



Chatter™ OXY

6.11

BATTERY-DRIVEN DATA LOGGER ENSURING OXYGEN, LEVEL AND TEMPERATURE MEASUREMENTS

In general

MJK's Chatter™ OXY data logger is designed for monitoring oxygen, level and temperature in lakes, streams, creeks or/and established channels.

The data logger itself is a versatile multi-channel data logger with a built-in 2G modem which receives continuous measurements from a YSI oxygen sensor.

The immersed oxygen and temperature sensor provides high precision measurement results at temperatures between -5 and + 45° C. Data is logged in the chatter unit which forwards it according to a fixed schedule, or at set alarm values.

The hydrostatic level transmitter monitors water levels and logs these to the memory via the chatter, while also logging oxygen and temperature values. Calibration of the oxygen sensor is done with the handheld ProODO terminal.

Using the MJK user software, installation and configuration of data logging is simple. Data from the SQL database can be transferred to larger SCADA systems.

Features

- Sends data and alarms to standard SQL databases over 2G networks
- Sends data and alarms to SCADA systems via a Modbus® RTU protocol over 2G networks
- Sends data and alarms via e-mail to up to four email addresses with:
 - Data written directly in e-mail content
 - Data provided as an attached CSV file in an e-mail.
 - Data provided as a file displayed by Chatter™ Link PC software
- Sends on-line data and alarms as an SMS message to, up to, four recipients
- Alarms sent alone or together with other communication, such as SMS
- Extended DO range of 0-500% with a response time on T90 of approx. 25 sec.
- Sensor cables from 1 to 30 meters
- Logging of single events or of intervals.

Applications

- Environmental monitoring
- Lakes, streams and water quality.



DATABLAD

EN 6.11 CHATTER OXY DATASHEET 1906

mjk
a xylem brand

Four-in-one

Chatter™ Data Logger measures and stores data in the logger and transfers it in four different ways:



Sends data to an SQL database from which measurements and alarms can be transferred to another system, eg. a SCADA system.



As RTU unit, it communicates directly to a SCADA system via an RTU protocol.



Data is sent as an e-mail, to a standard e-mail address.



Alarms and status of measurements are sent as an SMS messages.

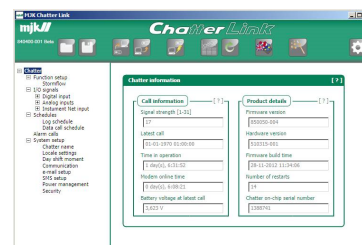
The whole package

- 1 standard chatter
- 1 wide cabinet
- 1 YSI PRO ODO incl. 4m cable
- 1 digital level transmitter (203975 Hydrostatic Transmitter 3400D, range 0-10m digital)
- 1 antenna
- 1 PRO ODO handheld terminal (recommended accessory, not included).

Accessories

Chatter Link™

Designed for setup, adjustment and display of data via USB.



YSI ProODO

Optical oxygen meter is a combination of flexibility, robustness and data processing, which makes it the market leader in oxygen measurement.

Expert 3400D digital pressure transmitter

- Hydrostatic ceramic capacitive measuring principle
- RS485 digital output, Modbus, level and temperature signals
- Measuring range: 0-3 m... 300 m
- Voltage supply: 10 - 30 V DC
- Accuracy: better than $\pm 0.25\%$ FS @ +10 to 30° C.

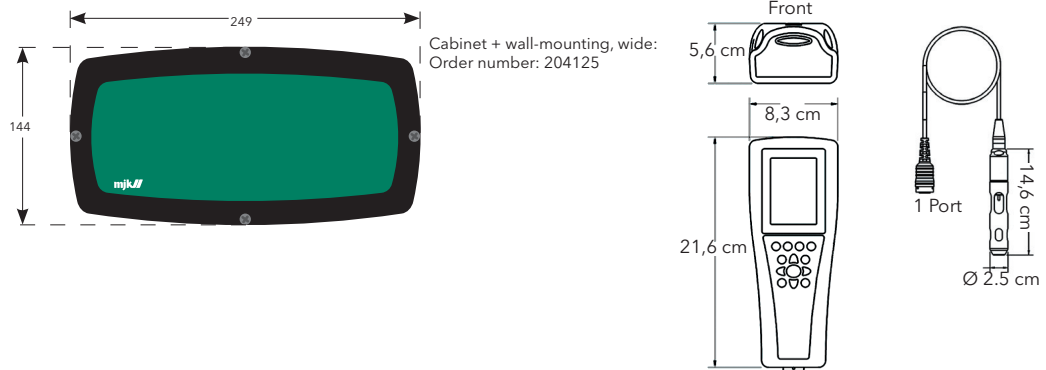


YSI ProODO Hand terminal

Easy operation via backlit graphic display and keyboard. Possibility of upgrading software via USB. This device is necessary for calibrating the ODO sensor.

Chatter™ OXY

Dimensions



Specifications

Chatter™ Data Logger	
Power supply	3,6V internal battery
Battery life	1-2 years depending on log interval
Clock	Real-time clock, 24-hour clock
Storage	DB version: > 100,000 measured values (date and time stamped)
Log intervals	RTU and e-mail version: 90,000 measured values (date and time stamped)
Event log intervals	1, 2, 5, 10 min, 1, 2, 4, 8, 12 or 24 hours
Call intervals	1, 2, 5, 10 min, 1, 2, 4, 8, 12 or 24 hours
Communication	1, 2, 4, 8, 12 or 24 hours, and 10, 25, 50, 100, 250, 500 or 1000 logs
External communication protocol	Built-in GSM/GPRS quad band 850/900/1800/1900 MHz modem with built-in SIM holder
Interface	MJK protocol for DB version Modbus® RTU mode Modbus® TCP or COMLI® protocol for RTU version
Antenna	1 pcs. RS485 for serial data input 1 pcs. USB 1.1 type mini B, female 1 pcs. MMCX, female, for the antenna
Mounting	2G antenna - dual band, gain 0 dB, frequency 900/1800 MHz
Housing	Wall-mounting
Materials	IP67 glass-reinforced PC (polycarbonate)
Temperature	- 20... 60 ° C
Air humidity	Max. 95% relative
Weight	App. 1 kg depending on cable length
CE approvals	EN61000-6-1: 2007, EN61000-6-3: 2007
Inputs and Outputs 4AI/4DI/1RS485	
Digital inputs	4 pcs. 2 - 5 VDC (min. time for status, 1 second)
Analog inputs	4 pcs. 0 - 2.5 VDC
Serial data inputs	1 pcs. RS-485 Modbus® com port for max. 4 units Modbus® RTU mode, 9600 baud, 2-wire RS-485, master mode, function 3, read only
I/O power supply	1 pcs. 3.6 VDC 1 pcs. 3.6 VDC ON/OFF controlled 1 pcs. 5 VDC ON/OFF controlled, option for +10 or +15 VDC
Precision	AI: Better than ± 1% FS
Resolution	AI: 10 bit, input impedance: min. 10 K ohms
Database Server	
Server minimum demands	Microsoft Server 2008 R2, IIS v.7 (Internet Information Services) Microsoft SQL Database 2008 R2 Express Edition
Network minimum demands	MPLS/APN (Multi-Protocol Label Switching) or internet access

Specifications

Expert® 3400D Level Transmitter				
Nominal measuring range (mWG)	0-1 m	0-10 m	0-100 m	0-300 m
Measuring principle	Ceramic capacitive, relative pressure		Ceramic capacitive, sealed gauge (SG)	
Max. overpressure	4 bar	10 bar	40 bar	40 bar
Temperature range	-10° C to 70° C			
Temp. deviation, zero point	Better than ± 0.02 % /° C			
Temp. deviation, full area	Better than ± 0.01 % /° C			
Linearity/stability	Better than ± 0.1 % FS / ± 0.2 % FS			
Measuring accuracy ①	Better than ± 0.1 % FS @ +10 to 30° C Better than ± 0.2 % FS @ full temperature range			
Long-term stability	Better than ± 0.1 % FS per year			
Materials	House: PPS glass reinforced Membrane: Ceramic 99.9% AL ₂ O ₃ O-ring: Viton®			
Supply voltage	10-28 VDC			
Communication	RS485 Modbus			
Cable	2 × 0,5 mm ² + 5 × 0,15 mm ² , shielded, PUR insulation			
Cable length ②	12 m	12 m	110 m	320 m
Housing	IP68, resists a pressure equal to max. measuring range			
CE approvals	CE directive: 89/336/EEC, 2004/108/EC, 1999/EC 61000-6-4, 61000-6-2, 60079-0,60079-11			

① From factory.
② Can be supplied with specific cable lengths as special order.



Specifications

YSI ProODO Sensor	
Probe/Sensor materials	The following materials may come into contact with the test environment: Xenoy® PBT poly-carbonate alloy, noryl, stainless steel, titanium, polyurethane, santoprene, acrylic, polystyrene
Certificates	RoHS, CE, WEEE, C-Tick, VCCI, IP-67, 1-meter drop test, gathered in the United States
Cable connector/plug	MS (military spec) waterproof with bayonet lock
Data management	Data Manager desktop software included; 100 user-defined folders and locations
Data memory	5,000 data sets (data, date, time, user-defined information); 100 GLP* files
Dimensions probe	19 cm length (7.5 in); 2.4 cm diameter (0.95 in)
Display	Graphic display with detailed help function; display and keys are illuminated
Cable length	1- 4- 10- 20- 30- 40- 50- 60- and 100-m
Temperature range (application)	-10 to 60° C
Guarantee	3 years on terminal 2 years on field cable 1 year on sensor cap

*GLP = Good Laboratory Practice, Detailed GLP information is stored, and can subsequently be read, downloaded or printed.

YSI ProODO Terminal	
Connection	USB 2.0; docking station and USB cable included
Typical response time	90% in 25 seconds; 95% in 45 seconds
Calibration	DO - 1-point or 2-point with 0% value; barometer - 1-point
Dimensions	8.3 cm width x 21.6 cm length x 5.6 cm depth
Language	English, Spanish, German, French, Italian, Norwegian, Portuguese, Japanese
Logging features	Single or continuous
Power supply	Two alkaline C-cells or via USB; batteries provide about 80 hours - at room temperature and manual sampling
Temperature range (storage)	-20 ... 70° C
Privacy policy	Optional user ID
Housing	IP-67 (even if battery covers are removed)
Weight incl. batteries	475 grams (1.05 lbs)



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Ordre numbers

Chatter™ Data Logger for ProODO	
204121	Chatter with 2G modem for wall mounting, 36 Ah battery
ProODO	
401-626281	ProODO handheld terminal
401-626320	Replacement sensor element (included with purchase of probe/cable)
401-626250-1	1 m probe/cable for DO/temp
401-626250-4*	4 m probe/cable for DO/temp (incl. cable holder)
401-626250-10	10 m probe/cable for DO/temp (incl. cable holder)
401-626250-20	20 m probe/cable for DO/temp (incl. cable holder)
401-626250-30	30 m probe/cable for DO/temp (incl. cable holder)
401-626250-40	40 m probe/cable for DO/temp
401-626250-50	50 m probe/cable for DO/temp
401-626250-60	60 m probe/cable for DO/temp
401-626250-100	100 m probe/cable for DO/temp
401-626401	International power supply for Pro OBOD probe
Cable lengths of up to 100 meters are delivered in 10-meter intervals by special order	
691095	PC cable mini USB/USB
691098	USB mini, connection for housing, 200 mm cable
Antennas	See datasheet: EN 6.26 GSM-GPRS Antennas Data sheet
Expert Hydrostatisk Niveau Transmittere	See datasheet: EN 2.75 Expert 7060 Data Sheet

*) Delivered as standard.



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