

Universal Controller and Mini Data Logger MDL1

Intended purpose:

The mini data logger MDL1 is a small, robust computer in a water protected case. It has serial interfaces and analogous measuring inputs for the reception of measuring data and for the communication with other devices. The internal storage capacity can be adapted to the requirements by a CompactFlash card with capacities of up to 1 GByte.

The current drain is controlled dynamically by software in accordance with the actual tasks. On the one hand, high processing speed and on the other hand low energy consuming suspend modes are possible in such a way.

The following applications might be outlined exemplary:

- Relay for the transfer of data between different devices; with realization of time-delay, protocol conversion and data storage
- Host computer in small measuring stations for control of current supply and data capture from different sensors with serial or analog interfaces

The device is small and handy. That's why it is possible to exchange the whole device to retrieve data from adverse measuring environments.

On the other hand there are some more possibilities to gather the data: exchanging the CompactFlash card (after opening the case) or with data transfer to a PC via serial connection.

The data logger was developed in order to be able of fast and flexible reaction to the most different orders. Therefore, the program for the data logger is normally written specifically for the desired application.

Advantages:

Through free programmability, the compact and water protected case, the large non-volatile Flash memory and the great number of different interfaces the MDL1 characterizes itself for tasks those are not solvable with standard data loggers.

Other products:

Current meters (too with compass, memory, serial interfaces), directional sea-state probes and multi-parameter probes of different equipment.

Technical data:

Case:	Polycarbonate 120x80x55 IP65 (connector: see Fig.)
Environment:	
Temperature	-20 ... +55 °C -40 ... +85 °C optional
Humidity	< 95% non-condensing
Current supply:	External: 8 .. 15 Vdc/ <80 mA (Power-Down-Mode <1 mA)
Memory:	256 kbyte RAM 256 kbyte Flash EEPROM option. CompactFlash Cards
Processors:	Motorola 68332 Microchip 16C64
Clock:	with 16C64 (can become buffered)
Analog inputs:	8 x 12 bits (0 ... 4 V) 1 x used internally 7 x free for options
Digital I/O:	4 Channels including 2 switching output
Display:	9 LED's
Serial interfaces:	
COM1:	RS232C with RTS/CTS
COM2:	RS232C with RTS/CTS
COM3:	RS422/RS485 (optional)
Protective measures:	case IP 65 class of insulation III

