.25 pH at pH 7.20 - 7.45 (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 HP8-2148-01 (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 ± 0.02 / pH 4.00 ± 0.02 / pH 9.00 ± 0.03 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH_DO_calibration_BOH1 , T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	pH -2.32 (pH Ser. 3784, gain 7)
Date of calibration	2022-12-19

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

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DO calibration parameters Lot No.2215101 (BioLector II/Pro Microbioreactor, filter module ID-203/403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ cal0	73.08	73.02	72.96	72.90	72.84	72.78	72.73
φ cal100	45.22	45.09	44.96	44.83	44.70	44.57	44.44

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ cal0	72.67	72.61	72.55	72.49	72.43	72.37	72.32
φ cal100	44.31	44.18	44.05	43.92	43.79	43.66	43.53

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ cal0	72.26	72.20	72.14	72.08	72.02	71.96	71.91
φ cal100	43.40	43.27	43.14	43.01	42.88	42.75	42.62

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 (t ₉₀)	< 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-1921-01_5 (at least stable for 7 days with CertiPUR-buffer) DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	Two-point calibration at an oxygen-free environment (1.0 M sulfite system) and an air-saturated environment (21% oxygen with QC buffer)
Settings	BioLector protocol = pH_DO_calibration_BOH1 , T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	DO -360.64 (DO Ser. 4670, gain 7)
Date of calibration	2022-12-19

Sterilization procedure

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

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