

Shake Flask Reader

includes SFR main unit, software, USB to Bluetooth adapter, battery charger & 2 rechargeable batteries

Shake flask with sensor spots

for non-invasive online measurement of dissolved oxygen and pH



Software

The SFRS software from PreSens provides an integrated database to evaluate measurements. These results are displayed in real time during the entire cultivation. The software has a data logging function. The data can be displayed in a variety of graphical formats and can be exported to Excel or as a csv-file for further evaluation. The current measurements can be compared with previously stored cultivation data online. The connection between the SFR and the PC is wireless.

Oxygen-Sensor

- **Range**
0-100%
- **Accuracy**
 $\pm 0.01\% \text{ O}_2$ at $0.21\% \text{ O}_2$
 $\pm 0.1\% \text{ O}_2$ at $20.9\% \text{ O}_2$
- **Drift**
< $0.015\% \text{ O}_2$ per day
- **Cross-sensitivity**
Typically no cross-sensitivity in culture media
- **Temperature range**
up to 50°C

pH-Sensor

- **Range**
pH 5.5 - pH 8.5
- **Accuracy**
 $\pm 0.05 \text{ pH}$ at pH 7 with one-point calibration
 $\pm 0.10 \text{ pH}$ at pH 7 with precalibration
- **Drift**
< 0.005 pH per day
- **Cross-sensitivity**
Reduced to ionic strength (salinity).
A high concentration of small fluorescent molecules in the visible range can interfere.
- **Temperature range**
up to 50°C

Shake Flask Reader

- **Shaker**
Suitable for all Kuhner Shakers (V/W/X-serie)
- **Temperature range**
 $5^\circ\text{C} - 50^\circ\text{C}$
- **Flask** **Positions**

125mL	9
200mL	9
500mL	9
1000mL	6
2000mL	5