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

pH calibration parameters Lot No.2215202+207 (BioLector XT Microbioreactor, filter module ID-521)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	70.40	70.31	70.23	70.15	70.06	69.98	69.90
ϕ max	21.83	21.76	21.70	21.63	21.56	21.49	21.43
dpH	0.72	0.72	0.72	0.72	0.72	0.72	0.72
pH_0	5.86	5.85	5.84	5.82	5.81	5.79	5.78

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	69.81	69.73	69.65	69.56	69.48	69.40	69.31
ϕ max	21.36	21.29	21.22	21.16	21.09	21.02	20.95
dpH	0.72	0.72	0.71	0.71	0.71	0.71	0.71
pH_0	5.77	5.75	5.74	5.73	5.71	5.70	5.69

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	69.23	69.15	69.07	68.98	68.90	68.82	68.73
ϕ max	20.89	20.82	20.75	20.68	20.62	20.55	20.48
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH_0	5.67	5.66	5.64	5.63	5.62	5.60	5.59

pH sensor properties

Dynamic range	pH 3.40 - 7.70
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.15 - 4.65 ; ± 0.1 pH at pH 4.65 - 6.45 ; ± 0.25 pH at pH 6.45 - 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 = pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	pH -360.44 (pH Ser. 3801, gain 8)
Date of calibration	2022-12-13

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.2215202+207 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1802	-1765	-1728	-1691	-1655	-1618	-1581
B	13855	13566	13277	12988	12698	12409	12120
C	-12207	-11946	-11685	-11424	-11163	-10902	-10641

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1544	-1507	-1470	-1434	-1397	-1360	-1323
B	11831	11542	11253	10964	10675	10386	10096
C	-10380	-10119	-9858	-9596	-9335	-9074	-8813

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1286	-1249	-1213	-1176	-1139	-1102	-1065
B	9807	9518	9229	8940	8651	8362	8073
C	-8552	-8291	-8030	-7769	-7508	-7247	-6986

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 = pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH2)
Calibration device	Hardware ID: 03515297 (BLXT 0073)
Calibration phase offset	DO -360.78 (DO Ser. 4673, gain 4)
Date of calibration	2022-12-13

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3130
Date of sterilization	2022-12-06

Contact us

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