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

pH calibration parameters Lot No.2310308 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	72.93	73.04	73.15	73.26	73.37	73.49	73.60
ϕ max	21.22	21.28	21.34	21.40	21.46	21.52	21.58
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41
pH_0	5.26	5.26	5.25	5.24	5.24	5.23	5.23

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.71	73.82	73.93	74.04	74.15	74.26	74.37
ϕ max	21.64	21.70	21.76	21.82	21.88	21.94	22.00
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.40
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	74.48	74.59	74.70	74.81	74.93	75.04	75.15
ϕ max	22.06	22.12	22.18	22.24	22.30	22.36	22.42
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH_0	5.18	5.17	5.17	5.16	5.16	5.15	5.15

pH sensor properties

Dynamic range	pH 3.70 - 6.45
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.05 - 4.25 ; ± 0.1 pH at pH 4.25 - 5.95 ; ± 0.25 pH at pH 5.95 - 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 pH51-230250064 (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 = pH_DO_calibration_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-(R)48-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT 0067)
Calibration phase offset	pH -364.17 (pH Ser. 3795, gain 6)
Date of calibration	2023-10-24

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.2310308 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-2247	-2192	-2137	-2082	-2027	-1973	-1918
B	17387	16954	16522	16089	15656	15223	14790
C	-15440	-15047	-14654	-14261	-13868	-13475	-13082

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1863	-1808	-1753	-1698	-1643	-1588	-1533
B	14358	13925	13492	13059	12627	12194	11761
C	-12689	-12296	-11903	-11510	-11117	-10724	-10331

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1479	-1424	-1369	-1314	-1259	-1204	-1149
B	11328	10896	10463	10030	9597	9164	8732
C	-9938	-9545	-9152	-8759	-8366	-7973	-7580

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-232051035 (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 = pH_DO_calibration_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-(R)48-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT 0067)
Calibration phase offset	DO -360.96 (DO Ser. 4659, gain 4)
Date of calibration	2023-10-24

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-4339
Date of sterilization	2023-09-27

Contact us

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