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

pH calibration parameters Lot No.2403101 (BioLector® II/Pro, filter module ID-202/-402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	61.34	61.28	61.22	61.17	61.11	61.06	61.00
ϕ max	13.24	13.24	13.23	13.23	13.23	13.23	13.23
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.47	6.47	6.46	6.46	6.46	6.45	6.45

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	60.94	60.89	60.83	60.78	60.72	60.66	60.61
ϕ max	13.23	13.23	13.22	13.22	13.22	13.22	13.22
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.44	6.44	6.44	6.43	6.43	6.43	6.42

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	60.55	60.50	60.44	60.38	60.33	60.27	60.22
ϕ max	13.22	13.22	13.21	13.21	13.21	13.21	13.21
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.42	6.41	6.41	6.41	6.40	6.40	6.40

pH sensor properties

Dynamic range	pH 4.60 - 7.95
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.05-5.30; ± 0.1 pH at pH 5.30-7.20; ± 0.25 pH at pH 7.20-7.50 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 HP8-2211-01 (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 = HP8-PSt3-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: BL-09-000F-0032
Calibration phase offset	pH -1.40 (pH Ser. 3111, gain 7)
Date of calibration	2024-05-02

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.2403101 (BioLector® II/Pro, filter module ID-203/-403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.76	72.73	72.69	72.65	72.61	72.58	72.54
ϕ cal100	42.96	42.79	42.62	42.46	42.29	42.12	41.96

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.50	72.46	72.43	72.39	72.35	72.31	72.27
ϕ cal100	41.79	41.62	41.46	41.29	41.12	40.96	40.79

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.24	72.20	72.16	72.12	72.09	72.05	72.01
ϕ cal100	40.62	40.46	40.29	40.12	39.96	39.79	39.62

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 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 = HP8-PSt3-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: BL-09-000F-0032
Calibration phase offset	DO -360.25 (DO Ser. 4103, gain 7)
Date of calibration	2024-05-02

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3217
Date of sterilization	2024-04-08

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