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

pH calibration parameters Lot No.2206101 (BioLector I Microbioreactor, filter module ID-102/-302)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	55.41	55.35	55.28	55.22	55.15	55.09	55.02
ϕ max	12.71	12.72	12.73	12.74	12.76	12.77	12.78
dpH	0.53	0.53	0.53	0.52	0.52	0.52	0.52
pH_0	6.69	6.68	6.67	6.66	6.65	6.64	6.63

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	54.96	54.89	54.83	54.76	54.70	54.63	54.57
ϕ max	12.79	12.80	12.82	12.83	12.84	12.85	12.86
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.62	6.61	6.60	6.59	6.59	6.58	6.57

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	54.50	54.44	54.37	54.31	54.25	54.18	54.12
ϕ max	12.88	12.89	12.90	12.91	12.92	12.94	12.95
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.56	6.55	6.54	6.53	6.52	6.51	6.50

pH sensor properties

Dynamic range	pH 4.80 - 8.05
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.30-5.60; ± 0.1 pH at pH 5.60-7.25; ± 0.25 pH at pH 7.25-7.55 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 Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH-DO-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	pH 255.90 (pH Ser. 3403, gain 55)
Date of calibration	2022-05-23

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.2206101 (BioLector I Microbioreactor, filter module ID-103/-303)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	73.30	73.25	73.20	73.16	73.11	73.06	73.01
ϕ cal100	43.64	43.39	43.15	42.90	42.66	42.41	42.17

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.96	72.91	72.86	72.82	72.77	72.72	72.67
ϕ cal100	41.92	41.67	41.43	41.18	40.94	40.69	40.45

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.62	72.57	72.52	72.48	72.43	72.38	72.33
ϕ cal100	40.20	39.95	39.71	39.46	39.22	38.97	38.73

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.5 % 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 PSt3-HG-1921-01_4 (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 = pH-DO-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	DO 332.50 (DO Ser. 3402, gain 70)
Date of calibration	2022-05-23

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1035388
Date of sterilization	2022-05-10

Contact us

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