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

pH calibration parameters Lot No.2212101 (BioLector XT Microbioreactor, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.20	63.12	63.05	62.97	62.89	62.82	62.74
ϕ max	15.24	15.24	15.24	15.24	15.24	15.24	15.25
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.64	6.63	6.62	6.62	6.61	6.61	6.60

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	62.66	62.59	62.51	62.43	62.35	62.28	62.20
ϕ max	15.25	15.25	15.25	15.25	15.25	15.26	15.26
dpH	0.52	0.52	0.52	0.52	0.52	0.52	0.52
pH_0	6.60	6.59	6.59	6.58	6.57	6.57	6.56

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	62.12	62.05	61.97	61.89	61.82	61.74	61.66
ϕ max	15.26	15.26	15.26	15.26	15.27	15.27	15.27
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.56	6.55	6.55	6.54	6.54	6.53	6.52

pH sensor properties

Dynamic range	pH 4.75 - 8.10
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.20 - 5.50 ; ± 0.1 pH at pH 5.50 - 7.35 ; ± 0.25 pH at pH 7.35 - 7.60 (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 HP8-2148-01 (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 Pilot 1)
Calibration phase offset	pH -2.04 (pH Ser. 3567, gain 7)
Date of calibration	2022-09-28

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.2212101 (BioLector XT Microbioreactor, filter module ID-503)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-4232	-4175	-4118	-4061	-4004	-3947	-3890
B	33324	32874	32424	31975	31525	31075	30626
C	-30201	-29792	-29383	-28974	-28565	-28156	-27747

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-3833	-3777	-3720	-3663	-3606	-3549	-3492
B	30176	29726	29276	28827	28377	27927	27477
C	-27338	-26929	-26519	-26110	-25701	-25292	-24883

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-3435	-3378	-3321	-3264	-3207	-3151	-3094
B	27028	26578	26128	25678	25229	24779	24329
C	-24474	-24065	-23656	-23247	-22838	-22429	-22019

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 Pilot 1)
Calibration phase offset	DO -360.73 (DO Ser. 4446, gain 7)
Date of calibration	2022-09-28

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1078918
Date of sterilization	2022-09-07

Contact us

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