

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

pH calibration parameters Lot No.2116101+2116107 (BioLector II/Pro Microbioreactor, filter module ID-202/402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ min	64.45	64.38	64.31	64.24	64.16	64.09	64.02
φ max	12.75	12.76	12.78	12.80	12.81	12.83	12.84
dpH	0.55	0.55	0.56	0.56	0.56	0.56	0.56
pH ₀	6.17	6.17	6.16	6.15	6.14	6.14	6.13

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	63.95	63.88	63.81	63.74	63.66	63.59	63.52
φ max	12.86	12.87	12.89	12.90	12.92	12.93	12.95
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pH ₀	6.12	6.11	6.11	6.10	6.09	6.08	6.07

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	63.45	63.38	63.31	63.23	63.16	63.09	63.02
φ max	12.96	12.98	12.99	13.01	13.02	13.04	13.05
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pH ₀	6.07	6.06	6.05	6.04	6.04	6.03	6.02

pH sensor properties

Dynamic range	pH 4.20 - 7.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.65 - 4.95 ; ± 0.1 pH at pH 4.95 - 6.95 ; ± 0.25 pH at pH 6.95 - 7.25 (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 HP8-1811-01_5 (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 = 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: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -1.81 (pH Ser. 3511, gain 7)
Date of calibration	2021-12-07

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

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DO calibration parameters Lot No.2116101+2116107 (BioLector II/Pro Microbioreactor, filter module ID-203/403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	73.45	73.39	73.34	73.28	73.22	73.16	73.11
ϕ cal100	43.40	43.16	42.92	42.68	42.44	42.19	41.95

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	73.05	72.99	72.94	72.88	72.82	72.76	72.71
ϕ cal100	41.71	41.47	41.23	40.99	40.75	40.51	40.26

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.65	72.59	72.53	72.48	72.42	72.36	72.30
ϕ cal100	40.02	39.78	39.54	39.30	39.06	38.82	38.58

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_3 (at least stable for 7 days with CertiPUR-buffer) DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
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: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.63 (DO Ser. 4446, gain 7)
Date of calibration	2021-12-07

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	972085
Date of sterilization	2021-11-25

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