



# NiCaVis<sup>®</sup> optical sensors for surface water monitoring



Multiparameter-sensors with ultrasonic cleaning technology for the reagent-free measurement of color, nitrate, nitrite, carbon parameters and total suspended solids in rivers and lakes.

We would like to inform you about the application range on our website

| Model   | NiCaVis <sup>®</sup> 705 IQ SF   | NiCaVis <sup>®</sup> 705 IQ NI SF  | NiCaVis <sup>®</sup> 705 IQ SF Co                      |
|---|--|--|--|
| <b>Measuring method</b>                           | Spectral measurement in the UV-VIS range of 200-720 nm   | Spectral measurement in the UV range of 200-390 nm   | Spectral measurement in the UV-VIS range of 200-720 nm |
| <b>Measuring gap</b><br>(optical layer thickness) | 5 mm   |  |  |
| <b>Application</b> (optimized for)                | Surface water e.g. rivers and lakes  |  |  |
| <b>Measuring range and Resolution</b>             | NO <sub>3</sub> 0.0 ... 250.0 mg/l 0.1 mg/l<br>NO <sub>3</sub> -N 0.00 ... 50.00 mg/l 0.01 mg/l<br>NO <sub>2</sub><br>NO <sub>2</sub> -N 0.00 ... 25.00 mg/l 0.01 mg/l<br>COD <sub>diss.</sub> 0.0 ... 800.0 mg/l 0.1 mg/l<br>TOC 0.0 ... 500.0 mg/l 0.1 mg/l<br>DOC 0.0 ... 500.0 mg/l 0.1 mg/l<br>BOD 0.0 ... 500.0 mg/l 0.1 mg/l<br>SAC <sub>254 total</sub> 0.0 ... 600.0 1/m 1 1/m<br>SAC <sub>254 diss.</sub> 0.0 ... 600.0 1/m 1 1/m<br>UVT <sub>254 total</sub> * 0.0 ... 100.0 % 0.1 %<br>UVT <sub>254 diss.</sub> * 0.0 ... 100.0 % 0.1 %<br>TSS 0.0 ... 900.0 mg/l 0.1 mg/l<br>Hazen 340 nm<br>Hazen 350 nm<br>Hazen 390 nm<br>Hazen 445 nm<br>Hazen 455 nm<br>Hazen 465 nm<br>ISO 410 nm | 0.0 ... 250.0 mg/l 0.1 mg/l<br>0.00 ... 50.00 mg/l 0.01 mg/l<br>0.0 ... 100.0 mg/l 0.1 mg/l<br>0.00 ... 25.00 mg/l 0.01 mg/l<br>0.0 ... 800.0 mg/l 0.1 mg/l<br>0.0 ... 500.0 mg/l 0.1 mg/l<br>0.0 ... 500.0 mg/l 0.1 mg/l<br>0.0 ... 500.0 mg/l 0.1 mg/l<br>0.0 ... 600.0 1/m 1 1/m<br>0.0 ... 600.0 1/m 1 1/m<br>0.0 ... 100.0 % 0.1 %<br>0.0 ... 100.0 % 0.1 %<br>0 ... 1,050 mg/l Pt/Co 1 mg/l<br>0 ... 1,150 mg/l Pt/Co 1 mg/l<br>0 ... 2,100 mg/l Pt/Co 1 mg/l<br>150 ... 10,000 mg/l Pt/Co 1 mg/l<br>150 ... 10,000 mg/l Pt/Co 1 mg/l<br>150 ... 10,000 mg/l Pt/Co 1 mg/l<br>0 ... 5,300 mg/l Pt/Co 1 mg/l |  |

|  |   |  |
|--|---|--|
| <b>Displayable Parameters</b>                        | Up to 5 at the same time  | NiCaVis <sup>®</sup> 705 IQ SF,<br>NiCaVis <sup>®</sup> 705 IQ NI SF,<br>NiCaVis <sup>®</sup> 705 IQ SF Co<br> |
| <b>Accuracy</b> (standard application surface water) | NO <sub>3</sub> -N, NO <sub>2</sub> -N: ± 3 % of measured value ± 0.5 mg/l<br>Carbon parameters: ± 5 % of measured value ± 2.5 mg/l<br>SAC: ± 0.5 % of measured value ± 0.4 SAK<br>UVT: <10 % UVT ± 1 % UVT of measured value;<br>>10% UVT ± 0.1 % UVT of measured value<br>TSS: ± 5 % of measured value ± 50 mg/l<br>Color: ± 5 % (at 410 nm) of the measurement value ± 10 mg/l |  |
| <b>Turbidity compensation</b>                        | For color parameters: selectable  |  |
| <b>Flow rate</b>                                     | ≤ 3 m/s   |  |
| <b>Pressure Resistance</b>                           | Maximum 1 bar (incl. sensor connection cable)   |  |
| <b>Electrical connections</b>                        | 2-wire shield cable with quick fastener to sensor   |  |
| <b>Electromagnetic Compatibility</b>                 | EN 61326, Class B, FCC Class A<br>Intended for indispensable operation  |  |
| <b>Certifications</b>                                | CE, UKCA  |  |
| <b>Mechanical</b>                                    | Housing: Titan Grade 2, PEEK; Window: Sapphire glass; Protection class: IP 68   |  |
| <b>Weight</b> (without cable)                        | Approx. 8.82 lb (4 kg)  |  |
| <b>Warranty</b>                                      | 2 years for defects in quality  |  |

\* The UVT-254 value is standardized to 10 mm gap width.

| Model                             | Description   | Order No. |
|-----------------------------------|---|-----------|
| NiCaVis <sup>®</sup> 705 IQ SF    | Spectral UV-VIS probe to measure Nitrate, COD <sub>diss.</sub> , TOC, BOD, DOC, SAC, UVT <sub>254</sub> and TSS in surface waters with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings   | 481058    |
| NiCaVis <sup>®</sup> 705 IQ NI SF | Spectral UV probe to measure Nitrate, Nitrite, COD <sub>diss.</sub> , TOC, BOD, DOC, SAC and UVT <sub>254</sub> in surface waters with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings   | 481059    |
| NiCaVis <sup>®</sup> 705 IQ SF Co | Spectral UV-VIS probe to measure Nitrate, Color, COD <sub>diss.</sub> , TOC, BOD, DOC, SAC and UVT <sub>254</sub> in surface waters with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings | 481060    |

All probes without connecting cable (order SACIQ separately)



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