

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

pH calibration parameters Lot No.2208321 (BioLector Pro Microbioreactor, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	73.20	73.29	73.37	73.46	73.55	73.64	73.73
ϕ max	21.61	21.67	21.73	21.79	21.85	21.91	21.97
dpH	-0.41	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40
pH ₀	5.23	5.23	5.22	5.22	5.21	5.20	5.20

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.82	73.90	73.99	74.08	74.17	74.26	74.35
ϕ max	22.03	22.09	22.14	22.20	22.26	22.32	22.38
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH ₀	5.19	5.19	5.18	5.18	5.17	5.17	5.16

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	74.43	74.52	74.61	74.70	74.79	74.88	74.96
ϕ max	22.44	22.50	22.56	22.62	22.68	22.74	22.80
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH ₀	5.15	5.15	5.14	5.14	5.13	5.13	5.12

pH sensor properties

Dynamic range	pH 3.65 - 6.40
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.00-4.20; ± 0.1 pH at pH 4.20-5.90; ± 0.25 pH at pH 5.90-6.10 batch calibration
Response time (t ₉₀)	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 pH51-2142507703+704 (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 2.00 ± 0.02 / pH 3.00 ± 0.02 / pH 7.00 ± 0.02 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.10 (pH Ser. 3288, gain 6)
Date of calibration	2022-08-09

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.2208321 (BioLector Pro Microbioreactor, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.63	70.63	70.62	70.61	70.61	70.60	70.60
ϕ cal100	40.92	40.79	40.66	40.53	40.40	40.27	40.14

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.59	70.59	70.58	70.57	70.57	70.56	70.56
ϕ cal100	40.00	39.87	39.74	39.61	39.48	39.35	39.22

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.55	70.55	70.54	70.53	70.53	70.52	70.52
ϕ cal100	39.09	38.95	38.82	38.69	38.56	38.43	38.30

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 RF-221155396 (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 = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.44 (DO Ser. 4302-RD, gain 4)
Date of calibration	2022-08-09

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1064096
Date of sterilization	2022-07-28

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