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

pH calibration parameters Lot No.2201121+2201127 (BioLector XT Microbioreactor, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	64.58	64.50	64.42	64.33	64.25	64.17	64.08
ϕ max	13.39	13.38	13.38	13.38	13.38	13.37	13.37
dpH	0.58	0.58	0.58	0.58	0.58	0.59	0.59
pH_0	6.28	6.27	6.26	6.25	6.25	6.24	6.23

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	64.00	63.92	63.83	63.75	63.66	63.58	63.50
ϕ max	13.37	13.36	13.36	13.36	13.36	13.35	13.35
dpH	0.59	0.59	0.59	0.59	0.59	0.59	0.59
pH_0	6.22	6.21	6.21	6.20	6.19	6.18	6.17

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	63.41	63.33	63.25	63.16	63.08	63.00	62.91
ϕ max	13.35	13.34	13.34	13.34	13.34	13.33	13.33
dpH	0.59	0.59	0.59	0.59	0.59	0.59	0.59
pH_0	6.17	6.16	6.15	6.14	6.13	6.13	6.12

pH sensor properties

Dynamic range	pH 4.25 - 7.85
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.75 - 5.05 ; ± 0.1 pH at pH 5.05 - 7.00 ; ± 0.25 pH at pH 7.00 - 7.35 (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 HP8-1811-01_6 (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 = MF_pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-RMF32C-BOH1)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -2.45 (pH Ser. 3511, gain 7)
Date of calibration	2022-10-28

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.2201121+2201127 (BioLector XT Microbioreactor, filter module ID-528)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-3661	-3602	-3544	-3485	-3426	-3367	-3309
B	28773	28309	27845	27382	26918	26454	25991
C	-26015	-25594	-25172	-24751	-24330	-23909	-23487

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-3250	-3191	-3133	-3074	-3015	-2956	-2898
B	25527	25063	24600	24136	23672	23209	22745
C	-23066	-22645	-22223	-21802	-21381	-20959	-20538

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-2839	-2780	-2721	-2663	-2604	-2545	-2486
B	22281	21818	21354	20890	20427	19963	19499
C	-20117	-19695	-19274	-18853	-18431	-18010	-17589

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_2 (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 = MF_pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Round Well Plate (MTP-RMF32C-BOH1)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.83 (DO Ser. 4446, gain 7)
Date of calibration	2022-10-28

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	990461
Date of sterilization	2022-01-19

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