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

pH calibration parameters Lot No.2216221 and 2216227 (BioLector XT Microbioreactor, filter module ID-521)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	68.48	68.36	68.23	68.11	67.99	67.87	67.75
ϕ max	22.91	22.83	22.75	22.67	22.59	22.51	22.43
dpH	0.67	0.67	0.66	0.66	0.66	0.66	0.66
pH_0	5.93	5.92	5.91	5.89	5.88	5.87	5.85

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	67.62	67.50	67.38	67.26	67.14	67.02	66.89
ϕ max	22.34	22.26	22.18	22.10	22.02	21.94	21.86
dpH	0.66	0.66	0.66	0.66	0.66	0.66	0.66
pH_0	5.84	5.83	5.81	5.80	5.79	5.78	5.76

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	66.77	66.65	66.53	66.41	66.28	66.16	66.04
ϕ max	21.78	21.69	21.61	21.53	21.45	21.37	21.29
dpH	0.66	0.66	0.66	0.66	0.66	0.66	0.66
pH_0	5.75	5.74	5.72	5.71	5.70	5.68	5.67

pH sensor properties

Dynamic range	pH 3.65 - 7.60
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.30 - 4.75 ; ± 0.1 pH at pH 4.75 - 6.50 ; ± 0.25 pH at pH 6.50 - 6.95 (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 LG1-2212-01 (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: 03515297 (BLXT 0073)
Calibration phase offset	pH -360.45 (pH Ser. 3798, gain 8)
Date of calibration	2023-01-06

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.2216221 and 2216227 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-3300	-3197	-3093	-2990	-2886	-2783	-2679
B	25780	24959	24138	23317	22497	21676	20855
C	-23160	-22409	-21659	-20908	-20157	-19407	-18656

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-2576	-2472	-2369	-2265	-2162	-2059	-1955
B	20034	19213	18393	17572	16751	15930	15109
C	-17906	-17155	-16405	-15654	-14903	-14153	-13402

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1852	-1748	-1645	-1541	-1438	-1334	-1231
B	14289	13468	12647	11826	11005	10185	9364
C	-12652	-11901	-11151	-10400	-9649	-8899	-8148

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-224858175 (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: 03515297 (BLXT 0073)
Calibration phase offset	DO -360.77 (DO Ser. 4671, gain 4)
Date of calibration	2023-01-06

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3217
Date of sterilization	2022-12-23

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