

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

pH calibration parameters Lot No.2304211 (BioLector® Pro, filter module ID-221/-421)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ min	71.23	71.13	71.03	70.93	70.83	70.73	70.63
φ max	25.47	25.38	25.29	25.19	25.10	25.01	24.92
dpH	0.70	0.70	0.70	0.70	0.70	0.70	0.70
pH ₀	5.83	5.82	5.81	5.81	5.80	5.79	5.78

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	70.53	70.43	70.33	70.24	70.14	70.04	69.94
φ max	24.83	24.74	24.65	24.56	24.47	24.38	24.29
dpH	0.70	0.70	0.70	0.70	0.71	0.71	0.71
pH ₀	5.78	5.77	5.76	5.75	5.75	5.74	5.73

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	69.84	69.74	69.64	69.54	69.44	69.34	69.24
φ max	24.20	24.11	24.02	23.93	23.84	23.75	23.66
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH ₀	5.72	5.72	5.71	5.70	5.69	5.69	5.68

pH sensor properties

Dynamic range	pH 3.50 - 7.70
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.20-4.70; ± 0.1 pH at pH 4.70-6.50; ± 0.25 pH at pH 6.50-7.00 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 LG1-LG1-2239-01 (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 2.00 ± 0.01 / pH 3.00 ± 0.015 / pH 9.00 ± 0.01 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32-BOH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.31 (pH Ser. 3305, gain 8)
Date of calibration	2023-03-23

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.2304211 (BioLector® Pro, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.66	70.65	70.63	70.62	70.60	70.58	70.57
ϕ cal100	41.08	40.91	40.74	40.57	40.40	40.23	40.06

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.55	70.54	70.52	70.50	70.49	70.47	70.46
ϕ cal100	39.89	39.72	39.55	39.38	39.21	39.04	38.87

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.44	70.43	70.41	70.39	70.38	70.36	70.35
ϕ cal100	38.70	38.53	38.36	38.19	38.02	37.85	37.68

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-230250060+59 (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 = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32-BOH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.39 (DO Ser. 4302-RD, gain 4)
Date of calibration	2023-03-23

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3482
Date of sterilization	2023-03-09

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