

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

**pH calibration parameters Lot No.2402101 (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	60.78	60.73	60.67	60.62	60.57	60.51	60.46
φ max	12.71	12.71	12.71	12.71	12.72	12.72	12.72
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH <sub>0</sub>	6.57	6.56	6.56	6.55	6.54	6.53	6.52

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	60.41	60.35	60.30	60.25	60.19	60.14	60.09
φ max	12.72	12.72	12.73	12.73	12.73	12.73	12.73
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH <sub>0</sub>	6.51	6.50	6.50	6.49	6.48	6.47	6.46

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	60.03	59.98	59.92	59.87	59.82	59.76	59.71
φ max	12.73	12.74	12.74	12.74	12.74	12.74	12.74
dpH	0.51	0.51	0.51	0.51	0.51	0.50	0.50
pH <sub>0</sub>	6.45	6.44	6.43	6.43	6.42	6.41	6.40

**pH sensor properties**

Dynamic range	pH 4.70 - 7.90
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.15-5.40; ± 0.1 pH at pH 5.40-7.20; ± 0.25 pH at pH 7.20-7.45 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) <b>pH sensors are light-sensitive; please protect them from direct light!</b>

**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	2024-03-21

**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](http://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.2402101 (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	72.58	72.54	72.50	72.47	72.43	72.39	72.35
ϕ cal100	43.65	43.43	43.22	43.00	42.78	42.56	42.34

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.31	72.28	72.24	72.20	72.16	72.12	72.09
ϕ cal100	42.13	41.91	41.69	41.47	41.25	41.04	40.82

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.05	72.01	71.97	71.94	71.90	71.86	71.82
ϕ cal100	40.60	40.38	40.16	39.95	39.73	39.51	39.29

**DO sensor properties**

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O <sub>2</sub> (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O <sub>2</sub> per day (sampling interval of 6 min)
Response time (t <sub>90</sub> )	< 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) <b>DO sensors are light-sensitive; please protect them from direct light!</b>

**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	2024-03-21

**Sterilization procedure**

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-5043
Date of sterilization	2024-03-08

**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](http://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