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

pH calibration parameters Lot No. 2012321 (BioLector® Pro, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	70.86	70.93	70.99	71.06	71.12	71.19	71.26
ϕ max	14.97	15.00	15.03	15.06	15.09	15.12	15.15
dpH	-0.42	-0.42	-0.42	-0.42	-0.41	-0.41	-0.41
pH_0	5.36	5.36	5.36	5.35	5.35	5.34	5.34
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	71.32	71.39	71.45	71.52	71.58	71.65	71.72
ϕ max	15.18	15.21	15.24	15.27	15.30	15.33	15.36
dpH	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41
pH_0	5.33	5.33	5.33	5.32	5.32	5.31	5.31
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	71.78	71.85	71.91	71.98	72.04	72.11	72.18
ϕ max	15.39	15.42	15.45	15.48	15.51	15.54	15.57
dpH	-0.41	-0.41	-0.41	-0.40	-0.40	-0.40	-0.40
pH_0	5.31	5.30	5.30	5.29	5.29	5.29	5.28

pH sensor properties

Dynamic range	pH 3.70 – 6.55
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.05 - 4.25; ± 0.1 pH at pH 4.25 – 6.05; ± 0.25 pH at pH 6.05 - 6.25 (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	15 °C to 40 °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)
Basic material	pH sensor pH51-194150160 (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 ± 0.01 / pH 3.00 ± 0.015 / pH 7.00 ± 0.01 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.10 (pH Ser. 3288, gain 6)
Date of calibration	2021/01/13

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
AMERICA
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. 2012321(BioLector® Pro, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	69.59	69.58	69.57	69.56	69.55	69.54	69.53
ϕ cal100	41.91	41.71	41.52	41.32	41.12	40.92	40.73
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	69.52	69.51	69.50	69.48	69.47	69.46	69.45
ϕ cal100	40.53	40.33	40.13	39.94	39.74	39.54	39.35
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	69.44	69.43	69.42	69.41	69.40	69.39	69.38
ϕ cal100	39.15	38.95	38.75	38.56	38.36	38.16	37.97

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O_2 (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O_2 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-m2p-A 204150648 (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 = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.44 (DO Ser.4302-RD, gain 4)
Date of calibration	2021/01/13

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	840289
Date of sterilization	2020/12/17

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
AMERICA
Phone +1 631 501 1878
supportUS@m2p-labs.com
ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com