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

pH calibration parameters Lot No.2316311 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	73.02	73.09	73.15	73.22	73.28	73.35	73.41
ϕ max	14.88	14.92	14.96	15.01	15.05	15.09	15.13
dpH	-0.40	-0.40	-0.40	-0.40	-0.39	-0.39	-0.39
pH_0	5.38	5.38	5.37	5.37	5.36	5.35	5.35

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.48	73.54	73.61	73.67	73.74	73.80	73.87
ϕ max	15.18	15.22	15.26	15.30	15.35	15.39	15.43
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.34	5.34	5.33	5.32	5.32	5.31	5.31

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	73.93	74.00	74.07	74.13	74.20	74.26	74.33
ϕ max	15.47	15.52	15.56	15.60	15.64	15.69	15.73
dpH	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.30	5.29	5.29	5.28	5.28	5.27	5.26

pH sensor properties

Dynamic range	pH 3.85 - 6.55
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.15 - 4.35 ; ± 0.1 pH at pH 4.35 - 6.20 ; ± 0.25 pH at pH 6.20 - 6.25 (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 pH51-230250067 (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 Flower Plate (MTP-MF32-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	pH -361.34 (pH Ser. 3795, gain 6)
Date of calibration	2023-11-14

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.2316311 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-2218	-2165	-2112	-2058	-2005	-1952	-1899
B	17199	16778	16357	15935	15514	15092	14671
C	-15309	-14926	-14542	-14158	-13774	-13391	-13007

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1845	-1792	-1739	-1685	-1632	-1579	-1525
B	14249	13828	13407	12985	12564	12142	11721
C	-12623	-12239	-11856	-11472	-11088	-10704	-10321

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1472	-1419	-1365	-1312	-1259	-1205	-1152
B	11299	10878	10457	10035	9614	9192	8771
C	-9937	-9553	-9169	-8786	-8402	-8018	-7634

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-232551418 (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 Flower Plate (MTP-MF32-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	DO -360.85 (DO Ser. 4659, gain 4)
Date of calibration	2023-11-14

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-4534
Date of sterilization	2023-11-08

Contact us

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