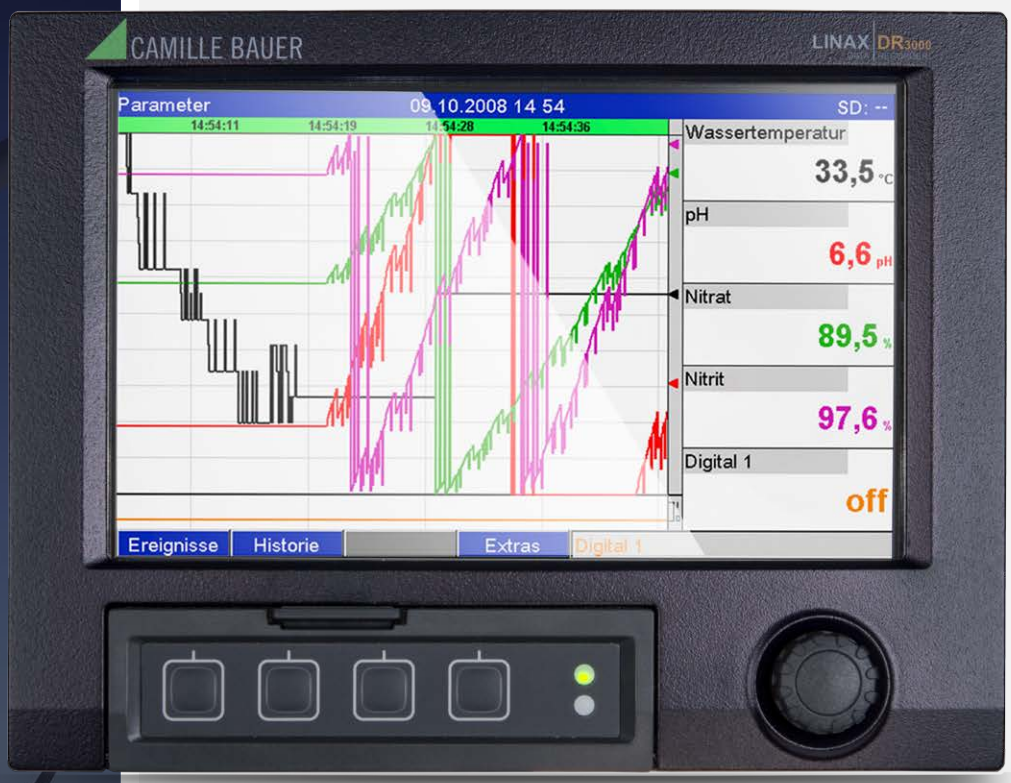
CAMILLE BAUER

AUTARKIC PROCESS MANAGEMENT

ON-SITE VISUALIZATION,
MEASUREMENT DATA ACQUISITION
MONITORING AND CONTROLING



LINAX DR-SERIES

DR2000 ▪ DR3000

Powerful on-site solution for data recording, visualisation and individual monitoring of processes.

ON-SITE LOCAL DATA MANAGEMENT - UNIVERSAL AND SAFE

The videographic recorders LINAX DR2000 and LINAX DR3000 are universally applicable data management units of the latest generation.
They allow the easy visualization and monitoring of processes.
The read-in data are stored and can be organized into process groups. Control functions, limit monitoring as well as mathematical calculation possibilities extend the devices to small control and monitoring units.
Comprehensive interfaces allow the integration into existing systems.
All records can be customized in individual production batches.
LINAX DRxxx devices are mainly used as:

- Data recorder
- High-quality display units
- Communication bus interfaces
- Small (process) control units
- Limit value monitor / alarm

LINAX DR2000

Safe and reliable recording of processes and events.

The LINAX DR2000 videographic recorder is a very universally useable device for the most frequent demands in process monitoring. The device has a modular design and can thus be adapted to customer requirements in an optimum way. LINAX DR2000 offers very high functionality at an unbeatable price-performance ratio.

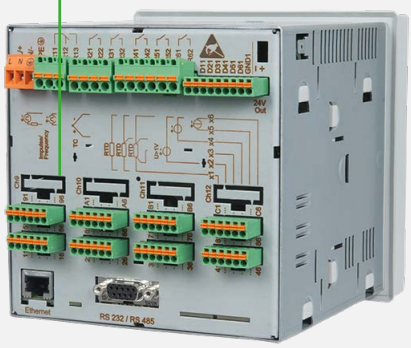
The reporting software included in the delivery as a standard enables extensive data evaluations as well as data storage and archiving in a database. This software is available with the basic functions free of charge.

CLEAR DISPLAY

- Brilliant 5.7” TFT display
- Measured value display in up to 4 groups
- Up to 8 channels per group

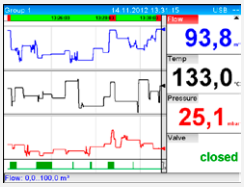
VERSATILE APPLICATION

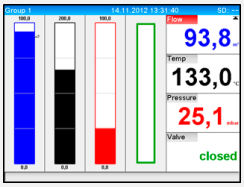
- Up to 12 universal inputs
- 6 digital input
- 6 relays
- Up to 30 limit values

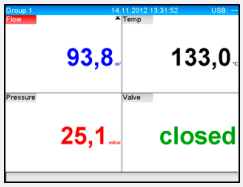


FLEXIBLE DISPLAY POSSIBILITIES

The display makes it possible to indicate curves, waterfall, bargraph or digital values dependent on the requirement.







INTUITIVE OPERATION ON-SITE

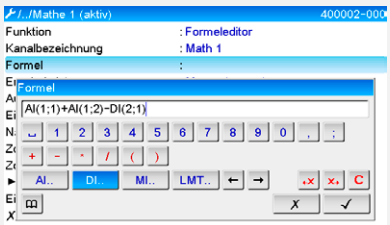
Easy and comfortable front end operation using the navigator (rotation / push button)

INTELLIGENT

4 virtual mathematic channels for individual calculations using a formula editor.

SIMPLE AND SECURE DATA STORAGE

- 128 MB internal memory
- Additional data storage on a SD card or USB stick
- Reporting software for tamper-proof data read out, storage and analysis



LINAX DR3000

High-performance data recording with extensive application packages and interface connections.

The LINAX DR3000 high-performance videographic recorder is based on the functionality of its little brother, LINAX DR2000, and offers additional extensive interfaces, application and calculation packages as well as extended data representation options. Furthermore, the possible number of inputs and outputs has been considerably extended.

Also in this case, all of the data can be analyzed, visualized and stored with the reporting software included in the delivery. Even the combination of LINAX DR2000 data with LINAX DR3000 does not present any problem.

LARGE DISPLAY FOR FLEXIBLE INDICATION

- Brilliant 7“ TFT display
- Touch screen with stainless steel front
- Measured values display in up to 10 groups with up to 8 channels
- Variety of display modes:
  Curves, waterfall, bargraph, digital, instrument display, circular chart, process graphic

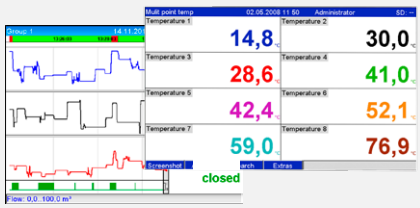
SIMPLE AND SECURE DATA STORAGE

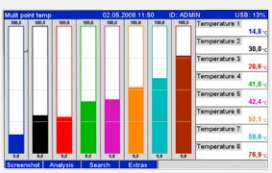
- SD card and USB stick up to 32 GB as external memory
- High-speed storage cycle of 100 ms
- Easy search of historical data directly at the device
- Reporting software for tamper-proof data read out, storage, analysis as well as visualization of historic and live data

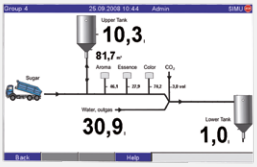
VERSATILE APPLICATION

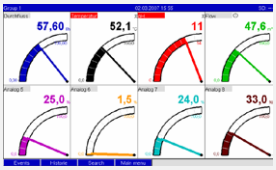
Variably applicable by processing different inputs and outputs:

- Up to 20 universal inputs or HART inputs
- 6 (14) digital inputs
- 6 (12) relays
- 2 analogue outputs
- Up to 60 limit values
- Sensor power supply









IMPROVED USABILITY

- Comfortable operation using the navigator or the touch screen on the stainless steel version
- Use of a USB keyboard/mouse
- Timesaving setup, tool-free printing and storage of the parameter settings using the web server
- Complete remote access to LINAX DR3000

APPLICATION PACKAGE

- 12 mathematic channels
- Tele-alarm
- Batch software

PROCESS GRAPHIC-PRESENTATION ON A LINAX DR3000

- Free of charge software process picture generator
- Positioning the channels via simple drag & drop
- Switchable between up to 10 process graphics

STAINLESS STEEL HOUSING WITH TOUCH SCREEN

- Local setup via capacitive touch screen for a simple and fast operation
- Easy and fast scrolling through historical data
- Fast changing of the display groups
- Text input with touch optimized keyboard
- Touchscreen can also be used with gloves
- No edges and corners for an easy cleaning
- No interfaces in the device front
- Material 316L

LINAX DR3000 VERSUS PLC

FUNCTION	LINAX DR3000	PLC
Installation	Near to the process Short wires between sensor and device	In control room Long wires, big cable trays
Commissioning	Easy and quick setup (navigator, web server) Insert formulas with formula editor	Costly programming hours are needed
Operation	On-site display with plant/process information Locally status notifications Backup of the stored values	Costly remote display needed No access to process values and status messages in the field
Software functionality	Pre-defined software functions (application packages) Flexible combination of device functions	High flexibility due to free programmable logic Closed loop control and timing functions
Maintenance / troubleshooting	Easy fault detection Configuration can easily be checked	Programmer needed for function check
Device extension	Easy plug & play extension Inexpensive extension cards compared to PLC	Easy plug & play extension Extension cards more expensive (e.g. HART inputs)

LINAX DR2000 VERSUS LINAX DR3000

	LINAX DR2000	LINAX DR3000
		
Display	TFT color graphic, 145 mm (5.7 in) Resolution: 640 x 480 pixel	TFT color graphic, 178 mm (7 in) Resolution: 800 x 480 pixel
Universal analogue inputs	0 / 4 / 8 / 12	0 / 4 / 8 / 12 / 16 / 20 or up to 40 for fieldbus
HART inputs	–	0 / 4 / 8 / 12 / 16 / 20
Digital inputs	6	6 / 14
Analogue outputs	–	2
Loop power supply	1 x 24 V DC, max. 250 mA	1 x 24 V DC, max. 250 mA
Count inputs (pulse) / operating time counter	Yes	Yes
Event input	Yes	Yes
Alarm setting points / relays	30 / 6 relays	60 / 6 or 12 relays
Operation	Navigator / keyboard / mouse	Navigator / keyboard / mouse / **(touchscreen)**
Signal analysis	Intermediate, daily, monthly, yearly reports	Intermediate, daily, weekly, monthly, overall/annual reports
Process screen	–	up to 10
E-mail functions	Yes	Yes
Integrated web server	Yes	Yes
Mathematics function	4 mathematic channels (optional)	12 mathematic channels (optional)
Integration	Yes	Yes
Calculation factor for integrated quantities	Yes	Yes
Batch function	–	optional
Tele-alarm function	–	optional
Text input	–	Can be preset 30 x
Memory	Internal memory + SD card + USB stick	Internal memory + SD card + USB stick
Scan rate	100 ms	100 ms
Interfaces	USB (front), Ethernet (back), RS232/RS485 (optional), Modbus RTU/TCP Slave (optional)	USB (front), RS232/RS485, PROFINET I/O Device, EtherNet/IP Adapter, Modbus RTU/TCP Slave, Modbus RTU/TCP Master, Ethernet, USB (back)
Power supply	90 to 250 V AC, 24 V AC/DC	90 to 250 V AC, 24 V AC/DC
Protection class	IP65/NEMA4 (front)	IP65/NEMA4 (front)
Dimensions (W x H x D) in mm (in)	144 x 144 x 158 (5.67 x 5.67 x 6.22)	190 x 144 x 158 (7.48 x 5.67 x 6.22)
Front material	Zinc die cast	Zinc die cast, **stainless steel (316L)**
FDA 21 CFR 11	–	Yes
User administration	–	Yes

REPORTING SOFTWARE AND SYSTEM INTEGRATION

REPORTING SOFTWARE FOR EASY DATA ANALYSIS

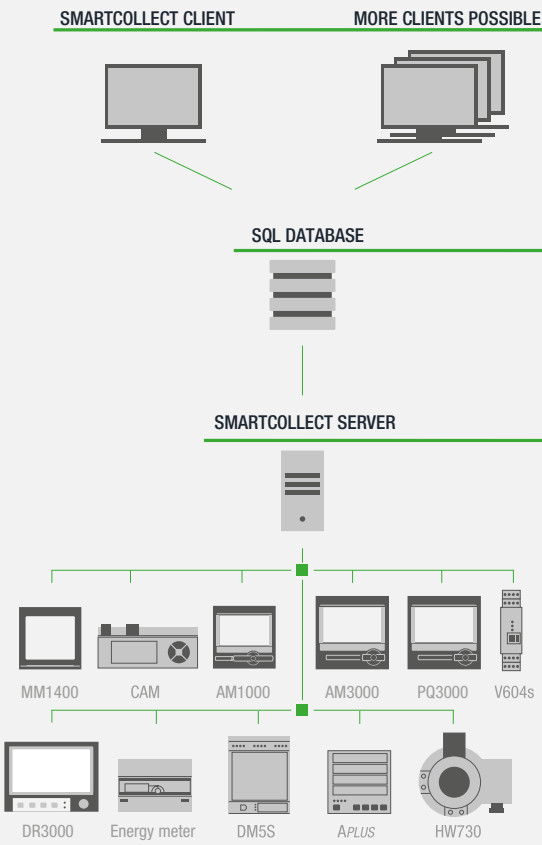
- Store and visualize historical data
- Read out measured data via online interface or from a mass storage
- Create reports and templates
- SQL database / tamper-proof data storage
- Data export / import (Excel, PDF, reports)

SMARTCOLLECT FOR SETTING UP DATA MANAGEMENT / SCADA SYSTEMS

The powerful and expandable SMARTCOLLECT software is a good solution if the measuring data from your videographic recorder or another process instrument have to be recorded, stored and visualized in a long-term.

COMPONENTS

The SMARTCOLLECT energy management software consists of the following components:



SMARTCOLLECT CLIENT

- Graphic visualization of queried data as curves / tables or as process graphic (SCADA)
- User interface to configure the data sources
- Mathematical calculations, limit values, control functions etc.

SMARTCOLLECT DATA BASE

- SQL database
- Contains the collected data
- Open and unencrypted

SMARTCOLLECT SERVER

- Connection of all devices with Modbus RTU, Modbus TCP, OPC
- Collects and configures data from active sources and channels and writes the same directly into the central database

SMARTCOLLECT software components may be installed on an individual system or on several servers or computers.

GMC INSTRUMENTS

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