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

pH calibration parameters Lot No.2316101 (BioLector XT Microbioreactor, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	61.04	60.97	60.91	60.85	60.78	60.72	60.66
ϕ max	11.23	11.25	11.26	11.28	11.30	11.31	11.33
dpH	0.52	0.52	0.51	0.51	0.51	0.51	0.51
pH_0	6.62	6.61	6.60	6.59	6.58	6.57	6.55

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	60.60	60.53	60.47	60.41	60.34	60.28	60.22
ϕ max	11.35	11.36	11.38	11.40	11.41	11.43	11.45
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH_0	6.54	6.53	6.52	6.51	6.50	6.49	6.48

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	60.16	60.09	60.03	59.97	59.91	59.84	59.78
ϕ max	11.47	11.48	11.50	11.52	11.53	11.55	11.57
dpH	0.51	0.51	0.51	0.51	0.51	0.51	0.51
pH_0	6.47	6.46	6.44	6.43	6.42	6.41	6.40

pH sensor properties

Dynamic range	pH 4.70 - 7.95
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.15 - 5.45 ; ± 0.1 pH at pH 5.45 - 7.25 ; ± 0.25 pH at pH 7.25 - 7.50 (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 HP8-2211-01 (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 3.00 ± 0.02 / pH 4.00 ± 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 = pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03166164 (BLXT 0067)
Calibration phase offset	pH -1.70 (pH Ser. 3567, gain 7)
Date of calibration	2023-11-16

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.2316101 (BioLector XT Microbioreactor, filter module ID-503)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-4971	-4874	-4776	-4679	-4581	-4483	-4386
B	39224	38450	37676	36902	36128	35354	34580
C	-35637	-34929	-34221	-33514	-32806	-32098	-31390

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-4288	-4191	-4093	-3996	-3898	-3801	-3703
B	33806	33032	32258	31484	30710	29936	29161
C	-30682	-29974	-29266	-28559	-27851	-27143	-26435

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-3606	-3508	-3411	-3313	-3216	-3118	-3020
B	28387	27613	26839	26065	25291	24517	23743
C	-25727	-25019	-24311	-23603	-22896	-22188	-21480

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 PSt3-HG-1921-01_5 (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 = pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: 03166164 (BLXT 0067)
Calibration phase offset	DO -360.80 (DO Ser. 4446, gain 7)
Date of calibration	2023-11-16

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-4534
Date of sterilization	2023-11-08

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