

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

DO calibration parameters Lot No. 2006181 (BioLector® I, filter module ID-103/-303)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	71.39	71.37	71.34	71.31	71.28	71.25	71.22
ϕ cal100	42.23	41.99	41.75	41.51	41.26	41.02	40.78
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	71.19	71.16	71.14	71.11	71.08	71.05	71.02
ϕ cal100	40.54	40.29	40.05	39.81	39.57	39.32	39.08
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.99	70.96	70.93	70.91	70.88	70.85	70.82
ϕ cal100	38.84	38.60	38.35	38.11	37.87	37.63	37.38

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.5 % 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 (t ₉₀)	< 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-1810-01_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 = pH-DO-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	DO 332.5 (DO Ser.3402, gain 70)
Date of calibration	2020/06/09

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	766620
Date of sterilization	2020/05/25

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