

VODA

Multiparametrická sonda - Aqua TROLL 600

Základní vlastnosti

- Multiparametrická sonda pro dlouhodobý monitoring ve sladké i slané vodě
- Samočistící systém senzorů
- Všechny senzory lze kalibrovat na libovolné hodnoty
- Systém revitalizace pH senzoru snižuje provozní náklady
- Intuitivní mobilní aplikace VuSitu, snadný import dat do PC
- Robustní a antikorozi provedení – krytí IP68
- Výstup: Modbus/RS485 nebo SDI-12, Bluetooth
- Interní paměť: 16 MB s rozšiřitelnou kapacitou o SD kartu
- Integrovaný LCD displej zobrazující stav sondy
- Interval záznamu: 1 min – 99 hodin
- Maximální tlak: až 350 PSI
- Rozměry: 60,2 cm x 4,7 cm; Hmotnost: 1,45 Kg
- Záruka: 2 roky



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Technická specifikace

GENERAL	AQUA TROLL 600 MULTIPARAMETER SONDE					
OPERATING TEMPERATURE (NON-FREEZING)	-5 to 50° C (23 to 122° F) ISE: Ammonium & Nitrate 0 to 40° C ; Chloride 0 to 50° C		ENVIRONMENTAL RATING	IP68 with all sensors and cable attached IP67 without the sensors or cable attached		
STORAGE TEMPERATURE	Components w/o fluid: -40° C to 65° C (non-freezing water); pH/ORP: -5° C to 65° C; Ammonium/Nitrate: 0 to 40° C ; Chloride: 0 to 50° C		INTERNAL MEMORY ¹ MICRO SD CARD ²	16 MB; 8+ GB micro SD card included, user replaceable		
DIMENSIONS	4.7 cm (1.85 in.) OD x 60.2 cm (23.7 in.) (includes connector) With bail: 72.9 cm (28.7 in.)		INTERNAL POWER BATTERY LIFE ³	2 internal user-replaceable Alkaline D batteries >6 months typical with wiping; >9 months typical with no wiping		
WETTED MATERIALS	PC, PC alloy, Delrin™, Santoprene™, Inconel™, Viton™, Titanium, Platinum, Ceramic, Nylon		EXTERNAL POWER VOLTAGE EXTERNAL POWER CURRENT ⁴	8-36 VDC (not required for normal operation); Sleep: 0.10 mA typical Measurement: 16 mA typical, 45 mA max		
WEIGHT	1.45 kg / 3.2 lbs (includes all sensors, batteries, and bail)		HEX SCREW DRIVER	0.050", 1.3 mm		
MAX PRESSURE RATING	Up to 350 PSI		COMMUNICATION DEVICE	TROLL Com or Wireless TROLL Com		
OUTPUT OPTIONS	RS-485/MODBUS, SDI-12, Bluetooth*		CABLE OPTIONS	Vented or non-vented polyurethane or vented Tefzel*		
READING RATES	1 reading every 2 seconds		LCD DISPLAY	Integrated display shows status of sonde, sensor ports, data log, battery and connectivity.		
DATA LOGGING	50 logs (defined, scheduled to run, or stored)		SOFTWARE	Android™: VuSitu through Google Play™, Windows®: Win-Situ 5, Data Services: HydroVu		
LOGGING MODES	Linear, Linear Average, Event		INTERFACE	Android 4.4, requires Bluetooth 2.0; Win-Situ 5 Software		
LOGGING RATE	1 minute to 99 hours		CERTIFICATIONS	CE, FCC, WEEE, RoHS Compliant		
STANDARD SENSORS	ACCURACY	RANGE	RESOLUTION/PRECISION	RESPONSE TIME	UNITS OF MEASURE	METHODOLOGY
TEMPERATURE ⁵	± 0.1° C	-5 to 50° C (23 to 122° F)	0.01° C	T63<2s, T90<15s, T95<30s	Celsius or Fahrenheit	EPA 170.1
BAROMETRIC PRESSURE	± 1.0 mbars	300 to 1,100 mbar	0.1 mbar	T63<1s, T90<1s, T95<1s	Pressure: psi, kPa, bar, mbar, inHg, mmHg	Silicon strain gauge
pH ⁶	±0.1 pH unit or better	0 to 14 pH units	0.01 pH	T63<3s, T90<15s, T95<30s	pH, mV	Std. Methods 4500-H+/EPA 150.2
ORP ⁷	±5 mV	±1,400 mV	0.1 mV	T63<3s, T90<15s, T95<30s	mV	Std. Methods 2580
CONDUCTIVITY ⁸	±0.5% of reading plus 1 µS/cm from 0 to 100,000 µS/cm; ±1.0% of reading from 100,000 to 200,000 µS/cm; ±2.0% of reading from 200,000 to 350,000 µS/cm	0 to 350,000 µS/cm	0.1 µS/cm	T63<1s, T90<3s, T95<5s	Actual conductivity (µS/cm, mS/cm); Specific conductivity (µS/cm, mS/cm); Salinity (PSU); Total dissolved solids (ppt, ppm); Resistivity (Ohms-cm); Density (g/cm3)	Std. Methods 2510/EPA 120.1
TDS (DERIVED FROM CONDUCTIVITY AND TEMP)	–	0 to 350 ppt	0.1 ppt	–	ppt, ppm	–
SALINITY (DERIVED FROM CONDUCTIVITY AND TEMP)	–	0 to 350 PSU	0.1 PSU	–	PSU, ppt	Std. Methods 2520A
RUGGED DISSOLVED OXYGEN (RDO) WITH RDO-X ⁹ OR RDO FAST CAP	±0.1 mg/L ±2% of reading	0 to 20 mg/L 20 to 60 mg/L	0.01 mg/L	RDO-X: T63<15s, T90<45s, T95<60s Fast Cap: T63<3s, T90<30s, T95<45s	mg/L, % saturation, ppm	EPA-approved In-Situ Methods: 1002-8-2009, 1003-8-2009, 1004-8-2009
TURBIDITY	±2% of reading or ±0.5 NTU, FNU, whichever is greater	0 - 4,000 NTU 0 - 1,500 mg/L	0.01 NTU (0 - 1,000); 0.1 NTU (1,000 - 4,000) 0.1 mg/L	T63<1s, T90<1s, T95<1s	NTU, FNU ppt, mg/L	ISO 7027
TSS (DERIVED FROM TURBIDITY) ¹⁰	–	0 to 1,500 mg/L	0.1 mg/L	–	ppt, mg/L	–
AMMONIUM (NH ₄ ⁺ -N) ^{11,12} RATED TO 25 m DEPTH -Unionized Ammonia, Total Ammonia (derived from Ammonium & pH sensor)	±10% or ±2 mg/L w.i.g.	0 to 10,000 mg/L as N	0.01 mg/L	T63<1s, T90<10s, T95<30s	mg/L, ppm, mV	–
	–	0 to 10,000 mg/L as N	0.01 mg/L	–	mg/L, ppm	–
NITRATE (NO ₃ ⁻ -N) ¹¹ RATED TO 25 m DEPTH	±10% or ±2 mg/L w.i.g. (freshwater only)	0 to 40,000 mg/L as N	0.01 mg/L	T63<1s, T90<1s, T95<1s	mg/L, ppm, mV	Std. Methods 4500 NO ₃ -D
CHLORIDE (CL) ¹¹	±10% or ±2 mg/L w.i.g. (freshwater only)	0 to 150,000 mg/L as Cl	0.01 mg/L	T63<1s, T90<10s, T95<30s	mg/L, ppm, mV	Std. Methods 4500 Cl-D
PRESSURE ¹³ (OPTIONAL)	±0.1% FS from -5 to 50° C	Non-Vented or Vented 9.0 m (30ft) (Burst: 27 m; 90 ft) 30 m (100 ft) (Burst: 40 m; 130 ft) 76 m (250 ft) (Burst: 107 m; 350 ft) 200 m (650 ft) (Burst: 229 m; 750 ft)	0.01% full scale	T63<1s, T90<1s, T95<1s	Pressure: psi, kPa, bar, mbar, inHg, mmHg Level: in, ft, mm, cm, m, cmH ₂ O, inH ₂ O	Piezoresistive; Ceramic
WARRANTY ¹⁴	2 year - Sonde, RDO and Sensor Cap, Temperature/Conductivity, Temperature Only, Turbidity, Chlorophyll a, Phycocyanin (BGA-PC), Phycoerythrin (BGA-PE), Rhodamine WT, Wiper; 1 year - pH/ORP, Chloride ISE, Accessories; 90 Days - Nitrate and Ammonium ISE Sensors; See warranty policy (www.in-situ.com/warranty) for full details.					

NOTES: ¹For 30 parameters >100,000 data records, > 3 years at 15 min. interval. A single data record includes timestamp, temperature, RDO, pH, ORP, turbidity and conductivity logged in Linear or Linear Average mode. ²Log data recorded to SD card in comma delimited variable (CSV) file format. Greater than 32 GB not supported. ³Logging all sensors at 15 min interval on 2 D Alkaline batteries. Battery life dependent on site conditions and wiping. ⁴Dependent on display and wiping. ⁵Sensor only, when transferring from air to ambient water temperature. Typical system response time with all sensors and restrictor: T63<30s, T90<3.5m, T95<7.5m. ⁶Response time at thermal equilibrium. ⁷Accuracy from calibration standard @ 25C, response at thermal equilibrium immediately following calibration measuring from air to +400 mV. ⁸Accuracy at calibration points. ⁹RDO sensor full range 0-60 mg/L, 0-600% sat. EPA approved method under the Alternate Test Procedure Process. ¹⁰User-defined reference. ¹¹Between 2 calibration points immediately following proper conditioning and calibration. Varies on site conditions and environmental interferences. See sensor summary sheet for potential interferences. ¹²Average response: can be longer with increasing concentrations of ammonium. ¹³Typical performance across full temperature and pressure calibrated range. ¹⁴Extended warranty option for sonde only (1 to 3 year extension for up to 5 years total). Specifications are subject to change without notice.