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

pH calibration parameters Lot No.2317221+2317227 (BioLector XT Microbioreactor, filter module ID-521)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	69.14	69.05	68.97	68.88	68.80	68.71	68.63
ϕ max	24.30	24.22	24.14	24.06	23.98	23.90	23.81
dpH	0.72	0.72	0.72	0.72	0.72	0.72	0.72
pH_0	6.06	6.05	6.04	6.03	6.01	6.00	5.99

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	68.54	68.46	68.37	68.29	68.20	68.12	68.03
ϕ max	23.73	23.65	23.57	23.49	23.41	23.33	23.25
dpH	0.72	0.72	0.72	0.71	0.71	0.71	0.71
pH_0	5.97	5.96	5.95	5.93	5.92	5.91	5.89

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	67.95	67.86	67.78	67.69	67.61	67.52	67.43
ϕ max	23.17	23.09	23.01	22.93	22.85	22.77	22.69
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH_0	5.88	5.87	5.85	5.84	5.83	5.82	5.80

pH sensor properties

Dynamic range	pH 3.65 - 8.00
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.40 - 4.90 ; ± 0.1 pH at pH 4.90 - 6.70 ; ± 0.25 pH at pH 6.70 - 7.20 (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 LG1-2239-01 (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 ± 0.02 / 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 = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH2)
Calibration device	Hardware ID: 03166168 (BLXT 0067)
Calibration phase offset	pH -360.76 (pH Ser. 3768, gain 8)
Date of calibration	2023-12-13

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 BioLection software!

DO calibration parameters Lot No.2317221+2317227 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1526	-1498	-1469	-1441	-1413	-1385	-1356
B	11670	11449	11228	11007	10786	10566	10345
C	-10217	-10019	-9820	-9621	-9423	-9224	-9025

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1328	-1300	-1272	-1243	-1215	-1187	-1159
B	10124	9903	9682	9461	9240	9019	8799
C	-8827	-8628	-8430	-8231	-8032	-7834	-7635

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1130	-1102	-1074	-1046	-1017	-989	-961
B	8578	8357	8136	7915	7694	7473	7252
C	-7436	-7238	-7039	-6841	-6642	-6443	-6245

DO sensor properties

Dynamic range	0 - 100 % oxygen
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-232551419 (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 = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH2)
Calibration device	Hardware ID: 03166168 (BLXT 0067)
Calibration phase offset	DO -360.84 (DO Ser. 4659, gain 4)
Date of calibration	2023-12-13

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2314-4670
Date of sterilization	2023-12-06

Contact us

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