






System 182

Up to 4 digital sensors can be connected to this system – insofar the system 182 is perfectly designed for the operation or completion of single measuring points at wastewater plants:

System 182

- 1 to 4 sensors
- Digital outputs
- All IQ sensors can be connected

- Up to 4 sensors can be connected out of a variety of 19 available digital sensors
- pH, ORP, D.O., conductivity, temperature and turbidity/ suspended solids, nutrient parameters ammonium, nitrate and COD can therefore be measured directly, in-situ
- Power supply through wide range mains converter (100-240 VAC) or 24 V alternative.
- Digital outputs PROFIBUS DP or MODBUS RTU
- Analog model with up to 5 analog outputs and 6 relays

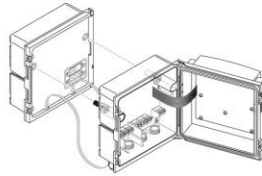
Module	DIQ/S 182	DIQ/S 182 XT	DIQ/S 182 XT-4
			
Max. number of sensors	2	2	4
Plug connection for Bus	Plug connection for Bus 2 x mA (0) 4 - 20 mA 3 x relay	DIQ/S 182 XT 4 x mA (0) 4 - 20 mA 5 x relay	DIQ/S 182 XT-4 5 x mA (0) 4 - 20 mA 6 x relay
Models with digital output PROFIBUS	DIQ/S 182 PR Plug connection for Bus 3 x relay	—	DIQ/S 182 XT-4/ PR Plug connection for Bus 3 x relay
Models with digital output MODBUS	DIQ/S 182 PR Plug connection for Bus 3 x relay	—	DIQ/S 182 XT-4/ PR Plug connection for Bus 3 x relay

Display of measurement value and navigation



- Single or double display with or without additional measuring parameter (i.e. temperature)
- Simultaneous display of status for all relays and power outputs in one overview

Sensor connection and system extensions



- Any IQ sensor will be automatically recognized by the system and displayed after connection.
- On demand, an additional main power supply can be connected to extend power for sensors with an increased power consumption.
- With stack-mounting, both the mechanical and electrical connect is established.
- Cable lengths of up to 250 m within the system.

Linking module for sensors and magnetic valve modules for compressed-air cleaning



- (DIQ/JB): Connection of a second or further distant IQ sensor
- (DIQ/CHV): Integrated magnetic valve is directly controlled by a relay of the transmitter

Configuration Options for System 182

Example 1

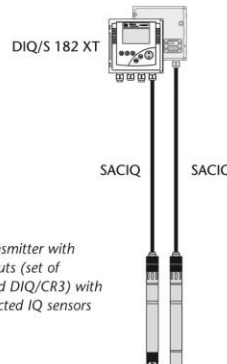
Configuration Example	Order No.
DIQ/S 182	472 000
SACIQ-7,0	480 042
IQ Sensor	user selected



Transmitter with 1 direct connected IQ sensor

Example 2

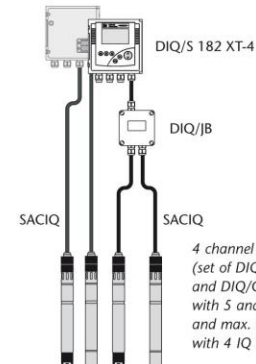
Configuration Example	Order No.
DIQ/S 182 XT	472 001
2 x SACIQ-7,0	480 042
2 IQ Sensors	user selected



2 channel transmitter with 4 analog outputs (set of DIQ/S 182 and DIQ/CR3) with 2 direct connected IQ sensors

Example 3

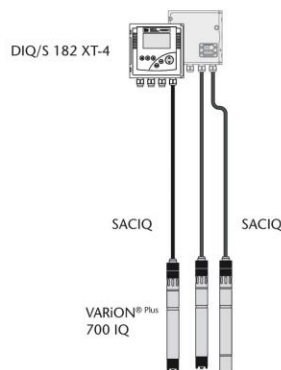
Configuration Example	Order No.
DIQ/S 182 XT-4	472 015
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 IQ Sensors	user selected



4 channel transmitter (set of DIQ/S 182 and DIQ/CR3) with 5 analog outputs and max. 6 relays with 4 IQ sensors

Single measuring point with analog outputs

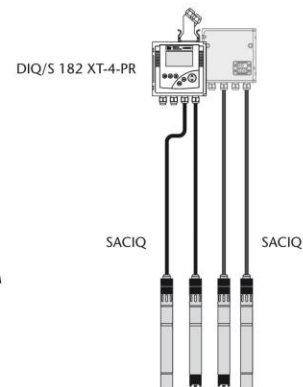
Configuration Example	Order No.
DIQ/S 182 XT-4	472 015
3 x SACIQ-7,0	480 042
VARION ^{Plus} 700 IQ	107 066
2 IQ Sensors	user selected



4 channel transmitter (set of DIQ/S 182 and DIQ/CR3) with 5 analog outputs and max. 6 relays with 3 IQ sensors

Single measuring point PROFIBUS / MODBUS

Configuration Example	Order No.
DIQ/S 182 XT-4-PR	472 017
4 x SACIQ-7,0	480 042
4 IQ Sensors	user selected



4 channel transmitter (set of DIQ/S 182 and MIQ/JB) with 3 relays and PROFIBUS-DPA connection with 4 IQ Sensors

General Description of Meters

Monitors

IQ SENSOR NET

Analyzer

Sample Preparation

Samplers

Accessories

Measuring Stations



شرکت ابزار طب
وارد کننده تجهیزات
آزمایشگاهی - تجهیزات علمی
تاسیس ۱۳۶۳

تهران، خیابان مطهری، خیابان فجر، پلاک 38



General Technical Data System 182	
System	
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326, Emission: Class B, EMC for indispensable operation, FCC Class A
Integrated Lightning Protection	According to EN 61326 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. 273 yds/250 m
Connection Medium Radio	Radio transmission with a range of 100 m/109 yds (max. 300 m/328 yds)
Connection Characteristics	Data transmission, separate power supply necessary for each island
Monitors	
Display	Graphic display; resolution: 128 x 64 pixel; visible area: 2.83 x 1.57 in. (72 x 40 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) 2 knobs 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 docking additional modules, additionally max. 2 modules as stack mounted unit
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
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 / equivalent to NEMA 4X (not suitable for conduit connection)
Dimensions (W x H x D)	5.67 x 5.67 x 3.74 in. (144 x 144 x 95 mm) (DIQ/S 182 XT: 5.67 x 5.67 x 5.63 in. / 144 x 144 x 143 mm) / DIQ modules: 3.74 x 3.74 x 2.28 in. (95 x 95 x 58 mm)
Weight	DIQ 182: approx. 2.2 pounds (1 kg) DIQ/S 182 XT and DIQ/S 182 XT-4: approx. 3.31 pounds (1.5 kg)
Guaranty	3 years for defects of quality
Sensors	
Mechanical Connections for Accessories	Connection slot; connection screw thread G 1"
IQ Sensor Connection Cable	Combined mechanical and electrical connection for rapide attachment and exchange of sensors. Consists of jack plug and pressure-resistant screw connection. Cable lengths: 1.64 - 7.66 - 16.40 yds (1.5 - 7.0 - 15.0 m)/ 21.87 - 54.68 - 109.36 yds (20 - 50 - 100 m) in sea water design available. Storage temperature: -13 °F ... 149 °F (-25 °C ... +65 °C) Operating temperature: -4 °F ... +131 °F (-20 °C ... +55 °C)



Ordering Information System 182		
Monitors		Order No.
DIQ/S 182	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors with 2 analog outputs (0/4-20 mA) and 3 relays	472 000
DIQ/S 182 XT	Dual IQ/ system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 4 analog outputs (0/4-20 mA) and 5 relays	472 001
DIQ/S 182-PR	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 3 relays and PROFIBUS-DP connection	472 002
DIQ/S 182-MOD	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 3 relays and MODBUS RTU/RS 485 connection	472 003
DIQ/S 182/24V	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 2 analog outputs (0/4-20 mA) and 3 relays, for 24 V AC/DC power supply	472 010
DIQ/S 182 XT/24V	Dual IQ/ system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 4 analog outputs (0/4-20 mA) and 5 relays, for 24 V AC/DC power supply	472 011
DIQ/S 182-PR/24V	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 3 relays and PROFIBUS-DP connection, for 24 V AC/DC power supply	472 012
DIQ/S 182-MOD/24V	Dual IQ/system 182, Universal Transmitter for connection of 2 digital IQ sensors, with 3 relays and MODBUS RTU/RS 485 connection, for 24 V AC/DC power supply	472 013
DIQ/S 182 XT-4	Dual 182 XT-4 system for connecting 4 digital sensors with 5 analog outputs (0/4 - 20 mA) and max 6 relays. Delivery scope DIQ/S with DIQ/CR3	472 015
DIQ/S 182 XT-4 - PR	Dual 182 XT-4 system for the connection of 4 digital sensors with 3 relays and PROFIBUS-DP connection, delivery scope DIQ/S 182 with MIQ/JB	472 017
DIQ/S 182 XT-4 - MOD	Dual 182 XT-4 system for the connection of 4 digital sensors with 3 relays and MODBUS RTU / RS-485 connection, delivery scope DIQ/S 182 with MIQ/JB	472 019
DIQ/S 182 XT-4/24V	Dual 182 XT-4 system for the connection of 4 digital sensors with 5 analog outputs (0/4 - 20 mA) and max 6 relays for the 24 V AC/DC power supply, delivery scope DIQ/S 182/24V with DIQ/CR3	472 021
DIQ/S 182 XT-4 - PR/24V	Dual 182 XT-4 system for the connection of 4 digital sensors with 3 relays and PROFIBUS-DP connection for 24V AC/DC power supply, delivery scope DIQ/S 182 24V with MIQ/JB	472 023
DIQ/S 182 XT-4 - MOD/24V	Dual 182 XT-4 system for the connection of 4 digital sensors with 3 relay outputs and MODBUS RTU / RS 485 connection for 24 V AC/DC power supply, deliver scope DIQ/S 182/24V with MIQ/JB	472 024
DIQ Modules		Order No.
DIQ/JB	Dual IQ/junction box for connection of a second or a further IQ sensor to the Universal Transmitter DIQ/S 182 (system 182)	472 005
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay for system 182 (relay and compressed air supply external)	472 007
MS/DIQ	Mounting plate for up to 2 DIQ modules (DIQ/CHV and DIQ/JB)	472 009
MIQ Module and Cables for System Supplement		Order No.
MIQ/Blue PS SET	Module IQ/Radio transmission, for wireless connection within the IQ SENSOR NET system, for system 182, 184 XT and 2020 XT. SET with two pairwise preconfigured modules	480 021
MIQ/VIS	Module IQ/VIS for connecting one UV/VIS probe NitraVis®/CarboVis®/NiCaVis® 700 IQ to the IQ SENSOR NET, fo system 2020 XT, 184 XT and 182	481 029
MIQ/PS	Module IQ/Power Supply, wide-range power supply for system 182, 2020 XT and 184 XT, power output max. 18 W	480 004
MIQ/24V	Module IQ/24V, power supply for 24 VAC / 24 VDC input voltage, for system 182, 2020 XT and 184 XT, power output max. 18 W	480 006
SNCIQ	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Please indicate cable length in m when ordering (unit: m)	480 046
SNCIQ/UG	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system, esp. for use in underground. Please indicate cable length in m when ordering (unit: m)	480 047
Mounting Material for Monitors		Order No.
SSH/IQ	Sun shield for mounting of IQ SENSOR NET modules and series 171/170 monitors to mounting stands	109 295
PMS/IQ	Kit for panel mounting of IQ SENSOR NET modules	480 048
THS/IQ	Kit for top hat rail mounting of IQ SENSOR NET modules	480 050
WMS/IQ	Kit for wall mounting of IQ SENSOR NET modules	480 052
SD/K 170	Sun shield for outdoor installation of junction boxes (e.g. junction boxes KI/pH 170) or an IQ SENSOR NET module	109 284
MR/SD 170	Mounting kit for attaching of sun shields to pipes	109 286



For information visit www.WTW.com for a customer care center near you or inside US: call WTW 800 645 5999.

General Description of Meters
 Monitors
 IQ SENSOR NET
 Analyzer
 Sample Preparation
 Samplers
 Accessories
 Measuring stations