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

pH calibration parameters Lot No.2208321 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	72.85	72.85	72.85	72.85	72.85	72.85	72.85
ϕ max	13.30	13.66	14.01	14.36	14.71	15.06	15.41
dpH	-0.44	-0.44	-0.43	-0.43	-0.42	-0.42	-0.41
pH_0	5.32	5.32	5.31	5.31	5.31	5.31	5.30

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	72.85	72.85	72.85	72.85	72.85	72.85	72.85
ϕ max	15.76	16.11	16.46	16.81	17.16	17.51	17.86
dpH	-0.41	-0.40	-0.40	-0.39	-0.39	-0.38	-0.38
pH_0	5.30	5.30	5.30	5.29	5.29	5.29	5.28

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	72.85	72.85	72.85	72.85	72.85	72.85	72.85
ϕ max	18.21	18.57	18.92	19.27	19.62	19.97	20.32
dpH	-0.37	-0.36	-0.36	-0.35	-0.35	-0.34	-0.34
pH_0	5.28	5.28	5.28	5.27	5.27	5.27	5.27

pH sensor properties

Dynamic range	pH 3.75 - 6.45
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.05 - 4.25 ; ± 0.1 pH at pH 4.25 - 6.15 ; ± 0.25 pH at pH 6.15 - 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 pH51-2142507703+704 (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 -360.94 (pH Ser. 3587, gain 6)
Date of calibration	2022-08-09

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.2208321 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-1813	-1777	-1741	-1704	-1668	-1632	-1595
B	14000	13713	13427	13141	12854	12568	12282
C	-12394	-12134	-11875	-11615	-11355	-11096	-10836

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1559	-1523	-1486	-1450	-1414	-1377	-1341
B	11995	11709	11423	11136	10850	10564	10277
C	-10577	-10317	-10057	-9798	-9538	-9279	-9019

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1305	-1268	-1232	-1195	-1159	-1123	-1086
B	9991	9705	9419	9132	8846	8560	8273
C	-8759	-8500	-8240	-7981	-7721	-7461	-7202

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- 221155396 (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 -360.76 (DO Ser. 4452, gain 4)
Date of calibration	2022-08-09

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1064096
Date of sterilization	2022-07-28

Contact us

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