Datasheets

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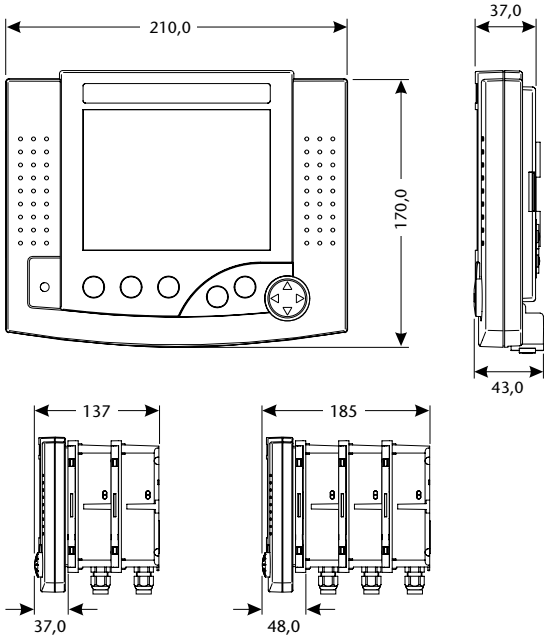
999222US September 2018

IQ Sensor Net Terminal/Controller MIQ/TC 2020 3G

The heart of every IQ Sensor Net system 2020 – multi-parameter system for up to 20 sensors with USB interface, remote maintenance and remote communication

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



Technical Data

Model	**Terminal-/Controller MIQ/TC 2020 3G**
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules
USB interface	USB-A (host)
Display	Graphic display; resolution: 320 x 240 pixel; visible area: 4.49 x 3.39 in. (114 x 86 mm), black/white, backlit
Control Functions/Function Keys	5 operating keys: 3 master keys for functions: Measurement (M), calibration (C), set/system settings (S), 2 keys for: confirmation/switching menu O.K. (OK), Escape (ESC) 4-directional button for rapid selection of software functions and input of alphanumeric values
Datalogger	Data memory for up to 525,600 data sets
Electric Supply	Directly via the IQ Sensor Net when coupled to MIQ module
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C) Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	ASA (Acrylonitrile-Styrene-Acryloesterpolymer)
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	8.27 x 6.69 x 1.57 in. (210 x 170 x 40 mm)
Weight	Approx. 1.98 pounds (0.9 kg)
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component
Connection Characteristics	Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)
Warranty	3 years for defects of quality

Model	Description	Order No.
MIQ/TC 2020 3G	Module IQ terminal/controller, configurable as a controller (fixed installation) or as a terminal with redundant controller function for system 2020, with USB interface, can be coupled to any IQ Sensor Net module	470020
MIQ/TC 2020 3G-CR3	Starter set consisting of MIQ/TC 2020 3G terminal/controller, MIQ/CR3 combined output module with 3 analog outputs (0/4-20 mA) and 3 relay outputs, MIQ/PS wide range power supply	470022
MIQ/TC 2020 3G-C6	Starter set consisting of MIQ/TC 2020 3G terminal/controller, MIQ/C6 output module wit 6 analog outputs (0/4-20 mA), MIQ/PS wide range power supply	470024
MIQ/TC 2020 3G-EF	Starter set consisting of MIQ/TC 2020 3G terminal/controller, MIQ/MC3 controller with fieldbus protocols, MIQ/PS wide range power supply	470026

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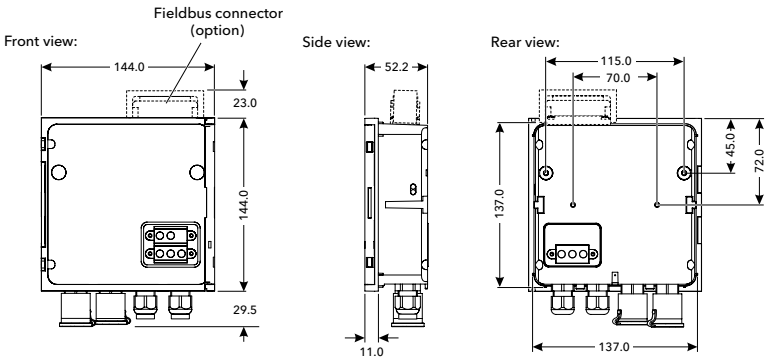
IQ Sensor Net Controller MIQ/MC3

The controller family with network connection via ethernet/WIFI interface for the multi-parameter system IQ Sensor Net 2020 for up to 20 sensors

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



Technical Data

Model	Controller MIQ/MC3
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/TC 2020 3G Terminal/Controller (configurated as Terminal) and for docking additional modules
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible
Cable Feeds	2 screw cable glands M 16 x 1.5
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm² Terminal area for flexible conductors: 0.2 ... 2.5 mm² accessible by opening cover
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ Sensor Net cable
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ Sensor Net; IQ Sensor Net connection, Integrated local identity function; Integrated switchable terminal resistor (SN terminator)
USB interface	USB-A
Ethernet port	RJ45 socket or LSA terminal strip can be used
Datalogger	Data memory for up to 525.600 data sets
Electric Supply	Directly via the IQ Sensor Net when coupled to MIQ module
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	ASA (Acrylonitrile-Styrene-Acryloesterpolymer)
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	5.67 x 6.81 x 2.05 in. (144 x 173 x 52 mm)
Weight	Approx. 1.98 pounds (0.9 kg)
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm²; Filler cord for easy connection of shield: 0.75 mm²; pressure resistant to 10 bar
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)
Warranty	3 years for defects of quality

Model	Description	Order No.
MIQ/MC3	Controller of the system 2020, for up to 20 sensors, with automatic air pressure compensation, USB and RJ45 interface (ethernet)	471020
MIQ/MC3-MOD	Like MIQ/MC3, but including MODBUS RTU/RS 485 interface (D-SUB plug connection ADA/D-SUB 902888, please order separately)	471022
MIQ/MC3-PR	Like MIQ/MC3, but including PROFIBUS-DP/RS 485 interface (D-SUB plug connection ADA/D-SUB 902888, please order separately)	471023

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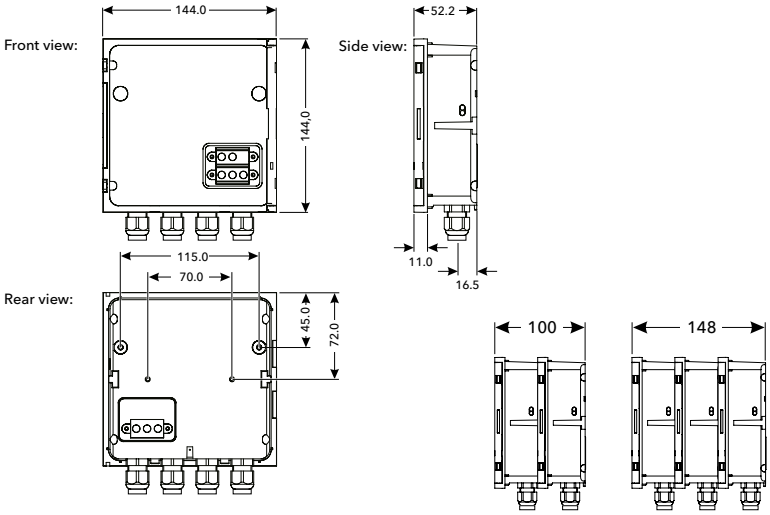
IQ Sensor Net MIQ modules for power supply

Module to supply voltage to the system components in the IQ Sensor Net – thanks to the modular principle and simple installation this is individually customizable

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



Technical Data

Models	MIQ module MIQ/PS	MIQ module MIQ/24V
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/TC 2020 3G Terminal/Controller (configurated as Terminal) and for docking additional modules	
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible	
Cable Feeds	4 screw cable glands M 16 x 1.5	
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2 accessible by opening cover	
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ Sensor Net cable	
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ Sensor Net; IQ Sensor Net connection, Integrated local identity function; Integrated switchable terminal resistor (SN terminator)	
Electric Supply	Directly via the IQ Sensor Net	
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)	
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)	
Protection Rating	IP67	IP 66
	corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..	
Dimensions (W x H x D)	5.67 x 5.67 x 2.05 in. (144 x 144 x 52 mm)	
Weight	Approx. 1.1 pounds (0.5 kg)	
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE	
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A	
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component	
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; Filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar	
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)	
Warranty	3 years for defects of quality	

Model	Description	Order No.
MIQ/PS	Module IQ / power supply for voltage supply with wide range power supply for 100 – 240 VAC input voltage	480004
MIQ/24V	Module IQ / 24 V for voltage supply with 24 VAC or 24 VDC input voltage	480006

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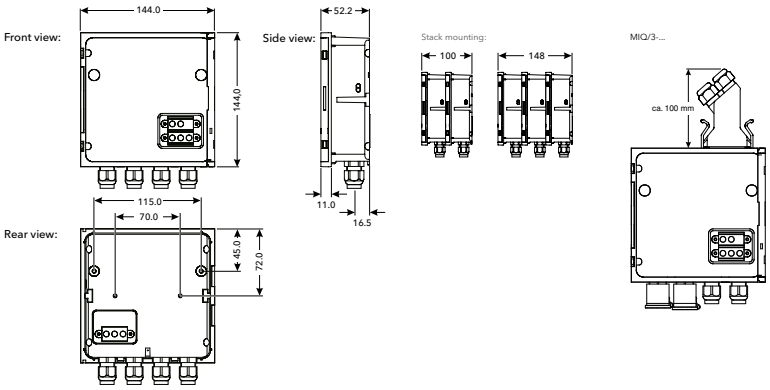
IQ Sensor Net MIQ modules for outputs, inputs and communication

Module to transfer the measured values or with a alert/alarm function – thanks to the modular principle and simple installation this is individually customizable

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



Technical Data

Models MIQ module	MIQ/3-MOD	MIQ/3-PR	MIQ/CR3	MIQ/C6	MIQ/R6	MIQ/IC2
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/TC 2020 3G Terminal/Controller (configurated as Terminal) and for docking additional modules					
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible					
Cable Feeds	3 screw cable glands M 16 x 1.5 and 1 USB		4 screw cable glands M 16 x 1.5			
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2 accessible by opening cover					
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ Sensor Net cable					
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ Sensor Net; IQ Sensor Net connection, Integrated local identity function; Integrated switchable terminal resistor (SN terminator)					
Electric Supply	Directly via the IQ Sensor Net					
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)					
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)					
Protection Rating	IP 66	IP 66	IP 67	IP 66	IP 67	IP 66
	corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..					
Dimensions (W x H x D)	5.67 x 5.67 x 2.05 in. (144 x 144 x 52 mm)					
Weight	Approx. 1.1 pounds (0.5 kg)					
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE					
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A					
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component					
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; Filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar					
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)					
Warranty	3 years for defects of quality					

Model	Description	Order No.
MIQ/3-MOD	Module IQ with MODBUS RTU / RS 485 connection (output module, digital)	471026
MIQ/3-PR	Module IQ with PROFIBUS-DP connection (output module, digital)	471027
MIQ/R6	Module IQ / relay 6 with 6 relay outputs (output module, analog)	480013
MIQ/CR3	Module IQ / current relay 3, with 3 power and 3 relay outputs output module (analog)	480014
MIQ/C6	Module IQ / Current 6 with 6 power outputs (output module, analog)	480015
MIQ/IC2	Module IQ / input Current 2 with 2 inputs for 0/4 - 20 mA signals (input module); every populated power input counts as an IQ sensor	480016

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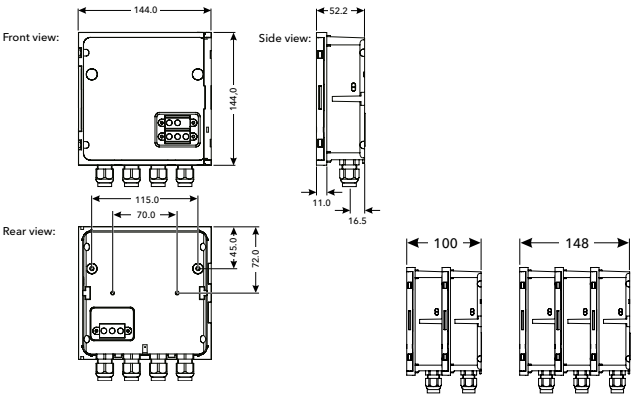
IQ Sensor Net MIQ modules for system expansion

The IQ Sensor Net grows with its tasks - modules for individual system expansions with up to 4 IQSN connections and wireless communication

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



Technical Data

Models	MIQ modules MIQ/JB(R)	MIQ modules MIQ/WL PS (SET)
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/TC 2020 3G Terminal/Controller (configurated as Terminal) and for docking additional modules	
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible	
Cable Feeds	4 screw cable glands M 16 x 1.5	
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2 accessible by opening cover	
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ Sensor Net cable	
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ Sensor Net; IQ Sensor Net connection, Integrated local identity function; Integrated switchable terminal resistor (SN terminator)	
Electric Supply	Directly via the IQ Sensor Net	
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)	
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)	
Protection Rating	IP 66	IP 67
	corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..	
Dimensions (W x H x D)	5.67 x 5.67 x 2.05 in. (144 x 144 x 52 mm)	
Weight	Approx. 1.1 pounds (0.5 kg)	
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE	
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A	
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component	
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; Filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar	
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)	
Connection Medium Radio	Radio with a coverage of 109 yds (100 m)	
Connection Characteristics	Data transmission, separate power supply necessary for each island	
Warranty	3 years for defects of quality	

Model	Description	Order No.
MIQ/JB	Modul IQ/Junction Box, for system branching, for system 2020 and 282/284, 4 free IQ SENSOR NET connections	480008
MIQ/JBR	Modul IQ / Junction Box Repeater, for system branching, for system 2020 and 282/284, with active signal preparation	480010
MIQ/WL PS SET	2 MIQ/WL PS radio modules, preconfigured as master and slave, ready to operate	480025
MIQ/WL PS	1 MIQ/WL PS radio module, preconfigured as a slave to expand a radio network	480023

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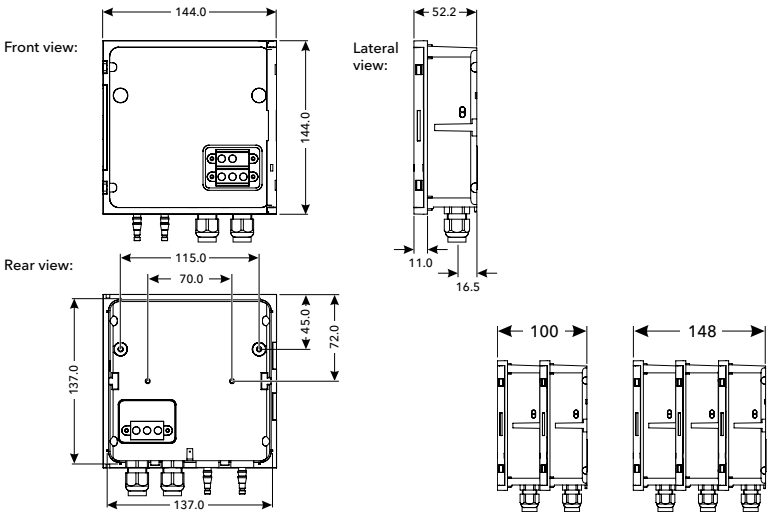
IQ Sensor Net MIQ module for compressed air cleaning

Whether automatic or sensor triggered (for spectral sensors) – the MIQ/CHV Plus provides both, easy installation included

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



Technical Data

Model	MIQ module MIQ/CHV Plus
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/TC 2020 3G Terminal/Controller (configurated as Terminal) and for docking additional modules
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible
Cable Feeds	2 screw cable glands M 16 x 1.5 and 2 pressure hose nozzle
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2 accessible by opening cover
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ Sensor Net cable
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ Sensor Net; IQ Sensor Net connection, Integrated local identity function; Integrated switchable terminal resistor (SN terminator)
Electric Supply	Directly via the IQ Sensor Net
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	5.67 x 5.67 x 2.05 in. (144 x 144 x 52 mm)
Weight	Approx. 1.1 pounds (0.5 kg)
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; Filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 1000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1000 m/1094 yds (max 3000 m/3282 yds)
Warranty	3 years for defects of quality

Model	Description	Order No.
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve for automatic relay or IQ SENSOR NET controlled compressed air cleaning (relay and compressed air supply, external)	480018

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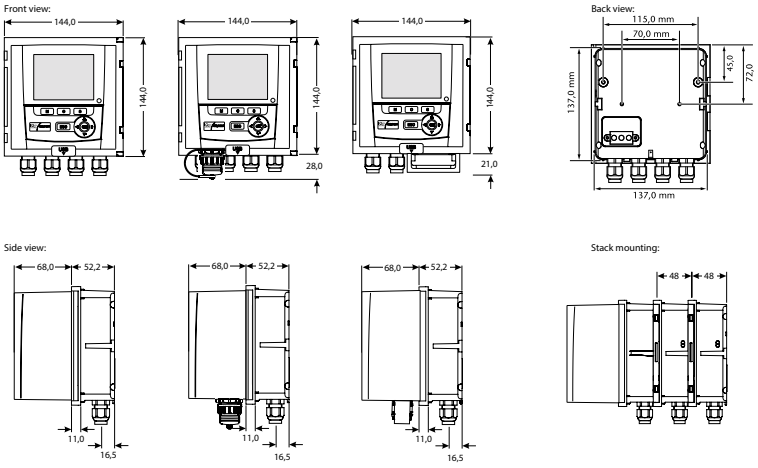
IQ Sensor Net DIQ 282

Controller for small and mid-sized wastewater treatment plants including USB-interface and internal data logger– up to 2 sensors, all parameters, available anytime

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



Technical Data

Model	Controller DIQ/S 282
Max. number of sensors	2
IQ Sensor Net connections	DIQ/S 282-CR3(-E) (/24V) 1; all others 2
Outputs	3 x (0) 4 ... 20 mA, 3 x Relays, Ethernet interface for remote access, Ethernet fieldbusses PROFIBUS or Modbus RTU (options see scopes of delivery)
Display	Graphic TFT Display; Resolution: 320 x 240 pixel; backlit
Control Functions/ Function Keys	5 operating keys: measurement (M), calibration (C), set/system settings (S), 3 master keys for functions: 2 keys for: confirmation/switching menu O.K. (OK), escape (ESC) Arrow keys for rapid selection of software functions and input of alpha-numeric values (up), (down)
Electric Supply	100 … 240 VAC (50/60 Hz), 24 V AC/DC
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible
Cable Feeds	4 screw cable glands M 16 x 1.5 (expansible to M 20 if required)
Terminal Connections	Screw terminal strips; Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2; accessible by opening cover
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net for connecting sensors
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)
Protection Rating	IP 67 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	144 x 144 x 125 mm (5.67 x 5.67 x 4.92 in.)
Weight	Approx. 1,2 kg (2.6 pounds)
Certifications	CE
Electromagnetic Compatibility	EN 61326-1, Class A; FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar
Connection Characteristics	Power supply and data transmission on these wires; resistant to polarity reversal with respect to switched shield and inner conductor (no damage); comprehensive EMC shield control; Cable topology within the IQ Sensor Net system as required, e.g. in the form of a line, tree, star; total cable length max. 250 m (273 yds)
Warranty	3 years for defects of quality

Model	Description	Order No.
DIQ/S 282-CR3	Controller for up to 2 IQ sensors, with 3 Relays, with 3 mA-outputs, 100 … 240 VAC	472110
DIQ/S 282-PR	Controller for up to 2 IQ sensors, with 3 Relays, with PROFIBUS-interface (RS 485), 100 … 240 VAC	472111
DIQ/S 282-MOD	Controller for up to 2 IQ sensors, with 3 Relays, with MODBUS-interface (RS 485), 100 … 240 VAC	472112
DIQ/S 282-CR3-E	Controller for up to 2 IQ sensors, with 3 Relays, with 3 mA-outputs, with Ethernet-interface (RJ 45) for network connection, 100 … 240 VAC	472113
DIQ/S 282-EF	Controller for up to 2 IQ sensors, with 3 Relays, with Ethernet-interface (RJ 45) for network connection and fieldbuses (Ethernet/IP, Modbus TCP, PROFINET), 100 … 240 VAC	472114

All versions available for 24 V AC/DC

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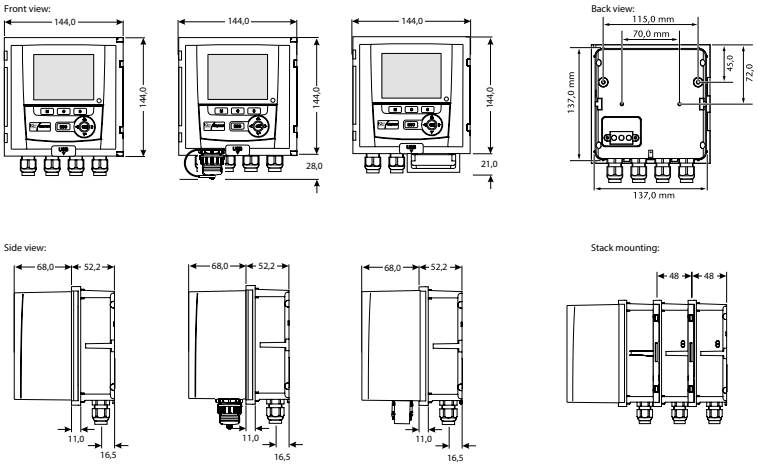
IQ Sensor Net DIQ 284

Controller for small and mid-sized wastewater treatment plants including USB-interface and internal data logger– up to 4 sensors, all parameters, available anytime

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



Technical Data

Model	**Controller DIQ/S 284**
Max. number of sensors	4
IQ Sensor Net connections	DIQ/S 284-CR6(-E) (/24V) 3; all others 2
Outputs	6 x (0) 4 ... 20 mA, 6 x Relays, Ethernet interface for remote access, Ethernet fieldbusses PROFIBUS or Modbus RTU (options see scopes of delivery)
Display	Graphic TFT Display; Resolution: 320 x 240 pixel; backlit
Control Functions/ Function Keys	5 operating keys: measurement (M), calibration (C), set/system settings (S), 3 master keys for functions: 2 keys for: confirmation/switching menu O.K. (OK), escape (ESC) Arrow keys for rapid selection of software functions and input of alpha-numeric values (up), (down)
Electric Supply	100 … 240 VAC (50/60 Hz), 24 V AC/DC
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules, up to 3 modules as a stack mounted unit possible
Cable Feeds	4 screw cable glands M 16 x 1.5 (expansible to M 20 if required)
Terminal Connections	Screw terminal strips; Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2; accessible by opening cover
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net for connecting sensors
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)
Protection Rating	IP 67 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	144 x 144 x 173 mm (5.67 x 5.67 x 6.81 in.)
Weight	Approx. 1,7 kg (3.7 pounds)
Certifications	CE
Electromagnetic Compatibility	EN 61326-1, Class A; FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm^2; filler cord for easy connection of shield: 0.75 mm^2; pressure resistant to 10 bar
Connection Characteristics	Power supply and data transmission on these wires; resistant to polarity reversal with respect to switched shield and inner conductor (no damage); comprehensive EMC shield control; Cable topology within the IQ Sensor Net system as required, e.g. in the form of a line, tree, star; total cable length max. 250 m (273 yds)
Warranty	3 years for defects of quality

Model	Description	Order No.
DIQ/S 284-CR6	Controller for up to 4 IQ sensors, with 6 Relays, with 6 mA-outputs, 100 … 240 VAC	472130
DIQ/S 284-PR	Controller for up to 4 IQ sensors, with 3 Relays, with PROFIBUS-interface (RS 485), 100 … 240 VAC	472131
DIQ/S 284-MOD	Controller for up to 4 IQ sensors, with 3 Relays, with MODBUS-interface (RS 485), 100 … 240 VAC	472132
DIQ/S 284-CR6-E	Controller for up to 4 IQ sensors, with 6 Relays, with 6 mA-outputs, with Ethernet-interface (RJ 45) for network connection, 100 … 240 VAC	472133
DIQ/S 284-EF	Controller for up to 4 IQ sensors, with 3 Relays, with Ethernet-interface (RJ 45) for network connection and fieldbuses (Ethernet/IP, Modbus TCP, PROFINET), 100 … 240 VAC	472134

All versions available for 24 V AC/DC

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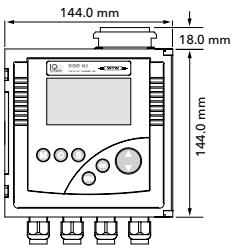
IQ Sensor Net DIQ/S 181

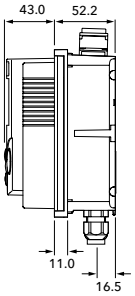
The new system 181 – the digital and cost-efficient single parameter measuring point with proven IQ Sensor Net technology and matching fixed cable sensors

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

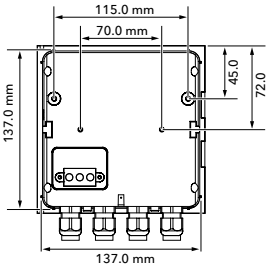
Front view:



Side view:



Back view:



Technical Data

Models	**Controller DIQ/S 181(24V)**
Display	Graphic display; resolution: 128 x 64 pixel; visible area: 72 x 40 mm (2.83 x 1.57 in.), black/white, backlit
Control Functions/ Function Keys	5 operating keys: 3 master keys for functions: measurement (M), calibration (C), set/system settings (S), 2 keys for: confirmation/switching menu O.K. (OK), escape (ESC) 2 knobs for rapid selection of software functions and input of alpha-numeric values (up), (down)
Cable Feeds	4 screw cable glands M 16 x 1.5
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm^2 Terminal area for flexible conductors: 0.2 ... 2.5 mm^2 accessible by opening cover
IQ Sensor Net Terminal Connections	Terminal connections for the IQ Sensor Net for connecting sensors
Electric Supply	100 … 240 VAC (50/60 Hz), 24 V AC/DC
Ambient Conditions	Operating temperature: -4 °F … 131 °F (-20 °C … +55 °C); Storage temperature: -13 °F … 149 °F (-25 °C … +65 °C)
Housing Material	PC – 20 % GF (polycarbonate with 20 % fiberglass)
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..
Dimensions (W x H x D)	144 x 144 x 95 mm (5.67 x 5.67 x 3.74 in.)
Weight	Approx. 2.2 pounds (1 kg)
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326-1, Emission: Class B, FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system
Connection Characteristics	Energy- and Data transfer via two wire technique, integrated EMC shield control
Warranty	3 years for defects of quality

Model	Description	Order No.
DIQ/S 181	Dual IQ/System 181, Universal monitor for the connection of 1 digital IQ fixed cable sensor, with 2 analog outputs (0/4-20 mA) and 3 relays	472100
DIQ/S 181/24V	Like the DIQ/S 181, but for 24 V AC/ DC voltage supply	472101

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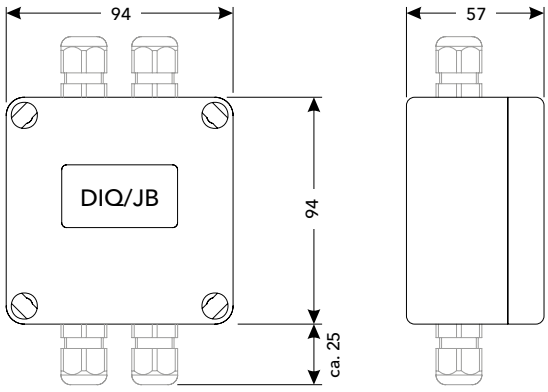
IQ Sensor Net DIQ modules

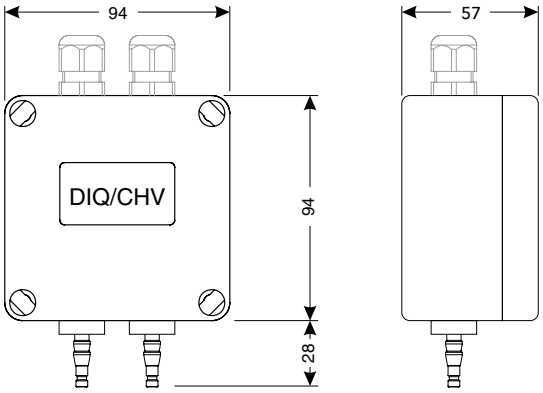
Modules for the flexible expansion of digital IQ Sensor Net systems 181 and 282/284 by additional measuring points or functions – compact design

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

DIQ/JB



DIQ/CHV



Technical Data

Models DIQ-Modul	DIQ/JB	DIQ/CHV
Cable Feeds	3 screw cable glands M 16 x 1.5	2 screw cable glands M 16 x 1.5 and 2 pressure hose nozzle
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm² Terminal area for flexible conductors: 0.2 ... 2.5 mm² accessible by opening cover	
Housing Material	Polystyrene	
Protection Rating	IP 66	
Dimensions (W x H x D)	94 x 94 x 57 mm (3.7 x 3.7 x 2.24 in.)	
Weight	0.44 lbs (0.2 kg)	0.66 lbs (0.3 kg)
Certifications	CE	
Electromagnetic Compatibility	EN 61326-1, Emission: Class A, FCC Class A	
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system	
Connection Medium Cable	IQ Sensor Net cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm²; Filler cord for easy connection of shield: 0.75 mm²; pressure resistant to 10 bar	
Connection Characteristics	Energy and data transfer via 2 wire technique; resistant to reversed polarity; Comprehensive EMC shield control; cable topology within IQ Sensor Net system as required, e.g. in the form of a line, tree, star, multiple star; Total cable length: max. 250 m/273 yds	
Warranty	3 years for defects of quality	

Model	Description	Order No.
DIQ/JB	Dual IQ/Junction Box to connect a second or remote IQ sensor in the system 181 and 282/284	472005
DIQ/CHV	Dual IQ/Cleaning Head Valve, for the automatic relay-controlled compressed air cleaning in the system 181 and 282/284	472007

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999216US July 2018

Digital electro-chemical IQ sensors for dissolved oxygen TriOxmatic®

Reliable and proven digital electro-chemical oxygen sensors with 3 electrode system (ECDO) for precise and accurate measurements

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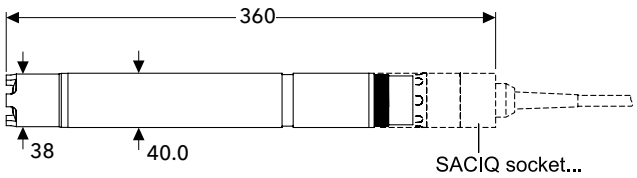
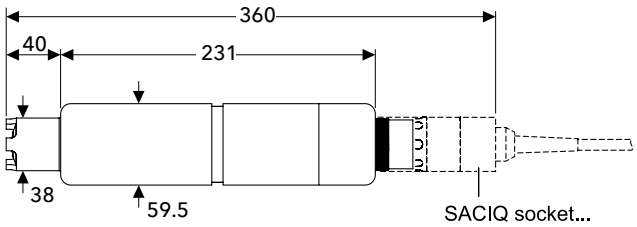
TriOxmatic® 700 IQ



TriOxmatic® 700 IQ SW



Technical Data

Model	TriOxmatic® 700 IQ	TriOxmatic® 700 IQ SW*	TriOxmatic® 701 IQ	TriOxmatic® 702 IQ
Measuring method	Electrochemical			
Measuring range (25 °C)				
O_2 concentration	0.0 ... 60.0 mg/l		0.00 ... 20.00 mg/l 0.0 … 60.0 mg/l	0 ... 2000 µg/l 0.00 … 10.00 mg/l
O_2 saturation	0 ... 600%		0.0 … 200.0% 0 … 600%	0 … 110%
Resolution				
O_2 concentration	0.1 mg/l		0.01 mg/l 0.1 mg/l	0.001 mg/l 0.01 mg/l
O_2 saturation	1%		0.1% 1%	0.1%
Response time at 25 °C	t_{90}: 180 s		t_{90}: 30 s t_{99}: 90 s	t_{90}: 30 s t_{99}: 110 s
Minimum flow rate	0.05 m/s		0.23 m/s	0.3 m/s
SensCheck	SensLeck SensReg	SensReg	SensLeck SensReg	– SensReg
Temp. measurement	Integrated NTC, 23 °F ... 140 °F (-5 °C ... +60 °C) ± 0.5 °C			
Temp. compensation	32 °F ... 140 °F (0 °C ... +60 °C)			
Pressure Resistance	10 bar (incl. sensor connection cable)			
Ambient Conditions	Operating temperature: 32 °F ... 140 °F (0 °C ... +60 °C); Storage temperature: 23 °F ... 149 °F (-5 °C ... +65 °C)			
Electrical connections	2-wire shield cable with quick fastener to sensor			
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation			
Certifications	CE, cETL, ETL			
Mechanical	Membrane head assembly, locking cap: POM Sensor body: V4A stainless steel 1.4571 Protection rating: IP 68			
Weight (without cable)	Approx. 1.46 lb (660 g)	Approx. 2.58 lb (1,170 g)	Approx. 1.46 lb (660 g)	
Warranty	2 years for defects in quality			

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
TriOxmatic® 700 IQ	Universal oxygen sensor for the measurement and regulation of oxygen input in wastewater treatment plants (please order cables separately)	201640
TriOxmatic® 700 IQ SW	Like TriOxmatic® 700 IQ, but as a sea water model	201641
TriOxmatic® 701 IQ	Like TriOxmatic® 700 IQ , but with faster response times	201644
TriOxmatic® 702 IQ	Like TriOxmatic® 700 IQ, but as a trace sensor (ppb area) suitable for pure or boiler feed water	201646

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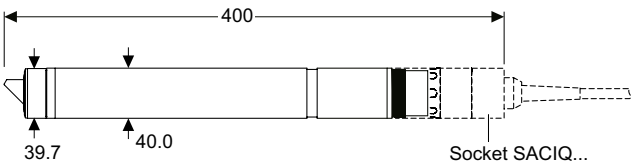
999224US August 2018

Digital optical IQ sensors for dissolved oxygen FDO®

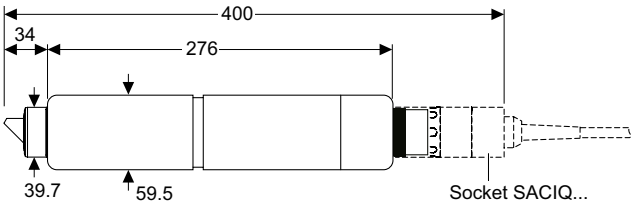
Calibration-free, reliable, DIN compliant - the optical FDO® oxygen sensors for the IQ SENSOR NET to regulate biological cleaning steps

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

FDO® 700 IQ, FDO® 701 IQ



FDO® 700 IQ SW, FDO® 701 IQ SW



Technical Data

Modele	FDO® 700 IQ	FDO® 700 IQ SW*	FDO® 701 IQ	FDO® 701 IQ SW*
Measuring method	Optical			
Measuring range (25 °C)				
O_2 concentration	0 ... 20.00 mg/l (0 ... 20.00 ppm)			
O_2 saturation	0 ... 200.0 %			
Resolution				
O_2 concentration	0.01 mg/l (0.01 ppm)			
O_2 saturation	0.1 %			
Accuracy	< 1 mg/l (ppm): ± 0.05 mg/l (ppm) > 1mg/l (ppm): ± 0.1 mg/l (ppm)			
Response time at 25 °C	t_{90}: < 150 s t_{95}: < 200 s		t_{90}: < 60 s t_{95}: < 80 s	
Minimum flow rate	No flow required			
SensCheck	Monitoring of membrane function			
Temp. measurement	Integrated NTC, 23 °F ... 140 °F (-5 °C ... +60 °C) ± 0.5 °C			
Temp. compensation	23 °F ... 122 °F (-5 °C ... +50 °C)			
Pressure Resistance	10 bar (incl. sensor connection cable)			
Ambient Conditions	23 °F ... 122 °F (-5 °C ... +50 °C) -13 °F ... 122 °F (-25 °C ... +50 °C)		23 °F ... 104 °F (-5 °C ... +40 °C) -13 °F ... 104 °F (-25 °C ... +40 °C)	
Electrical connections	2-wire shield cable with quick fastener to sensor			
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation			
Certifications	CE, cETL, ETL			
Mechanical	Sensor cap, fixation: POM, PVC, silicone, PMMA sensor body: VA stainless steel 1.4571 protection type IP 68			
Weight (without cable)	1.98 lb (900 g)	3.31 lb (1.5 kg)	1.98 lb (900 g)	3.31 lb (1.5 kg)
Warranty	2 years for defects in quality			

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
FDO® 700 IQ	Optical O_2 sensor for connection to the IQ SENSOR NET. (Please order cable separately)	201650
FDO® 701 IQ	like the FDO® 700 IQ, but with a faster response time	201660
FDO® 700 IQ SW	like the FDO® 700 IQ, but as sea water model with plastic arming (POM)	201652
FDO® 701 IQ SW	like the FDO® 700 IQ SW, but with a faster response time	201653

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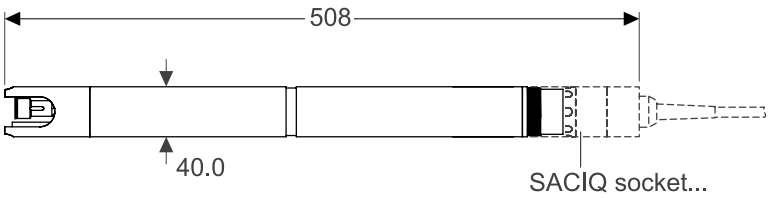
999225US August 2018

Digital IQ pH/ORP armatures SensoLyt®

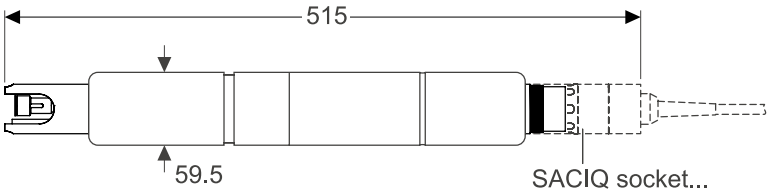
Digital pH/ORP armature with integrated preamplifier and temperature sensor as well as lightning protection to be connected to IQ Sensor Net

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

SensoLyt® 700 IQ



SensoLyt® 700 IQ SW



Technical Data

Model	SensoLyt® 700 IQ	SensoLyt® 700 IQ SW*
Measuring method	Electrochemical	
Measuring range	0.00 ... 14.00 pH (depending on the electrode) ± 2000mV (depending on the electrode)	
Resolution	0.01 pH 1mV	
Integrated Preamplifier	Yes	
Sensor check funktion	Yes	
Temp. measurement	Integrated NTC, 23 ... 140 °F (-5 ... +60 °C)	
Temp. compensation	32 ... 140 °F (0 ... +60 °C)	
Pressure Resistance	10 bar	
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... +60 °C)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE, cETL, ETL	
Mechanical	Sensor body: V4A stainless steel 1.4571 Protection cap: PVC Sensor holder: POM Protection rating: IP 68	
Weight (without cable)	Approx 2.14 lb (970 g)	Approx. 3.97 lb (1.800 g)
Warranty	2 years for defects in quality	

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
SensoLyt® 700 IQ	Digital pH/ORP fitting for SensoLyt® electrode, with integrated preamplifier and temperature sensor (please order cable separately)	109170
SensoLyt® 700 IQ SW	Like the SensoLyt® 700 IQ, but as a sea water model	109171
SensoLyt® 700 IQ/SET	SensoLyt® 700 IQ including SensoLyt® SEA pH electrode and 7 m connecting cable	109173
SensoLyt® 700 IQ/SET1	SensoLyt® 700 IQ including SensoLyt®PtA ORP electrode and 7 m connecting cable	109174

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Digital IQ conductivity measuring cells TetraCon®

Digital 4 electrode conductivity measuring cell with flow-free operation, especially with high conductivity

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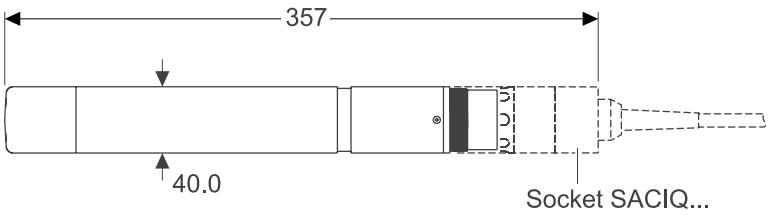
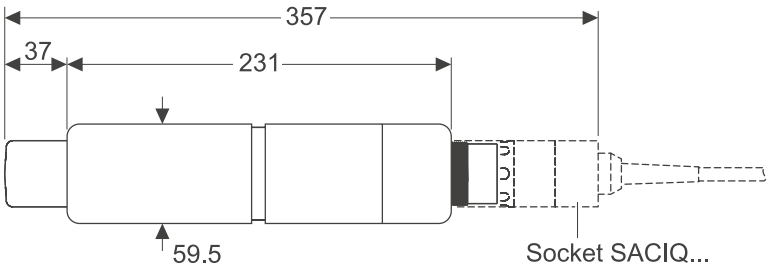
TetraCon® 700 IQ



TetraCon® 700 IQ SW



Technical Data

Model	TetraCon® 700 IQ	TetraCon® 700 IQ SW*
Measuring method	4-electrode cell	
Measuring range	10 µS/cm - 500 mS/cm SAL: 0 … 70 TDS: 0 … 2000 mg/l	
Cell Constants	K = 0.917 cm^{-1}, ±1.5% (in free solution) K = 0.933 cm^{-1}, TetraCon® 700 IQ with EBST 700-DU/N flow-thru adapter	K = 0.917 cm^{-1}, ±1.5% (in free solution)
Resolution	Depending on measuring range	
Temp. measurement	-5 ... +60 °C (23 ... 140 °F); NTC	
Temp. compensation	linear: 32 ... 140 °F (0 ... +60 °C) nonlinear: +5 °C ... 35 °C (acc. to DIN 38404) nonlinear: +35 °C --- +60 °C (acc. to WTW procedure)	
Pressure Resistance	10 bar	
Ambient Conditions	-5 ... +60 °C (23 ... 140 °F)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE, cETL, ETL	
Mechanical	Sensor head: PVC Sensor body: V4A stainless steel 1.4571 Protection rating IP 68	
Weight (without cable)	Approx. 1.46 lb (660 g)	Approx. 2.58 lb (1,170 g)
Warranty	2 years for defects in quality	

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
TetraCon® 700 IQ	Digital 4 electrode conductivity measuring cell for highly contaminated wastewater (please order cable separately)	302500
TetraCon® 700 IQ SW	Like TertaCon® 700 IQ, but as a sea water model	302501

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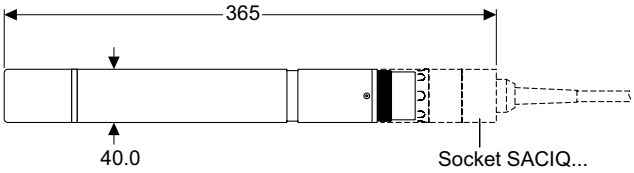
999227US August 2018

Digital turbidity sensors VisoTurb®

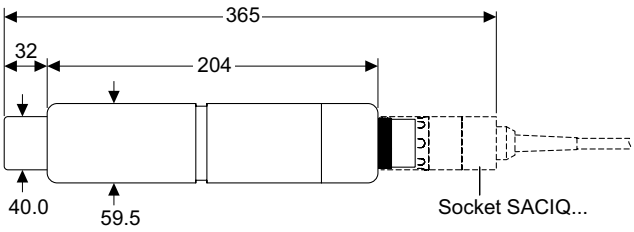
Optical turbidity sensors with nephelometric principle according to DIN EN 27027 and ISO 7027 for the in-situ use in water/wastewater incl. ultrasonic cleaning system

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

VisoTurb® 700 IQ



VisoTurb® 700 IQ SW



Technical Data

Model	VisoTurb® 700 IQ	VisoTurb® 700 IQ SW*
Measuring method	Nephelometric principle in compliance with EN 27027 and ISO 7027	
Measuring range		
FNU; NTU; TEF	0.05 ... 4000 FNU	
mg/l SiO_2; ppm SiO_2	0.1 ... 4000 mg/l SiO_2	
g/l TS	0.0001 ... 400 g/l TS	
Resolution		
FNU; NTU; TEF	Automatic according to measuring range 0.001 ... 1 FNU	
mg/l SiO_2; ppm SiO_2	0,001 mg/l ... 0,01 g/l	
g/l TS	0,001 mg/l … 1 g/l	
Accuracy	Process variation coefficient according to DIN 38402 part 51 <1 % (in the range up to 2000 FNU) Repeatability according to DIN ISO 5725 or DIN 1319 < 0.015 % or ≥ 0.006 FNU	
Calibration		
FNU; NTU; TEF	Factory calibration with formazine	
mg/l SiO_2; ppm SiO_2	Factory calibration with SiO_2	
g/l TS	Calibration by user, (TSS regulations in compliance with DIN 38414)	
Cleaning System	Ultrasound cleaning system	
SensCheck	Contamination detection of optical window; failure of cleaning system	
Pressure Resistance	10 bar (incl. sensor connection cable)	Maximum 2 bar
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... 60 °C); ultrasonic cleaning system: 32 ... 104 °F (0 ... 40 °C) (overheating protection); Storage temperature: 23 ... 149 °F (-5 ... +65 °C)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE	CE
Mechanical	Measuring window: Sapphire; Sensor body: V4A stainless steel 1.4571; Protection rating: IP 68	Measuring window: Sapphire; Sensor body: Titanium, POM; Protection rating: IP 68
Weight (without cable)	Approx. 2.18 lb (900 g)	3.13 lb (1420 g)
Warranty	2 years for defects in quality	

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
VisoTurb® 700 IQ	Digital turbidity sensor with integrated ultrasonic cleaning (please order cable separately)	600010
VisoTurb® 700 IQ SW	Like VisoTurb® 700 IQ, but as a sea water model	600011

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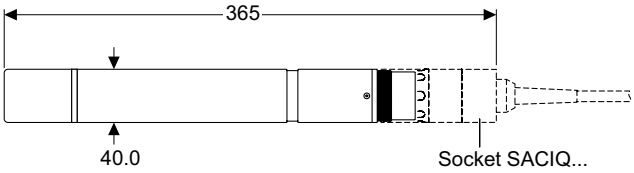
Digital suspended solids sensors ViSolid®

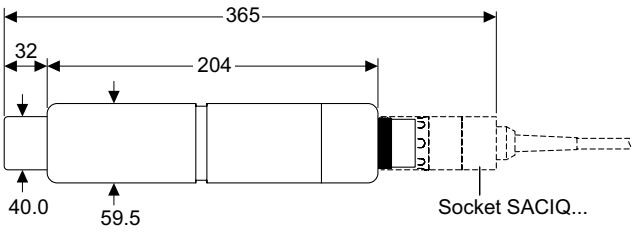
Optical sensors for the in-situ use to measure suspended solids via scattered light and direct back-scattering with ultrasonic cleaning system

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

ViSolid® 700 IQ



ViSolid® 700 IQ SW



Technical Data

Model	ViSolid® 700 IQ	ViSolid® 700 IQ SW*
Measuring method	Procedure for measuring scattered light	
Measuring range		
g/l SiO_2	0 ... 300 g/l SiO_2	
% SiO_2	0 … 30% SiO^2	
g/l TSS	0 ... 1000 g/l TSS	
% TSS	0 … 100% TSS	
Resolution		
g/l SiO_2	Automatic according to measuring range 0.1 mg/l ... 1 g/l	
% SiO_2	Automatic according to measuring range 0.001 % ... 0.01 %	
g/l TSS	Automatic according to measuring range 0.1 mg/l ... 1 g/l	
% TSS	Automatic according to measuring range 0.001 % ... 0.1 %	
Calibration	Typical sludge characteristics stored: matrix type 1, matrix type 2 Calibration by user: adjustment via correction factor, 1-point or multi-point calibration possible	
Cleaning System	Ultrasound cleaning system	
SensCheck	Contamination detection of optical window; failure of cleaning system	
Pressure Resistance	10 bar (incl. sensor connection cable)	
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... 60 °C); ultrasonic cleaning system: 32 ... 104 °F (0 ... 40 °C) (overheating protection); Storage temperature: 23 ... 149 °F (-5 ... +65 °C)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE	
Mechanical	Measuring window: Sapphire; Sensor body: V4A stainless steel 1.4571; Sensor head: V4A stainless steel 1.4571; Protection rating: IP 68	Measuring window: Sapphire; Sensor-body: Titanium, POM Sensor head: Titanium; Protection rating: IP 68
Weight (without cable)	Approx. 2.18 lb (900 g)	Approx. 3.13 lb (1420 g)
Warranty	2 years for defects in quality	

** SW: Sensor as sea water model (with plastic arming (POM))*

Model	Description	Order No.
ViSolid® 700 IQ	Digital suspended solids sensor with integrated ultrasonic cleaning (please order cable separately)	600012
ViSolid® 700 IQ SW	Like ViSolid® 700 IQ, but as a sea water model	600013

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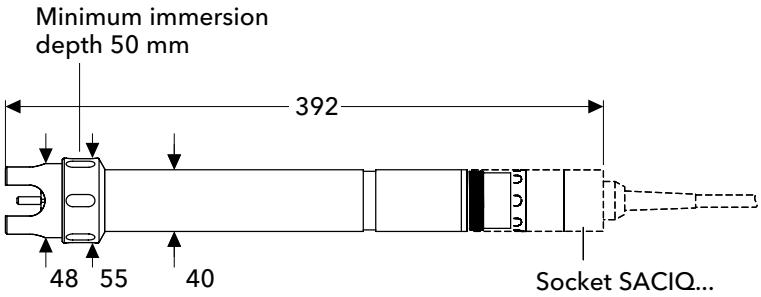
Digital ISE combination sensor VARiON® for ammonium and nitrate

Ion selective measurement of ammonium and nitrate free of reagents with automatic compensation of potassium/ chloride with the VARiON® Plus 700 IQ

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



Technical Data

Model	**VARiON®*Plus***	
	Ammonium Measurement	**Nitrate Measurement**
Measuring method	Electrochemical	
Maximum Configuration	Common reference electrode, two measuring electrodes, one compensation electrode	
Integrable Electrodes:		
Reference Electrode	VARiON®*Plus* Ref	
Measuring Electrode	VARiON®*Plus* NH_4	VARiON®*Plus* NO_3
Compensation Electrode	VARiON®*Plus* K	VARiON®*Plus* Cl
Measuring range/ Resolution	NH_4-N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0,1 mg/l NH_4^+: 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0,1 mg/l	NO_3-N: 1 … 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0,1 mg/l NO_3-: 5 … 4500 mg/l / 1 mg/l; 0.5 ... 450.0 mg/l / 0,1 mg/l
Compensation Ranges	K^+: 0.1 ... 1,000 mg/l / 0,1 mg/l	Cl-: 0.1 ... 1,000 mg/l / 0,1 mg/l
Measuring Accuracy in laboratory standard solutions	± 5 % of measured value ± 0.2 mg/l in standard solutions	
Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution	
Working Life (typically)	Reference electrode: 18 months, measuring and compensation electrode: 18 months (in typical application - municipal sewage plants)	
Temperature Measurement and Compensation	Integrated NTC thermistor, Range 32 °F … 104 °F (0 °C … +40 °C), Accuracy ±0.5 K, Resolution 0.1 K, t_{95} < 20 s	
Pressure Resistance	Maximum 0.2 bar (incl. SACIQ sensor connection cable, with installed electrodes)	
Ambient Conditions	Operating temperature: 32 °F … 104 °F (0 °C … +40 °C), storing temperature: 32 °F … 104 °F (0 °C … +40 °C)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE	
Mechanical	Sensor body: V4A stainless steel 1.4571 Temperature sensor: V4A stainless steel 1.4571 Electrode connector: POM	Protective cup: POM Protection rating: IP 68 (0.2 bar, with installed electrodes)
Weight	Approx. 1.48 lb (670 g, without electrode, without sensor connection cable)	
Warranty	VARiON®*Plus* 700 IQ: 2 years Electrodes: 1 year for defects of quality	

Model	**Description**	**Order No.**
VARiON®Plus 700 IQ	Digital sensor for the ion selective measurement of ammonium and nitrate, without electrodes (Please order the sensor cable SACIQ separately)	107040
VARiON®Plus A comp SET NH_4	VARiON®*Plus* 700 IQ, reference electrode VARiON® Ref, ammonium measuring electrode VARiON®*Plus* NH_4 and compensation electrode VARiON®*Plus* K (potassium) (Please order the sensor cable SACIQ separately)	107060
VARiON®Plus N comp SET NO_3	VARiON®*Plus* 700 IQ, VARiON® Ref, VARiON®*Plus* NO_3 and VARiON®*Plus* Cl (chloride) (Please order the sensor cable SACIQ separately)	107062
VARiON®Plus AN/A comp SET NH_4 & NO_3	VARiON®*Plus* 700 IQ, VARiON®Ref, VARiON®*Plus* NH_4 and VARiON®*Plus* NO_3, VARiON®*Plus* K (potassium) (Please order the sensor cable SACIQ separately)	107066
VARiON®Plus AN/N comp SET NH_4 & NO_3	VARiON®*Plus* 700 IQ, VARiON®Ref, VARiON®*Plus* NH_4 and VARiON®*Plus* NO_3, VARiON®*Plus* Cl (chloride) (Please order the sensor cable SACIQ separately)	107068

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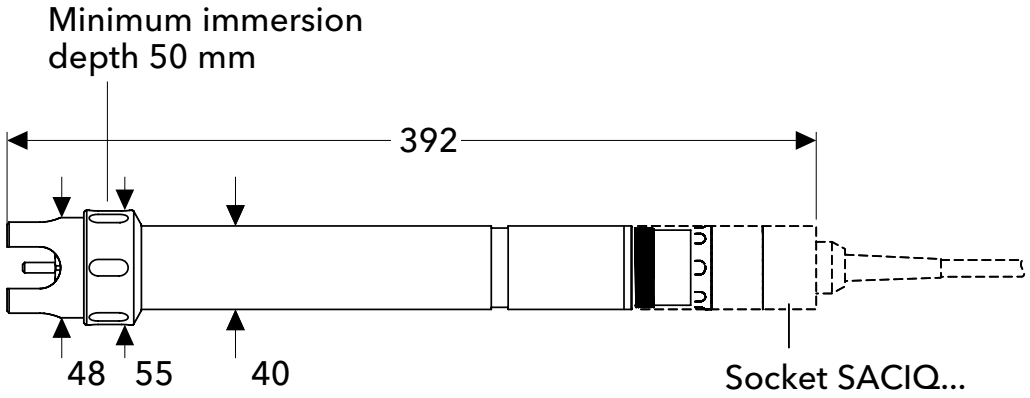
999230US August 2018

Digital ISE sensor AmmoLyt® for ammonium

Ammonium measurement directly in the medium without sample preparation and sample transfer. Measurement of centrate and other process waters up to 2,000 mg/l NH_4-N

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



Technical Data

Model	**AmmoLyt®*Plus***
Measuring method	Electrochemical
Appropriate Electrode	Reference electrode VARiON® Ref, Measuring electrode VARiON®*Plus* NO_3, Compensation electrode VARiON®*Plus* Cl
Measuring range/ Resolution Compensation Range	NH_4-N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH_4+: 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l K+: 0.1 ... 1,000 mg/l / 0.1 mg/l
Measuring Accuracy in laboratory standard solutions	± 5 % of measured value ± 0.2 mg/l in standard solutions
Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution
Working Life (typically)	Reference electrode: 18 months, measuring and compensation electrode: 18 months (in typical application - municipal sewage plants)
Temperature Measurement and Compensation	Integrated NTC thermistor, Range 32 °F … 104 °F (0 °C … +40 °C), Accuracy ±0.5 K, Resolution 0.1 K, t_{95} < 20 s
Pressure Resistance	Maximum 0.2 bar (incl. SACIQ sensor connection cable, with installed electrodes)
Ambient Conditions	Operating temperature: 32 °F … 104 °F (0 °C … +40 °C), storing temperature: 32 °F … 104 °F (0 °C … +40 °C)
Electrical connections	2-wire shield cable with quick fastener to sensor
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation
Certifications	CE
Mechanical	Sensor body: V4A stainless steel 1.4571 — Protective cup: POM Temperature sensor: V4A stainless steel 1.4571 — Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM
Weight	Approx. 1.48 lb (670 g, without electrode, without sensor connection cable)
Warranty	AmmoLyt®*Plus* 700 IQ: 2 years Electrodes: 1 year for defects of quality

Model	Description	Order No.
AmmoLyt® Plus 700 IQ	Digital sensor for ion selective measurement of ammonium (Please order the sensor cable SACIQ separately)	107070
AmmoLyt® Plus SET	AmmoLyt®*Plus* 700 IQ , VARiON® Ref and VARiON®*Plus* NH_4 (Please order the sensor cable SACIQ separately)	107071
AmmoLyt® Plus SET/Comp	AmmoLyt®*Plus* 700 IQ , VARiON® Ref, VARiON®*Plus* NH_4 and VARiON®*Plus* K (Please order the sensor cable SACIQ separately)	107072

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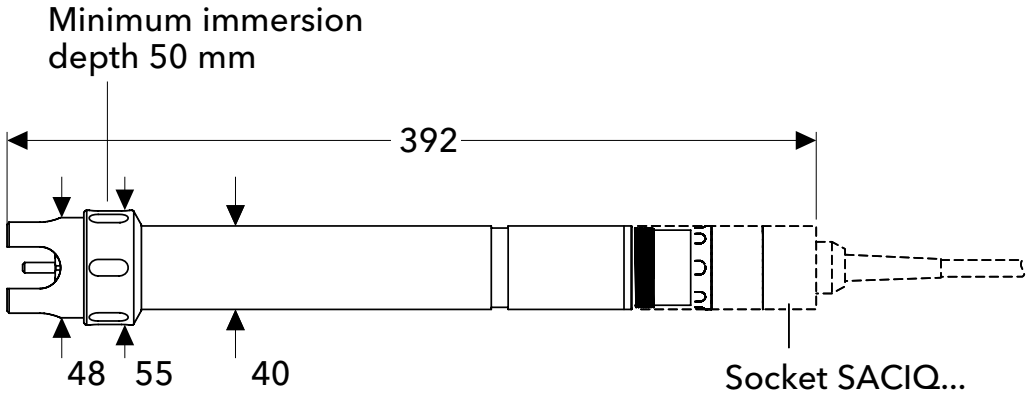
Digital ISE sensor NitraLyt® for nitrate

Nitrogen elimination – transparent, process optimized, economical. Nitrate measurement directly in the medium - optimized for regulation purposes

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



Technical Data

Model	**NitraLyt®*Plus***
Measuring method	Electrochemical
Appropriate Electrode	Reference electrode VARiON® Ref, Measuring electrode VARiON®*Plus* NO_3, Compensation electrode VARiON®*Plus* Cl
Measuring range/ Resolution Compensation Range	NO_3-N: 1 ... 1000 mg/l / 1 mg/l; 0.1 ... 100.0 mg/l / 0.1 mg/l NO_3^-: 5 ... 4500 mg/l / 5 mg/l; 0.5 ... 450.0 mg/l / 0.5 mg/l Cl^-: 0.1 ... 1,000 mg/l / 0.1 mg/l
Measuring Accuracy in laboratory standard solutions	± 5 % of measured value ± 0.2 mg/l in standard solutions
Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution
Working Life (typically)	Reference electrode: 18 months, measuring and compensation electrode: 18 months (in typical application - municipal sewage plants)
Temperature Measurement and Compensation	Integrated NTC thermistor, Range 32 °F … 104 °F (0 °C … +40 °C), Accuracy ±0.5 K, Resolution 0.1 K, t_{95} < 20 s
Pressure Resistance	Maximum 0.2 bar (incl. SACIQ sensor connection cable, with installed electrodes)
Ambient Conditions	Operating temperature: 32 °F … 104 °F (0 °C … +40 °C), storing temperature: 32 °F … 104 °F (0 °C … +40 °C)
Electrical connections	2-wire shield cable with quick fastener to sensor
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation
Certifications	CE
Mechanical	Sensor body: V4A stainless steel 1.4571 — Protective cup: POM Temperature sensor: V4A stainless steel 1.4571 — Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM
Weight	Approx. 1.48 lb (670 g, without electrode, without sensor connection cable)
Warranty	NitraLyt®*Plus* 700 IQ: 2 years Electrodes: 1 year for defects of quality

Model	**Description**	**Order No.**
NitraLyt® Plus 700 IQ	Digital sensor for the ion selective measurement of nitrate (Please order the sensor cable SACIQ separately)	107080
NitraLyt® Plus SET	NitraLyt®*Plus* 700 IQ , VARiON® Ref and VARiON®*Plus* NO_3 (Please order the sensor cable SACIQ separately)	107081
NitraLyt® Plus SET/Comp	NitraLyt®*Plus* 700 IQ , VARiON® Ref, VARiON®*Plus* NO_3 and VARiON®*Plus* CL (Please order the sensor cable SACIQ separately)	107082

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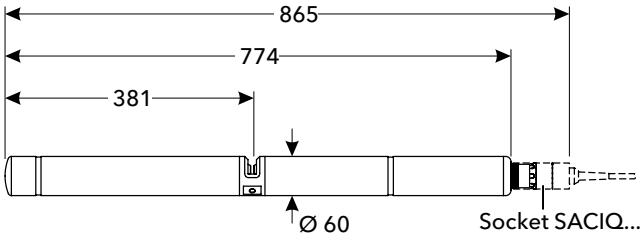
Digital optical UV VIS spectral probe NitraVis® for nitrate and suspended solids

Sensor with integrated ultrasonic cleaning for the reagent-free measurement of nitrate and suspended solids (optional) – optimized for municipal wastewater treatment systems

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

NitraVis® 701 IQ (TS), NitraVis® 705 IQ (TS)



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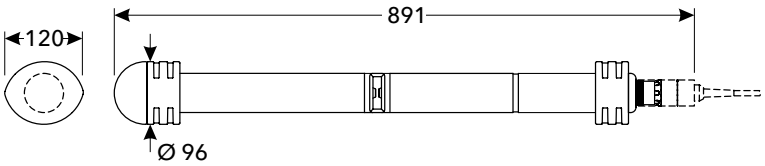

Technical Data

Model	NitraVis® 701 IQ	NitraVis® 705 IQ	NitraVis® 701 IQ TS	NitraVis® 705 IQ TS
Measuring method	Spectral Measurement in the UV-VIS Range (200 – 720 nm)			
Measuring gap (optical layer thickness)	1 mm	5 mm	1 mm	5 mm
Application (optimized for)	Municipal wastewater:	Municipal wastewater:	Municipal wastewater:	Municipal wastewater:
Measuring range and Resolution	**Inlet:**		**Inlet:**	
NO_3	0.0 ... 300.0 mg/l 0.1 mg/l		0.0 ... 300.0 mg/l 0.1 mg/l	
NO_3-N	0.00 ... 60.00 mg/l 0.01 mg/l		0.00 ... 60.00 mg/l 0.01 mg/l	
TSS			0.00 ... 15.00 g/l 0.01 g/l	
	Aeration:		**Aeration:**	
NO_3	0.0 ... 300.0 mg/l 0.1 mg/l		0.0 ... 300.0 mg/l 0.1 mg/l	
NO_3-N	0.00 ... 60.00 mg/l 0.01 mg/l		0.00 ... 60.00 mg/l 0.01 mg/l	
TSS			0.00 ... 20.00 g/l 0.01 g/l	
	Effluent:	**Effluent:**	*Effluent:*	**Effluent:**
NO_3	*0.0 ... 750.0 mg/l 0.1 mg/l*	0.0 ... 250.0 mg/l 0.1 mg/l	*0.0 ... 750.0 mg/l 0.1 mg/l*	0.0 ... 250.0 mg/l 0.1 mg/l
NO_3-N	*0.0 ... 150.0 mg/l 0.1 mg/l*	0.00 ... 50.00 mg/l 0.01 mg/l	*0.0 ... 150.0 mg/l 0.1 mg/l*	0.00 ... 50.00 mg/l 0.01 mg/l
TSS			*0 ... 4,500 mg/l 1 mg/l*	0.0 ... 900.0 mg/l 0.1 mg/l
Flow rate	≤ 3 m/s			
Pressure Resistance	Maximum 1 bar (incl. sensor connection cable)			
Electrical connections	2-wire shield cable with quick fastener to sensor			
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A Intended for indispensable operation			
Certifications	CE			
Mechanical	Housing: Titan Grade 2, PEEK Window: Sapphire glass			
Weight (without cable)	Approx. 8.82 lb (4 kg)			
Warranty	2 years for defects in quality			

Model	Description	Order No.
NitraVis® 701 IQ	Spectral nitrate probe for the measurement in inlet/aeration with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481044
NitraVis® 705 IQ	Like NitraVis® 701 IQ, but for measuring in the outlet	481046
NitraVis® 701 IQ TS	Spectral nitrate and suspended solids probe for measuring in the inlet/aeration with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481045
NitraVis® 705 IQ TS	Like NitraVis® 701 IQ TS, but for measuring in the outlet	481047

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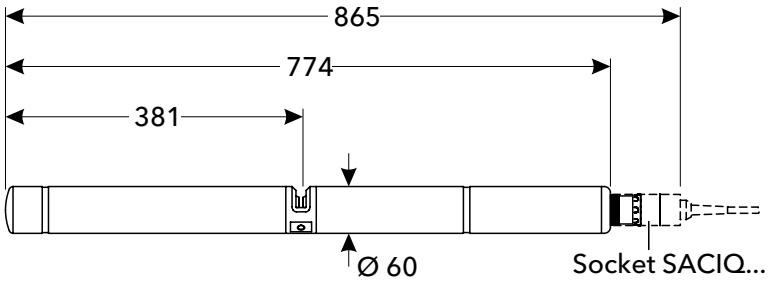
Digital optical sensors NiCaVis® for nitrate, carbon and suspended solids

Sensor with integrated ultrasonic cleaning for the reagent-free measurement of nitrate, carbon and suspended solids (optional) in the wastewater treatment system drain

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

NiCaVis® 705 IQ, NiCaVis® 705 IQ TS



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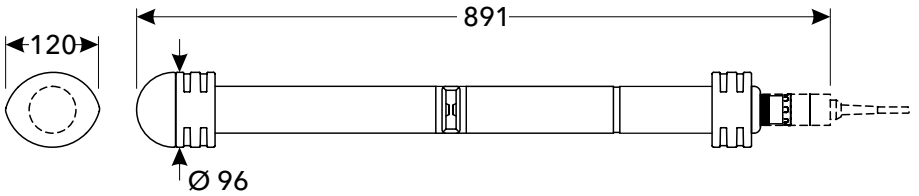

Technical Data

Model		NiCaVis® 705 IQ	NiCaVis® 705 IQ TS
Measuring method		Spectral Measurement in the UV-VIS Range (200 – 720 nm)	
Measuring gap (optical layer thickness)		5 mm	
Application (optimized for)		Municipal wastewater:	Municipal wastewater:
Measuring range and Resolution		**Effluent:**	**Effluent:**
	NO_3	0.0 ... 250.0 mg/l 0.1 mg/l	0.0 ... 250.0 mg/l 0.1 mg/l
	NO_3-N	0.00 ... 50.00 mg/l 0.01 mg/l	0.00 ... 50.00 mg/l 0.01 mg/l
	COD	0.0 ... 800.0 mg/l 0.1 mg/l	0.0 ... 800.0 mg/l 0.1 mg/l
	TOC	0.0 ... 500.0 mg/l 0.1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	DOC	0.0 ... 500.0 mg/l 0.1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	BOD	0.0 ... 500.0 mg/l 0.1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	$SAC_{254\ total}$	0.0 ... 600.0 1/m 0.1 1/m	0.0 ... 600.0 1/m 0.1 1/m
	$SAC_{254\ dissolv}$	0.0 ... 600.0 1/m 0.1 1/m	0.0 ... 600.0 1/m 0.1 1/m
	$UVT_{254\ total}$*	0.0 ... 100.0 % 0.1 %	0.0 ... 100.0 % 0.1 %
	$UVT_{254\ dissolv}$*	0.0 ... 100.0 % 0.1 %	0.0 ... 100.0 % 0.1 %
	TSS		0.0 ... 900.0 mg/l 0.1 mg/l
Flow rate		≤ 3 m/s	
Pressure Resistance		Maximum 1 bar (incl. sensor connection cable)	
Electrical connections		2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility		EN 61326, Class B, FCC Class A Intended for indispensable operation	
Certifications		CE	
Mechanical		Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Weight (without cable)		Approx. 8.82 lb (4 kg)	
Warranty		2 years for defects in quality	

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

Model	Description	Order No.
NiCaVis® 705 IQ	Spectral UV-VIS probe for measuring nitrate, COD_{tot}, $COD_{diss.}$, TOC, BOD, DOC, $SAC_{tot.}$, $SAC_{diss.}$ and UVT_{254} in the drain/outlet with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481052
NiCaVis® 705 IQ TS	Like NiCaVis® 705 IQ, but with TS	481053

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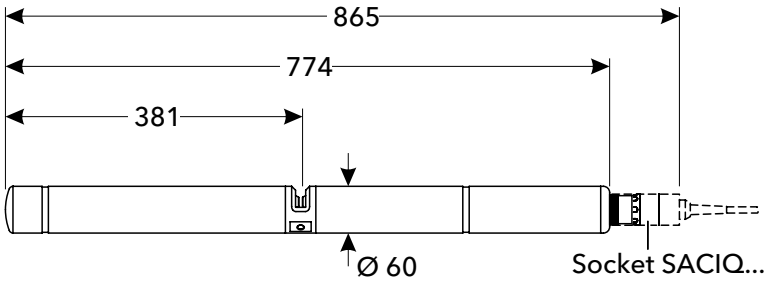
Digital optical UV spectral probe NitraVis® NI for nitrate and nitrite

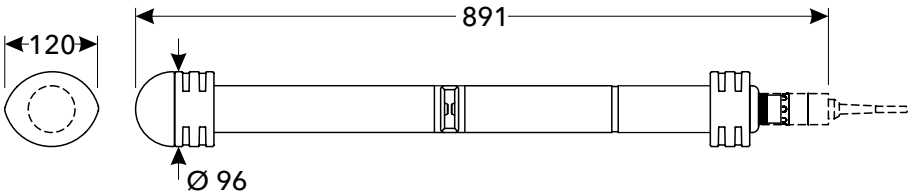
Sensor with maintenance-free ultrasonic cleaning for measurement of nitrate and nitrite directly in the process – optimized for municipal wastewater treatment systems

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

NitraVis® 701 IQ NI, NitraVis® 705 IQ NI



With shock protection:



Technical Data

Model		NitraVis® 701 IQ NI	NitraVis® 705 IQ NI
Measuring method		Spectral Measurement in the UV Range (200–390 nm)	
Measuring gap (optical layer thickness)		1 mm	5 mm
Application (optimized for)		Municipal wastewater:	Municipal wastewater:
Measuring range and Resolution		**Inlet & Aeration:**	
	NO_3	0.0 ... 300.0 mg/l 0.1 mg/l	
	NO_3-N	0.00 ... 60.00 mg/l 0.01 mg/l	
	NO_2	0.0 ... 120.0 mg/l 0.1 mg/l	
	NO_2-N	0.00 ... 30.00 mg/l 0.01 mg/l	
		Effluent:	**Effluent:**
	NO_3	*0.0 ... 750.0 mg/l 0.1 mg/l*	0.0 ... 250.0 mg/l 0.1 mg/l
	NO_3-N	*0.0 ... 150.0 mg/l 0.1 mg/l*	0.00 ... 50.00 mg/l 0.01 mg/l
	NO_2	*0.0 ... 300.0 mg/l 0.1 mg/l*	0.0 ... 100.0 mg/l 0.1 mg/l
	NO_2-N	*0.00 ... 75.00 mg/l 0.01 mg/l*	0.00 ... 25.00 mg/l 0.01 mg/l
Flow rate		≤ 3 m/s	
Pressure Resistance		Maximum 1 bar (incl. sensor connection cable)	
Electrical connections		2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility		EN 61326, Class B, FCC Class A Intended for indispensable operation	
Certifications		CE	
Mechanical		Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Weight (without cable)		Approx. 8.82 lb (4 kg)	
Warranty		2 years for defects in quality	

Model	Description	Order No.
NitraVis® 701 IQ NI	Spectral nitrate and nitrite probe for measuring in the inlet/aeration with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481056
NitraVis® 705 IQ NI	Like NitraVis®705 IQ NI, but for measuring in the drain/outlet	481057

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999235US August 2018

Digital optical UV spectral probe NiCaVis® NI for nitrite, nitrate and carbon

UV probes with integrated ultrasonic cleaning for the reagent-free measurement of nitrate, nitrite and carbon parameters COD, DOC, TOC, BOD, SAC and UVT directly in the process

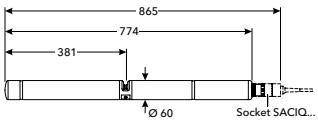
We would like to inform you about the application range on our website

Technical Data

Model	NiCaVis® 701 IQ NI	NiCaVis® 705 IQ NI
Measuring method	Spectral Measurement in the UV Range (200–390 nm)	
Measuring gap (optical layer thickness)	1 mm	5 mm
Application (optimized for)	Municipal wastewater:	Municipal wastewater:
Measuring range and Resolution	**Inlet:**	
NO_3	0.0 ... 300.0 mg/l 0.1 mg/l	
NO_3-N	0.00 ... 60.00 mg/l 0.01 mg/l	
NO_2	0.0 ... 120.0 mg/l 0.1 mg/l	
NO_2-N	0.00 ... 30.00 mg/l 0.01 mg/l	
COD $_{total}$	0 ... 20,000 mg/l 1 mg/l	
COD $_{dissolv}$	0 ... 12,500 mg/l 1 mg/l	
TOC	0 ... 20,000 mg/l 1 mg/l	
DOC	0 ... 12,500 mg/l 1 mg/l	
BOD	0 ... 8,000 mg/l 1 mg/l	
$SAC_{254\ total}$	0 ... 5,000 1/m 1 1/m	
$UVT_{254\ total}$*	0 ... 100.0 % 0.1 %	
	Aeration:	
NO_3	0.0 ... 300.0 mg/l 0.1 mg/l	
NO_3-N	0.00 ... 60.00 mg/l 0.01 mg/l	
NO_2	0.0 ... 120.0 mg/l 0.1 mg/l	
NO_2-N	0.00 ... 30.00 mg/l 0.01 mg/l	
COD $_{dissolv}$	0 ... 12,500 mg/l 1 mg/l	
DOC	0 ... 12,500 mg/l 1 mg/l	
$SAC_{254\ total}$	0 ... 5,000 1/m 1 1/m	
$UVT_{254\ total}$*	0 ... 100.0 % 0.1 %	
	Effluent:	**Effluent:**
NO_3	*0.0 ... 750.0 mg/l 0.1 mg/l*	0.0 ... 250.0 mg/l 0.1 mg/l
NO_3-N	*0.0 ... 150.0 mg/l 0.1 mg/l*	0.00 ... 50.00 mg/l 0.01 mg/l
NO_2	*0.0 ... 300.0 mg/l 0.1 mg/l*	0.0 ... 100.0 mg/l 0.1 mg/l
NO_2-N	*0.00 ... 75.00 mg/l 0.01 mg/l*	0.00 ... 25.00 mg/l 0.01 mg/l
COD $_{total}$	*0 ... 4.000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 1 mg/l
COD $_{dissolv}$	*0 ... 4.000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 1 mg/l
TOC	*0 ... 2.500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 1 mg/l
DOC	*0 ... 2.500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 1 mg/l
BOD	*0 ... 2.500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 1 mg/l
$SAC_{254\ total}$	*0 ... 3.000 1/m 1 1/m*	0.0 ... 600.0 1/m 1 1/m
$UVT_{254\ total}$*	*0 ... 100.0 % 0.1 %*	0.0 ... 100.0 % 0.1 %

Flow rate	≤ 3 m/s
Pressure Resistance	Maximum 1 bar (incl. sensor connection cable)
Electrical connections	2-wire shield cable with quick fastener to sensor
Electromagnetic Compatibility	EN 61326. Class B. FCC Class A Intended for indispensable operation
Certifications	CE
Mechanical	Housing: Titan Grade 2. PEEK Window: Sapphire glass
Weight (without cable)	Approx. 8.82 lb (4 kg)
Warranty	2 years for defects in quality

NiCaVis® 701 IQ NI, NiCaVis® 705 IQ NI



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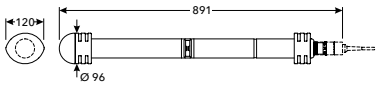

** The UVT-254 value is standardized to 10 mm gap width.*

Model	Description	Order No.
NiCaVis® 701 IQ NI	Spectral UV sensor for the measurement of nitrite. nitrate. $COD_{tot.}$. $COD_{diss.}$. TOC. BOD. DOC. $SAC_{tot.}$. $SAC_{diss.}$. UVT_{254} in the inlet and in the aeration with integrated ultrasonic cleaning. multifunctional slide and shock-absorption-rings. without connecting cable (order SACIQ separately)	481054
NiCaVis® 705 IQ NI	Like NiCaVis® 701 IQ NI. but for the measurement in the drain/outlet	481055

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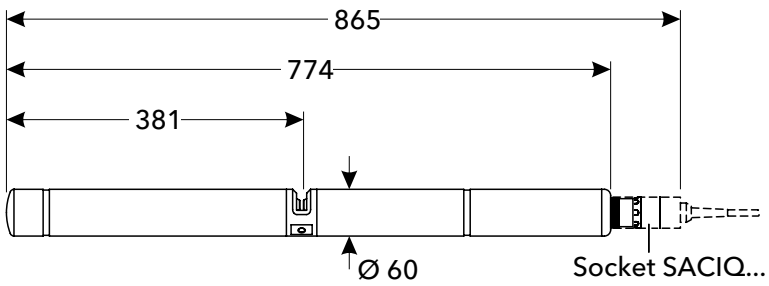
Optical nitrate sensor UV 70x IQ NOx

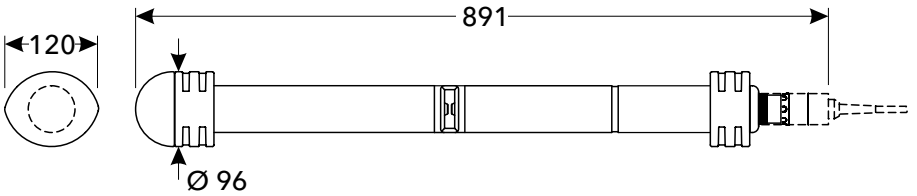
Low-cost probe with integrated ultrasonic cleaning for the maintenance-free and reagent-free measurement of nitrate

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

UV 701 IQ NOx, UV 705 IQ NOx



With shock protection:



Technical Data

Model	UV 701 IQ NOx	UV 705 IQ NOx
Measuring method	UV Single Wavelengths Absorption Measurement	
Measuring gap (optical layer thickness)	1 mm	5 mm
Application (optimized for)	Municipal wastewater with a low proportion of industrial wastewater, waste water treatment plants, surface water	
Measuring range and Resolution	NO_X 0.0 ... 500.0 mg/l 0.1 mg/l NO_X-N 0.0 ... 100.0 mg/l 0.1 mg/l	0.0 ... 100.0 mg/l 0.1 mg/l 0.0 ... 20.0 mg/l 0.1 mg/l
Flow rate	≤ 3 m/s	
Pressure Resistance	Maximum 1 bar (incl. sensor connection cable)	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A Intended for indispensable operation	
Certifications	CE	
Mechanical	Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Weight (without cable)	Approx. 8.82 lb (4 kg)	
Warranty	2 years for defects in quality	

Model	Description	Order No.
UV 701 IQ NOx	Optical nitrate (NOx) sensor to measure higher concentration with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481034
UV 705 IQ NOx	Like UV 701 IQ NOx, but to measure low concentrations	481035

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Digital optical UV-VIS spectral sensors CarboVis®

Spectral sensor with integrated ultrasonic cleaning for the chemical-free measurement of the organic load (COD/TOC/DOC/BOD/UVT/SAC) and suspended solids concentration (optional)

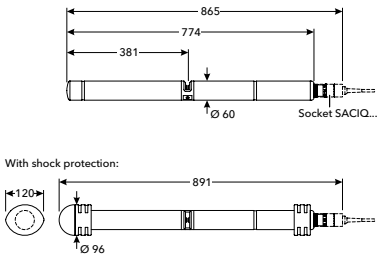
We would like to inform you about the application range on our website

Technical Data

Model		CarboVis® 701 IQ	CarboVis® 705 IQ	CarboVis® 701 IQ TS	CarboVis® 705 IQ TS
Measuring method		Spectral Measurement in the UV-VIS Range (200 – 720 nm)			
Measuring gap (optical layer thickness)		1 mm	5 mm	1 mm	5 mm
Application (optimized for)		Municipal wastewater:	Municipal wastewater:	Municipal wastewater:	Municipal wastewater:
Measuring range and Resolution		**Inlet:**		**Inlet:**	
	COD_{total}	0 ... 20,000 mg/l 1 mg/l		0 ... 20,000 mg/l 1 mg/l	
	$COD_{dissolv}$	0 ... 12,500 mg/l 1 mg/l		0 ... 12,500 mg/l 1 mg/l	
	TOC	0 ... 20,000 mg/l 1 mg/l		0 ... 20,000 mg/l 1 mg/l	
	DOC	0 ... 12,500 mg/l 1 mg/l		0 ... 12,500 mg/l 1 mg/l	
	BOD	0 ... 8,000 mg/l 1 mg/l		0 ... 8,000 mg/l 1 mg/l	
	$SAC_{254\ total}$	0.0 ... 5,000 1/m 1 1/m		0.0 ... 5,000 1/m 1 1/m	
	$SAC_{254\ dissolv}$	0.0 ... 3,000 1/m 1 1/m		0.0 ... 3,000 1/m 1 1/m	
	$UVT_{254\ total}$*	0.0 ... 100.0 % 0.1 %		0.0 ... 100.0 % 0.1 %	
	$UVT_{254\ dissolv}$*	0.0 ... 100.0 % 0.1 %		0.0 ... 100.0 % 0.1 %	
	TSS			0.00 ... 15.00 g/l 0.01 g/l	
		Aeration:		**Aeration:**	
	$COD_{dissolv}$	0 ... 12,500 mg/l 1 mg/l		0 ... 12,500 mg/l 1 mg/l	
	DOC	0 ... 12,500 mg/l 1 mg/l		0 ... 12,500 mg/l 1 mg/l	
	$SAC_{254\ total}$	0.0 ... 5,000 1/m 1 1/m		0.0 ... 5,000 1/m 1 1/m	
	$SAC_{254\ dissolv}$	0.0 ... 3,000 1/m 1 1/m		0.0 ... 3,000 1/m 1 1/m	
	$UVT_{254\ total}$*	0.0 ... 100.0 % 0.1 %		0.0 ... 100.0 % 0.1 %	
	$UVT_{254\ dissolv}$*	0.0 ... 100.0 % 0.1 %		0.0 ... 100.0 % 0.1 %	
	TSS			0.00 ... 20.00 g/l 0.01 g/l	
		Effluent:	**Effluent:**	*Effluent:*	**Effluent:**
	COD_{total}	*0 ... 4,000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 0.1 mg/l	*0 ... 4,000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 0.1 mg/l
	$COD_{dissolv}$	*0 ... 4,000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 0.1 mg/l	*0 ... 4,000 mg/l 1 mg/l*	0.0 ... 800.0 mg/l 0.1 mg/l
	TOC	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l
	DOC	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l
	BOD	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l	*0 ... 2,500 mg/l 1 mg/l*	0.0 ... 500.0 mg/l 0.1 mg/l
	$SAC_{254\ total}$	*0.0 ... 3,000 1/m 1 1/m*	0.0 ... 600.0 1/m 0.1 1/m	*0.0 ... 3,000 1/m 1 1/m*	0.0 ... 600.0 1/m 0.1 1/m
	$SAC_{254\ dissolv}$	*0.0 ... 3,000 1/m 1 1/m*	0.0 ... 600.0 1/m 0.1 1/m	*0.0 ... 3,000 1/m 1 1/m*	0.0 ... 600.0 1/m 0.1 1/m
	$UVT_{254\ total}$*	*0.0 ... 100.0 % 0.1 %*	0.0 ... 100.0 % 0.1 %	*0.0 ... 100.0 % 0.1 %*	0.0 ... 100.0 % 0.1 %
	$UVT_{254\ dissolv}$*	*0.0 ... 100.0 % 0.1 %*	0.0 ... 100.0 % 0.1 %	*0.0 ... 100.0 % 0.1 %*	0.0 ... 100.0 % 0.1 %
	TSS			*0 ... 4,500 mg/l 1 mg/l*	0.0 ... 900.0 mg/l 0.1 mg/l

Flow rate	≤ 3 m/s
Pressure Resistance	Maximum 1 bar (incl. sensor connection cable)
Electrical connections	2-wire shield cable with quick fastener to sensor
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A Intended for indispensable operation
Certifications	CE
Mechanical	Housing: Titan Grade 2, PEEK Window: Sapphire glass
Weight (without cable)	Approx. 8.82 lb (4 kg)
Warranty	2 years for defects in quality

CarboVis® 701 IQ (TS), CarboVis® 705 IQ (TS)



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

Model	Description	Order No.
CarboVis® 701 IQ	Spectral UV-VIS probe to measure COD_{tot}, $COD_{diss.}$, TOC, BOD, DOC, $SAC_{tot.}$, $SAC_{diss.}$ and UVT_{254} in the inlet and the aeration with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481048
CarboVis® 705 IQ	Like CarboVis® 701 IQ, but for the measurement in the drain	481050
CarboVis® 701 IQ TS	Spectral UV-VIS probe to measure COD_{tot}, $COD_{diss.}$, TOC, BOD, DOC, $SAC_{tot.}$, $SAC_{diss.}$, UVT_{254} and suspended solids in the infeed and the stimulation with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481049
CarboVis® 705 IQ TS	Like CarboVis® 701 IQ TS, but for the measurement in the drain	481051

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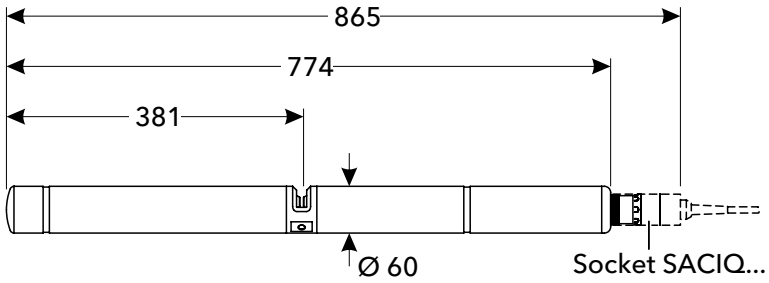
999238US August 2018

Optical SAC and UVT sensor UV 70x IQ SAC

Low-cost probe (integrated ultrasonic cleaning, turbidity compensation) for the maintenance-free and reagent-free SAC measurement according to DIN 38404 C3

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

UV 701 IQ SAC, UV 705 IQ SAC



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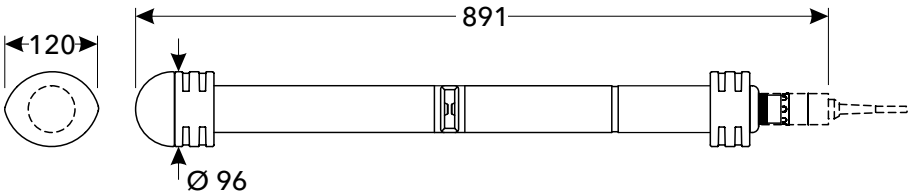

Technical Data

Model		UV 701 IQ SAC	UV 705 IQ SAC
Measuring method		UV-Absorptionsmessung 254 nm (Kompensation 550 nm)	
Measuring gap (optical layer thickness)		1 mm	5 mm
Application (optimized for)		Municipal wastewater with a low proportion of industrial wastewater, wastewater treatment plants, surface water	
Measuring range and Resolution	COD	0.0 ... 12,500 mg/l 1 mg/l	0.0 ... 800 mg/l 1 mg/l
	TOC	0.0 ... 20,000 mg/l 1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	DOC	0.0 ... 12,500 mg/l 1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	BOD	0.0 ... 8,000 mg/l 1 mg/l	0.0 ... 500.0 mg/l 0.1 mg/l
	$SAC_{254\ total}$	0.0 ... 3,000 1/m 1 1/m	0.0 ... 600.0 1/m 0.1 1/m
	$SAC_{254\ dissolv}$	0.0 ... 3,000 1/m 1 1/m	0.0 ... 600.0 1/m 0.1 1/m
	$UVT_{254\ total}$*	0.0 ... 100.0 % 0.1 %	0.0 ... 100.0 % 0.1 %
	$UVT_{254\ dissolv}$*	0.0 ... 100.0 % 0.1 %	0.0 ... 100.0 % 0.1 %
Flow rate		≤ 3 m/s	
Pressure Resistance		Maximum 1 bar (incl. sensor connection cable)	
Electrical connections		2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility		EN 61326, Class B, FCC Class A Intended for indispensable operation	
Certifications		CE	
Mechanical		Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Weight (without cable)		Approx. 8.82 lb (4 kg)	
Warranty		2 years for defects in quality	

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

Model	Description	Order No.
UV 701 IQ SAC	Optical SAC and UVT sensor (254 nm) to measure higher concentrations with integrated ultrasonic cleaning, multifunctional slide and shock-absorption-rings, without connecting cable (order SACIQ separately)	481036
UV 705 IQ SAC	Like UV 701 IQ SAC, but to measure lower concentrations	481038

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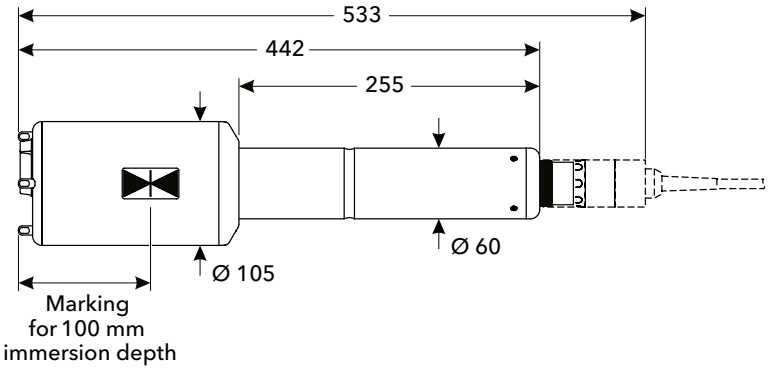
999239US August 2018

Digital IQ sensor IFL 700 IQ to determine the sludge level

Unique on the market: Sludge level measurement with maintenance-free cleaning system – the IFL 700 IQ with smart signal processing

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



Technical Data

Model	IFL 700 IQ	IFL 701 IQ
Measuring method	Ultrasound echo measurement	
Measuring range and Resolution	0.4 m – 15 m 0.01 m	
Accuracy	0.1 m	
Immersion depth	Min. 5 cm; max. 3 m	
Pressure Resistance	0.3 bar The sensor with connected SACIQ cable complies with the requirements of article 3(3), 97/23/EU guideline	
Ambient Conditions	Medium: 0 °... +50 °C, Storage and transport: –5° … +50°C	
Electrical connections	2-wire shield cable with quick fastener to sensor	
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation	
Certifications	CE, cETL, ETL	
Equipment safety, Standards	EN 61010-1; UL 61010-1; CAN/CSA C22.2#61010-1	
Mechanical	Shaft and baseplate: V4A stainless steel 1.4571 Plug head and transition unit: POM Ultrasound unit: PVC-C Protection rating: IP68 Cleaning system: Grade 2 Titanium (shaft), Grivory	Shaft and baseplate: V4A stainless steel 1.4571 Plug head and transition unit: POM Ultrasound unit: PVC-C Protection rating: IP68
Weight (without cable)	Approx. 3.6 kg (7 lb)	
Warranty	2 years for defects in quality	

Model	Description	Order No.
IFL 700 IQ	Digital ultrasonic sensor with automatic cleaning to measure the sludge level	481200
IFL 701 IQ	Digital ultrasonic sensor to measure the sludge level	481201

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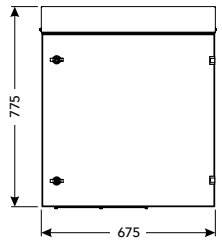
Orthophosphate analyzer P 700 IQ

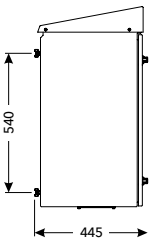
The optimum solution to support phosphate elimination as well as monitor phosphate freight - on-site analyzer for orthophosphate measurement in the IQ Sensor Net

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

Front view:



Lateral view:



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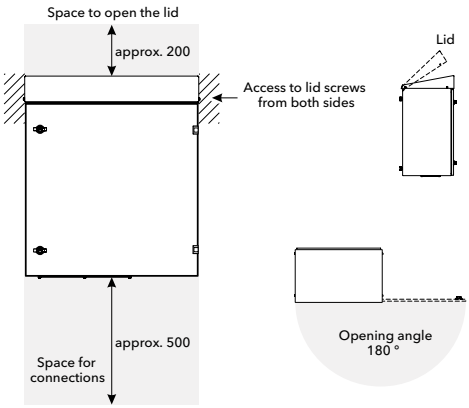

Technical Data

Model	P 700 IQ-I...	P 700 IQ-O...
Measuring method	Molybdate-vanadate (yellow method)	
Measuring range, Resolution and Accuracy	Measuring range A: 0.05 … 15.00 mg/l PO_4-P; 0.01 mg/l PO_4-P; ± 2 %, ± 0.05 mg/l Measuring range B: 1 … 50 mg/l PO_4-P; 1 mg/l PO_4-P; ± 2 %, ± 1 mg/l	
Response time t_{90}	< 5 min	
Detection limit	Measuring range A: 0.05 mg/l PO_4-P Measuring range B: 1 mg/l PO_4-P	
pH range	5 … 9	
Sample temperature	39.2 ... 113 °F (4 … 45 °C)	
Measuring interval	< 5 min (adjustable)	
Reagent consumption	2500 ml container for 8 months at a measuring range (A) at a 10 min measurement interval 2500 ml container for 4 months at a measuring range (B) at a 10 min measurement interval	
Cleaning Solution	1000 ml for 4 months with daily cleaning	
Calibration	Manual or automatic (adjustable)	
Climate control	Heater and fan	
Ambient Conditions	Operating temperature: +59...+104°F (+15...40°C; Indoor Version); Storage temperature: -4 ... 122 °F (-20 ... 50 °C)	Operating temperature: -4...+104°F (-20...40°C; Outdoor Version); Storage temperature: -4 ... 122 °F (-20 ... 50 °C)
Electrical connections	115 or 230 VAC; 2-wire shield connection cable to the IQ Sensor Net	
Electromagnetic Compatibility	EN 61326-1, EN 61326-2-3, FCC 47 CFR Part 15	
Certifications	230 V: CE; 115 V: CE, cETLus; EN 61010-1; UL 61010-1, CAN/CSA C22.2#61010-1	
Mechanical	Housing: powder-coated aluminum; Overflow vessel: PVC; protection rating (housing): IP54	
Weight	~66 lb (~30 kg; without reagents)	
Warranty	2 years for defects in quality	

Model	Description	Order No.
P 700 IQ-I115	Orthophosphate analyzer P 700 IQ, indoor, without permeate pump, 115V.	8P-000
P 700 IQ-O115	P 700 IQ, outdoor, without permeate pump, 115V.	8P-001
P 700 IQ-PI115	P 700 IQ, indoor, with permeate pump, 115V.	8P-010
P 700 IQ-PO115	P 700 IQ, outdoor, with permeate pump, 115V.	8P-011
P 700 IQ-I230	P 700 IQ, indoor, without permeate pump, 230V.	8P-100
P 700 IQ-O230	P 700 IQ, outdoor, without permeate pump, 230V.	8P-101
P 700 IQ-PI230	P 700 IQ, indoor, with permeate pump, 230V.	8P-110
P 700 IQ-PO230	P 700 IQ, outdoor, with permeate pump, 230V.	8P-111

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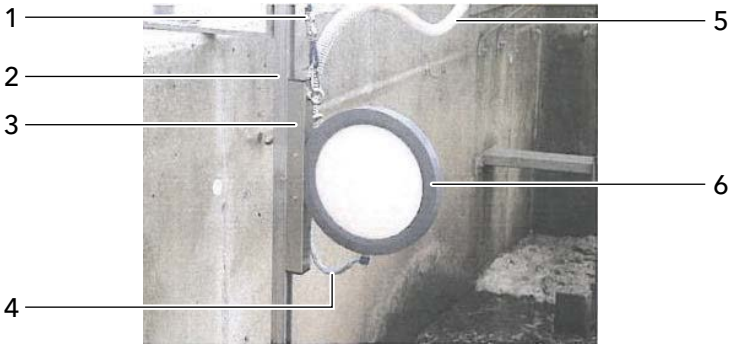
P 700 IQ Filtration

High operational safety with the system for filtration and sample preparation directly at the edge of the sink - especially for the digital phosphate analyzer P700 IQ

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



1 Chain (scope of delivery: Attachment for filtration M 1.5)
2 Guide rail (scope of delivery: Attachment for filtration M 1.5)
3 Height adjustable slide (scope of delivery: Suction line)
4 Intake line (scope of delivery: Suction line)
5 Sleeve tube (scope of delivery: Suction line)
6 Filter membrane module FM with membrane insert

Technical Data

Model	FM	Filter/PC and Filter-Case/PC
Membrane area:	155.00 in² (1.000 cm²)	219.02 in² (1413 cm²)
Maximum operating temperature	113 °F (45 °C)	113 °F (45 °C)
Maximum operating overpressure (Raw water to permeate side)	2.0 bar at 68 °F (20 °C)	
Operating under pressure (permeate side)	Approx. 0.5 bar at 68 °F (20 °C)	
Materials	Housing: PVC Screws: Stainless steel	Housing: PVC Screws: Stainless steel

Model	Description	Order No.
FM	Filter membrane module incl. membrane	821987
FM-Case	Module housing	821973
Filter 2	Membrane inserts	821972
FM-Case/PC	Module housing for applications with strong mechanical wear	821941
Filter/PC	Filter plate for applications with strong mechanical wear	821940
M 1.5	Basin holder for filtration	821986
RL 20	Permeate return line unheated, 20 m	821954
RL 115-20	Permeate return line heated, 115 VAC, 20 m	821955
RL 230-20	Permeate return line heated, 230 VAC, 20 m	821956
SL 20	Suction line incl. carriage, unheated, 20 m	821957
SL 115-20	Suction line incl. carriage, heated, 115 VAC, 20 m	821959
SL 230-20	Suction line incl. carriage, heated, 230 VAC, 20 m	821960
RL 10	Permeate return line unheated, 10 m	821964
RL 115-10	Permeate return line heated, 115 VAC, 10 m	821965
RL 230-10	Permeate return line heated, 230 VAC, 10 m	821966
RL 2	Permeate return line unheated, 2 m	821974
RL 115-2	Permeate return line heated, 115 VAC, 2 m	821975
RL 230-2	Permeate return line heated, 230 VAC, 2 m	821976
SL 10	Suction line incl. carriage, unheated, 10 m	821977
SL 5	Suction line incl. carriage, unheated, 5 m	821978
SL 115-10	Suction line incl. carriage, heated, 115 VAC, 10 m	821979
SL 230-10	Suction line incl. carriage, heated, 230 VAC, 10 m	821980
SL 115-5	Suction line incl. carriage, heated, 115 VAC, 5 m	821981
SL 230-5	Suction line incl. carriage, heated, 230 VAC, 5 m	821982

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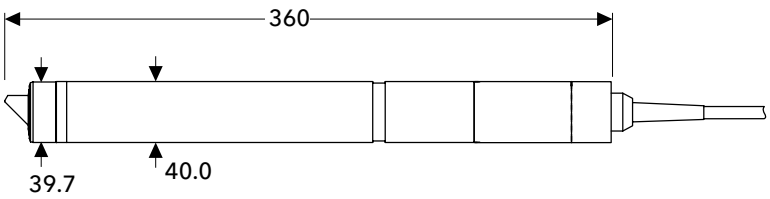
Digital IQ fixed cable sensors for dissolved oxygen

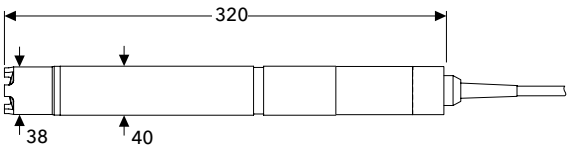
Optical or electro-chemical: The IQ fixed cable sensors for dissolved oxygen provide reliable measuring values for your single parameter measuring point

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

FDO® 700 IQ F, FDO® 701 IQ F



TriOxmatic® 700 IQ F



Technical Data

Model	TriOxmatic® 700 IQ F	FDO® 700 IQ F	FDO® 701 IQ F
Measuring method	Electrochemical	Optical	
Measuring range (25 °C) **O_2 concentration** **O_2 saturation**	0.0 ... 60.0 mg/l 0 ... 600%	0 ... 20.00 mg/l (0 ... 20.00 ppm) 0 ... 200.0 %	
Resolution **O_2 concentration** **O_2 saturation**	0.1 mg/l 1%	0.01 mg/l (0.01 ppm) 0.1 %	
Accuracy	< 1 mg/l (ppm): ± 0.05 mg/l (ppm) > 1mg/l (ppm): ± 0.1 mg/l (ppm)	depending on calibration	
Response time at 25 °C	t_{90}: 180 s	t_{90}: < 150 s t_{95}: < 200 s	t_{90}: < 60 s t_{95}: < 80 s
Minimum flow rate	0.05 m/s	No flow required	
SensCheck	SensLeck SensReg	Monitoring of membrane function	
Temp. measurement	Integrated NTC, 23 °F ... 140 °F (-5 °C ... +60 °C) ± 0.5 °C		
Temp. compensation	32 °F ... 140 °F (0 °C ... +60 °C)	23 °F ... 122 °F (-5 °C ... +50 °C)	
Pressure Resistance	Maximum 2 bar (incl. sensor connection cable)		
Ambient Conditions	Operating temperature: 32 °F ... 140 °F (0 °C ... +60 °C) Storage temperature: 23 °F ... 149 °F (-5 °C ... +65 °C)	23 °F ... 122 °F (-5 °C ... +50 °C) -13 °F ... 122 °F (-25 °C ... +50 °C)	23 °F ... 104 °F (-5 °C ... +40 °C) -13 °F ... 104 °F (-25 °C ... +40 °C)
Electrical connections	2-wired shield fixed cable		
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation		
Certifications	CE, cETL, ETL		
Mechanical	Membrane head assembly, locking cap: POM Sensor body: V4A stainless steel 1.4571 Protection rating: IP 68	Sensor cap, fixation: POM, PVC, silicone, PMMA Housing shaft: VA steel 1.4571 Protection rating: IP 68	
Weight (without cable)	Approx. 2.2 lb (1000 g)	Approx. 2.42 lb (1100 g)	
Warranty	2 years for defects in quality		

Model	Description	Order No.
FDO® 700 IQ F	Optical oxygen sensor, calibration-free, for DIQ/S 181(/24V), with 10 m fixed cable for DIQ/S 181(/24V)	201656
FDO® 701 IQ F	Optical oxygen sensor, calibration-free for DIQ/S 181(/24V), with 10 m fixed cable and fast response time, for DIQ/S 181(/24V)	201658
TriOxmatic® 700 IQ F	Electro-chemical oxygen sensor, for DIQ/S 181(/24V), with 10 m fixed cable, for DIQ/S 181(/24V)	201643

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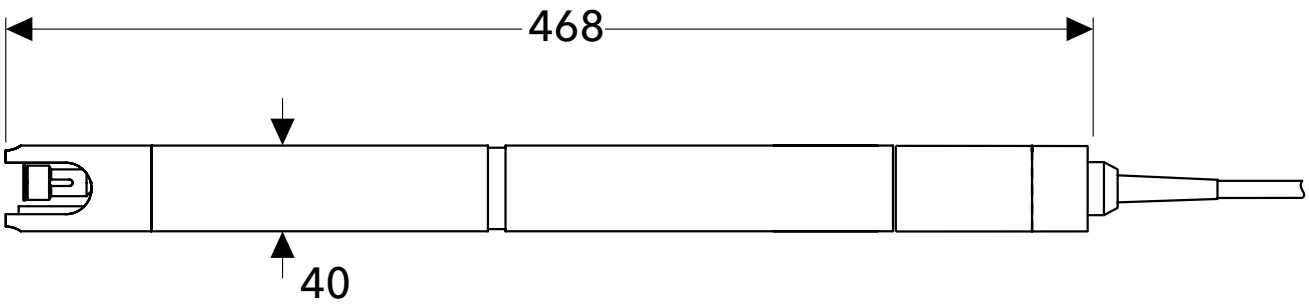
999243US August 2018

IQ fixed cable armature for digital pH/ ORP measurement

SensoLyt® 700 IQ F with integrated pre-amplifier, temperature sensor and lightning protection - in the wastewater treatment plant or for drinking water applications

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



Technical Data

Model	**SensoLyt® 700 IQ F**
Measuring method	Electrochemical
Measuring range	0.00 ... 14.00 pH (depending on the electrode) ± 2000mV (depending on the electrode)
Resolution	0.01 pH 1mV
Integrated Preamplifier	Yes
Sensor check funktion	Yes
Temp. measurement	Integrated NTC, 23 ... 140 °F (-5 ... +60 °C)
Temp. compensation	32 ... 140 °F (0 ... +60 °C)
Pressure Resistance	2 bar
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... +60 °C)
Electrical connections	2-wired shield fixed cable
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation
Certifications	CE, cETL, ETL
Mechanical	Sensor body: V4A stainless steel 1.4571 Protection cap: PVC Sensor holder: POM Protection rating: IP 68
Weight (without cable)	Approx. 3.09 lb (1400 g)
Warranty	2 years for defects in quality

Model	Description	Order No.
SensoLyt® 700 IQ F	Robust digital pH/ORP meter for pH/ORP measuring chains SensoLyt® SEA/DWA/ECA/PtA, can be connected to DIQ/S 181(/24 V), with 10 m fixed cable	109177

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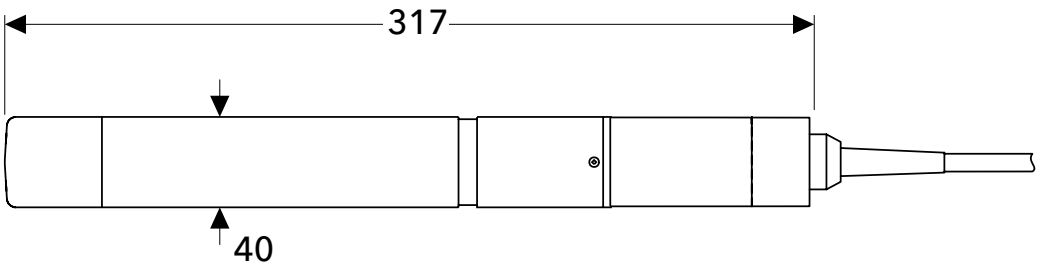
IQ fixed cable measuring cell for digital conductivity measurement

Digital fixed cable measuring cell with 4 electrode system - the TetraCon® 700 IQ F especially for operation as fixed conductivity measuring point with DIQ/S 181(/24 V)

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



Technical Data

Model	TetraCon® 700 IQ F
Measuring method	4-electrode cell
Measuring range	10 µS/cm - 500 mS/cm SAL: 0 … 70 TDS: 0 … 2000 mg/l
Cell Constants	K = 0.917 cm^{-1}, ±1.5% (in free solution) K = 0.933 cm^{-1}, TetraCon® 700 IQ with EBST 700-DU/N flow-thru adapter
Resolution	Depending on measuring range
Temp. measurement	-5 ... +60 °C (23 ... 140 °F); NTC
Temp. compensation	linear: 32 ... 140 °F (0 ... +60 °C) nonlinear: +5 °C ... 35 °C (acc. to DIN 38404) nonlinear: +35 °C ... +60 °C (acc. to WTW procedure)
Pressure Resistance	10 bar
Ambient Conditions	-5 ... +60 °C (23 ... 140 °F)
Electrical connections	2-wired shield fixed cable
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation
Certifications	CE, cETL, ETL
Mechanical	Sensor head: PVC Sensor body: V4A stainless steel 1.4571 Protection rating IP 68
Weight (without cable)	Approx. 3.09 lb (1400 g)
Warranty	2 years for defects in quality

Model	Description	Order No.
TetraCon® 700 IQ F	Digitale 4 electrode conductivity measuring cell for strongly contaminated wastewater, can be connected to DIQ/S 181(/24V), with 10 m fixed cable	302507

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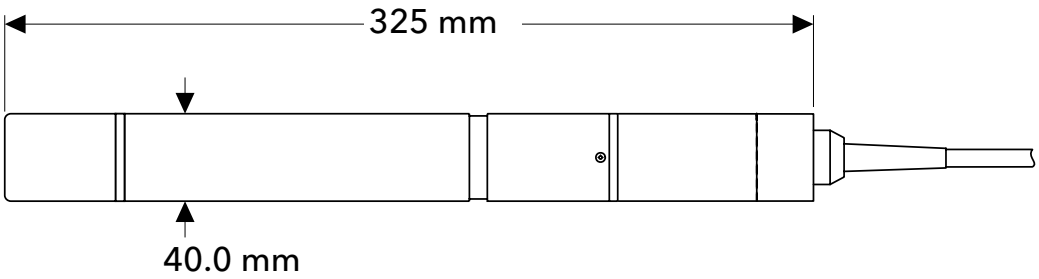
999245US August 2018

Digital IQ fixed cable sensor for turbidity measurement

Low-maintenance sensor with ultrasonic cleaning – the VisoTurb® 700 IQ F is especially suitable for operation as fixed turbidity measuring point at the DIQ/S 181(/24 V)

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



Technical Data

Model	**VisoTurb® 700 IQ F**
Measuring method	Nephelometric principle in compliance with EN 27027 and ISO 7027
Measuring range	
FNU; NTU; TEF	0.05 ... 4000 FNU
mg/l SiO_2; ppm SiO_2	0.1 ... 4000 mg/l SiO_2
g/l TSS	0.0001 ... 400 g/l TS
Resolution	
FNU; NTU; TEF	Automatic according to measuring range 0.001 ... 1 FNU
mg/l SiO_2; ppm SiO_2	0.001 mg/l ... 0.01 g/l
g/l TSS	0.001 mg/l … 1 g/l
Accuracy	Process variation coefficient according to DIN 38402 part 51 <1 % (in the range up to 2000 FNU) Repeatability according to DIN ISO 5725 or DIN 1319 < 0.015 % or ≥ 0.006 FNU
Calibration	
FNU; NTU; TEF	Factory calibration with formazine
mg/l SiO_2; ppm SiO_2	Factory calibration with SiO_2
g/l TSS	Calibration by user, (TSS regulations in compliance with DIN 38414)
Cleaning System	Ultrasound cleaning system
SensCheck	Contamination detection of optical window; failure of cleaning system
Pressure Resistance	2 bar
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... 60 °C); ultrasonic cleaning system: 32 ... 104 °F (0 ... 40 °C) (overheating protection); Storage temperature: 23 ... 149 °F (-5 ... +65 °C)
Electrical connections	2-wired shield fixed cable
Electromagnetic Compatibility	EN 61326, Class B, FCC Class A; Intended for indispensable operation
Certifications	CE
Mechanical	Measuring window: Sapphire; Sensor body: V4A stainless steel 1.4571; Protection rating: IP 68
Weight (without cable)	Approx. 3.09 lb (1400 g)
Warranty	2 years for defects in quality

Model	Description	Order No.
VisoTurb® 700 IQ F	Digital turbidity sensor to use in drinking water/water/wastewater with ultrasonic cleaning, to be connected to DIQ/S 181(/24 V), with fixed cable	600007

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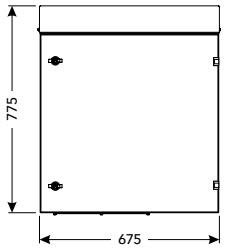
Ammonium Analyzer Alyza IQ

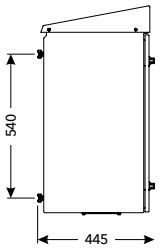
To monitor the oulet of a wastewater treatment plant and for river monitoring with the IQ Sensor Net (Systems 2020 and 282/284)

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

Front view:



Lateral view:



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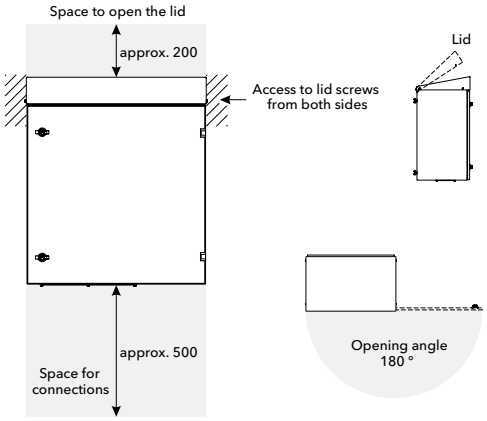

Technical Data

Model	Alyza IQ NH_4-111	Alyza IQ NH_4-112
Measuring method	Berthelot method (Indophenol method)	
Measuring range **MR 1:** Displayed: **Resolution** **Accuracy**	0.02 … 4.00 mg/l NH_4-N 0.00 … 4.00 mg/l NH_4-N 0.01 mg/l NH_4-N ±3 % ±0.02 mg/l	
Measuring range **MR 2:** Displayed: **Resolution** **Accuracy**	0.10 … 20.00 mg/l NH_4-N 0.00 … 20.00 mg/l NH_4-N 0.05 mg/l NH_4-N ±3 % ±0.10 mg/l	
Sample streams/channels	1 channel	2 channel
pH range	5 … 9	
Sample temperature	+39 ... +104 °F (+4 … +45 °C)	
Solids contents	< 6 g/l (before filtration)	
Filtration unit	Filter/PC, FM-Case/PC (please order separately)	
Cleaning	Automatic cleaning with cleaning solution	
Calibration	Automatic 1- and 2-point calibration	
Ambient conditions	Operational temperature: -4 ... +104 °F (-20 … +40 °C); Storage temperature: -4 ... +122 °F (-20 … +50 °C)	
Electrical connection	120 VAC / 240 VAC, 50/60 Hz	
Mechanics	Housing: powder-coated aluminum, UV resistant Overflow vessel: PMMA	
Weight	Approx. 81.6 lb (37 kg) (without liquids)	
Warranty	2 years	

Subject to technical modifications. Availability expected for Q2 2019.

Model	Description	Order No.
Alyza IQ NH_4-111	NH_4 analyzer, 1-channel, with 2 measuring ranges, Indophenol method, connectable to the IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825011
Alyza IQ NH_4-112	NH_4 analyzer, 2-channel, with 2 measuring ranges, Indophenol method, connectable to the IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825012
Reagent sets		
R-Set NH4/1-1	Reagents for Alyza IQ NH_4, when using MR 1	827540
R-Set NH4/1-2	Reagents for Alyza IQ NH_4, when using MR 2	827541
SC-Set NH4/1-1_0/1	Calibration standards and cleaning solution for Alyza IQ NH_4, when using MR 1; Calibration standards with 0 mg/l and 1 mg/l	827545
SC-Set NH4/1-1_0/4	Calibration standards and cleaning solution for Alyza IQ NH_4, when using MR 1; Calibration standards with 0 mg/l and 4 mg/l	827546
SC-Set NH4/1-2_0/16	Calibration standards and cleaning solution for Alyza IQ NH_4, when using MR 2; Calibration standards with 0 mg/l and 16 mg/l	827547

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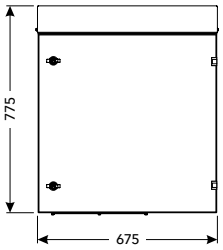
Orthophosphate Analyzer Alyza IQ

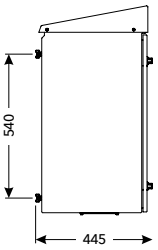
To control precipitant dosing and to monitor the outlet of a wastewater treatment plant with the IQ Sensor Net (Systems 2020 and 282/284)

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

Front view:



Lateral view:



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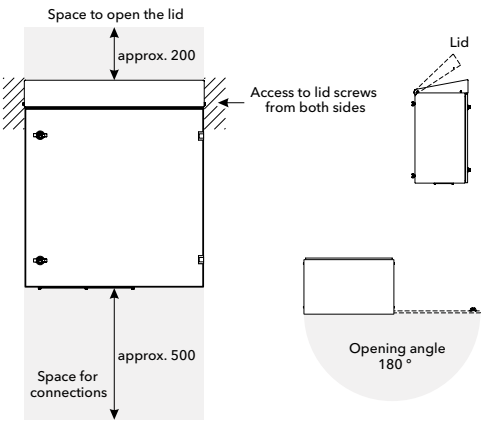

Technical Data

Model	Alyza IQ PO_4-111	Alyza IQ PO_4-112	Alyza IQ PO_4-121	Alyza IQ PO_4-122
Measuring method	Molybdate vanadate method (Yellow method)			
Measuring range	**MR 1:** 0.02 … 15.00 mg/l PO_4-P Displayed: 0.00 … 15.00 mg/l PO_4-P		**MR 2:** 0.2 … 50.0 mg/l PO_4-P Displayed: 0.0 … 50.0 mg/l PO_4-P	
Resolution	0.01 mg/l PO_4-P		0.05 mg/l PO_4-P	
Accuracy	± 2 % ± 0.02 mg/l		± 2 % ± 0.2 mg/l	
Sample streams/channels	1 channel	2 channel	1 channel	2 channel
pH range	5 … 9			
Sample temperature	+39 ... +104 °F (+4 … +45 °C)			
Solids contents	< 6 g/l (before filtration)			
Filtration unit	Filter/PC, FM-Case/PC (please order separately)			
Cleaning	Automatic cleaning with cleaning solution			
Calibration	Automatic 1- and 2-point calibration			
Ambient conditions	Operational temperature: -4 ... +104 °F (-20 … +40 °C); Storage temperature: -4 ... +122 °F (-20 … +50 °C)			
Electrical connection	120 VAC / 240 VAC, 50/60 Hz			
Mechanics	Housing: powder-coated aluminum, UV resistant Overflow vessel: PMMA			
Weight	Approx. 81.6 lb (37 kg) (without liquids)			
Warranty	2 years			

Subject to technical modifications. Availability expected for Q2 2019.

Model	Description	Order No.
Alyza IQ PO_4-111	PO_4 analyzer, 1-channel, with MR 1, yellow method, connectable to IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825511
Alyza IQ PO_4-112	PO_4 analyzer, 2-channel, with MR 1, yellow method, connectable to IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825512
Alyza IQ PO_4-121	PO_4 analyzer, 1-channel, with MR 2, yellow method, connectable to IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825521
Alyza IQ PO_4-122	PO_4 analyzer, 2-channel, with MR 2, yellow method, connectable to IQ Sensor Net Systems 2020 and 282/284, provides 10 W to the IQ Sensor Net; including 2 m SNCIQ cable, reagent sets need to be ordered separately	825522
Reagent sets		
R-Set PO4/1-1	Reagents for Alyza IQ PO_4-X1X with MR 1	827550
R-Set PO4/1-2	Reagents for Alyza IQ PO_4-X2X with MR 2	827551
SC-Set PO4/1-1_0/1	Calibration standards and cleaning solution for Alyza IQ PO_4-X1X with MR 1; Calibration standards with 0 mg/l and 1 mg/l	827555
SC-Set PO4/1-1_0/10	Calibration standards and cleaning solution for Alyza IQ PO_4-X1X with MR 1; Calibration standards with 0 mg/l and 10 mg/l	827556
SC-Set PO4/1-2_10/40	Calibration standards and cleaning solution for Alyza IQ PO_4-X2X with MR 2; Calibration standards with 10 mg/l and 40 mg/l	827557

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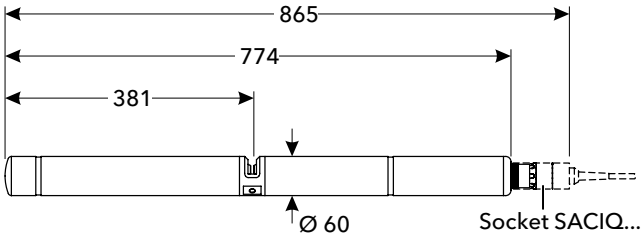
NiCaVis® optical sensors for surface water monitoring

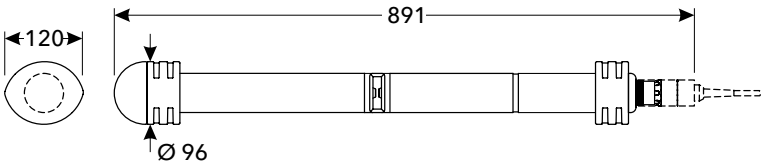
Multiparameter-sensor with maintenance-free ultrasonic cleaning technology for the reagent-free measurement of nitrate, nitrite (optional) and Carbon parameters in rivers and lakes.

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

NiCaVis® 705 IQ SF, NiCaVis® 705 IQ NI SF



With shock protection:



Technical Data

Model		NiCaVis® 705 IQ SF		NiCaVis® 705 IQ NI SF	
Measuring method		Spectral measurement in the UV-VIS range of 200-720 nm		Spectral measurement in the UV range of 200–390 nm	
Measuring gap (optical layer thickness)		5 mm		5 mm	
Application (optimized for)		Surface water e.g. rivers and lakes		Surface water e.g. rivers and lakes	
Measuring range and Resolution	NO_3	0.0 ... 250.0 mg/l	0.1 mg/l	0.0 ... 250.0 mg/l	0.1 mg/l
	NO_3-N	0.00 ... 50.00 mg/l	0.01 mg/l	0.00 ... 50.00 mg/l	0.01 mg/l
	NO_2			0.0 ... 100.0 mg/l	0.1 mg/l
	NO_2-N			0.00 ... 25.00 mg/l	0.01 mg/l
	COD	0.0 ... 800.0 mg/l	0.1 mg/l	0.0 ... 800.0 mg/l	0.1 mg/l
	TOC	0.0 ... 500.0 mg/l	0.1 mg/l	0.0 ... 500.0 mg/l	0.1 mg/l
	DOC	0.0 ... 500.0 mg/l	0.1 mg/l	0.0 ... 500.0 mg/l	0.1 mg/l
	BOD	0.0 ... 500.0 mg/l	0.1 mg/l	0.0 ... 500.0 mg/l	0.1 mg/l
	$SAC_{254\ total}$	0.0 ... 600.0 1/m	1 1/m	0.0 ... 600.0 1/m	1 1/m
	$SAC_{254\ diss.}$	0.0 ... 600.0 1/m	1 1/m		
	$UVT_{254\ total}$*	0.0 ... 100.0 %	0.1 %	0.0 ... 100.0 %	0.1 %
	$UVT_{254\ diss}$*	0.0 ... 100.0 %	0.1 %		
	TSS	0.0 ... 900.0 mg/l	0.1 mg/l		
Flow rate		≤ 3 m/s			
Pressure Resistance		Maximum 1 bar (incl. sensor connection cable)			
Electrical connections		2-wire shield cable with quick fastener to sensor			
Electromagnetic Compatibility		EN 61326, Class B, FCC Class A Intended for indispensable operation			
Certifications		CE			
Mechanical		Housing: Titan Grade 2, PEEK Window: Sapphire glass			
Weight (without cable)		Approx. 8.82 lb (4 kg)			
Warranty		2 years for defects in quality			

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

Model	Description	Order No.
NiCaVis® 705 IQ SF	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, COD, TOC, BOD, DOC, SAC, UVT254 and TS in surface water bodies with integrated ultrasonic cleaning.	481058
NiCaVis® 705 IQ NI SF	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, Nitrite, COD, TOC, BOD, DOC, SAC, UVT254 and TS in surface water bodies with integrated ultrasonic cleaning.	481059

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