

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

pH calibration parameters Lot No.2310107 (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	62.26	62.20	62.14	62.08	62.02	61.96	61.90
ϕ max	16.01	16.00	15.99	15.97	15.96	15.95	15.94
dpH	0.54	0.54	0.54	0.54	0.54	0.54	0.54
pH ₀	6.75	6.75	6.74	6.73	6.73	6.72	6.71

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	61.84	61.78	61.72	61.67	61.61	61.55	61.49
ϕ max	15.93	15.92	15.91	15.90	15.89	15.88	15.87
dpH	0.54	0.54	0.54	0.54	0.54	0.54	0.54
pH ₀	6.71	6.70	6.70	6.69	6.68	6.68	6.67

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	61.43	61.37	61.31	61.25	61.19	61.13	61.07
ϕ max	15.85	15.84	15.83	15.82	15.81	15.80	15.79
dpH	0.54	0.54	0.54	0.54	0.54	0.54	0.53
pH ₀	6.66	6.66	6.65	6.64	6.64	6.63	6.62

pH sensor properties

Dynamic range	pH 4.85 - 8.15
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.35-5.60; ± 0.1 pH at pH 5.60-7.40; ± 0.25 pH at pH 7.40-7.70 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_2 (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 = Round Well Plate (MTP-(R)48-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -1.40 (pH Ser. 3111, gain 7)
Date of calibration	2023-06-29

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 BioLector software!

DO calibration parameters Lot No.2310107 (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	72.50	72.48	72.45	72.42	72.39	72.36	72.34
ϕ cal100	43.32	43.14	42.96	42.79	42.61	42.43	42.25

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.31	72.28	72.25	72.23	72.20	72.17	72.14
ϕ cal100	42.08	41.90	41.72	41.55	41.37	41.19	41.01

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.12	72.09	72.06	72.03	72.01	71.98	71.95
ϕ cal100	40.84	40.66	40.48	40.30	40.13	39.95	39.77

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O ₂ (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O ₂ per day (sampling interval of 6 min)
Response time (t ₉₀)	< 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 = Round Well Plate (MTP-(R)48-BOH1)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.25 (DO Ser. 4103, gain 7)
Date of calibration	2023-06-29

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3778
Date of sterilization	2023-06-12

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