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

pH calibration parameters Lot No.2117221 and 2117227 (BioLector XT Microbioreactor, filter module ID-521)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	71.82	71.74	71.65	71.56	71.48	71.39	71.30
ϕ max	23.11	23.05	23.00	22.94	22.89	22.83	22.77
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH_0	6.01	6.00	5.99	5.97	5.96	5.95	5.94

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	71.22	71.13	71.04	70.96	70.87	70.78	70.70
ϕ max	22.72	22.66	22.60	22.55	22.49	22.44	22.38
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH_0	5.92	5.91	5.90	5.89	5.87	5.86	5.85

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	70.61	70.52	70.44	70.35	70.26	70.18	70.09
ϕ max	22.32	22.27	22.21	22.15	22.10	22.04	21.99
dpH	0.71	0.71	0.71	0.71	0.71	0.71	0.71
pH_0	5.84	5.82	5.81	5.80	5.79	5.77	5.76

pH sensor properties

Dynamic range	pH 3.60 - 7.90
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.30 - 4.75 ; ± 0.1 pH at pH 4.75 - 6.70 ; ± 0.25 pH at pH 6.70 - 7.20 (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 LG1-2141-01 (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 = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-RMF32C-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -360.68 (pH Ser. 3513, gain 8)
Date of calibration	2022-01-05

Contact us

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· 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.2117221 and 2117227 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1627	-1596	-1566	-1536	-1505	-1475	-1445
B	12468	12231	11994	11756	11519	11282	11045
C	-10946	-10732	-10519	-10305	-10092	-9879	-9665

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1414	-1384	-1354	-1323	-1293	-1263	-1232
B	10808	10570	10333	10096	9859	9621	9384
C	-9452	-9238	-9025	-8812	-8598	-8385	-8171

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1202	-1172	-1141	-1111	-1081	-1050	-1020
B	9147	8910	8672	8435	8198	7961	7723
C	-7958	-7745	-7531	-7318	-7104	-6891	-6678

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-213550640 (at least stable for 7 days with CertiPUR-buffer)
	DO sensors are light-sensitive;please protect them from direct light!

DO calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-RMF32C-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.82 (DO Ser. 4452, gain 4)
Date of calibration	2022-01-05

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	979401
Date of sterilization	2021-12-14

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