



SmartDI™

Datalogger / Deck-Unit



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 on a CompactFlash memory card. Over a data transmission 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™** different sensors and measuring systems, e.g. CTD probes or Meteorology's can be operated. In addition up to 36 serial interfaces as well as digitally or analogue in- or outputs can be added easy later. With the integrated 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.

Housing	Industrial embedded Panel-PC • 19" Standards • expandable PC/104 Bus
Display	LCD 6,4" (see picture) or 8" – 10" – 12" LCD • external Display
Software	CONTROS SmartDI embedded multitasking real-time System
Memory	2 GB CompactFlash • Options PCMCIA, Ethernet, Harddisk
Interfaces	Max. 36 RS-232 / RS-485 interfaces • Option Ethernet • Option PC-Card • Special RS-485 Bus with DCON industrial data protocol
Analogue	8+ channel 24 Bit inputs • up $\pm 10\text{mV}$... $\pm 10\text{V}$, 0/4-20mA • Expandable
Digital	8+ digital-in/out/counter • option solid-state- relay 5A / 230VAC or 5A / 24VDC • Expandable to more in- and output channels • controlled by Soft-SPS
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 following international ISO standards • QS<data flagging
GPS / Position	GPS position-control (Data geo correlation) • Position-control for acquisition and analyze / sampling control
SPS Controller	Soft-PLC fully programmable to any production process • Event/alert control and messages, e.g. to a Control Centre or via SMS to the user
Telemetry	online / offline over RS-232/485, GSM/GPRS/UMTS, WLAN, Ethernet, Bluetooth, IRIDIUM, Funk etc. • CRC Safeguard level from CCITT • Data format Binary compressed or ASCII / NMEA-0183 • Telemetry modules on request
Connectivity	Serial lines for more than 50 probes, meteorology's, automatic sampler and analysers of different manufacturers (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.
Power	10 VDC ... 30 VDC • 15 W with Display • 110 VAC ... 240 VAC



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