



picoTurb

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SEPIA immersion sensors provide precise, modular and digital water analysis in any situation - in the laboratory, in the field, mobile and directly in the process of waterworks or sewage treatment plants. They offer maximum flexibility for water management, wastewater treatment, environmental laboratories, industrial processes and aquaculture and combine all measurement tasks in a single, modular, expandable system.

picoTurb is a digital sensor for optical turbidity measurement using the 90° IR scattered light method. Depending on the sensor version, it can be used in ultrapure water as well as in raw water, waste water and process water.

As an immersion sensor in the **SEPIA series**, picoTurb was specially developed for use with the TriOS multiparameter probe **FALCON**. Digital communication ensures safety and interference-free signal transmission from the sensor to the controller.

Thanks to the modular design of the SEPIA sensors, the picoTurb can be easily calibrated under laboratory conditions using the TriOS Lab Controller **LoLA**.

The system portfolio is further supplemented by a SEPIA Modbus adapter, which transmits the measured values of individual sensors directly to any Modbus-compatible device or controller.

Advantages

- Digital, modern and ergonomic design
- Calibrate in the lab - use in the field
- High accuracy and reliability
- Cost-efficient due to modular design
- USB-C and Modbus for seamless integration
- Comparable results in the lab and in the field

Applications for

- Water suppliers
- Drinking water monitoring
- Sewage treatment plants
- Environmental laboratories
- Industrial applications
- Aquaculture

Technical specifications

Measurement technology	Light source	LED	
	Detector	Photodiode	
Measurement principle		Nephelometry (90° scattered light method)	
Parameters		Turbidity in FNU	
Applied standard		DIN EN ISO 7027-1:2016-11	
Measurement range		0 - 400 FNU	
Temperature compensation		No	
Data logger		No	
Response time (T90)		2 s	
Response time		2 s	
Smallest measurement interval		1 s	
Cross sensitivities		None	
Interface		Digital, SEPIA	
Power consumption		Typically < 250 mW	
Power supply		SEPIA	
Connection		3.5 mm jack plug, 4-pin (TRRS)	
Housing material		Titanium (3.7035)	
Dimensions (L x Ø)		112 x 24 mm	~ 4.4" x 0.95"
Volume /filling volume		tbd	
Weight (with o-ring)		Approx. 103 g	~ 0.23 lbs
Sample temperature		+0...+55 °C * +2...+40 °C (for specified measurement accuracy)	~ +32 to +131 °F * ~ +36 to +104 °F

* No ice crystals in the sample water

Ambient temperature	+0...+55 °C * +2...+40 °C (for specified measuring accuracy)	~ +32 to +131 °F * ~ +36 to +104 °F
Storage temperature	-20...+60 °C	~ -4 to +140 °F
Relative humidity	0...95 %, non-condensing	
Transportation conditions	See storage temperature and relative humidity	
Max. Max. pressure	30 bar	~ 435 psi
Inflow velocity	None	
Degree of protection	IP68	
Operating altitude	Max. altitude 2000 m	~ 6562 ft

* No ice crystals in the sample water

Maintenance effort	≤ 0.5 h/month typical
Calibration/maintenance interval	24 months (factory calibration recommended)
System compatibility	SEPIA compatible
Warranty	1 year (EU&US: 2 years) on electrons; wearing parts are excluded from the warranty