



SmartDI™ UW-Logger V3



The "Smart Data Interface" **SmartDI™** acquires data from different sensors and take control of production processes as well. During the collection of data the pre-processing validated already the values and passes quality-evaluated data records on according to ISO to back-end systems.. The internal data logging stores up to 5 years continuously highly solvent data on a CompactFlash card. Over telemetry (Rs-232/485, GSM/GPRS/UMTS, WLAN, Ethernet, Bluetooth, IRIDIUM, radio etc.) data are transmitted automatically on-line or at given times. With the **SmartDI™** UW-Logger different sensors and measuring systems, e.g. CTD probes or Meteorology's can be operated. With the remote-controlled quick look function as well as extensive configuration and diagnostic menus a user-friendly man-machine interface is realized. The modular structure makes a simple and economical adjustment possible to the most diverse applications, which is extensively expandable.

Hardware	Embedded ultra-low power controller @ 300 MHz
Firmware	CONTROS SmartDI™ embedded multitasking real-time System
Memory	128 MB RAM • 2 GB CompactFlash • Other options on request
Interfaces	4 RS-232 / RS-485 interfaces • Expandable to 8 Interface lines • Output configurable to binary, ASCII or NMEA-0183 data format
Analogue	8 channel 24 Bit inputs, $\pm 20\text{mV}$ to $\pm 10\text{V}$, 0/4-20mA • Expandable (1W each)
Digital	12 digital-in/out/counter • Solid-state-relays with 0-40V 4A drive (option for 12 SSR outputs on request) • Expandable to other IO-modules (1W each)
Preprocessing	160+ Calibrate – and standard formulas following IEEE and UNESCO • Virtual channels with independent configurations (e.g. sample rates) • Simulations quality validating, error and spike detection; statistical values • QS data flagging
Specials	GPS position-control (Geo correlation) • Soft-PLC fully programmable to any production process • Event/alert control, e.g. to Control Centre or via SMS
Telemetry	online / offline over RS-232/485 GSM/GPRS/UMTS, WLAN, Ethernet, Bluetooth, IRIDIUM, Radio etc. with CRC checksum from CCITT • Data format Binary compressed or ASCII / NMEA-0183 • Telemetry modules on request.
Connectivity, Data exchange	Serial lines for more than 50 probes, meteorology's, automatic sampler and analysers of different manufacturers (CONTROS HydroC™, GPS NMEA-0183, Seabird, FSI, Sea&Sun, WTW, RDI, AADI Aanderaa, Turner, SYSTEA, TriOS, Bbe MOLDEANKE, Vaisala, Lambrecht, etc. • Huge data-memory via CF-card exchange • Expandable with RS-485 Bus for external acquisition modules.
Human interface	Headless / no display • Remote maintenance on a host PC: quick-look, diagnostic tools, tools to simple remote maintenance/remote configuration
Power	9..32 VDC • Low-power 2W • each add. digital or analogue module approx. 1W
Operating	-20°C..+70°C • Shock 10G 11ms
Operational depth	2000m, 4000m, 6000m options submersible titanium housing
Housing	90 d x 380 mm Titanium
Connector	SUBCONN® micro connectors MCBH5 • Others on request



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