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

pH calibration parameters Lot No.2116201 (BioLector II/Pro Microbioreactor, filter module ID-221/421)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	69.74	69.67	69.60	69.53	69.46	69.39	69.32
ϕ max	12.78	12.71	12.65	12.58	12.51	12.45	12.38
dpH	0.80	0.80	0.80	0.80	0.80	0.80	0.80
pH_0	6.52	6.51	6.51	6.50	6.49	6.48	6.47

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	69.25	69.18	69.11	69.04	68.97	68.90	68.83
ϕ max	12.32	12.25	12.18	12.12	12.05	11.99	11.92
dpH	0.80	0.80	0.80	0.80	0.80	0.80	0.80
pH_0	6.46	6.45	6.44	6.43	6.42	6.41	6.40

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	68.76	68.69	68.62	68.55	68.48	68.41	68.34
ϕ max	11.85	11.79	11.72	11.65	11.59	11.52	11.46
dpH	0.80	0.80	0.80	0.80	0.80	0.80	0.80
pH_0	6.39	6.38	6.37	6.37	6.36	6.35	6.34

pH sensor properties

Dynamic range	pH 3.80 - 8.70
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.55 - 5.05 ; ± 0.1 pH at pH 5.05 - 7.45 ; ± 0.25 pH at pH 7.45 - 7.95 (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 LG1-1939-01_2 (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_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -360.68 (pH Ser. 3513, gain 8)
Date of calibration	2021-11-30

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

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

DO calibration parameters Lot No.2116201 (BioLector II/Pro Microbioreactor, filter module ID-228/428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.49	70.47	70.45	70.43	70.40	70.38	70.36
ϕ cal100	41.24	41.03	40.82	40.61	40.40	40.19	39.98

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.34	70.32	70.30	70.28	70.26	70.24	70.21
ϕ cal100	39.77	39.56	39.35	39.14	38.93	38.72	38.51

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.19	70.17	70.15	70.13	70.11	70.09	70.07
ϕ cal100	38.30	38.10	37.89	37.68	37.47	37.26	37.05

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O2 (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O2 per day (sampling interval of 6 min)
Response time (t90)	< 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-213550639 (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_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.82 (DO Ser. 4452, gain 4)
Date of calibration	2021-11-30

Sterilization procedure

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

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