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

pH calibration parameters Lot No.2308322 and 2308328 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	72.47	72.58	72.68	72.79	72.90	73.01	73.12
ϕ max	16.12	16.17	16.21	16.25	16.29	16.33	16.37
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.31	5.31	5.30	5.30	5.29	5.29	5.28

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.22	73.33	73.44	73.55	73.66	73.77	73.87
ϕ max	16.41	16.45	16.49	16.53	16.57	16.62	16.66
dpH	-0.39	-0.39	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.27	5.27	5.26	5.26	5.25	5.25	5.24

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	73.98	74.09	74.20	74.31	74.41	74.52	74.63
ϕ max	16.70	16.74	16.78	16.82	16.86	16.90	16.94
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.23	5.23	5.22	5.22	5.21	5.21	5.20

pH sensor properties

Dynamic range	pH 3.85 - 6.40
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.15 - 4.30 ; ± 0.1 pH at pH 4.30 - 6.10 ; ± 0.25 pH at pH 6.10 - 6.10 (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 pH51-222757009+010 (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 Round Well Plate (MTP-(R)MF32C-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	pH -361.34 (pH Ser. 3795, gain 6)
Date of calibration	2023-10-26

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.2308322 and 2308328 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-2333	-2272	-2212	-2152	-2092	-2031	-1971
B	18061	17585	17110	16634	16159	15684	15208
C	-16055	-15623	-15190	-14758	-14325	-13893	-13460

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1911	-1851	-1790	-1730	-1670	-1610	-1550
B	14733	14257	13782	13306	12831	12356	11880
C	-13028	-12596	-12163	-11731	-11298	-10866	-10434

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1489	-1429	-1369	-1309	-1248	-1188	-1128
B	11405	10929	10454	9978	9503	9028	8552
C	-10001	-9569	-9136	-8704	-8272	-7839	-7407

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-230250057 (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 Round Well Plate (MTP-(R)MF32C-BOH3)
Calibration device	Hardware ID: 03166168 (BLXT0067)
Calibration phase offset	DO -360.85 (DO Ser. 4659, gain 4)
Date of calibration	2023-10-26

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3703
Date of sterilization	2023-04-26

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