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WTW IQ SensorNet 182 Terminals

Continuous Water Quality Monitoring for Process Control

The WTW **IQ SensorNet 182, 182 XT and 182 XT-4** are modular water quality terminals for complete process control designed for wastewater. The network can accept additional sensors easily at any time and grow as your facility grows. Benefits include better network visibility and management, early detection of network failures, improved compliance with regulatory targets, and cost savings (energy, pump/blower maintenance, labour).

- 3-year instrument warranty
- User-replaceable cables and sensors. Many sensors provide ultrasonic cleaning.
- Centralized power supply along entire network; 2-wire cable provides power <u>and</u> communications
- Lightning protection along network
- Tactile buttons; easily use while wearing gloves
- Modular expansion from 1 to 4 sensors
- Digital outputs available
- LED status light
- Programmable access permission

Building a system is easy...choose the IQ SensorNet terminal, determine which modules are needed (control, communications, etc.), determine distances for cabling and select parameters.

Parameters:

Dissolved Oxygen (optical or electrochemical)
pH
ORP/Redox
Conductivity/Salinity
Temperature
Turbidity*
TSS (total suspended solids)*
Ammonium
Nitrate
Potassium
COD (chemical oxygen demand)*
TOC (total organic carbon)*
DOC (dissolved organic carbon share of TOC)*
SAC (spectral absorption coefficient)*
BOD (biochemical oxygen demand)*

* ultrasonic cleaning for sensors

182 Terminal Stacked on Modules

Model 182	Model 182 XT	Model 182 XT-4
1-2 Sensors	1-2 Sensors	1-4 Sensors
2 mA Outputs	4 mA Outputs	5 mA Outputs
3 relays	5 relays	6 relays

xylemanalytics.co.uk/wastewater

IQ SensorNet 182, 182 XT, 182 XT-4 Terminal/Controller Specifications

Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE
Electromagnetic Compatibility	EN 61326, Class B; FCC Class A, EMC for indispensable operation
Integrated Lightning Protection	According to EN 61326 enhanced over-voltage protection for *entire system*, implemented in each component
Cable	2-wire with shield for power supply and communications; resistant to polarity reversal; comprehensive EMC shield control; cable topology within network can be in the form of a line, tree, star or multiple star
	Total cable length max. = 1000 m (3280 ft) without signal amplifying; with signal amplifying module MIQ/JBR add an additional 1000 m
Radio	Radio transmission Class 1 with a range of 100 m (328 ft); max 300 m (984 ft)
Module Coupling at Rear	Combined mechanical and electrical connection for rapid coupling to modules; no wiring required
Display	Graphic display; resolution 128 x 64 pixels; visible area 72 x 40 mm (2.83 x 1.57 in); backlit
Control Keys/Buttons	5 operation keys: 3 master keys for Measurement (M), Calibration (C), Set/System settings (S)
	2 function keys for confirmation/switching menu OK (OK) and Escape (ESC)
	2 knobs for quick selection of software functions and input of alphanumeric values (up), (down)
Electrical	100 to 240 VAC (50/60 Hz), 24 V AC/DC
Temperature Conditions	Operating Temperature: -4 to 131 °F (-20 to 55 °C)
	Storage Temperature: -13 to 149 °F (-25 to 65 °C)
Enclosure	Material: PC-20% (Polycarbonate with 20% fiberglass)
	Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection)
	Dimensions for 182: 144 W x 144 H x 95 D mm (5.67 W x 5.67 H x 3.74 D in)
	Dimensions for 182 XT and 182 XT-4: 144 W x 144 D x 143 D mm (5.67 W x 5.67 H x 5.63 D in)
	Weight for 182: 1 kg (2.2 lbs)
	Weight for 182 XT and 182 XT-4: 1.5 kg (3.31 lbs)
	Warranty: 3 years

IQ SensorNet 182, 182 XT, 182 XT-4 Module (DIQ) Specifications

Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the terminal and docking additional modules
Module Coupling at Rear	Combined mechanical and electrical connection for docking additional modules; a total of 3 modules as a stacked mounted unit
Cable Feeds	4 screw cable glands M 16 x 105
Terminal Connections	Screw terminal strips; terminal area for solid connectors 0.2 to 4.0 mm for flexible connectors 0.2 to 2.5 mm; accessible through cover. Used for connecting sensors or as an input/output or for looping through/branching of the IQ SensorNet cable
Additional Functions	Two LEDs (yellow and red) for monitoring the operating voltage; lightning protection; connection resistant to reversed polarity; integrated local identity; integrated switchable terminal resistor (SN terminator)
Enclosure	Material: PC 20% GF (Polycarbonate with 20% fiberglass)
	Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection)
	Dimensions: 95 W x 95 H x 58 D mm (3.74 W x 3.74 H x 2.38 D in)
	Warranty: 3 years

IQ SensorNet 182, 182 XT, 182 XT-4 Ordering Information (order terminal, modules, cables, sensors separately)*

DIQ/S 182 Item #472 000	Central terminal/controller unit only. Required to be installed once at any point, remains in the system and cannot be removed. With 2 analog outputs and 3 relays. Up to 2 sensors can be connected.
DIQ/S 182 XT Item #472 001	Central terminal/controller unit only. Required to be installed once at any point, remains in the system and cannot be removed. With 4 analog outputs and 5 relays. Up to 2 sensors be connected.
DIQ/S 182 XT-4 Item #472 015	Central terminal/controller unit only. Required to be installed once at any point, remains in the system and cannot be removed. With 5 analog outputs and 6 relays. Up to 4 sensors be connected.

* There are 11 additional options to order the 182 terminal as part of a kit. Please visit www.xylemanalytics.co.uk to see all available models.

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