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

pH calibration parameters Lot No.2113101 + 2113107 (BioLector® XT, filter module ID-502)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.42	63.34	63.27	63.20	63.12	63.05	62.98
ϕ max	12.47	12.47	12.46	12.46	12.46	12.45	12.45
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pH_0	6.28	6.27	6.27	6.26	6.25	6.25	6.24

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	62.90	62.83	62.75	62.68	62.61	62.53	62.46
ϕ max	12.44	12.44	12.43	12.43	12.42	12.42	12.41
dpH	0.56	0.56	0.56	0.57	0.57	0.57	0.57
pH_0	6.23	6.23	6.22	6.21	6.21	6.20	6.19

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	62.39	62.31	62.24	62.16	62.09	62.02	61.94
ϕ max	12.41	12.40	12.40	12.39	12.39	12.39	12.38
dpH	0.57	0.57	0.57	0.57	0.57	0.57	0.57
pH_0	6.19	6.18	6.17	6.16	6.16	6.15	6.14

pH sensor properties

Dynamic range	pH 4.25 - 7.90
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.75 - 5.05 ; ± 0.1 pH at pH 5.05 - 7.05 ; ± 0.25 pH at pH 7.05 - 7.40 (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_4 (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
Calibration phase offset	pH -1.81 (pH Ser. 3511, gain 7)
Date of calibration	2021-10-07

HEADQUARTERS EUROPE

m2p-labs GmbH
Arnold-Sommerfeld-Ring 2
52499 Baesweiler, Germany
Phone +49 -2401 805 330
Fax +49 -2401 805 33
info@m2p-labs.com

SUPPORT

EUROPE
Phone +49 - 2401 805 335
support@m2p-labs.com

N./S. AMERICAS
Phone +1 631 501 1878
supportUS@m2p-labs.com

ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com

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

DO calibration parameters Lot No.2113101 + 2113107 (BioLector® XT, filter module ID-503)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
A	-4584	-4497	-4409	-4322	-4235	-4147	-4060
B	36139	35445	34751	34058	33364	32671	31977
C	-32799	-32164	-31529	-30895	-30260	-29625	-28990

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
A	-3973	-3885	-3798	-3711	-3623	-3536	-3449
B	31283	30590	29896	29203	28509	27815	27122
C	-28356	-27721	-27086	-26452	-25817	-25182	-24547

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
A	-3361	-3274	-3187	-3099	-3012	-2925	-2837
B	26428	25735	25041	24348	23654	22960	22267
C	-23913	-23278	-22643	-22009	-21374	-20739	-20104

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_3 (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_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
Calibration phase offset	DO -360.63 (DO Ser. 4446, gain 7)
Date of calibration	2021-10-07

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	941459
Date of sterilization	2021-09-09

HEADQUARTERS EUROPE

m2p-labs GmbH
Arnold-Sommerfeld-Ring 2
52499 Baesweiler, Germany
Phone +49 -2401 805 330
Fax +49 -2401 805 33
info@m2p-labs.com

SUPPORT

EUROPE
Phone +49 - 2401 805 335
support@m2p-labs.com

N./S. AMERICAS
Phone +1 631 501 1878
supportUS@m2p-labs.com

ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com