

LISTcontroller SEC and LB



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
- ◆ 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	nnn Measuring Umm Znnn S0000 dd.mm.yy hh:mm	nnn T-heating Umm Znnn S0000 dd.mm.yy hh:mm	nnn Fire alarm Umm Znnn S0000 dd.mm.yy hh:mm	RDT: Start dd.mm.yy hh:mm
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Front Panel Operation

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

System Specifications

- ◆ Measuring resolution: 0,1 °C
- ◆ Repeatability: ± 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

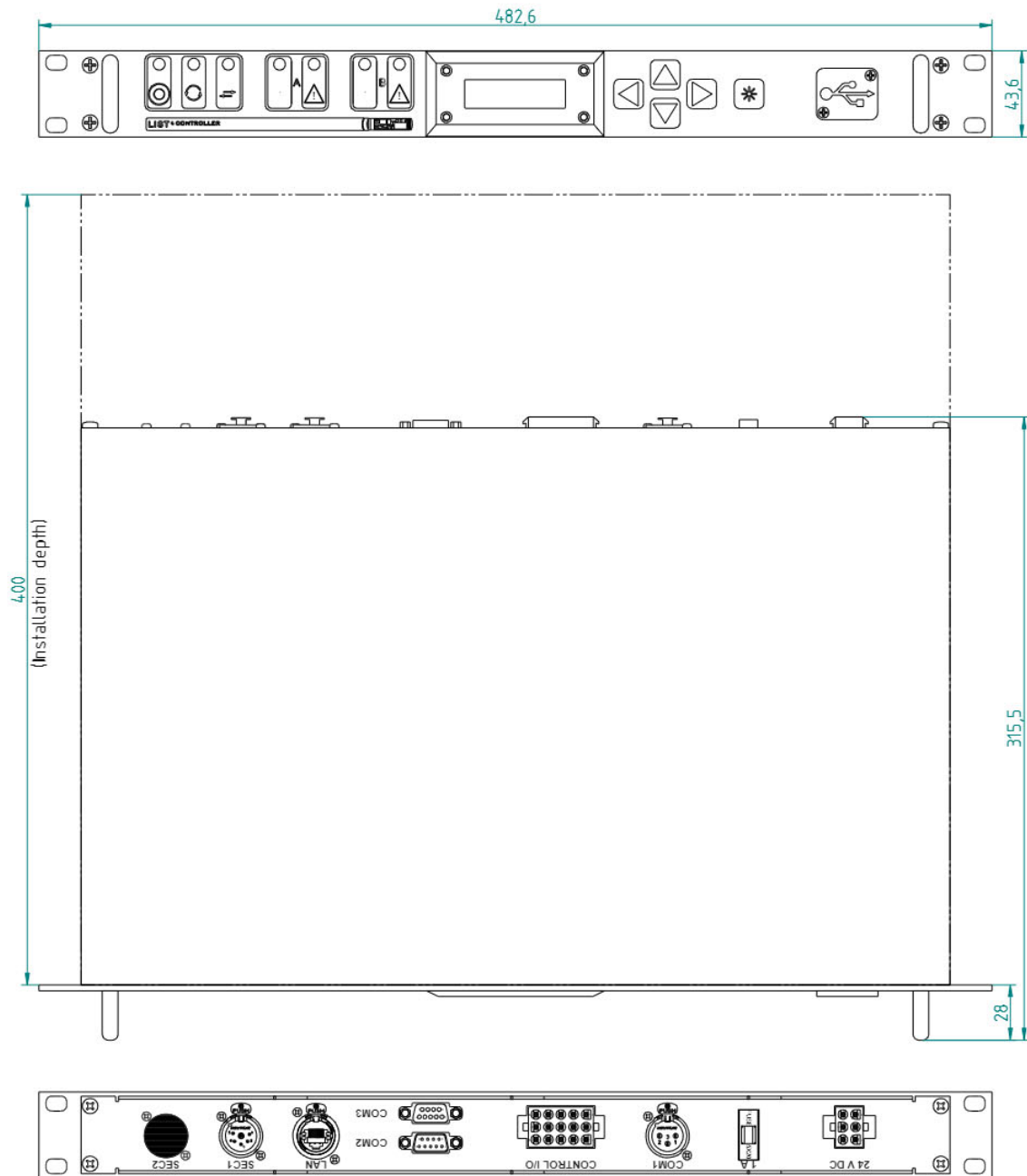
Ordering Information

◆ LISTcontroller SEC (Unit with one sensor cable connection)	Art.-no.: G00354
◆ LISTcontroller LB (Unit with two sensor cable connections for Loop-Back or RDT-mode)	Art.-no.: G00355
◆ RDT-function for LISTcontroller LB	Art.-no.: M00306
◆ I/P Interface and Protocol for LISTcontroller (via RS232 with MODBUS (RTU), via Ethernet with MODBUS TCP, one license per system)	Art.-no.: M00314
◆ I/P Interface and Protocol for LISTcontroller (via RS232 with protocol 3964R, one license per system)	Art.-no.: M00541
◆ LISTcontroller I/P IEC 60870-5-104 (via Ethernet with protocol IEC 60870-5-104, one license per system)	Art.-no.: M00454

Scope of Delivery

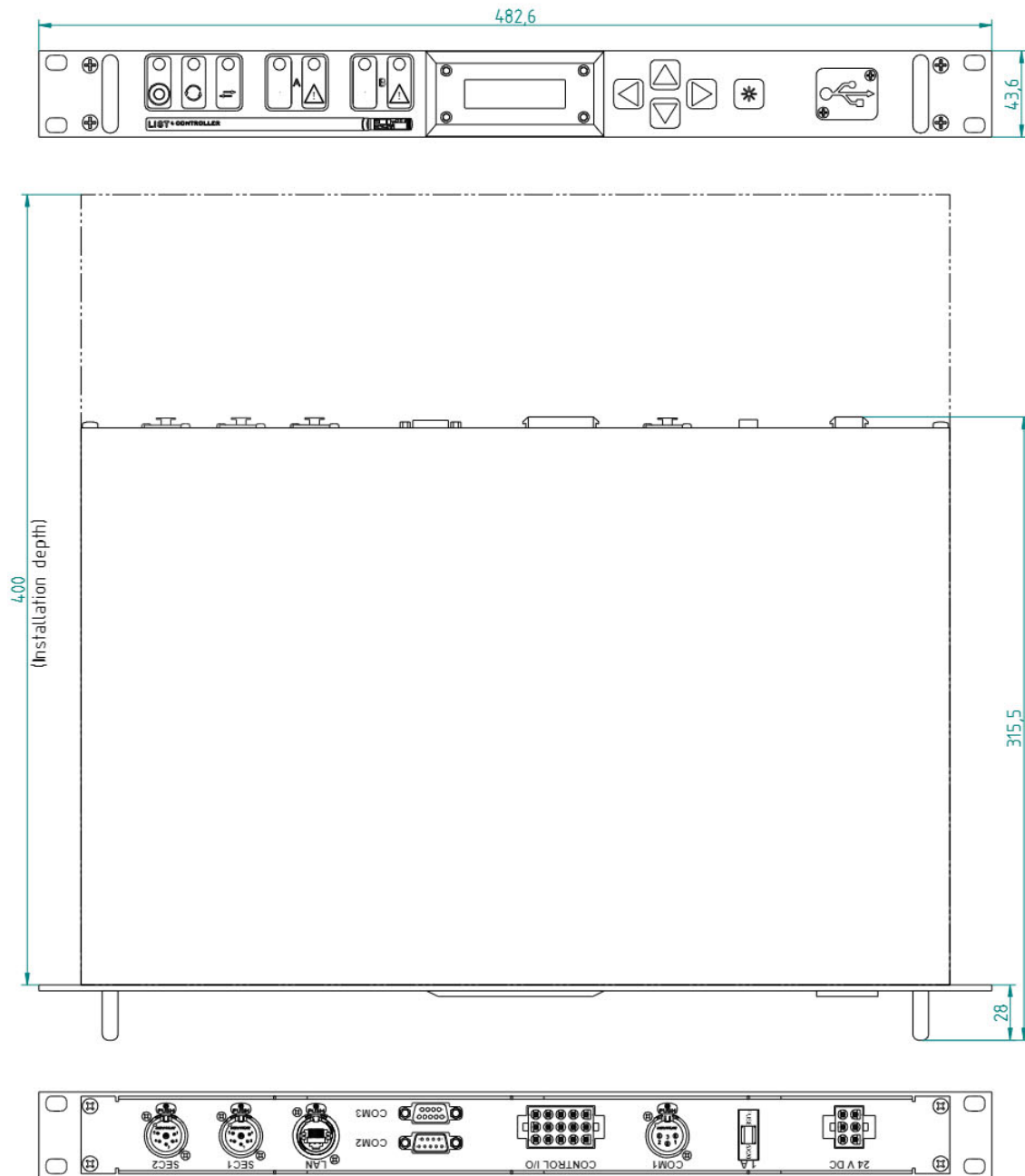
- ◆ LISTcontroller
- ◆ Pre-assembled 3 m connection cable lengths for sensor cable, Control I/O, COM1 and power supply
- ◆ LISTmemory **USB** flash drive

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

ISTEC GmbH
Am Sandberg 34
D - 84424 Isen
Germany

Tel.: +49 (0) 8083 5385-0
Fax.: +49 (0) 8083 5385-20
e-mail: info@listec-gmbh.de
www.listec-gmbh.de

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