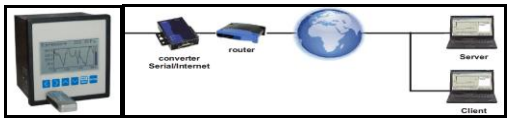
8-CHANNEL DATA RECORDER BDL99

- **8-channel data recorder**
- **1, 4 or 8 inputs**
- **1 digital input for recording release**
- **0/4-20mA or Pt100, Pt500, Pt1000 input**
- **2 relay outputs (optoMOS)**
- **Graphic display 128 x 64 points with backlight**
- **RS485 MODBUS RTU communication**
- **Sensor supply output 24VDC±5% / 200 mA,**
- **Current graph of trends for each channel**
- **Free configuration and recording software**
- **Insulated communication interface RS-485**
- **Automatic data storage on USB flash drives**
- **USB Host port for flash data storage (Option)**
- **Programmable**
- **Free configuration and recording software**
- **IP65 protection (option)**



DESCRIPTION

The **BDL99** device is designed to record and display current values as well as to present technological parameters in the form of graphs. The device is equipped with eight temperature (Pt100/500/1000) or current (in the 0/4-20 mA standard) inputs, one pulse (digital) input for controlling the recording process and one USB Host port for flash data storage. Internal memory has 2 MB capacity (0.5 million data recordings altogether) or 8 MB in version with USB port (2 milions data recordings). However when a USB flash drive is plugged permanently, it can significantly extend the recording time without a need of data transfering from **BDL99** to a PC. For example: 1GB flash drive allows continuous data recording for over 1 year (8 channels recorded every 1 sec., approx 250 millions data recordings)! Individual alphanumeric description (text) of each of the recorded channels is possible. The multi language menu assisted with full text descriptions makes the unit configuration process quite easy. However, due to a significant number of configured parameters it is advised to use the attached configuration software for PCs. New in **BDL99** are 2 outputs - electronic relays with max. load 24V AC (35V DC) 200 mA. Main function of outputs is a signalisation of critical situations, but thanks to expanded menu it is possible to use it in numerous control and regulation applications. Both outputs can be driven by single measurement channel or by group of channels (from 1 to 8 channels) with individually adjustable thresholds for every measurement channel. Signalisation of output state is made as two fields described R1 and R2 in left upper cornerof LCD screen.

TECHNICAL SPECIFICATIONS

Construction : Panel design to standard DIN 96 x 96mm
Wiring : Plug-in screw terminals at rear panel
Housing : NORYL - GFN2S E1 black, front IP40 (IP65 option) rear IP20
Isolation : RS485 output
Indication : Graphic display 128 x 64 points with backlight

INPUT

Current : 0(4) to 20 mA common earth
Range : - 9999 to +9999
Temperature : Pt100, Pt500, Pt1000 2 or 3-wire
Range : -100 to 600 C
Customize : On request
Digital : 1 input 24VDC ± 5% max 200mA
Indication : Graphic display 128 x 64 points
Communication interface : RS485 galvanically separated
Transmission protocol : MODBUS RTU
Transmission speed : 1200-115200 bit/sec
Memory capacity : 2MB (500 000 data recordings) 8 MB (2000 000 data recordings) in version with USB Host

OUTPUT

Relay output : 2 x relay 24VAC/35VDC/200mA
Sensors supply : 24VDC ± 5% max 200mA
Communication interface : RS485 or USB isolated
Transmission protocol : MODBUS RTU or USB Host port
Transmission speed : 1200-115200 bit/sec
Memory capacity : 2MB (500 000 data recordings) 8 MB (2000 000 data recordings) in version with USB Host

INDICATION

Display : Graphic display 128 x 64 points with backlight
Measuring display : Current graph of trends for each channel
Push button : 6 membran keys

INSTALLATION

Supply : 85 to 260VAC/DC 16 to 35VAC or 19 to 50 VDC (Isolated)
Power consumption : 7VA max 12VA
Ambient temp : 0 to 60 °C, 0-90% RH
Protection class : Front IP65 rear IP20
IP20 or (IP42 with transparent door for USB host)
Dimension : B96 x H96 x D102mm
Weight : 520g

PERFORMANCE

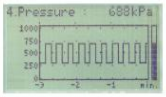
Accuracy error : < ± 0.2%
Scanning speed : Programmable
Measuring range : ± 9999 or -100 to 600C RTD
Indication : Graphic display 128 x 64 points
Communication interface: RS485 or USB Host port, galvanically separated
Transmission protocol : MODBUS RTU
Transmission speed : 1200-115200 bit/sec
Memory capacity : 2MB (500 000 data recordings) 8 MB (2000 000 data recordings) in version with USB Host
External memory capacity: Using 1GB Flash drive (250 millions data recordings)
Isolation : RS485
EMC : EN 50081-1, EN 50082-2, EN 61010-1

CE

BASI Instrument AB **Tel: +46 40-880 09** **Fax: +46 40-92 98 77**
P.O. Box 53 **SE-275 06 VOLLSJÖ...SWEDEN** **E-mail: info@basi.se**

ORDER INFORMATION
BDL99-XX28-1-X-XX1

CHANNELS	INPUT	SUPPLY	OPTION
1 1 channel	1 0/4-20mA	3 24 VAC/DC	00 None
4 4 channels	3 RTD	4 85-260VAC/DC	01 IP65
8 8 channels			OB USB port
			OJ Portable



The history of the process in time

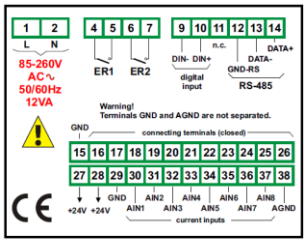
The current value of the measurement signal Height of the digits: 18 mm

8-channel view displayed at the same time

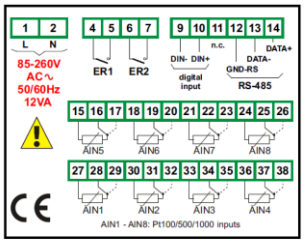
Recording parameters

Device information

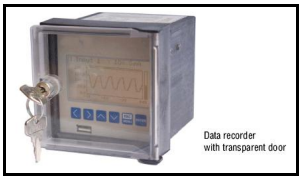
Main menu of the unit



version with current inputs



version with Pt inputs



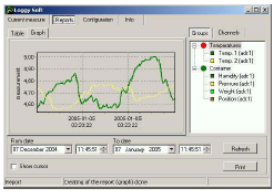
Data recorder with transparent door

SRS-U/4-Z45
USB/RS-485 converter

SRS-2/4-Z45
RS-232/RS-485 converter

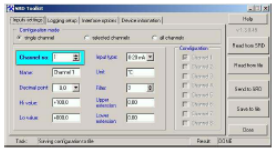
STD-99
Transparent door with moulded frame acc. to DIN 43700, lockable with security key.
Door and frame are made by injection moulding thus assuring an exact fit, an optimal choice of a material which is very strong and with no risk of corrosion; perfect seal-protective system IP 42 acc. to DIN 40050 provided by all-round soft rubber sealing the moulding; due to the special door mountings, the door does not swing in or out sideways on opening; door-frame and front-frame can be exchanged.
The ready-assembles units cannot be opened by unauthorised persons without using force or special equipment.

1. Loggy Soft



The **Loggy Soft** program enables the visualization, archiving and printing of measurements (e.g. temperature, humidity, pressure) stored in device memory.
Work with devices takes place through an RS-485 serial interface. Connecting a network of units to a serial port (RS-232) or USB port of a PC is possible thanks to a converter (RS-485 to RS-232 or RS-485 to USB)

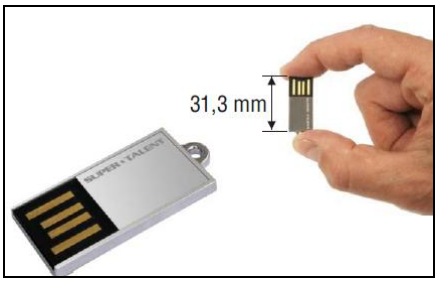
2. Toolkit



The **Toolkit** software enables configuration reading and writing operations, updating the device firmware and obtaining basic information on devices through RS-485 serial interface. This application enables to quickly and easily define device parameters in one of three possible configuration models. The set of parameters can be transmitted directly to the device or stored in a file for future use.

Mini USB stick

The mini USB memory stick is incredibly small and stylish flash drive offering up to 8GB data storage. Measuring merely 31,3 x 12,4 mm, the mini USB drive is ideal for transporting data and **fits inside optional lockable door STD-99**.
2, 4 and 8 GB memory sticks available.



We have extended our offer by ethernet applications and just there is no need to place PC with RS-485/USB converter near the installation. Now it can be installed on any location where internet is available. Additionally, we have expanded network functionality of SimCorder application. Now, it allows to upgrade your acquisition system of network functions based on TCP/IP protocol. This version consists of server, which collects measurement data from network and records them to database and clients which communicate to the server and allow watching stored data.