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

pH calibration parameters Lot No.2204211+2204217 (BioLector XT Microbioreactor, filter module ID-521)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	72.47	72.37	72.28	72.19	72.10	72.01	71.92
ϕ max	23.56	23.50	23.43	23.36	23.29	23.23	23.16
dpH	0.68	0.68	0.68	0.68	0.69	0.69	0.69
pH_0	5.96	5.94	5.93	5.92	5.91	5.90	5.89

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	71.83	71.74	71.64	71.55	71.46	71.37	71.28
ϕ max	23.09	23.02	22.96	22.89	22.82	22.75	22.69
dpH	0.69	0.69	0.69	0.69	0.69	0.69	0.69
pH_0	5.88	5.87	5.86	5.84	5.83	5.82	5.81

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	71.19	71.10	71.01	70.91	70.82	70.73	70.64
ϕ max	22.62	22.55	22.48	22.42	22.35	22.28	22.21
dpH	0.69	0.69	0.69	0.69	0.69	0.69	0.69
pH_0	5.80	5.79	5.78	5.77	5.76	5.75	5.73

pH sensor properties

Dynamic range	pH 3.60 - 7.85
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.25 - 4.70 ; ± 0.1 pH at pH 4.70 - 6.70 ; ± 0.25 pH at pH 6.70 - 7.15 (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 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 Flower Plate (MTP-MF32-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -360.79 (pH Ser. 3513, gain 8)
Date of calibration	2022-04-20

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.2204211+2204217 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1829	-1796	-1764	-1731	-1699	-1667	-1634
B	14084	13830	13575	13321	13067	12813	12559
C	-12431	-12202	-11973	-11745	-11516	-11287	-11058

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1602	-1569	-1537	-1504	-1472	-1439	-1407
B	12305	12051	11796	11542	11288	11034	10780
C	-10829	-10601	-10372	-10143	-9914	-9685	-9457

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1374	-1342	-1309	-1277	-1245	-1212	-1180
B	10526	10272	10017	9763	9509	9255	9001
C	-9228	-8999	-8770	-8541	-8313	-8084	-7855

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-213550643 (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_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.89 (DO Ser. 4452, gain 4)
Date of calibration	2022-04-20

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1020859
Date of sterilization	2022-04-01

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