

LISTcontroller SEC and LB



DATA SHEET

FORM NO. 06-LIS-0166 ISSUE NO. A DATE: 19/06/2019



FEATURES

- The LISTcontroller represents the central control and evaluation unit, utilising an ARM9™ embedded processor and two additional distributed processors to continually, quickly, and reliably monitor temperatures
- Sensor cable and unit redundancy via Loop-Back or Rerouted Data Transmission (LISTEC LB- / RDT-function)
- Alarm triggering via differential and maximum temperature evaluation
- Up to 254 programmable individual zones with alarm and fault status signalling to superordinate systems via up to 16 relay modules with 16 relay contacts each
- High temperature resolution of 0.1 °C with a repeatability of ±0.1 K along the entire sensor cable length
- Free from false alarms, caused by natural ambient temperature fluctuations, due to intelligent evaluation algorithms
- Alarm and fault indications via LEDs and LC-Display plain text messages in several languages
- Signalling of alarm and fault status to superordinate systems via galvanically isolated relay contacts and/or data-interfaces with open data-protocols
- Highly durable via utilisation of maintenance-free components in a modular configuration, RoHS compliant
- Very low energy consumption
- Flexible communication
- SEC 20 Sensor cable allows multiple branches
- Verified and approved to EN 54-22 by VdS Schadenverhütung, VdS no. G 213072, response classes A1N, A2N and BN Meets requirements of environmental classification III
- Web-Interface in 8 languages configurable (Dutch, English, French, German, Italian, Polish, Spanish, Swedish)
- Individual password-protected access levels for operators, maintenance and service personnel, as well as for commissioning

FRONT PANEL DISPLAYS

- Operation: **LED green**
- Measuring cycle: **LED blue**
- Data transmission: **LED orange**
- Fire alarm **SEC-A / SEC-B**: **LED, each red**
- Fault **SEC-A / SEC-B**: **LED, each orange**
- **LC-Display**: Plain text messages and menu navigation

```
Designation
T: tt.t D:tt.t
dd.mm.yy hh:mm
```

```
rnn Measuring
Umm Znnn S0000
dd.mm.yy hh:mm
```

```
rnn T-heating
Umm Znnn S0000
dd.mm.yy hh:mm
```

```
rnn Fire alarm
Umm Znnn S0000
dd.mm.yy hh:mm
```

```
RDT: Start
dd.mm.yy hh:mm
```

FRONT PANEL OPERATION

- 5 button membrane keyboard for menu navigation, data and function input

SYSTEM SPECIFICATIONS

- Measuring resolution: 0,1 °C
- Repeatability: $\pm 0,1$ K
- Sensor quantity: Min. 10 / max. 500 (320 approved by VdS Schadenverhütung according to EN 54-22)
- Sensor cable length: Up to 3.200 m SEC 20 (max. 3.500 m including CC 20 connection cable) For shorter sensor cable lengths the CC 20 connection cable may have a maximum length of 1.500m on both of the cable ports SEC1 and SEC2 (loop), at a total maximum length of 3.500 m

CONNECTIONS AND INTERFACES

- SEC1 / SEC2: SEC-A / SEC-B sensor cable connections (SEC2 only with Loop-Back or RDT systems)
- CONTROL I/O: RS485 data-interface to optional relay modules, as well as in/outputs (external reset, general relays for pre-alarm, alarm, fault, frost-alarm)
- 24 V DC: Power supply
- COM1: RS485 data-interface for LIST master/slave or RDT-communication in a LIST network
- COM2: RS232 Service-interface for LISTEC GmbH only
- COM3: RS232 data-interface for unit parametrisation (Service-interface up to 115200 kb/s)
- LAN: Ethernet network-interface with 100Mb/s for LIST RDT-communication, as well as commissioning and maintenance via standard browsers
- USB-Host: To retrieve maintenance files and optionally saved alarm temperature data, as well as to transfer unit configurations and perform software updates

SUPPORTED SOFTWARE-PROTOCOLS

- MODBUS (RTU) via serial interface COM2
- 3964R (Siemens) via serial interface COM2
- UGM 2005/2020 (Bosch) via serial interface COM2
- EDP (Esser data protocol) via serial interface COM2
- UGM 2040 (Bosch) via LAN interface
- MODBUS TCP via LAN interface
- IEC 60870-5-104 via LAN interface

GENERAL DATA

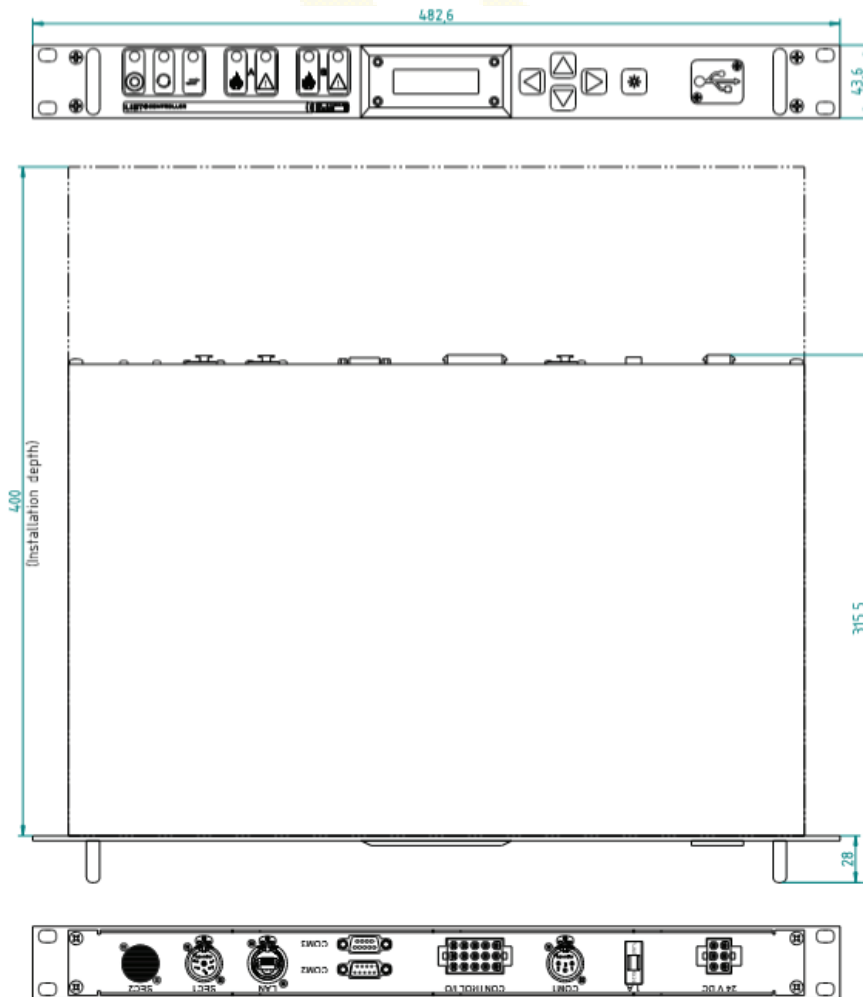
- Operating temperature: -5 °C ... +70 °C, (-25 °C feasible with the exception of an illegible LC-Display)
- Dimensions: 482,6 x 43,6 x 315,5 mm (w x h x d), resembling a 19" - 1 U case, 400 mm depth to be considered with connection cables attached
- Case material: Aluminium
- Weight: 2,6 kg
- Power supply: 9,5 V ... 36 V DC
- Current draw: Typ. 175 mA (Normal) / 212 mA (Alarm), at 24 V DC
- Power consumption: Max. 5 W
- Relay output: 1 Relay each for alarm, pre-alarm and frost-alarm 1 Relay for fault (= active without power)
- Switching Voltage: 48 V DC / 32 V AC max.

- Switching current: 250 mA max. (resistive load)
- Input: 1 x external reset (5 V ... 36 V DC)
- Storage conditions: 0 °C ... +60 °C, relative humidity 30% ... 70% non-condensing, protected from shock, vibration, dust, ESD and UV-light

SCOPE OF DELIVERY

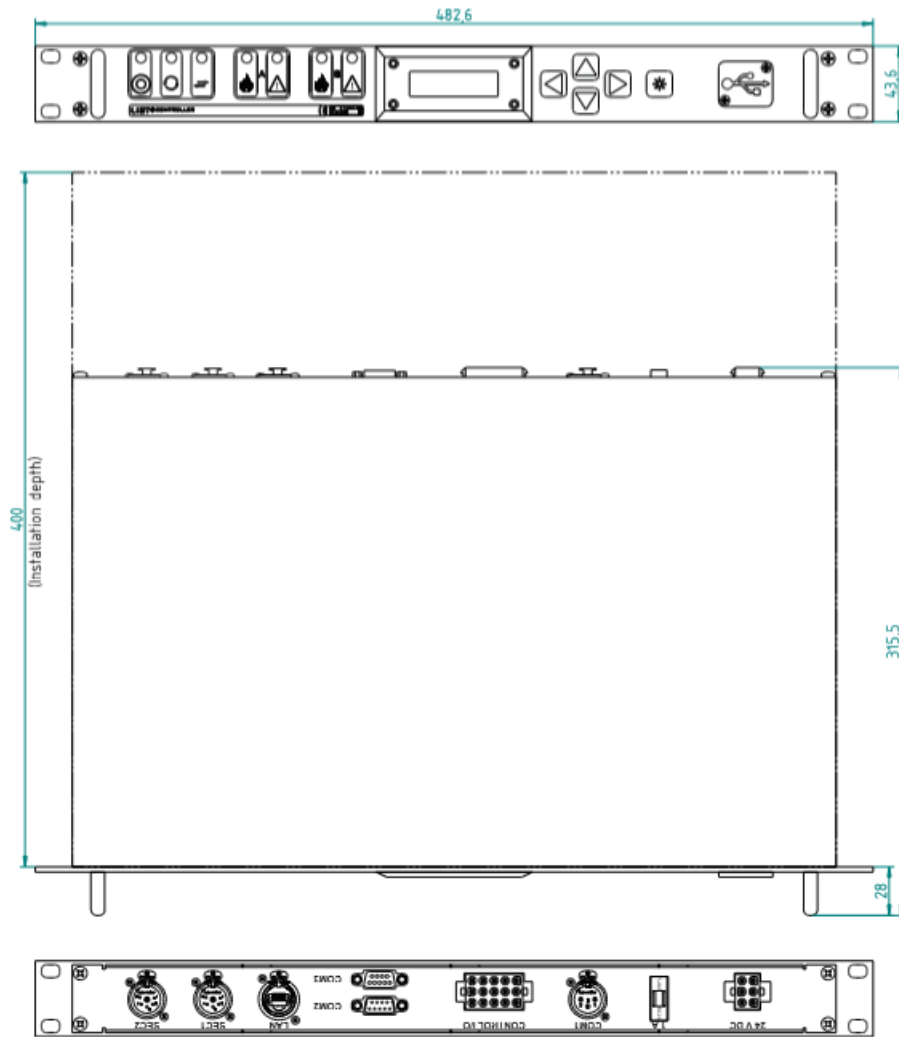
- LISTcontroller
- Pre-assembled 3 m connection cable lengths for sensor cable, Control I/O, COM1 and power supply
- LISTmemory USB flash drive

DIMENSIONS LISTCONTROLLER SEC



Width: 482,6 corresponding to 19"
Height: 43,6 corresponding to 1 U

DIMENSIONS LISTCONTROLLER LB



Width: 482,6 corresponding to 19"
Height: 43,6 corresponding to 1 U

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