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

pH calibration parameters Lot No.2216321+2216327 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	73.04	73.09	73.14	73.20	73.25	73.30	73.35
ϕ max	15.99	16.03	16.07	16.10	16.14	16.18	16.22
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.25	5.24	5.24	5.23	5.23	5.23	5.22

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.40	73.45	73.51	73.56	73.61	73.66	73.71
ϕ max	16.26	16.30	16.33	16.37	16.41	16.45	16.49
dpH	-0.39	-0.39	-0.39	-0.39	-0.38	-0.38	-0.38
pH_0	5.22	5.21	5.21	5.20	5.20	5.19	5.19

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	73.76	73.82	73.87	73.92	73.97	74.02	74.07
ϕ max	16.52	16.56	16.60	16.64	16.68	16.72	16.75
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.19	5.18	5.18	5.17	5.17	5.16	5.16

pH sensor properties

Dynamic range	pH 3.70 - 6.45
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.00 - 4.20 ; ± 0.1 pH at pH 4.20 - 6.00 ; ± 0.25 pH at pH 6.00 - 6.15 (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 pH51-221155385+386 (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-MF32C-BOH3)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	pH -360.77 (pH Ser. 4671, gain 6)
Date of calibration	2023-01-13

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.2216321+2216327 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1819	-1781	-1743	-1705	-1667	-1630	-1592
B	14004	13706	13409	13112	12815	12518	12220
C	-12355	-12087	-11818	-11549	-11281	-11012	-10744

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1554	-1516	-1478	-1440	-1403	-1365	-1327
B	11923	11626	11329	11032	10734	10437	10140
C	-10475	-10207	-9938	-9670	-9401	-9132	-8864

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1289	-1251	-1213	-1176	-1138	-1100	-1062
B	9843	9546	9248	8951	8654	8357	8059
C	-8595	-8327	-8058	-7790	-7521	-7253	-6984

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-222757000 (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-MF32C-BOH3)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	DO -367.74 (DO Ser. 3587, gain 4)
Date of calibration	2023-01-13

Sterilization procedure

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

Contact us

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