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

pH calibration parameters Lot No.2309322 and 2309328 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	71.60	71.72	71.84	71.97	72.09	72.21	72.34
ϕ max	19.33	19.40	19.46	19.53	19.59	19.66	19.72
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41
pH_0	5.32	5.31	5.31	5.30	5.29	5.29	5.28

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	72.46	72.58	72.71	72.83	72.95	73.08	73.20
ϕ max	19.79	19.85	19.92	19.98	20.04	20.11	20.17
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.40	-0.40
pH_0	5.27	5.27	5.26	5.25	5.25	5.24	5.23

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	73.32	73.45	73.57	73.69	73.82	73.94	74.06
ϕ max	20.24	20.30	20.37	20.43	20.50	20.56	20.63
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH_0	5.23	5.22	5.21	5.21	5.20	5.19	5.19

pH sensor properties

Dynamic range	pH 3.75 - 6.50
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.10 - 4.30 ; ± 0.1 pH at pH 4.30 - 6.15 ; ± 0.25 pH at pH 6.15 - 6.20 (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 pH51-221155390+391 (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 7.00 ± 0.02 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = MF_pH_DO_calibration_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-(R)MF32C-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	pH -361.34 (pH Ser. 3795, gain 6)
Date of calibration	2023-11-07

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

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

DO calibration parameters Lot No.2309322 and 2309328 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-2286	-2229	-2172	-2115	-2058	-2001	-1944
B	17709	17260	16810	16361	15911	15462	15012
C	-15754	-15345	-14936	-14527	-14118	-13709	-13300

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1887	-1830	-1773	-1716	-1659	-1602	-1546
B	14563	14113	13664	13214	12765	12315	11866
C	-12891	-12482	-12073	-11664	-11255	-10846	-10438

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1489	-1432	-1375	-1318	-1261	-1204	-1147
B	11416	10967	10517	10068	9618	9169	8719
C	-10029	-9620	-9211	-8802	-8393	-7984	-7575

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-230250056 (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_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-(R)MF32C-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	DO -360.85 (DO Ser. 4659, gain 4)
Date of calibration	2023-11-07

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3778
Date of sterilization	2023-06-12

Contact us

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