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

pH calibration parameters Lot No.2402301+2402307 (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	75.12	75.17	75.23	75.29	75.35	75.41	75.47
ϕ max	24.86	24.93	25.00	25.06	25.13	25.19	25.26
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.38	-0.38
pH_0	5.10	5.10	5.09	5.09	5.08	5.08	5.08

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	75.52	75.58	75.64	75.70	75.76	75.82	75.87
ϕ max	25.32	25.39	25.46	25.52	25.59	25.65	25.72
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.07	5.07	5.06	5.06	5.06	5.05	5.05

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	75.93	75.99	76.05	76.11	76.17	76.22	76.28
ϕ max	25.79	25.85	25.92	25.98	26.05	26.11	26.18
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.37	-0.37
pH_0	5.04	5.04	5.03	5.03	5.03	5.02	5.02

pH sensor properties

Dynamic range	pH 3.55 - 6.25
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 3.90-4.05; ± 0.1 pH at pH 4.05-5.80; ± 0.25 pH at pH 5.80-5.95 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 pH51-232551433 (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	2024-03-21

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.2402301+2402307 (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	70.70	70.68	70.66	70.64	70.62	70.60	70.58
ϕ cal100	41.80	41.62	41.43	41.25	41.07	40.89	40.70

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.56	70.54	70.52	70.50	70.48	70.46	70.44
ϕ cal100	40.52	40.34	40.15	39.97	39.79	39.61	39.42

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.42	70.40	70.38	70.36	70.34	70.32	70.31
ϕ cal100	39.24	39.06	38.87	38.69	38.51	38.33	38.14

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-232551421 (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	2024-03-21

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-5043
Date of sterilization	2024-03-08

Contact us

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