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

pH calibration parameters Lot No.2116307 (BioLector XT Microbioreactor, filter module ID-524)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	72.78	72.84	72.91	72.97	73.04	73.10	73.17
ϕ max	14.37	14.40	14.43	14.46	14.49	14.52	14.55
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41
pH_0	5.36	5.35	5.35	5.34	5.34	5.33	5.33

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	73.23	73.30	73.37	73.43	73.50	73.56	73.63
ϕ max	14.58	14.61	14.64	14.67	14.70	14.73	14.76
dpH	-0.41	-0.41	-0.41	-0.41	-0.40	-0.40	-0.40
pH_0	5.32	5.32	5.31	5.31	5.30	5.30	5.29

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	73.69	73.76	73.82	73.89	73.96	74.02	74.09
ϕ max	14.79	14.82	14.85	14.88	14.91	14.94	14.97
dpH	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
pH_0	5.29	5.28	5.28	5.27	5.26	5.26	5.25

pH sensor properties

Dynamic range	pH 3.75 - 6.60
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.10 - 4.25 ; ± 0.1 pH at pH 4.25 - 6.10 ; ± 0.25 pH at pH 6.10 - 6.30 (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 pH51-204250698 (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 = pH_DO_calibration_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-R48-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH 361.00 (pH Ser. 3587, gain 6)
Date of calibration	2021-12-09

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.2116307 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-2073	-2027	-1981	-1935	-1889	-1842	-1796
B	16047	15683	15318	14954	14590	14226	13862
C	-14249	-13918	-13587	-13257	-12926	-12595	-12265

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-1750	-1704	-1658	-1612	-1566	-1519	-1473
B	13498	13134	12770	12406	12042	11678	11314
C	-11934	-11603	-11273	-10942	-10611	-10281	-9950

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-1427	-1381	-1335	-1289	-1242	-1196	-1150
B	10949	10585	10221	9857	9493	9129	8765
C	-9619	-9289	-8958	-8627	-8297	-7966	-7635

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-21160296 (at least stable for 7 days with CertiPUR-buffer)
	DO sensors are light-sensitive;please protect them from direct light!

DO calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = pH_DO_calibration_BOH3 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-R48-BOH3)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO 360.83 (DO Ser. 4452, gain 4)
Date of calibration	2021-12-09

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	972085
Date of sterilization	2021-11-25

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