

OSCAR

Benefits

- stand alone hyperspectral integrating cavity absorption meter (PSICAM)
- user changeable cavities in Ø 50 mm or Ø 80 mm
- flow through design
- low power consumption

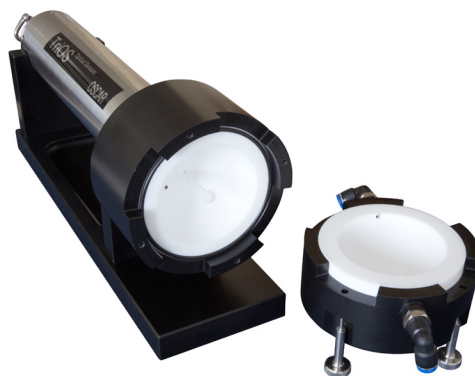
Applications

- water quality
- satellite validation
- algae blooms
- biology
- ocean optics



Online hyperspectral integrating cavity absorption meter

OSCAR is a new high-end absorption meter, following the principle of the well-known PSICAM (Point Source Integrating Absorption Meter). This principle allows to measure the real absorption spectra without the use of many assumptions, like other instruments on the market. OSCAR is suitable for laboratory use, but also for in situ profiling and moored applications. Internal datalogging function and low power consumption make the sensor suitable for autonomous measurements.



Technical Specifications

| | | |
|---|-----------------|--|
| Measurement technology | light source | 12 LED |
| | detector | High-end miniature spectrometer |
| | | 256 channels |
| | | 360 to 750 nm |
| | | 3.3 nm/pixel |
| Measurement principle | | Absorption |
| Diameter | | 80 mm or 50 mm |
| Parameter | | Absorption |
| Turbidity compensation | | Yes |
| Data logger | | 2 GB |
| T100 response time | | ≤ 2 min. |
| Measurement interval | | ≥ 1 min. |
| Housing material | | Stainless steel (1.4571/1.4404) or titanium (3.7035) |
| Dimensions (L x Ø) | | 450 mm x 135 mm (without hose connection) |
| Weight | stainless steel | ~ 6.2 kg |
| | titanium | ~ 5.5 kg |
| Interface | digital | Ethernet (TCP/IP) |
| | | RS-232 or RS-485 (Modbus RTU) |
| Power consumption | | ≤ 4 W |
| Power supply | | 12...24 VDC (± 10 %) |
| Maintenance effort | | Typically ≤ 0.5 h/month |
| Calibration/maintenance interval | | 24 months |
| System compatibility | | Modbus RTU |
| Guarantee | | 1 year (EU: 2 years) |
| INSTALLATION | | |
| Max. pressure | with SubConn | 30 bar |
| | in cavity | 1 bar more than ambient pressure, 2...4 L/min |
| Protection type | | IP68 |
| Sample temperature | | +2...+40 °C |
| Ambient temperature | | +2...+40 °C |
| Storage temperature | | -20...+80 °C |