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

pH calibration parameters Lot No.2305101 (BioLector XT Microbioreactor, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.88	63.81	63.74	63.68	63.61	63.54	63.47
ϕ max	15.51	15.53	15.56	15.59	15.61	15.64	15.66
dpH	0.55	0.55	0.55	0.55	0.55	0.55	0.55
pH_0	6.58	6.58	6.57	6.56	6.56	6.55	6.55

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	63.41	63.34	63.27	63.20	63.14	63.07	63.00
ϕ max	15.69	15.72	15.74	15.77	15.79	15.82	15.85
dpH	0.55	0.55	0.55	0.55	0.55	0.55	0.55
pH_0	6.54	6.53	6.53	6.52	6.52	6.51	6.50

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	62.93	62.87	62.80	62.73	62.66	62.60	62.53
ϕ max	15.87	15.90	15.93	15.95	15.98	16.00	16.03
dpH	0.55	0.55	0.55	0.55	0.55	0.55	0.55
pH_0	6.50	6.49	6.49	6.48	6.47	6.47	6.46

pH sensor properties

Dynamic range	pH 4.65 - 8.10
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 5.10 - 5.40 ; ± 0.1 pH at pH 5.40 - 7.30 ; ± 0.25 pH at pH 7.30 - 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 -1.70 (pH Ser. 3567, gain 7)
Date of calibration	2023-03-31

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.2305101 (BioLector XT Microbioreactor, filter module ID-503)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-4582	-4504	-4426	-4348	-4270	-4192	-4115
B	36136	35518	34900	34282	33665	33047	32429
C	-32815	-32250	-31685	-31120	-30555	-29989	-29424

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-4037	-3959	-3881	-3803	-3725	-3647	-3570
B	31811	31193	30575	29957	29339	28722	28104
C	-28859	-28294	-27729	-27164	-26599	-26034	-25468

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-3492	-3414	-3336	-3258	-3180	-3103	-3025
B	27486	26868	26250	25632	25014	24396	23779
C	-24903	-24338	-23773	-23208	-22643	-22078	-21513

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 -360.66 (DO Ser. 4446, gain 7)
Date of calibration	2023-03-31

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3541
Date of sterilization	2023-03-22

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