

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

pH calibration parameters Lot No.2216322 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
φ min	75.60	75.67	75.74	75.81	75.88	75.95	76.02
φ max	15.14	15.17	15.20	15.24	15.27	15.30	15.34
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH ₀	5.28	5.27	5.27	5.26	5.26	5.25	5.25

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
φ min	76.09	76.15	76.22	76.29	76.36	76.43	76.50
φ max	15.37	15.40	15.44	15.47	15.50	15.54	15.57
dpH	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37
pH ₀	5.24	5.24	5.24	5.23	5.23	5.22	5.22

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
φ min	76.57	76.64	76.71	76.78	76.85	76.91	76.98
φ max	15.60	15.64	15.67	15.70	15.73	15.77	15.80
dpH	-0.37	-0.37	-0.37	-0.37	-0.37	-0.36	-0.36
pH ₀	5.21	5.21	5.20	5.20	5.19	5.19	5.19

pH sensor properties

Dynamic range	pH 3.80 - 6.45
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.10 - 4.25 ; ± 0.1 pH at pH 4.25 - 6.00 ; ± 0.25 pH at pH 6.00 - 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 pH51-221155385+386 (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 Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -361.17 (pH Ser. 3587, gain 6)
Date of calibration	2023-01-11

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.2216322 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-3262	-3175	-3087	-3000	-2913	-2826	-2739
B	25383	24697	24011	23325	22640	21954	21268
C	-22718	-22096	-21474	-20852	-20230	-19609	-18987

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-2651	-2564	-2477	-2390	-2303	-2215	-2128
B	20583	19897	19211	18526	17840	17154	16468
C	-18365	-17743	-17121	-16499	-15877	-15255	-14633

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-2041	-1954	-1867	-1779	-1692	-1605	-1518
B	15783	15097	14411	13726	13040	12354	11669
C	-14011	-13389	-12767	-12146	-11524	-10902	-10280

DO sensor properties

Dynamic range	0 - 100 % oxygen
Resolution	Up to 0.1 % O ₂ (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O ₂ per day (sampling interval of 6 min)
Response time (t ₉₀)	< 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-224858176 (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 Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.98 (DO Ser. 4452, gain 4)
Date of calibration	2023-01-11

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3217
Date of sterilization	2022-12-23

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