

SmartDI small Deck-Unit

On-board Datalogger and Controller

The "Smart Data Interface" SmartDI acquires data from different sensors and analyzers or takes 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. Data can be stored up to 5 years continuously highly solvent on a CompactFlash (CF) memory card. Over a data transmission telemetry (RS-232 or optionally RS-485, GSM, 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 10 serial interfaces as well as digitally or analogue in- or outputs can be used. 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.



Small outline for data display etc.



Graphical configurable quick-look

Housing	Industrial embedded Panel-PC • rough metal housing • expandable PC/104 Bus
Display	LCD 6,4" (see picture) or 8" – 10" – 12" LCD • external Display
Size	200 x 146 x 115 mm (6,4" display)
Software	SmartDI™ embedded multitasking real-time System
Memory	2 GB CompactFlash
Interfaces	10x RS-232 or RS-485 interfaces • max. 36 serial interfaces (requires other housing) • Optionally external RS-485 bus with DCON industrial data protocol
Analogue	8 channel 24 Bit inputs (18 Bit effective) • $\pm 10\text{mV}$... $\pm 10\text{V}$, 0/4-20mA • Expandable
Digital	Optionally 8 digital-in/out/counter • option solid -state- relay 5A / 230VAC or 5A / 24VDC • Expandable to more in- and output channels • controlled by Soft-PLC
Preprocessing	180 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 (geo correlation) • acquisition and analyzing / sampling control
PLC Controller	Soft-PLC fully programmable to any production process • Event/alert control and messages
Connectivity	Serial lines for more than 50 probes, meteorology's, automatic sampler and analyzers of different manufacturers (AADI Aanderaa, Bbe MOLDEANKE, CONTROS, FSI, GPS NMEA-0183, RDI, Seabird, Sea&Sun, SYSTEA, TriOS, Turner, WTW, various meteorology, etc.
Power	10 VDC ... 30 VDC • 15 W with Display • 110 VAC ... 240 VAC