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

pH calibration parameters Lot No.2203101 (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	56.41	56.35	56.29	56.22	56.16	56.10	56.03
ϕ max	10.92	10.92	10.92	10.92	10.93	10.93	10.93
dpH	0.58	0.57	0.57	0.57	0.57	0.57	0.57
pH_0	6.22	6.21	6.20	6.19	6.18	6.18	6.17

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	55.97	55.90	55.84	55.78	55.71	55.65	55.59
ϕ max	10.93	10.94	10.94	10.94	10.94	10.95	10.95
dpH	0.57	0.57	0.57	0.57	0.57	0.57	0.57
pH_0	6.16	6.15	6.14	6.14	6.13	6.12	6.11

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	55.52	55.46	55.40	55.33	55.27	55.21	55.14
ϕ max	10.95	10.95	10.96	10.96	10.96	10.96	10.97
dpH	0.57	0.57	0.57	0.57	0.57	0.57	0.57
pH_0	6.10	6.10	6.09	6.08	6.07	6.06	6.06

pH sensor properties

Dynamic range	pH 4.20 - 7.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.75-5.10; ± 0.1 pH at pH 5.10-6.90; ± 0.25 pH at pH 6.90-7.25 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 HP8-1811-01_6 (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	2022-03-15

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.2203101 (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	72.80	72.77	72.73	72.70	72.66	72.63	72.59
ϕ cal100	42.63	42.40	42.16	41.93	41.70	41.47	41.24

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.56	72.52	72.49	72.45	72.41	72.38	72.34
ϕ cal100	41.00	40.77	40.54	40.31	40.08	39.84	39.61

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.31	72.27	72.24	72.20	72.17	72.13	72.10
ϕ cal100	39.38	39.15	38.92	38.68	38.45	38.22	37.99

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 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	2022-03-15

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1004997
Date of sterilization	2022-02-23

Contact us

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