RECORDING CONCENTRATOR

Digital for Modbus networks

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DataLogN

♦ *The DataLogN is a recording concentrator, which can be associated with many kinds of applications :*

- *Remote telemetering, supervised by a PC or a PLC.*
- *To increase the speed of exchanges between a supervisor and the various instruments of a network.*
- *To increase the number of instruments connected on the Modbus network.*
- *Convertion and uniformisation of the format of the measures in mode concentrator.*

It is equipped in input with an RS485 serial port, which allows centralising and recording up to 32 distinct instruments (max. memory 4Mo, or 262035 time dated savings), and with an RS485 output to unload the recorded data for explotation on standard format (like Excel). The programming and the savings are recorded in case of power supply cut.

The DataLogN is programmed by PC software and has :

- 2 independent programmable recording processes.
- 2 relay outputs (for memory overloads, or detection of setpoint passes).
- Launching of the recordings by internal time dating, or by external signal applied to a logic input (2 logic inputs).

Insulation at 2kV between the 2 serial ports
2 relay outputs
2 logic inputs

General data

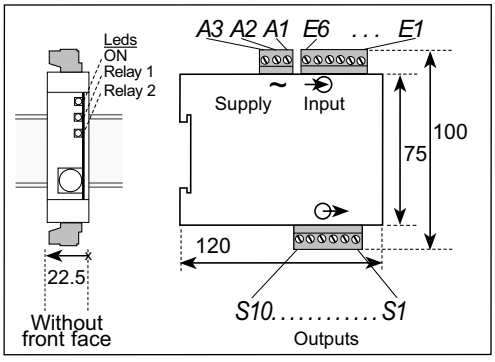
♦ **Software for configuration and data explotation**

The supplied software allows unloading the memory in a standard computer format, such as Excel, as well as reading and/or modifying the various programming parameters. The connection between a PC and the concentrator is made on the terminal of the output serial port, either with an RS485/RS232 converter, or with a specific RS485/RS232 interface cable, or with a mini DIN cable.

♦ **RS485 communication ports**

The **input port** operates in mode MODBUS master and slave, and can question up to 32 distinct slaves.
The **output port** operates in mode MODBUS slave and can be questionned by a PC, a PLC or a modem.

Description



• **Dimensions** : 75x22.5x120mm (HxLxD)
• Operating T° : -10°C to +50°C.
• Storage T° : -20°C to +70°C.
• Relative dampness : 80% annual average.

• **Protection :** Housing / terminals : IP 30
• **Weight :** 230g (with packaging)

• **Housing :** Self-extinguishing casing of black UL94VO ABS for latching on symmetrical DIN rail (mount the cases vertically, and provide a 5 mm space between each). Plug-off connectors for screwed connectings (2.5mm², flexible or rigid).
• **Standards :** Complies with standards IEC 61000-6-4 on rejections and IEC 61000-6-2; immunity (in industrial environment IEC 61000-4-2 level. 3, IEC 61000-4-3 lev. 3, IEC 61000-4-4 lev. 4, IEC 61000-4-6 lev. 3. CE marking according to the EMC Directive 89-336.

Functions

♦ **2 management modes :**

Mode master on the input port : The instrument can question up to 32 slaves.
Mode lave on the input port : A PLC (master) writes and records its measures on the instrument (32 measures possible).

♦ **2 recording processes (mode master) :**

- Detection of 2 soft alarms with alarm on the value, or on the variation of a measure : start up of a process, speed up of the process recording speed, or dialing from a modem to a supervising PC.

Energy tariffs management mode for each process :
cut out in 30min. sequences of 8 types of days with max. 8 counters (night tariff hours, day tariff hours, winter, summer...).
Data storage : during 100 years.

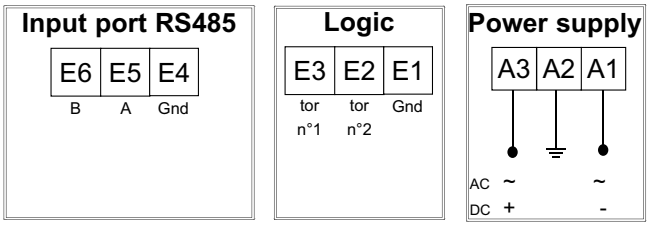
♦ **Recording memory :**

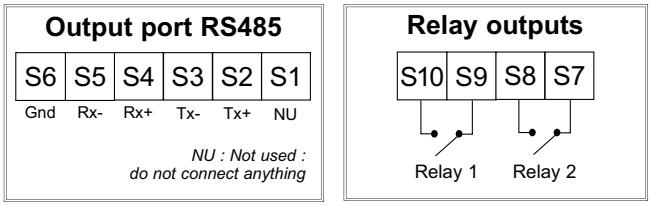
capacity from 1 Mo (65508 savings) to 4 Mo (optional) (262035 savings) divided into 16 recording files. In case of memory overload, the recordings can either be blocked, or start again on the beginning of the same file, or another one, deleting the eldest recordings.

Features

Name	Type	Features
Relay outp.	2 independently programmable setpoint relays NO-NC contact : 8A - 250V on resistive load.	
Serial ports **Input** Output	Input serial port : Type : RS485 2 wire Without parity; even or odd Format : 1 start bit, 1 stop bit, 8 data bits (without parity) or 9 bits (even or odd parity) Internal 120 Ω termination and 470 Ω polarisation resistors, configurable by jumpers Transmission speed : from 1200 to 38400 bauds	Output serial port : Type : RS485 2 or 4 wire RS232 with interface cable Without parity Format : 1 start bit, 1 stop bit, 8 data bits. Transmission speed : from 1200 to 115200 bauds
Memory Option S	1 Mo standard 4 Mo optional	
Power supply **Option 2 or 3**	High voltage (2) : 90 to 270 Vac and 88 to 350 Vdc Low voltage (3) : 20 to 40 Vac and 20 to 64 Vdc	

Wiring





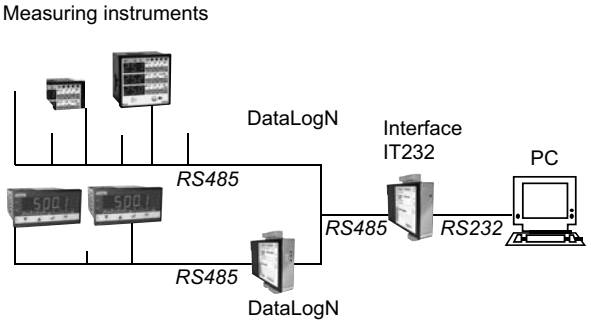
Insulation : 2 kV 50Hz 1min. between supply / RS485 input / RS485 output / relay output / Logic input.

This instrument is dedicated to industrial apllications. It has to be mounted in an electrical switchbox, or equivalent.

Applications

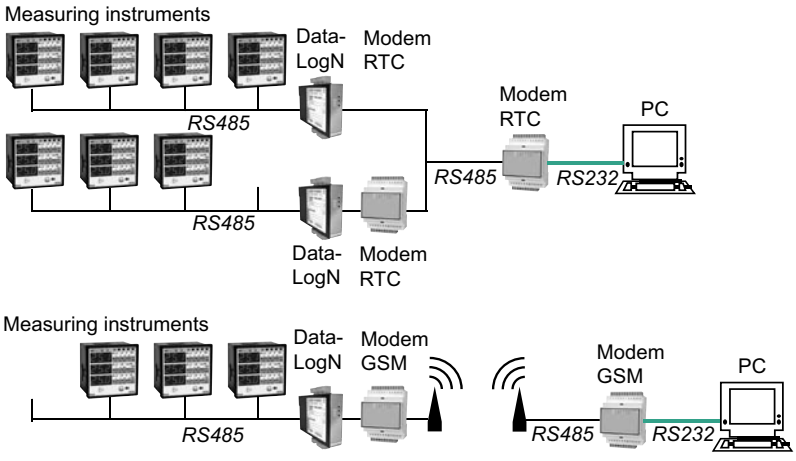
Mode concentrator :

Each DataLog N centralises the measures of 32 slaves. The superviser can address up to 32 DataLog N. At each request of the superviser, each DataLog N sends back in one time the value of the 32 measures of these slave instruments.



Mode recorder :

The DataLog N allows taking up the recordings performed on the measuring instruments at distance. The parametering of the alarms with a local control of the modem offers the possibility to the DataLog N to signal to the superviser any appearance of an error.



Mode slave :

The DataLog N allows a PLC to save the measures it has just centralised.