Data sheet
Video recorder LINAX A325

1 Technical data

1.1 Input

1.1.1 Analog multifunction inputs

Number
Standard version wi   thout universal inputs.
Optional multifunction input cards (slot 1-5) each with 4 universal inputs (4/8/12/16/20).

Function
You can choose between the measured variables U, I, RTD, TC, pulse input or frequency input for each universal input.

Measured variable, measuring range
To IEC 60873-1:
An additional display error of -/+ 1 digit is permitted for every measured value.
Measuring ranges which can be selected per channel:

Measured variable	Measuring range	Maximum measured error of measuring range (oMR)	Input resistance
Current (I)	0 to 20 mA 0 to 5 mA 4 to 20 mA Overrange: up to 22 mA	± 0.10 % oM R	Load: ≤ 50 Ohm
Voltage (U) > 1 V	0 to 10 V 0 to 5 V 1 to 5 V ± 10 V ± 30 V	± 0.10 % oMR	≥ 1 MOhm
Voltage (U) ≤ 1 V	0 to 1 V ± 1 V ± 150 mV	± 0.10 % oMR	≥ 2.5 MOhm
Resistance thermometer (RTD)	Pt100: -200 to 850 °C (-328 to 1562 °F) (IEC751, GOST) Pt100: -200 to 649 °C (-328 to 1200.2 °F) (JIS1604) Pt500: -200 to 850 °C (-328 to 1562 °F) (IEC751) Pt500: -200 to 649 °C (-328 to 1200 °F) (JIS1604) Pt1000: -200 to 600 °C (-328 to 1112 °F) (IEC751, JIS1604)	4-wire: ± 0.10 % oMR 3-wire: ± (0.10 % oMR + 0.8 K) 2-wire: ± (0.10 % oMR + 1.5 K)	
	Cu100: -200 to 200 °C (-328 to 392 °F) (GOST) Cu50: -200 to 200 °C (-328 to 392 °F) (GOST) Pt50: -200 to 850 °C (-328 to 1562 °F) (GOST)	4-wire: ± 0.20 % oMR 3-wire: ± (0.20 % oMR + 0.8 K) 2-wire: ± (0.20 % oMR + 1.5 K)	
	Cu53: -50 to 180 °C (-58 to 356 °F) (GOST) Pt46: -200 to 650 °C (-328 to 1202 °F) (GOST)	4-wire: ± 0.30 % oMR 3-wire: ± (0.30 % oMR + 0.8 K) 2-wire: ± (0.30 % oMR + 1.5 K)	
Thermocouples (TC)	Type J (Fe-CuNi): -210 to 1200 °C (-346 to 2192 °F) (IEC581-1) Type K (NiCr-Ni): -270 to 1372 °C (-454 to 2501.6 °F) (IEC581-1) Type T (Cu-CuNi): -270 to 400 °C (-454 to 752 °F) (IEC581-1) Type N (NiCrSi-NiSi): -270 to 1300 °C (-454 to 2372 °F) (IEC581-1) Type L (Fe-CuNi): -200 to 900 °C (-328 to 1652 °F) (DIN43710) Type L (Fe-CuNi): -200 to 659 °C (-328 to 1218.2 °F) (GOST)	± 0.10 % oMR as of -100 °C (-148 °F) ± 0.10 % oMR as of -130 °C (-202 °F) ± 0.10 % oMR as of -200 °C (-328 °F) ± 0.10 % oMR as of -100 °C (-148 °F) ± 0.10 % oMR as of -100 °C (-148 °F) ± 0.10 % oMR as of -100 °C (-148 °F)	≥ 1 MOhm
	Type D (W3Re-W25Re): 0 to 2315 °C (32 to 4199 °F) (ASTME998) Type C (W5Re-W26Re): 0 to 2315 °C (32 to 4199 °F) (ASTME998) Type B (Pt30Rh-Pt6Rh): 0 to 1820 °C (32 to 3308 °F) (IEC581-1) Type S (Pt10Rh-Pt): -50 to 1768 °C (-58 to 3214.4 °F) (IEC581-1) Type R (Pt13Rh-Pt): -50 to 1768 °C (-58 to 3214.4 °F) (IEC581-1)	± 0.15 % oMR as of 500 °C (932 °F) ± 0.15 % oMR as of 500 °C (932 °F) ± 0.15 % oMR as of 600 °C (1112 °F) ± 0.15% oMR as of 100 °C (212 °F) ± 0.15% oMR as of 100 °C (212 °F)	≥ 1 MOhm

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Measured variable	Measuring range	Maximum measured error of measuring range (oMR)	Input resistance
Pulse input (I)	Min. pulse length 30 µs, max. 13 kHz		
Frequency input (I)	0 to 10 kHz, overrange: to 12.5 kHz 0...7 mA = LOW 13...20 mA = HIGH	± 0.01 % oMR	Load: ≤ 50 Ohm

Maximum input load — Limit values for input voltage and input current as well as cable open circuit detection/line influence/temperature compensation:

Measured variable	Limit values (steady-state, without destroying input)	Cable open circuit detection/line influence/temperature compensation
Current (I)	Maximum permitted input voltage: 2.5 V Maximum permitted input current: 50 mA	4 to 20 mA range with disengageable cable open circuit detection as per NAMUR NE43. The following error ranges apply if NE43 is activated: ≤ 3.8 mA: underrange (display shows: vvvvv) ≥ 20.5 mA: overrange (display shows: ^^^^^^) ≤ 3.6 mA or ≥ 21.0 mA: cable open circuit (display: - - - -)
Pulse, frequency (I)	Maximum permitted input voltage: 2.5 V Maximum permitted input current: 50 mA Minimum pulse length: 30 µs Maximum 13 kHz	No cable open circuit monitoring
Voltage (U) > 1 V	Maximum permitted input voltage: 35 V	1 to 5 V range with disengageable cable open circuit detection: < 0.8 V or > 5.2 V: cable open circuit (display: - - - -)
Voltage (U) ≤ 1 V	Maximum permitted input voltage: 24 V	
Resistance thermometer (RTD)	Measuring current: ≤ 1 mA	Maximum barrier resistance (or line resistance): Max. 200 Ohm (4-wire) Max. 40 Ohm (3-wire) Maximum influence of barrier resistance (or line resistance) for Pt100, Pt500 and Pt1000: 4-wire: ±0.0002%/Ohm, 3-wire: ±0.002%/Ohm Maximum influence of barrier resistance (or line resistance) for Pt46, Pt50, Cu50, Cu53 and Cu100: 4-wire: ±0.0006%/Ohm, 3-wire: ±0.006%/Ohm
Thermocouples (TC)	Maximum permitted input voltage: 24 V	Cable open circuit detection from 50 kOhm Influence of line resistance in event of break detection: < 0.001%/Ohm Error, internal temperature compensation: ≤ 2 K

Scan rate — All channels are scanned within 100 ms.

Converter resolution — 24 bit

Totalization — The interim value, daily value, weekly value, monthly value, annual value and overall value can be determined (13-digit, 64 bit).

1.1.2 Digital inputs

Number — Standard version: 6 digital inputs
Optional digital card (slot 5): 8 additional digital inputs

Input level	To IEC 61131-2: Logical "0" (corresponds to -3 to +5 V), activation with logical "1" (corresponds to +12 to +30 V)
Input frequency	Max. 25 Hz
Pulse length	Min. 20 ms
Input current	Max. 2 mA
Input voltage	Max. 32 V (steady-state, without destroying input)
Selectable functions	Control input, ON/OFF message, pulse counter (13-digit, 64 bit), operating time, message+operating time, quantity from time. Functions of the control input: start recording, screensaver on, block setup, block keyboard/navigator, time synchronization, change group, limit value monitoring on/off, individual LV on/off, start/stop evaluation.

1.2   Output

1.2.1   Auxiliary voltage output

The auxiliary voltage is provided to activate the digital input (or the sensors) with floating contacts and is galvanically isolated from the system and the inputs (testing voltage 500 V).

Output voltage:

Approx. 24 V DC, max. 28 V

Output current:

Maximum 200 mA, short-circuit proof, not stabilized

1.2.2   Relay outputs

Standard version (power supply slot): 1 alarm relay with changeover contact, 5 relays with NO contact e.g. for limit value alarms (can be configured as NC contact).

Optional digital card (slot 5): 6 additional relays with NO contact e.g. for limit value alarms (can be configured as an NC contact).

! Note!
It is not permitted to mix low voltage and safety extra low voltage (do not mix SELV circuits and low voltage).

Response time:

max. 400 ms

Maximum DC contact load:

30 V / 3 A

Maximum AC contact load:

230 V / 3 A

1.2.3   Analog and pulse outputs

Number:

Optional digital card (slot 5): 2 analog outputs which can be operated as current or pulse outputs.

Analog output (current output):

Output current: 0/4 to 20 mA with 10 % overrange
Max. output voltage: approx. 16 V
Accuracy: ≤ 0.1 % of output range
Temperature drift: ≤ 0.015 %/K
Resolution: 13 bit
Load: 0 to 500 Ohm
Error signal to NAMUR NE43: 3.6 mA or 21 mA can be configured

Digital output (pulse output):

Output voltage as per IEC 61131-2:
≤ 5 V corresponds to LOW
≥ 12 V corresponds to HIGH
Short-circuit proof (maximum 25 mA)

Frequency: 0 to 2 kHz
Pulse width: 0.5 to 1000 ms
Accuracy: ≤ 0.1 % of output range
Temperature drift: ≤ 0.1 %
Load: ≥ 1 kOhm

1.2.4   Galvanic isolation

All the inputs and outputs are galvanically isolated from one another and tested with the following testing voltages:

	Relay	Digital in	Analog in	Analog out
Relay	2.3 kV	2.3 kV	2.3 kV	2.3 kV
Digital in	2.3 kV	500 V¹	500 V	500 V
Analog in	2.3 kV	500 V	500 V	500 V
Analog out	2.3 kV	500 V	500 V	500 V

1)   Not galvanically isolated from one another. Galvanic isolation is only available for digital inputs between the power unit and the optional digital card.

1.3   Power supply / terminal diagram

1.3.1   Electrical connection (wiring diagram)

(Wiring diagram, see Section 4 "Wiring")

1.3.2 Supply voltage

Low voltage power unit: 100...230 V_{AC} (±10%)
Extra-low voltage power unit: 24 $V_{AC/DC}$

1.3.3 Frequency

Nominal frequency: 50 / 60 Hz

1.3.4 Cable specification

Screw or spring terminal blocks with reverse polarity protection:
Wire cross-section, digital I/O and analog inputs: max. 1.5 mm^2 (14 AWG) (spring terminals)
Wire cross-section, power supply: max. 2.5 mm^2 (13 AWG) (screw terminals)
Wire cross-section, relays: max. 2.5 mm^2 (13 AWG) (spring terminals)

1.3.5 Power consumption

100...230 V: max. 40 VA
24 V: max. 40 VA

1.4 Connection data interface, communication, operation

1.4.1 USB ports:

USB at the front of the unit
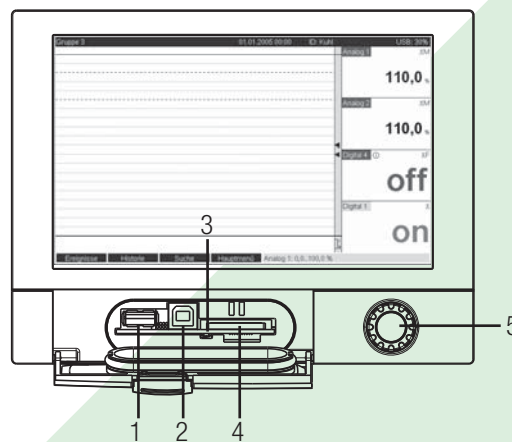
Fig. 85:   Front of unit with open flap/keyboard

1: USB A socket "host" e.g. for USB memory stick, external keyboard, bar code reader or printer
2: USB B socket "Function" e.g. to connect to PC or laptop
3: LED at SD slot. Yellow LED lit when the unit writes to the SD card or reads it.
4: Slot for SD card
5: Navigator

1 x USB connection, type A (host)
A USB 2.0 connection is available on a shielded USB A socket at the front of the unit. A USB stick as a memory medium, a keyboard, a USB hub, a bar code reader or a printer (PCL5c or higher) can be connected to this interface.

1 x USB connection, type B (function)
A USB 2.0 connection is available on a shielded USB B socket at the front of the unit. This can be used to connect the unit for communication with a laptop for example.

USB at the rear of the unit

2 x USB connection, type A (host) (interface slot)
Two USB 2.0 connections are available on shielded USB A sockets at the rear of the unit. A USB stick as a memory medium, a keyboard, a USB hub, a bar code reader or a printer (PCL5c or higher) can be connected to these interfaces.

! Note!
- The USB 2.0 connections are compatible with USB 1.1, i.e. communication is possible.
- The assignment of the USB ports corresponds to the standard such that shielded standard cables with a maximum length of 3 meters (9.8 ft) can be used here.
- Multiple USB sticks cannot be operated simultaneously. The USB stick that was first connected has priority.

USB printer reference list:

HP Color LaserJet CP1515n; Kyocera FS-C5015N

! Note!
The printer must support PCL5c (or higher). GDI printers are not supported!

USB bar code reader reference list:

Datalogic Gryphon D230; Metrologic MS5100 Eclipse Series; Symbol LS2208

1.4.2   Ethernet interface (interface slot):

An IEEE 802.3-compatible connection is available on a shielded RJ45 plug connector on the rear of the unit as the network connection. This can be used to connect the unit with a hub or switch to units in an office environment. For safe spacing distances, the office equipment standard EN 60950 must be observed. The assignment corresponds to a standards-compliant MDI port (AT&T258) such that a shielded 1:1 cable with a maximum length of 100 meters (328 ft) can be used here. The Ethernet port is designed as 10/100–BASE–T. Direct connection to a PC is possible with a crossover cable. Half-duplex and full-duplex data transfer is supported. Alternatively, a GPRS modem can also be connected to the Ethernet interface.
The unit can be used in the network as a "Web server". Two Ethernet function LEDs on the rear of the unit.

1.4.3   Serial RS232/RS485 interface (interface slot):

A combined RS232/RS485 connection is available on a shielded SUB D9 socket at the rear of the unit. This can be used for data or program transfer and to connect a modem. For communication via modem, we recommend an industrial modem with a watchdog function.
The following baudrates are supported: 1200, 2400, 4800, 9600, 19200, 38400 , 57600, 115200
Max. line length with shielded cable: 2 m (6.6 ft) (RS232) or 1000 m (3281 ft) (RS485)
Both interfaces are galvanically isolated from the system.
The RS232/RS485 interfaces cannot be used simultaneously.

1.4.4   Remote interrogation with analog or GSM/GPRS wireless modem:

- Analog modem:
  An analog modem (e.g. Devolo or WESTERMO), which is connected to the RS232 interface with a special modem cable (see Accessories RX U10-A1), is recommended for industry.
- GSM/GPRS wireless modem:
  A GSM/GPRS wireless modem (e.g. Siemens, INSYS or WESTERMO, incl. antenna and power unit), which is connected to the RS232 interface with a special modem cable (RXU10-A1 accessory), is recommended for industry. Important: the wireless modem needs a SIM card and data transfer subscription. In addition, it must be possible to deactivate the PIN prompt.

1.4.5   Bus interface (interface slot, optional)

- PROFIBUS–DP slave:
  The unit can be integrated into a fieldbus system as per the PROFIBUS–DP standard by means of the PROFIBUS-DP interface. Up to 40 analog inputs and 14 digital inputs can be transmitted via PROFIBUS–DP and stored in the unit. For bidirectional communication in cyclic data transfer. Baudrate: maximum 12 Mbit/s
- Modbus RTU slave:
  Up to 40 analog inputs and 14 digital inputs can be transmitted via Modbus and stored in the unit.
- Ethernet Modbus TCP slave:
  Connection to SCADA systems (Modbus master). Up to 40 analog inputs and 14 digital inputs can be transmitted via Modbus and stored in the unit.

1.5   Performance characteristics

1.5.1   Reference operating conditions

Ambient temperature: 25 °C $\pm$ 5 K (77 °F $\pm$ 9 °F)
Air humidity: 55 % $\pm$ 10 % r.h.

1.5.2   Maximum measured error

See Input, see Section 10.1.1

1.5.3   Temperature drift

Cu50, Cu53, Cu100, Pt46 and Pt50: max. $\pm$ 0.02 %/K (of measuring range)
All other ranges: max. $\pm$ 0.01 %/K (of measuring range)

1.5.4   Long-term drift

To IEC 61298-2: max. $\pm$ 0.1 %/year (of measuring range)

1.6   Installation

1.6.1   Orientation

Operating position as per DIN 16 257, NL 90 $\pm$ 30°

1.6.2   Installation instructions

(Panel mounting, see Section 3)

- Installation depth without terminal cover: approx. 158 mm (6.22") (incl. terminals and fastening clips)
- Installation depth with terminal cover: approx. 197 mm (7,76")
- Panel cutout: 138^{+1} x 138^{+1} mm ($5.43^{+0.04}$ x $5.43^{+0.04}$")
- Panel thickness: 2 to 40 mm (0.08 to 1.58")
- Max. viewing angle range: from the display central axis 50° in all directions
- Securing to DIN 43 834

1.7 Environment

1.7.1 Ambient temperature range

-10 to 50 °C (14 to 122 °F)

1.7.2 Storage temperature

-20 to +60 °C (-4 to 140 °F)

1.7.3 Climate class

To IEC 60654-1: B1

1.7.4 Degree of protection

Front-panel IP65 (IEC 60529, Cat. 2) NEMA 4
Rear-panel IP20 (IEC 60529, Cat. 2)

1.7.5 Electrical safety

IEC 61010-1, protection class I
Low voltage: overvoltage category II
Environment < 3000 m (< 9843 ft) above MSL (mean sea level)

1.7.6 Electromagnetic compatibility (EMC)

Interference immunity:

To IEC 61326 (industrial environment) and NAMUR NE21:

- ESD (electrostatic discharge): IEC 61000-4-2 severity 3 (6/8 kV)
- HF field (electromagnetic interference fields): IEC 61000-4-3: severity 3 (10 V/m)
- Burst (quick transient disturbance variables): IEC 61000-4-4 severity 3 (1 kV signal, 2 kV power supply)
- Surge on power line: IEC 61000-4-5: 2 kV asymmetrical, 1 kV symmetrical
- Surge on signal line: IEC 61000-4-5: 1 kV asymmetrical (with external protection element)
- Conducted HF: IEC 61000-4-6: 150 kHz to 80 MHz, 10 V
- Power failure: IEC 61000-4-11 (> 20 ms/0%)
- Voltage variation: IEC 61000-4-11 (40% / 0%)

Emission:

To IEC 61326: Class A (operation in industrial environment)

Interference voltage:

Power cable: To CISPR 16-1/-2: Class A

Interference current:

Ethernet cable: To EN 50022: Class A

Interference field intensity:

Housing/all connections: To CISPR 16: Class A

Interference voltage suppression:

- Common mode interference voltage suppression: IEC 61298-3:
  Analog inputs: 80 dB at 60 V and 50 Hz / 60 Hz
- Push-pull interference voltage suppression: IEC 61298-3:
  Analog inputs: 40 dB at 50 Hz / 60 Hz, for measuring range/10

1.8   Mechanical construction
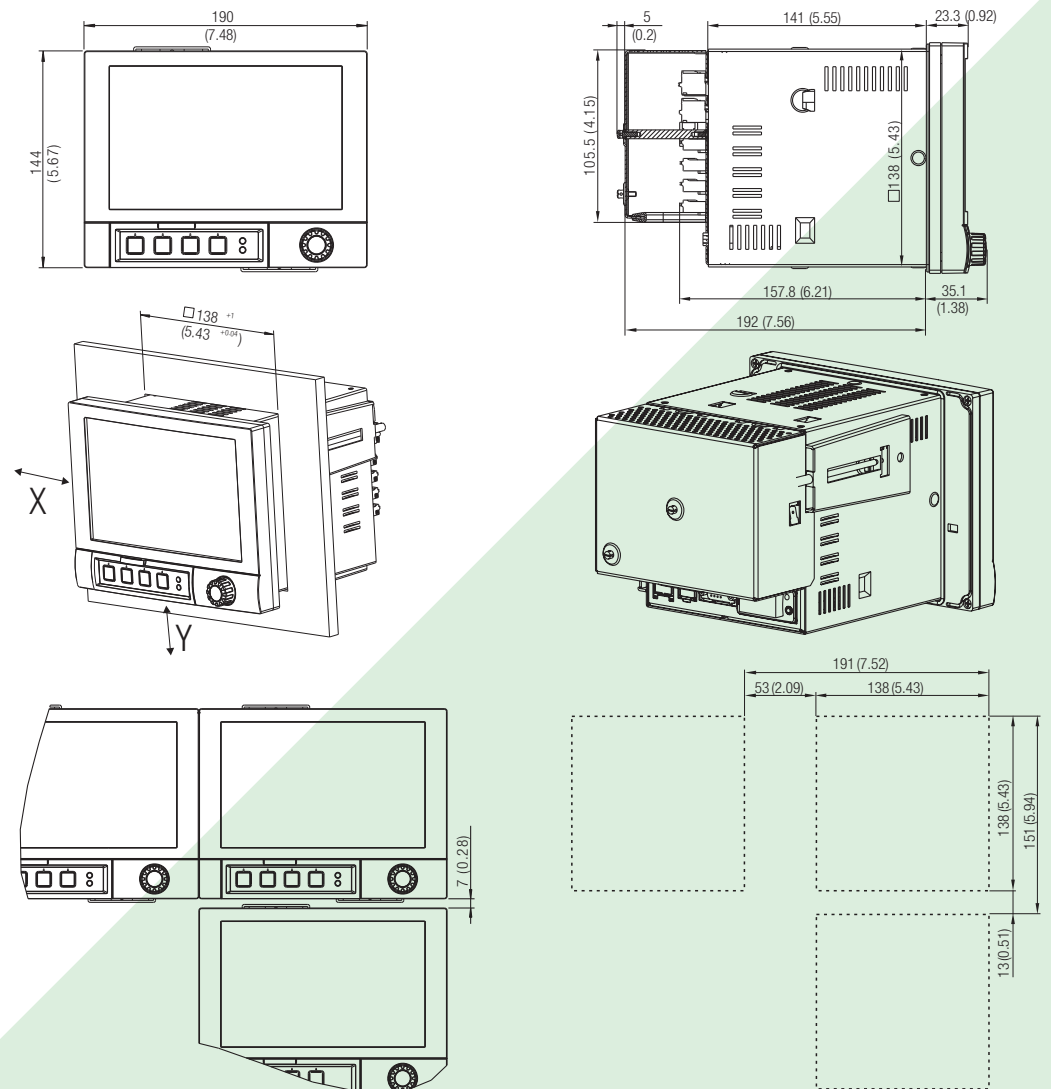
1.8.1   Design, dimensions

Panel-mounted instrument:

Fig. 86:   All dimensions in mm or (inch)
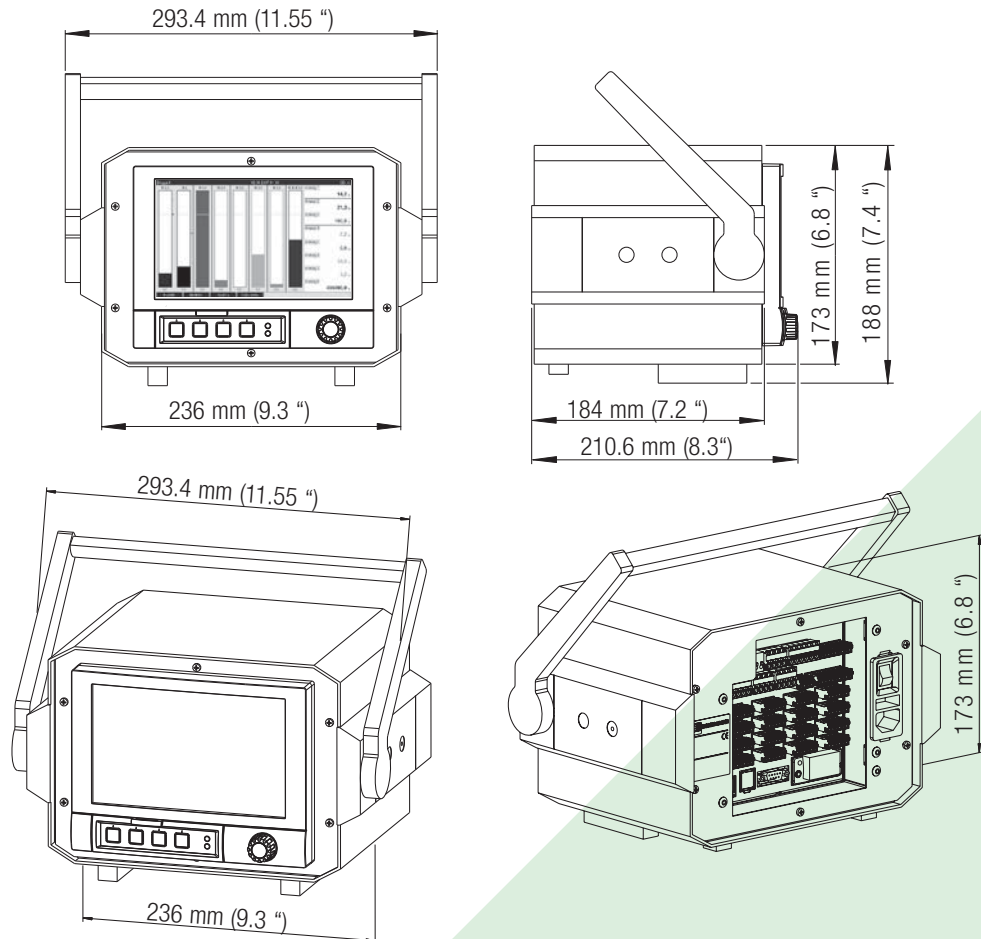
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Design, dimensions desk top housing:

Fig. 87:   All dimensions in mm or (inch)

1.8.2   Weight

• Panel-mounted instrument, maximum configuration: approx. 2 kg (4.4 lb)
• Desk top housing, maximum configuration: approx. 3.7 kg (8.2 lb)

1.8.3   Material

Front (front part incl. display panel): transparent plastic (PC UL94-V2) (border area painted)
Flap (front): plastic (ABS UL94-V2)
Membrane keypad: polyester (PC-ABS UL94-V2)
Jog/shuttle dial ("navigator"): plastic (ABS UL94-V2)
Intermediate frame (front to panel): plastic (PA6-GF15 UL94-V2)
Casing: St 12 ZE (galvanized sheet steel)
Rear panel: St 12 ZE (galvanized sheet steel)

! Note!
All materials are free from silicone.

Desk top housing:
Half shell housing: Sheet steel, electrolytic galvanized (powder-coated)
Side profiles: extruded aluminum sheath (powder-coated)
Profile ending: pigmented Polyamide
Housing feet: pigmented Polyamide, glass fiber reinforced

1.9 Human interface

1.9.1 Display elements

Type:

Wide-screen TFT color graphic display

Size (Screen size):

178 mm (7")

Resolution:

Wide VGA 384,000 pixels (800 x 480 pixels)

Background illumination:

50,000 h half value time (= half brightness)

Number of colors:

262,000 viewable colors, 256 colors used

Viewing angle:

Max. viewing angle range: from the display central axis 50° in all directions

Screen display:

- Users can choose between black or white for the background color
- Active channels can be assigned to up to 10 groups. For the purposes of clear identification, these groups are given a name e.g. "Temperatures boiler 1" or "Daily average values of all boilers"
- Scales linear or logarithmic
- Replay function: rapid callup of history data with zoom function
- Preformatted screen display, such as horizontal or vertical curves, bar graphs, instrument display, circular chart or digital display, allow rapid and uncomplicated commissioning:
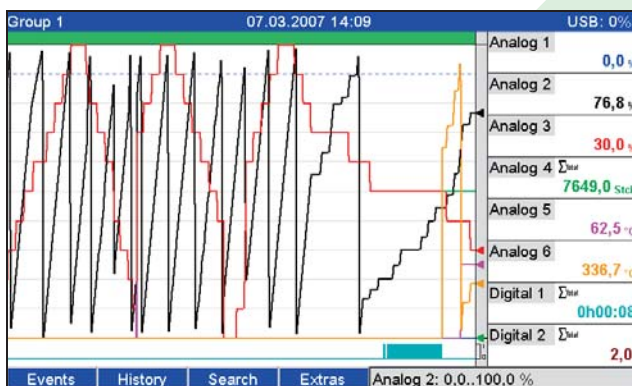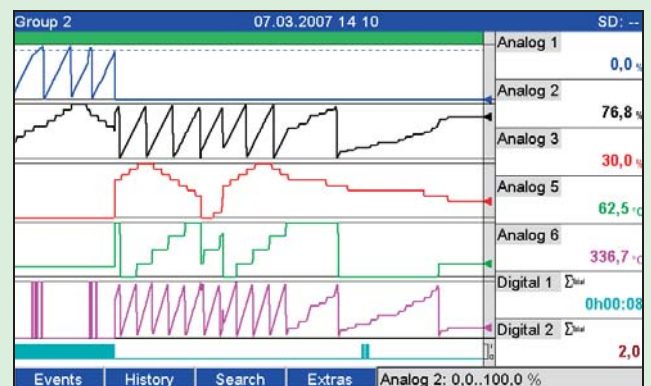

Fig. 88:   Curve display

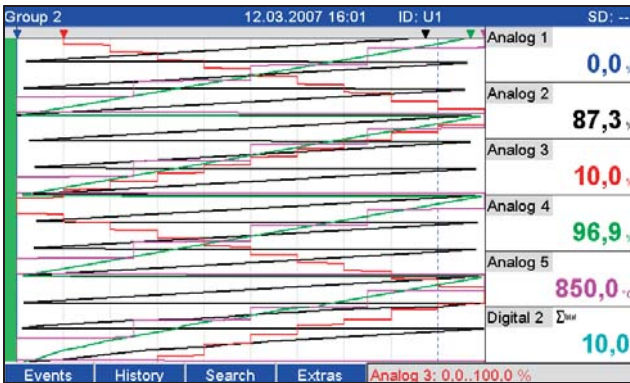Fig. 89:   Curve in ranges

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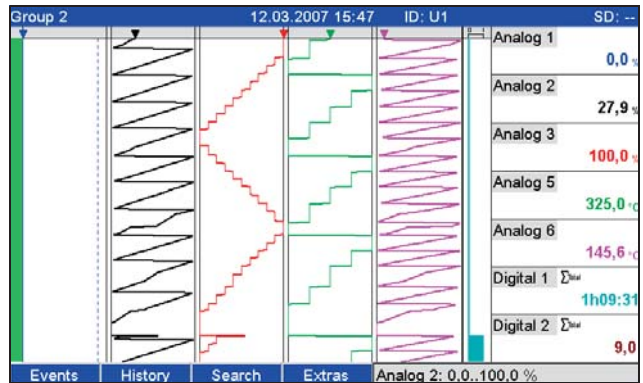

Fig. 90:   Waterfall

Fig. 91:   Waterfall in ranges
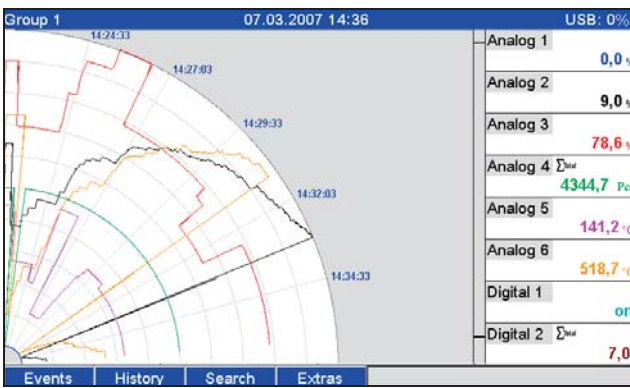

Fig. 92:   Circular chart
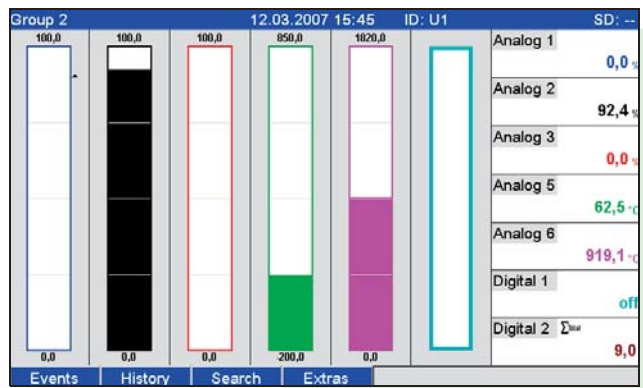

Fig. 93:   Bar graph

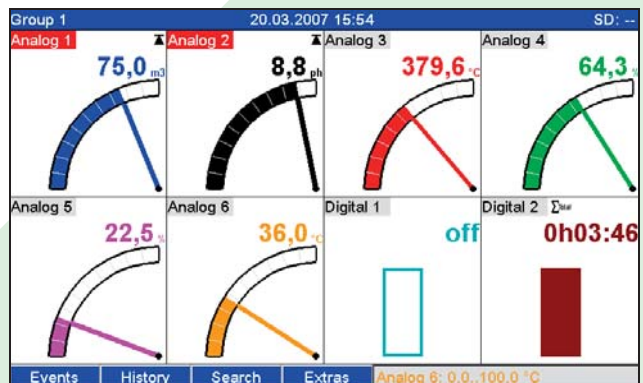Fig. 94:   Digital display

Fig. 95:   Instrument display
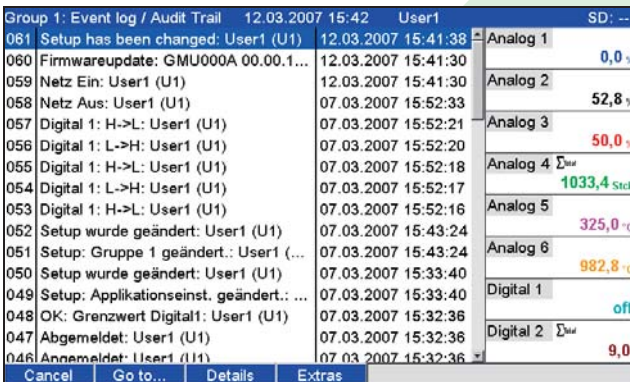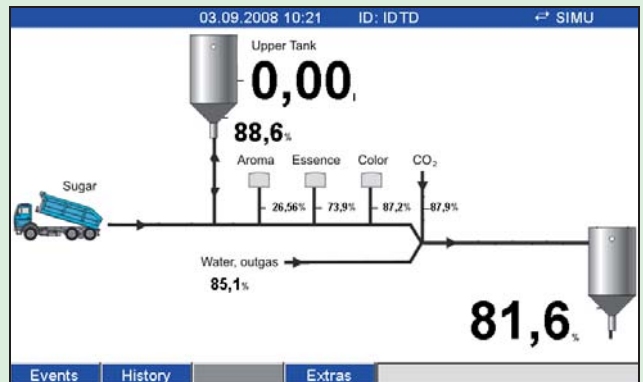

Fig. 96:   Event log

Fig. 97:   Process display

1.9.2   Operating elements

Unit keyboard:

Option of operation and configuration via navigator (jog/shuttle dial) and 4 softkeys on the front side in interactive dialog with the screen, or using PC software supplied. Integrated online help displayed at the press of a button.

External keyboard:

Additionally an external keyboard for operation and configuration can be connected to the equipment (USB type A " Host"). Radio keyboards are not supported.

1.9.3   Saving data

Memory cycle:

- Selectable memory cycle: off, 100ms, 1s / 2s / 3s / 4s / 5s / 10s / 15s / 20s / 30s / 1min / 2min / 3min / 4min / 5min / 10min / 30min / 1h
- High-speed saving (100ms) can be configured for up to 8 channels of group 1

Measured data storage, internal memory:

- Setup data memory, measured data memory and program memory: permanent backup of setup data and measured data in internal Flash memory with power failure protection (256 MB, nonvolatile)
- Data buffering and RTC buffering with lithium cell (buffering for 6 years; replace after 10 years).
- Even after being exported to a USB stick or SD card, measured data remain in the unit for a long time and can be reexported. This is important if the external data storage unit is lost or for official audits.
- Plant monitoring functions with operated hours counter, calibration monitoring, monitoring of storage medium exchange and other functions for monitoring the unit status.

External memory:

- Cyclic copy of the measured data for archiving on SD card (secure digital memory card)
- SD cards supported: 256   MB and 512 MB. Only use "Industrial Grade" SD cards (see Accessories).
- USB sticks supported: 256 MB, 512 MB, 1 GB and 2 GB. It cannot be ensured that USB sticks from all manufacturers will work perfectly. For this reason, an "Industrial Grade" SD card is recommended for safe data recording (see Accessories).
- A yellow LED beside the SD slot indicates data access. The SD card may not be removed while this LED is lit. Risk of losing data!

Typical recording length:

Prerequisites for following tables:

- No limit value violation/event storage
- Digital input not used
- Signal analysis deactivated

! Note!
  Frequent entries in the event log reduce the memory availability!

Internal memory 256 MB (weeks, days, hours):

Analog inputs	Memory cycle 5 min.	Memory cycle 1 min.	Memory cycle 30 s.	Memory cycle 10 s.	Memory cycle 1 s.
1	7211, 5, 16	1869, 5, 2	957, 4, 15	324, 3, 11	32, 3, 18
4	3169, 2, 5	718, 6, 20	363, 5, 5	121, 4, 1	12, 1, 9
12	1198, 3, 23	254, 6, 7	128, 2, 8	42, 6, 18	4, 2, 3
20	739, 0 ,4	155, 2, 22	78, 0, 5	26, 0, 18	2, 4, 7

External SD card 254 MB (weeks, days, hours):

Analog inputs	Memory cycle 5 min.	Memory cycle 1 min.	Memory cycle 30 s.	Memory cycle 10 s.	Memory cycle 1 s.
1	9703, 3, 19	2515, 5, 3	1288, 3, 19	436, 4, 7	43, 5, 11
4	4264, 2, 8	967, 2, 18	489, 2, 22	163, 4, 3	16, 2, 21
12	1612, 4, 19	342, 6, 19	172, 4, 14	57, 5, 17	5, 5, 13
20	994, 2, 13	209, 0, 20	104, 6, 22	35, 0, 22	3, 3, 15

Calculating the recording duration:

The recording duration is calculated using the "storage calculator" (can be found in the "Tools" directory on the PC software CD–ROM supplied).

Pixels available for measured value curves:

Display method	Pixel
Curve display with instantaneous value display	566
Curve display without instantaneous value display	786
Waterfall	409
Circular chart	Not available

! Note!
1 pixel = 1 measuring date
With 100 ms storage cycle -> 1 s = 10 pixels

1.9.4   Real time clock (RTC)

Configurable summer time/normal time automated system
Power reserve: buffering via lithium battery (buffering 6 years; replace after 10 years)
Deviation: < 10 min./year
Time synchronization possible via PC software supplied or via control input.

1.9.5   Remote control, communication

- USB interface, series (front-panel), Ethernet interface and additional RS232/RS485 interface optional (rear)
- OPC server (3.0) for direct data exchange with databases or/and visualization systems
- Integrated Internet page (Web server) allows password-protected access to the device with every PC (e.g. for displaying the measured data)
- DHCP-enabled (dynamic allocation of an IP address)
- Device-internal summer time/winter time changeover
- Configuring and archiving the device settings with SD card, USB stick or with PC software supplied via rear-mounted serial interface RS 232/RS485 (e.g. modem), Ethernet, or USB port.

Functions of the PC software supplied:
- Device configuration, measured data visualization, measured data administration and measured data export
- Export the measured data of individual channels to separate files or several channels to one file

1.10   Certificates and approvals

1.10.1   CE mark

The measuring system meets the legal requirements of the EC directives. The manufacturer confirms successful testing of the device by affixing the CE mark.

1.10.2   UL-listed for Canada and USA

The device has been examined by Underwriters La boratories Inc. (UL) in compliance with the UL 61010-1 and CSA C22.2 No. 61010-1 standards and has been UL-listed under the number E225237.

1.10.3   Milk pasteurization approval

The device has been examined by the Technical University of Munich (TUM) in compliance with the test guidelines for measuring, control and safety devices for milk heating plants and has been listed under the number W-M1/07.

1.10.4   Other standards and guidelines

CSA approval
CAN/CSA-C22.2 No. 61010-1-04 Safety requirements for electrical equipment for measurement, control, and laboratory use - General requirements, Second Edition.

1.10.5   Electronic recording/electronic signature

FDA 21 CFR11
The device meets the requirements of the "Food and Drug Administration" for electronic recording/ electronic signature.

1.11   Accessories

Accessories available, see Section 8

Data sheet
Video recorder LINAX A325

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