

DULCOEYE Sensors for Organic Contaminants

Smart sensor technology for the precise determination of organic contamination

ProMinent®



The DULCOEYE SAC optical sensor from ProMinent measures absorption at 254 nm. It provides reliable information about the organic load in the water. Ideal for continuous monitoring and process control.

Your benefits

- For determining SAK, UVT, COD, BOD, TOC, and DOC
- 3 path lengths available: 2"mm, 5"mm, and 20"mm
- In accordance with DIN 38404
- Long-term stable UV LED
- Intelligent wiper with replaceable wiper blade



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Technical Data

Measured variable	Absorption
Measurement Parameters	SAK ₂₅₄ , UVT ₂₅₄ , CSB _{eq} , BSB _{eq} , TOC _{eq} , DOC _{eq} , Turbidity
Measuring range	Design with 2 mm optical path length: SAK₂₅₄ 0...700 1/m UVT₂₅₄ 0...100% CSB_{eq} 0...1,000 mg/l BSB_{eq} 0...1,000 mg/l TOC_{eq} 0...500 mg/l DOC_{eq} 0...500 mg/l Turbidity 0...2,500 FAU Design with 5 mm optical path length: SAK₂₅₄ 0...400 1/m UVT₂₅₄ 0...100% CSB_{eq} 0...500 mg/l BSB_{eq} 0...500 mg/l TOC_{eq} 0...250 mg/l DOC_{eq} 0...250 mg/l Turbidity 0...1,000 FAU Design with 20 mm optical path length: SAK₂₅₄ 0...100 1/m UVT₂₅₄ 0...100% CSB_{eq} 0...100 mg/l BSB_{eq} 0...100 mg/l TOC_{eq} 0...50 mg/l DOC_{eq} 0...50 mg/l Turbidity 0...250 FAU
Measuring principle, technology	Transmission
Light source	254 nm UV LED, LED for turbidity compensation at 550 nm
Accuracy	Design: optical path length 2 mm: ± 0.5% of full scale (FS) optical path length 5 mm: ± 0.5% of full scale (FS) optical path length 20 mm: ± 1.5% of full scale (FS) turbidity: ± 2% of full scale (FS)
Resolution	0.01 [1/m; %; mg/l]
Repeatability	Parameters: ± 0.5% of full scale (FS, KHP) Turbidity: ± 1% of full scale (FS)
Response time sensor t90	5 s (without signal notification; adjustable in the controller)
Storage temperature	-10...50 °C
Enclosure rating	IP 68 (< 10 m)
Operating temperature	0...45 °C
Flow	20...30 l/h
Operating pressure	1 – 3 bar
Supply voltage	11...30 V DC
Power uptake	3.2 W
Communication interface	RS-485
Controllers	diaLog C
Dimensions	Optical path length design options: 2 mm: 247.5 mm height (without cable), 55 mm (Ø) 5 mm: 250.5 mm height (without cable), 55 mm (Ø) 20 mm: 265.5 mm height (without cable), 55 mm (Ø)
Weight	Optical path length design versions: 2 mm: 1.873 g + cable 5 mm: 1.793 g + cable 20 mm: 2.013 g + cable

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