

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

pH calibration parameters Lot No.2405101 (BioLector XT Microbioreactor, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ min	61.40	61.35	61.30	61.25	61.19	61.14	61.09
φ max	12.49	12.49	12.50	12.50	12.50	12.51	12.51
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH ₀	6.54	6.53	6.52	6.51	6.50	6.49	6.49

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	61.04	60.99	60.94	60.88	60.83	60.78	60.73
φ max	12.51	12.52	12.52	12.52	12.53	12.53	12.53
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH ₀	6.48	6.47	6.46	6.45	6.44	6.43	6.42

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	60.68	60.63	60.58	60.52	60.47	60.42	60.37
φ max	12.54	12.54	12.54	12.55	12.55	12.55	12.56
dpH	0.52	0.52	0.52	0.51	0.51	0.51	0.51
pH ₀	6.41	6.40	6.39	6.38	6.37	6.36	6.35

pH sensor properties

Dynamic range	pH 4.65 - 7.95
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.10 - 5.35 ; ± 0.1 pH at pH 5.35 - 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 ± 0.02, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03166168 (Biolector 0067)
Calibration phase offset	pH -1.70 (pH Ser. 3567, gain 7)
Date of calibration	2024-05-13

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 BioLecton software!

DO calibration parameters Lot No.2405101 (BioLector XT Microbioreactor, filter module ID-503)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-4879	-4800	-4721	-4642	-4563	-4484	-4405
B	38506	37880	37254	36628	36001	35375	34749
C	-34996	-34424	-33852	-33281	-32709	-32137	-31565

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-4326	-4247	-4168	-4089	-4010	-3930	-3851
B	34123	33496	32870	32244	31618	30991	30365
C	-30993	-30422	-29850	-29278	-28706	-28134	-27562

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-3772	-3693	-3614	-3535	-3456	-3377	-3298
B	29739	29113	28486	27860	27234	26608	25981
C	-26991	-26419	-25847	-25275	-24703	-24132	-23560

DO sensor properties

Dynamic range	0 - 100 % oxygen
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_6 (at least stable for 7 days with CertiPUR-buffer) DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	Three-point calibration at an oxygen-free environment (1.0 M sulfite system), an air-saturated environment (21% oxygen) and a pure (100%) oxygen environment (latter two with QC buffer)
Settings	BioLector protocol = pH_DO_calibration_BOH1 , T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03166168 (Biolector 0067)
Calibration phase offset	DO -360.66 (DO Ser. 4446, gain 7)
Date of calibration	2024-05-13

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-5285
Date of sterilization	2024-04-30

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