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

pH calibration parameters Lot No.2212101 (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	55.33	55.27	55.21	55.15	55.09	55.03	54.96
ϕ max	13.14	13.14	13.14	13.15	13.15	13.15	13.15
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.70	6.69	6.68	6.67	6.66	6.65	6.64

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	54.90	54.84	54.78	54.72	54.66	54.60	54.54
ϕ max	13.16	13.16	13.16	13.16	13.17	13.17	13.17
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.63	6.63	6.62	6.61	6.60	6.59	6.58

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	54.48	54.42	54.36	54.30	54.24	54.17	54.11
ϕ max	13.17	13.17	13.18	13.18	13.18	13.18	13.19
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.57	6.56	6.56	6.55	6.54	6.53	6.52

pH sensor properties

Dynamic range	pH 4.85 - 8.05
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.35-5.65; ± 0.1 pH at pH 5.65-7.25; ± 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 Plate (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	pH 255.90 (pH Ser. 3403, gain 55)
Date of calibration	2022-09-27

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.2212101 (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	72.74	72.73	72.72	72.71	72.70	72.69	72.68
ϕ cal100	43.21	43.02	42.83	42.64	42.45	42.26	42.07

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.67	72.66	72.65	72.64	72.63	72.62	72.61
ϕ cal100	41.89	41.70	41.51	41.32	41.13	40.94	40.75

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.60	72.59	72.58	72.57	72.56	72.55	72.54
ϕ cal100	40.56	40.37	40.18	40.00	39.81	39.62	39.43

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_5 (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 Plate (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	DO 332.50 (DO Ser. 3402, gain 70)
Date of calibration	2022-09-27

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1078918
Date of sterilization	2022-09-07

Contact us

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