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

pH calibration parameters Lot No.2212201+2212207 (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	72.99	72.87	72.76	72.65	72.53	72.42	72.31
ϕ max	24.86	24.76	24.66	24.55	24.45	24.35	24.25
dpH	0.66	0.66	0.66	0.67	0.67	0.67	0.67
pH_0	5.88	5.87	5.86	5.85	5.84	5.83	5.82

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	72.19	72.08	71.97	71.85	71.74	71.62	71.51
ϕ max	24.15	24.05	23.95	23.84	23.74	23.64	23.54
dpH	0.67	0.67	0.67	0.67	0.67	0.67	0.67
pH_0	5.82	5.81	5.80	5.79	5.78	5.77	5.77

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	71.40	71.28	71.17	71.06	70.94	70.83	70.71
ϕ max	23.44	23.34	23.24	23.14	23.03	22.93	22.83
dpH	0.67	0.67	0.67	0.67	0.67	0.67	0.67
pH_0	5.76	5.75	5.74	5.73	5.72	5.71	5.71

pH sensor properties

Dynamic range	pH 3.55 - 7.70
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.20 - 4.65 ; ± 0.1 pH at pH 4.65 - 6.60 ; ± 0.25 pH at pH 6.60 - 7.05 (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 LG1-2141-01 (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 ± 0.02 / pH 3.00 ± 0.02 / pH 9.00 ± 0.03 / 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 = Round Well Plate (MTP-R48-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -360.63 (pH Ser. 3513, gain 8)
Date of calibration	2022-09-23

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 BioLection software!

DO calibration parameters Lot No.2212201+2212207 (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	70.42	70.40	70.38	70.36	70.33	70.31	70.29
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	70.27	70.25	70.23	70.21	70.19	70.16	70.14
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	70.12	70.10	70.08	70.06	70.04	70.01	69.99
ϕ cal100	38.30	38.09	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- 221155398 (at least stable for 7 days with CertiPUR-buffer)
	DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	Two-point calibration at an oxygen-free environment (1.0 M sulfite system) and an air-saturated environment (21% oxygen with QC buffer)
Settings	BioLector protocol = pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-R48-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.94 (DO Ser. 4452, gain 4)
Date of calibration	2022-09-23

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1078918
Date of sterilization	2022-09-07

Contact us

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