
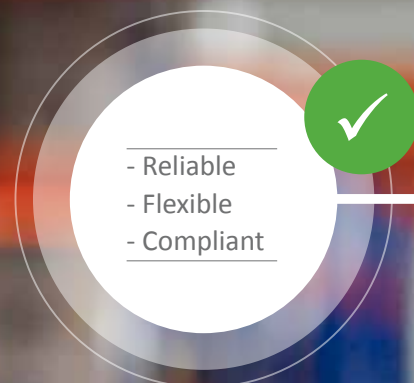


- 
- 
- Reliable
 - Flexible
 - Compliant



The Central Monitoring System

we prove it.



The Central Monitoring System

A networked LAN wired or wireless sensor system

Reliable

There are several attributes that reinforce the high level of quality and reliability of the ELPRO system. ELPRO has been a datalogging company for over 25 years and develops products to the highest Swiss engineering standards. But, the most important testimonials are from our customers who rely on ELPRO for around-the-clock operation and a high level of data security. With thousands of customers globally, many of our customers are located in rural areas and must have a system that does not require constant technical intervention. If the ELPRO system didn't meet their compliance and reliability requirements, it wouldn't work for our customers!

Flexible

Every new installation presents its own challenges and no two needs are alike. The ELPRO system is designed to monitor small, medium and large installations and everything in between. How does this work? Think of ELPRO as decentralized. Locating data loggers in complex facility layouts is easy because each data logger communicates with your existing LAN network. Since the ELPRO system doesn't have one central location, this allows you to reduce the amount of hardware and wiring and have a more flexible system design. Whether you're adding 1 or 1'000 monitoring points, the ELPRO system adapts to your changing and future needs. Our software is flexible as well. Because system set-up is sensor based, you can assign descriptive names to sensors and send alarm notification to individual e-mail addresses. Additionally, the modular design gives you the tools for internet viewing, username / password access, full audit trail and auto-reporting.

Compliant

Meeting regulatory requirements is important, but how you meet them is critical. Should your regulatory compliances require a full audit trail and username / password access, these software components can help you develop audit-ready reports. As part of our turnkey service, ELPRO provides data logger IQ/OQ at installation. Our software IQ/OQ handbooks are designed as a documentation guide. Each customer owns their data, so there is no fire-wall penetration or reliance on a third party. Your ELPRO system is easy to understand, extremely reliable and complies with FDA 21 CFR Part 11, GLP, GMP, and GAMP 5 requirements.

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Measurement, Data Storage, Reporting, Alarms

Critical components in a redundant system

Regardless of regulatory requirement, redundancy is one of the most important attributes in choosing a central monitoring system. A redundant system means there is a built-in backup plan for monitoring and alarm. For example, if the network connection fails, there are multiple levels of alarms for notification and data is stored on the data logger as well as in historical archive files.



Measurement

- Real-time monitoring
- Values displayed locally on the data logger, on the monitoring PC, and can be accessed via any internet browser
- Precise and reliable measurement using accurate RTD sensors
- Monitoring parameters: temperature, relative humidity, pressure, differential pressure, particles, CO₂ or nearly any 4 mA..20 mA signal



Data Storage

- Automated data download and archive
- Data storage in multiple locations including data logger memory and in a historical archive
- In the event of a power outage or network failure, monitoring and local alarm continue and data is stored on the data logger



Reporting

- Practical tools for compiling audit-ready reports showing data, graphical notations, alarms and full event/action audit trail
- Automatically send reports to user-defined e-mail addresses
- Sensor-specific reports



Alarms

- Automated alarm notification via e-mail, SMS and /or phone
- Hardware: audible/visual alarm built in to each data logger
- Software: audible/visual alarm at monitoring PC
- Visual alarm from any web browser with Web Access module
- Possible connection to an in-house alarm system or external alarm beacon



Chemical, pharmaceutical and food industries, or HVAC

With a wide and varied range of applications, the ELPRO Central Monitoring System is in use wherever temperature, relative humidity, or other parameters are critical to controlled environments. The ELPRO system monitors data securely while improving processes to save time.



Saving time and money with ...

- ... fully automated, periodical data logger readout.
- ... real-time display on any PC in your network.
- ... simple and seamless integration into your existing LAN networks.
- ... easy expansion of existing systems with additional sensors and data loggers.
- ... easy servicing.



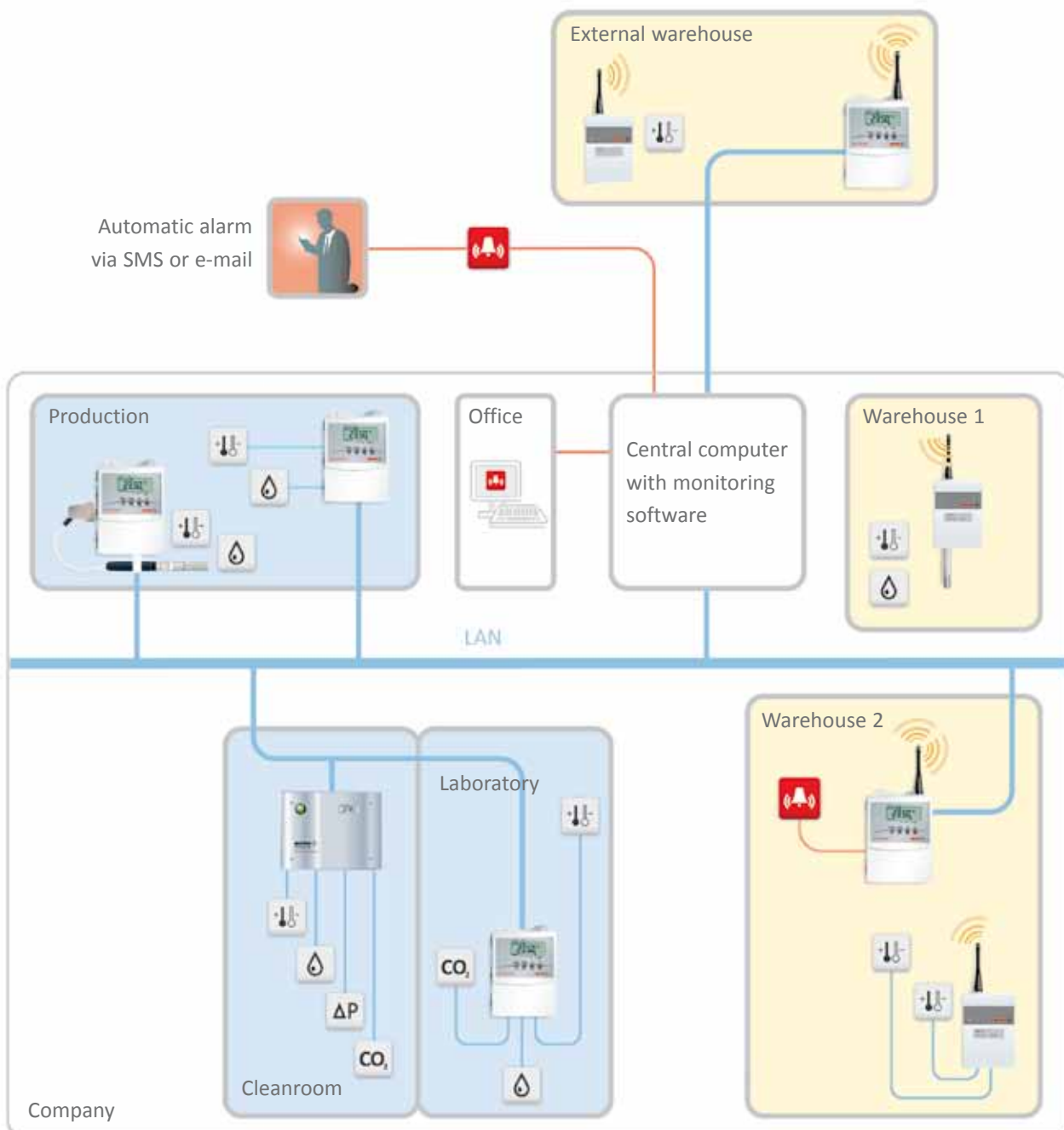
Achieve security with ...

- ... fully automated surveillance and alarm functions.
- ... compliant to GMP, GLP, GAMP 5, FDA 21 CFR Part 11, Annex 11 and HACCP.
- ... robust, reliable instruments with dependable measuring technology.
- ... professional maintenance and calibration services, customized to your requirements.

The ELPRO Central Monitoring System

Simple and compliant system design

The ELPRO Central Monitoring System collects and stores data reliably and safely, making it available on your existing LAN network. The system is comprised of multifunctional components – sensors, data loggers and monitoring software. Accurate sensors measure values while data loggers record data and automatically trigger alarms. The alarms are forwarded through the LAN network to the monitoring software. The corresponding monitoring software saves and documents the data, which can then be accessed from all PCs in the network.



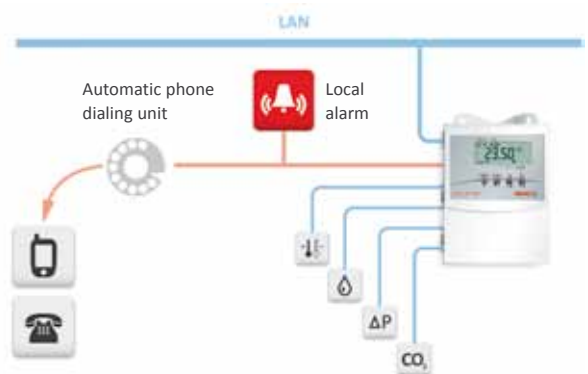
Multiple alarm options increase security

Data is continuously collected and transmitted through the LAN network, ensuring a constant flow of information. Because the alarm functions at multiple levels (locally, centrally and independently), this allows for flexible configuration and enhances overall security. Since the alarm functions without software, local alarm can still function without network connections. Additionally, the alarm capability can be customized depending on application and system needs.

Alarm functions

Level 1: Local alarm directly on the data logger

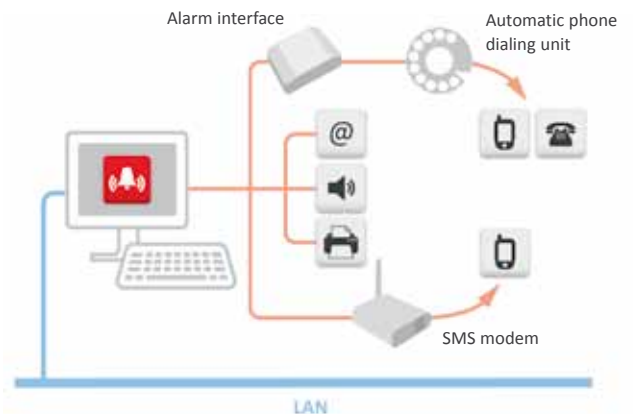
Each ECOLOG-NET data logger has a local audible/visual alarm and can be connected directly to external devices such as alarm beacons or telephone dialers. There is no software required for this alarm functionality.



Level 2: Central alarms

The elproLOG MONITOR software offers multiple alarm forwarding options:

- By e-mail or SMS (with SMS modem)
- By phone (with alarm interface and automatic telephone dialing unit)
- By external alarm systems (with alarm interface)



Safety with self-monitoring

The entire system also has a self-monitoring feature for maximum safety. The alarm interface connected by USB to the monitoring PC continuously checks the monitoring functions and triggers alarm notification.





ECOLOG-NET network data loggers

Hardware design and communication

The ECOLOG-NET data loggers can function independently or in a networked environment. The importance is two-fold. For some applications, a LAN network is either not available or not necessary. In this situation, the ECOLOG-NET is still fully functional and data can be downloaded via USB. Secondly, if the network fails, the data logger continues to monitor and save data. The network-compatible system is easy to integrate by simply plugging in to your existing LAN network. This allows for simplified work flows and quality monitoring processes, ranging from real-time display to fully automated data download.



Perfect and seamless integration







The ECOLOG-NET data loggers have a LAN interface to make the integration of your network instruments as easy as possible. The units can also be adapted with optional PoE (Power over Ethernet) modules, so that the power can be supplied directly from the network cable; thus, the need for additional power outlets is eliminated.

ECOLOG-NET LP4





ECOLOG-NET LH2



Typical applications	   	 
Number of channels	4	4
Measured variables	Temperature	Temperature, relative humidity
Measuring principle probes	PT100	T: Resistance measurement (NTC) %RH: capacitive Sensors exchangeable
Accuracy	$\pm 0.3\text{ }^{\circ}\text{C}$: $-200.0\text{ }^{\circ}\text{C}..-100.0\text{ }^{\circ}\text{C}$ $\pm 0.2\text{ }^{\circ}\text{C}$: $-99.9\text{ }^{\circ}\text{C}..+400.0\text{ }^{\circ}\text{C}$ $\pm 0.3\text{ }^{\circ}\text{C}$: $+400.1\text{ }^{\circ}\text{C}..+500.0\text{ }^{\circ}\text{C}$ $\pm 0.5\text{ }^{\circ}\text{C}$: $+500.1\text{ }^{\circ}\text{C}..+600.0\text{ }^{\circ}\text{C}$	$\pm 0.4\text{ }^{\circ}\text{C}$: $-50.0\text{ }^{\circ}\text{C}..-25.0\text{ }^{\circ}\text{C}$ and $+70.1\text{ }^{\circ}\text{C}..+100.0\text{ }^{\circ}\text{C}$ $\pm 0.3\text{ }^{\circ}\text{C}$: $-24.9\text{ }^{\circ}\text{C}..-0.0\text{ }^{\circ}\text{C}$ and $+30.1\text{ }^{\circ}\text{C}..+70.0\text{ }^{\circ}\text{C}$ $\pm 0.2\text{ }^{\circ}\text{C}$: $0.1\text{ }^{\circ}\text{C}..+30.0\text{ }^{\circ}\text{C}$ $\pm 0.7\text{ }^{\circ}\text{C}$: $+100.1\text{ }^{\circ}\text{C}..+140.0\text{ }^{\circ}\text{C}$ Humidity: $\pm 1.5\text{ \%RH}$ at $23\text{ }^{\circ}\text{C}$
Operating range	$-35\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$	$-35\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$
Measurement range	$-200\text{ }^{\circ}\text{C}..+600\text{ }^{\circ}\text{C}$	$-35\text{ }^{\circ}\text{C}..+110\text{ }^{\circ}\text{C}$; $0\text{ \%RH}..100\text{ \%RH}$
Measurement intervals	4 s..3 h	1 s..3 h
Data security	Integrated backup battery for uninterrupted monitoring during power failures.	Integrated backup battery for uninterrupted monitoring during power failures.
Connectivity	USB, LAN	USB, LAN
Memory capacity	64'000 datapoints	64'000 datapoints
Display	Large LCD for logged data and alarm information	Large LCD for logged data and alarm information
Varied alarm options	<ul style="list-style-type: none"> - Via the network (with elproLOG MONITOR) - Locally via integrated alarm contacts or alarm buzzer - Alarms shown on display 	<ul style="list-style-type: none"> - Via the network (with elproLOG MONITOR) - Locally via integrated alarm contacts or alarm buzzer - Alarms shown on display
Digital inputs	2	2
Power supply	10..30 VDC	10..30 VDC
IP protection class	IP30	IP30
Robust metal housing	✓	✓
Calibration certificate	✓	✓
Article no. product designation	2701 ECOLOG-NET LP4	2706 ECOLOG-NET LH2 with 3087 T / RH combined probe

Data loggers with 4 mA..20 mA capability

The ECOLOG-NET family of data loggers is designed to accommodate unique applications such as high rack warehouses and cleanrooms. The LA8 and LR8 model data loggers integrate most transmitters with a standard 4 mA..20 mA output. The wireless transmitters make retrofitting simple and avoid complex wiring installation.

	<div>ECOLOG-NET LA8</div> <div></div>	<div>ECOLOG-NET LA8F</div> <div></div> <div>Cleanroom compatible design: Front panel made of stainless steel and integrated display</div>
Typical applications	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
Number of channels	8	
Measured variables	Temperature, rel. humidity, CO ₂ , differential pressure and other 4 mA..20 mA standard transmitter signals	
Measuring principle probes	4 mA..20 mA analog inputs	
Accuracy	±0.04 mA	
Operating range	-40 °C..+55 °C	
Measurement range	3.6 mA..20.4 mA	
Measurement intervals	4 s..3 h	
Data security	Integrated backup battery to ensure that data is safe even in the event of power failures. (UPS sensor supply backup is required for uninterrupted logging in the event of a power failure).	
Connectivity	USB, LAN	
Memory capacity	64'000 datapoints	
Display	Large LCD for logged data and alarm information	
Varied alarm options	<div>- Via the network (with elproLOG MONITOR)</div> <div>- Locally via integrated alarm contacts or integrated alarm buzzer</div> <div>- Alarms shown on display</div>	
Digital inputs	2	
Power supply	10..30 VDC	
IP protection class	IP30	
Robust metal housing	✓	
Calibration certificate	✓	
Article no. product designation	2720 ECOLOG-NET LA8 2720-CR ECOLOG-NET LA8F	

Typical network data logger applications


- Warehouses & room climate monitoring
- Incubators
- Cleanrooms
- Ultra-low freezers | LN2 storage
- Refrigerators and freezers

Wireless and system integrated data communication

The ECOLOG-NET wireless sensor system is comprised of the LR8 data logger and application-based transmitters. The ELPRO wireless system does not require repeaters to increase transmission signal. This results in a lower number batteries, more reliable data and easier system validation. Our system also operates with no data buffers and without using mesh network. Since data is transmitted directly from each sensor to the base station, you can be assured the wireless system provides uninterrupted access to your important measurement data.

ECOLOG-NET LR8



Number of channels	8 
Frequency range	- EU: 433 MHz 868 MHz, configurable - US: 915 MHz
Range	- Open field: more than 5'000 m - Inside buildings: approx. 40-80 m (depending on structural conditions)
Operating temperature	-30 °C..+55 °C
Measurement intervals	1 min..3 h
Connectivity	USB, LAN
Memory capacity	64'000 data points (non-volatile)
Data security	Integrated back-up battery for reliable data storage during power failures. (A UPS backup system is required for uninterrupted logging in the event of a power failure.)
Display	Large LCD for logged data and alarm information
Varied alarm options	- Via the network (with elproLOG MONITOR) - Locally via integrated alarm contacts or alarm buzzer - Alarms shown on display
Power supply	10..30 VDC
Digital inputs	2
IP protection class	IP30
Test certificate	✓
Article no.* Product designation	2717-EU, 2717-US ECOLOG-NET LR8

Wireless sensors













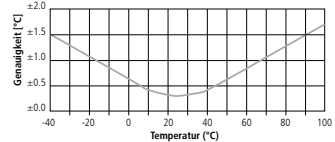
RT1i



Typical applications	
Probe	1 internal, temperature
Accuracy	±0.4 °C: -10.0 °C..+25.0 °C ±0.65 °C: -30.0 °C..-10.1 °C ± 0.65 °C: +25.1 °C..+55.0 °C
Measurement range	-30 °C..+55 °C
Measurement principle	PT100
IP protection class	IP54
Operating temperatures	-30 °C..+55 °C, non-condensing
Power supply	3 x lithium 3.6 V
Battery life	up to 5 years (depending on measurement interval) Monitoring of the sensor battery status
Frequencies	- EU: 433 MHz 868 MHz, configurable - US: 915 MHz
Test certificate	✓
Bracket	✓
Article no.* Product designation	3456-EU, 3456-US RT1i






Wireless sensors for a wide range of applications

In conjunction with the LR8 wireless data logger, the wireless sensor system accommodates temperature, temperature / humidity, and 4 mA..20 mA sensors. ELPRO's radio technology can achieve distances of 40-80 m indoors (depending on structural conditions) and more than 5'000 m in the open field.

Wireless sensors	RT1e RT2e	RTH1i RTH1e	RA2e
			
Typical applications	   		   
Probe	RT1e: 1 external, temperature RT2e: 2 external, temperature	Combined temperature and humidity probe	Wireless sensor for 2 x 4 mA..20 mA signals
Accuracy	$\pm 0.3\text{ }^{\circ}\text{C}$: $-10.0\text{ }^{\circ}\text{C}..+25.0\text{ }^{\circ}\text{C}$ $\pm 0.5\text{ }^{\circ}\text{C}$: $-200.0\text{ }^{\circ}\text{C}..-10.1\text{ }^{\circ}\text{C}$ $+25.1\text{ }^{\circ}\text{C}..+200.0\text{ }^{\circ}\text{C}$ System accuracy with PT100 DIN A probe: $\pm 0.4\text{ }^{\circ}\text{C}$ ($-10\text{ }^{\circ}\text{C}..+25\text{ }^{\circ}\text{C}$)	Temperature:  Humidity (at 23°C): $\pm 1.8\text{ \%}$ 10 %RH..90 %RH $\pm 4\text{ \%}$: <10 %RH, >90 %RH	$\pm 0.04\text{ mA}$
Measurement range	$-200\text{ }^{\circ}\text{C}..+200\text{ }^{\circ}\text{C}$	$-30\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$; 0 %RH..100 %RH	3.6 mA..20.4 mA
Measurement principle	PT100	Combined, integrated T RH measurement	4 mA..20 mA analog inputs
IP protection class	IP54	IP50	IP54
Operating temperatures	$-30\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$, non-condensing	$-30\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$, non-condensing	$-30\text{ }^{\circ}\text{C}..+55\text{ }^{\circ}\text{C}$, non-condensing
Power supply	3 x lithium 3.6 V	3 x lithium 3.6 V	10-30 VDC
Battery life	up to 5 years (depending on measurement interval) Monitoring of the sensor battery status	up to 5 years (depending on measurement interval) Monitoring of the sensor battery status	— (External power supply)
Frequencies	- EU: 433 MHz 868 MHz, configurable - US: 915 MHz	- EU: 433 MHz 868 MHz, configurable - US: 915 MHz	- EU: 433 MHz 868 MHz, configurable - US: 915 MHz
Test certificate	✓	✓	✓
Bracket	✓	✓	✓
Article no.* Product designation	3452-EU, 3452-US RT1e 3454-EU, 3454-US RT2e	3450-EU, 3450-US RTH1i 3458-EU, 3458-US RTH1e	3448-EU, 3448-US RA2e

* EU: 433 MHz | 868 MHz; US: 915 MHz

Typical network data logger applications

-  Warehouses & room climate monitoring
-  Ultra-low freezers | LN2 storage
-  Incubators
-  Refrigerators and freezers
-  Cleanrooms



The elproLOG Software

Practical tools for system configuration, monitoring, analysis and user control

The ELPRO Central Monitoring System software is the result of many years of GMP-compliant software development. Our developments are focused on you as our customer, and how we can make working with data as easy and efficient as possible.

The ELPRO software is modular. You can choose the modules according to your needs and regulatory requirements. The modules are combined to create the elproLOG SUITE software package – your solution for safe monitoring in compliance with FDA 21 CFR Part 11, including detailed qualification documentation.

- Assign clear text names to sensors and data loggers
- Warning level notifications before critical excursions are reached
- Sensor scheduler to avoid nuisance alarms during routine maintenance
- E-mail warning / alarm notification includes details of sensor, measured value and alarm type
- Automated data download and archive
- Data analysis and graphical notations
- Automated reporting
- Full username / password control with customized access rights
- Full event / action audit trail
- View status from any web browser on a custom floor plan or layout
- Detailed handbooks for IQ/OQ

elproLOG ANALYZE QLS



elproLOG ANALYZE QLS – data evaluation

The elproLOG ANALYZE QLS provides all functions you need for data analysis, documentation and configuration of your data logger. The software is supplied in five languages and is used in thousands of locations worldwide.

Data analysis

elproLOG ANALYZE QLS offers a multitude of functions for data analysis:

- Clearly structured graphs and tables
- Multiple zoom functions
- Statistical data: min/max, mean value, standard deviation, variance
- Dew point calculation
- Histogram representation
- Superimposed functions
- MKT (Mean Kinetic Temperature), Arrhenius calculation

Documentation

Create comprehensive reports directly from elproLOG ANALYZE QLS:

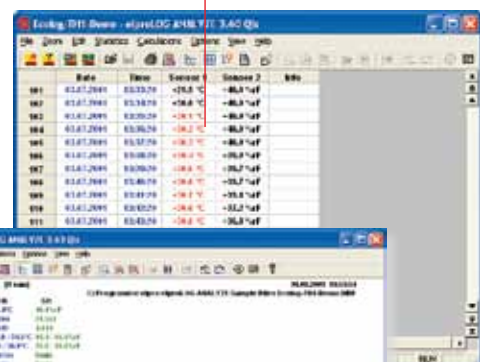
- Tools for commenting and marking data
- Complete reports in PDF format directly from elproLOG
- Save selected data ranges
- Data and graph export function (Excel format)
- E-mail: Send data files to recipient via e-mail
- Hardcopy of all screens with print preview
- Status printout with information about data logger
- Own company logo on all documents
- Audit trail integrated into the raw data

Report with logo, graphics, marking points and statistics



Reporting: Inclusion of reports and comments for the logged data

Tabular display with colored text to highlight measured values outside alarm limits.



Graphic display with configured alarm limits as well as statistic functions such as min/max, standard deviation etc.

Marking points to identify important occurrences

elproLOG MONITOR

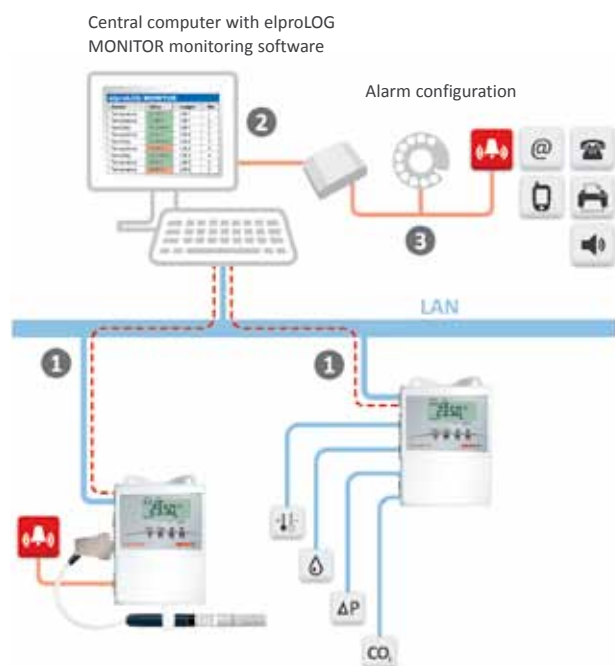


Real-time data monitoring

elproLOG MONITOR enables you to monitor all measured values in your data logger network in real time. The measured data are clearly displayed to ensure that you are fully informed of current production or storage conditions at all times.

Functionality

- ① Readings and alarms are communicated in real time through the LAN network. Within elproLOG MONITOR, all this data is collected and processed.
- ② elproLOG MONITOR displays all current measured data.
- ③ In the event of limit violations or network errors, elproLOG MONITOR automatically sends alarms via e-mail or phone.



Functions

- Real-time display of readings and alarms
- Alarm and warning notification support
- Audible and visual alarm functionality on local computer
- Forwarding of alarms and warnings:
 - by e-mail
 - via external alarm systems (with alarm interface)
 - by phone (with alarm interface and automatic dialling device)
 - by SMS (with SMS modem)
- Alarm acknowledgement option
- Automatic, periodical download of data logger data (Autosave)
- Self-monitoring for highest system security (Watchdog) together with alarm interface
- Audit trail of all events and actions
- Support of compliance with FDA 21 CFR Part 11, GMP, GLP, GAMP 5 and Annex 11
- Comprehensive documentation for IQ/OQ

Alarm conditions such as alarm limit violations are displayed in red

Warnings (warning limit violations) are displayed in orange

Sensor and network errors are displayed in yellow

Deactivated inputs are grey (i.e. equipment maintenance)

Sensor Name	Sensor Value	Sensor Unit
ULT Presizer 1 Laboratory A21	-25.2	°C
ULT Presizer 2 Laboratory A21	-19.8	°C
ULT Presizer 3 Laboratory A21	-26.8	°C
ULT Presizer 4 Laboratory A21	-50.2	°C
Differential Pressure Production Room 1	18.5	Pa
Differential Pressure Production Room 2	Null	Pa
Differential Pressure Production Room 3	22.4	Pa
Differential Pressure Production Room 4	20.8	Pa
Rel. Humidity GMP Storage Floor B	38.5	%
Ambient Temperature GMP Storage Floor B	22.2	°C
Probe 1 GMP Storage Floor B	4.5	°C

elproLOG MONITOR-WebAccess



Your Central Monitoring System at your fingertips – wherever you are

What if you could view the environmental monitoring status of your facility from anywhere in the world? See all your Central Monitoring System data at a glance – from your office, before entering the cleanroom or on the go. No need for special software either: you access it via your web browser.

Here's how we can help:

elproLOG MONITOR-WebAccess offers a simple and efficient way to create your own individual «information cockpit» for your Central Monitoring System. You can see one or several systems in parallel, with various reporting options and flexible design features. elproLOG MONITOR-WebAccess is available as on-site software or as a «cloud-based» online service.

How it works:

- Secure access to your information – from any internet browser (PC, Tablet PC, smartphone, etc.)
- Real-time data display of sensor values, warnings and alarms
- elproLOG MONITOR-WebAccess user interface
- Facility floor plans and photos used for data display
- Trend display
- No additional software installation required on client PC

Your benefits:

- See your key monitoring data – at a glance, instantly and from anywhere
 - for management or QA: log into the system from any computer
 - for site staff: via monitoring screen
 - or from your smartphone or other mobile device
- No software and no maintenance («cloud-based service»)



... in the office.



... before entering the cleanroom.



... or on the go.

The Highlights of elproLOG MONITOR-WebAccess:

Build your own information cockpit showing data of all your facilities worldwide and get an immediate overview of your facility. To know how your equipment is performing at all times. An automated alarm reporting allows quick analysis.

Design options and feature of elproLOG MONITOR-WebAccess

Total control – create your own information cockpit

- Design your own start screen to summarize the status of one facility or several decentralized facilities with independent Central Monitoring Systems
- Color coding (red = alarm, yellow = alert, green = ok) for an immediate visual overview
- View the site from any screen or device, including smartphones



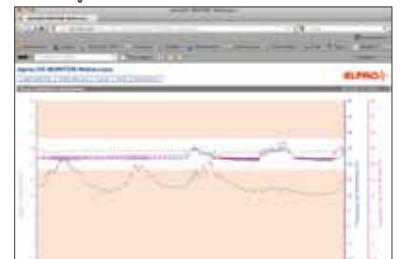
Everything at a glance – quick and instant overview

- Choose any floor plan or picture as background
- Visualize the status of each data logger or probe using different icons or sizes for different measurement parameters and analogue or digital input statuses
- Self-monitoring function based on last value measured means you know at all times if the system is working correctly
- Switch between different views by clicking on pictures (e.g. of the facility) or icons (logger or sensors)



Know what is going on – detailed analysis by probe

- Check the status of each probe with one click
- Everything summarized in one graph:
 - measurement history
 - alarm limits
 - clear labeling of axis
- If more than one probe is summarized in one graph, different colors enable clear distinction of lines



Reporting made easy

- Check what happened earlier by viewing the alarm history
- Compile your own report organized by facility, section or probe type

Facility	Section	Probe	Parameter	Value	Status	Timestamp
Facility 1	Section 1	Probe 1	Temperature	23.5	OK	2023-10-27 10:00:00
Facility 1	Section 1	Probe 2	Humidity	45%	Alert	2023-10-27 09:30:00
Facility 2	Section 2	Probe 3	Pressure	1.2 bar	OK	2023-10-27 08:00:00
Facility 2	Section 2	Probe 4	Flow Rate	150 l/min	Alert	2023-10-27 07:45:00

elproEVENT

Traceability made easy

Ensuring traceability of events and user actions is a key requirement of monitoring systems used in GMP / GLP environments. elproEVENT is the memory of the ELPRO software. It is used to record all operations such as configuration of the data logger or acknowledgement of alarms. The result is an audit trail with which all interventions and actions related to your ELPRO data logger system can be easily and efficiently traced.

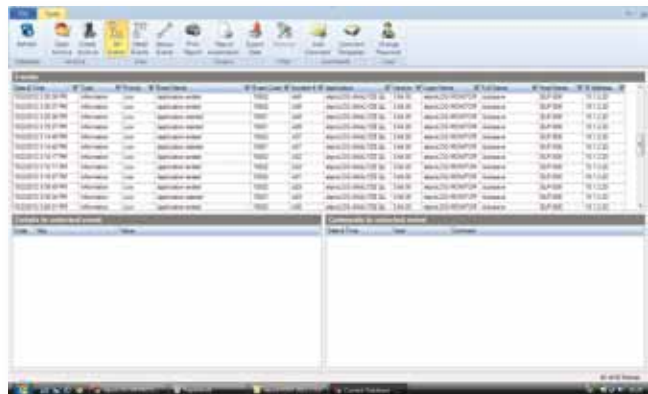
Functions

elproEVENT runs in the background and ensures seamless traceability:

- Central audit trail for all ELPRO software components (elproLOG MONITOR, elproLOG ANALYZE QLS, elproLOG USER, elproLOG CONFIG)
- Every entry in elproEVENT is stored with information about the event, user, date and time
- Data is stored in a tamper-proof database
- Option for adding comments on logged events
- Fully-automatic creation and storage / Communication of alarm and event reports
- elproEVENT supports compliance with FDA 21 CFR Part 11, GMP, GLP, GAMP 5 and Annex 11
- elproEVENT includes comprehensive documentation for IQ/OQ
- Automatic event reporting

Event analysis and reporting

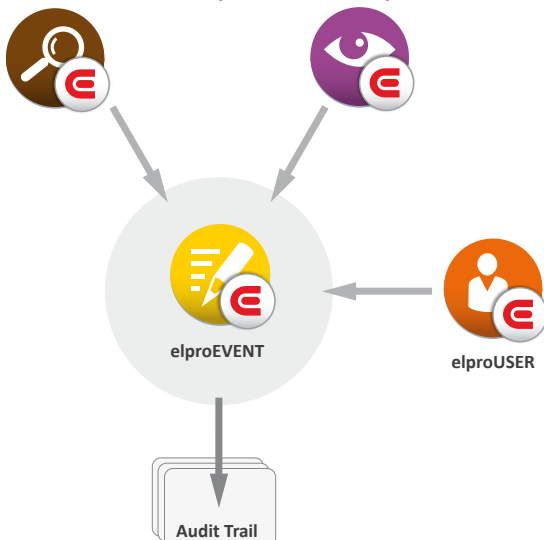
Data recorded by elproEVENT is displayed in a clearly structured table. Data can also be filtered to display only events from a specific time period, activities of a certain user or events for each sensor.



Time	User	Action	Value	Unit	Alarm	Comment
2012-12-12 10:00:00	admin	System start	1000	°C	OK	
2012-12-12 10:01:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:02:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:03:00	admin	Parameter set	1000	°C	OK	
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2012-12-12 10:05:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:06:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:07:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:08:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:09:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:10:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:11:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:12:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:13:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:14:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:15:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:16:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:17:00	admin	Parameter set	1000	°C	OK	
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2012-12-12 10:20:00	admin	Parameter set	1000	°C	OK	
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2012-12-12 10:25:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:26:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:27:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:28:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:29:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:30:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:31:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:32:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:33:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:34:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:35:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:36:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:37:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:38:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:39:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:40:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:41:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:42:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:43:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:44:00	admin	Parameter set	1000	°C	OK	
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2012-12-12 10:52:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:53:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:54:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:55:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:56:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:57:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:58:00	admin	Parameter set	1000	°C	OK	
2012-12-12 10:59:00	admin	Parameter set	1000	°C	OK	
2012-12-12 11:00:00	admin	Parameter set	1000	°C	OK	

The reports can be created automatically and are saved as a PDF file to a defined location. Additionally, these PDF reports can be sent by e-mail.

elproLOG ANALYZE QLS elproLOG Monitor & elproLOG CONFIG



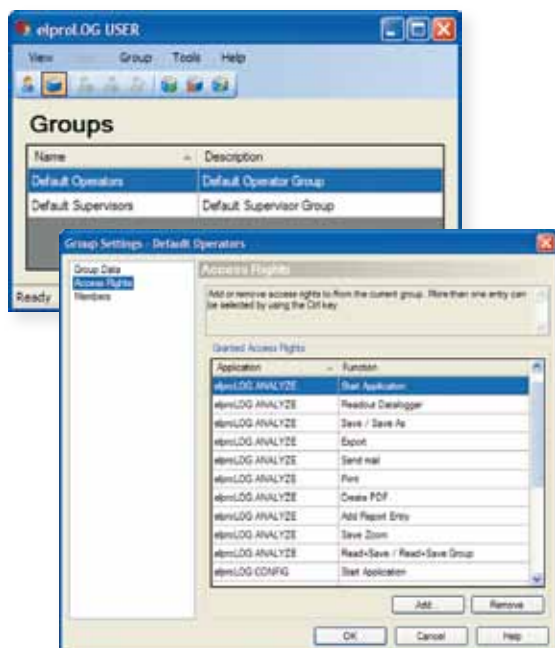
elproLOG USER elproLOG CONFIG

Secure and flexible access control

Create username and password system access with customized access rights. With elproLOG USER, you always have full control over who accesses the system and their authorized access rights.

Functions

- User management for the elproLOG SUITE software system
- Creation of various user groups with customized authorization
- Configurable authorization for each software module
- Provides comprehensive security features for user account management
- elproLOG USER supports compliance with FDA 21 CFR Part 11, GMP, GLP, GAMP 5 and Annex 11
- Includes comprehensive documentation for IQ/OQ

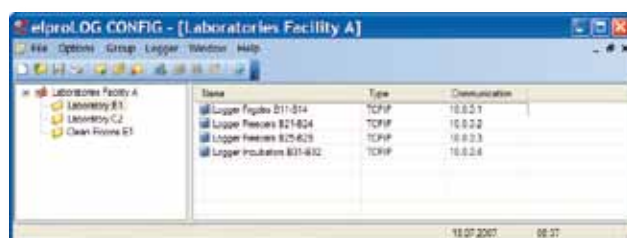


System configuration

elproLOG CONFIG is the utility used to configure your ELPRO data logger network. The software is included in the elproLOG ANALYZE and elproLOG MONITOR software.

Functions

- Configuration and testing of the data logger network
- Assignment of clear text names to sensors and digital inputs
- Set-up of warning levels for every sensor
- Deactivation of sensors and data logger inputs for maintenance purposes
- Scheduler for automatic deactivation of sensors (e.g. for day/night switchover or weekend operation)
- Automatic reports with information on the data logger network structure



elproLOG Suite – functionality

	Complete elproLOG SUITE package (contains all described modules)	Starter package (Analyze QLS, MONITOR)
Data logger operations		
Data logger configuration	✓	✓
Data logger readout	✓	✓
Measured data		
Detailed data analysis	✓	✓
Zoom and marking functions	✓	✓
Data superimposing	✓	✓
Report generation in PDF format	✓	✓
Export of data and charts	✓	✓
MKT, Arrhenius	✓	✓
Statistical calculations	✓	✓
Dewpoint calculation	✓	✓
Archiving: automatic data download from data logger (Autosave)	✓	✓
Clearly structured graphs and tables for offline analysis	✓	✓
Monitoring and alarms		
Clearly structured graphs and tables for real-time analysis	✓	✓
Warning limit support	✓	✓
Audible and visual alarms on local computer	✓	✓
Output of alarms to printer	✓	✓
Alarm forwarding (e-mail, phone)	✓	✓
Self-monitoring with alarm interface (watchdog)	✓	✓
Alarm acknowledgement with commenting function	✓	✓
Data and alarm visualization on the internet	✓	
Data display on facility floor plans	✓	
Security and conformity		
Audit trail for logging events and user actions	✓	
Measuring data with audit trail	✓	✓
Compliance support for FDA 21 CFR Part 11, GMP, GLP, GAMP 5 and Annex 11	✓	✓
Comprehensive documentation for IQ/OQ	✓	
User management	✓	
Configuration		
Configuration and test of data logger network	✓	✓
Assignment of names to sensors and digital inputs	✓	✓
Deactivation of inputs for maintenance purposes	✓	✓
Automatic reporting of data logger network configuration	✓	✓
Data logger sensor deactivation scheduler	✓	✓
Available article no.	3574-WA	3571

ELPRO services & quality

On-site service

Our service technicians provide installation, servicing, maintenance and calibration of the Central Monitoring System at your premises, and are also available for technical support.

Calibration and installation services

To ensure the quality of the measurements, data logging systems should be re-calibrated periodically. ELPRO performs traceable calibrations on all data logging systems. Our offices in Switzerland and the US are officially accredited calibration labs in accordance with ISO 17025.

Seminars and training courses

ELPRO offers user courses every year at which you can improve your knowledge in the fields of environmental monitoring and data logging hard- and software. Qualified trainers competently familiarize you with our products.

Visit www.elpro.com for details.

GMP services: Qualification and & temperature mapping

The ELPRO GMP Services offer a comprehensive service package for a complete qualification of pharmaceutical storage units, including risk assessments and working with you through the complete qualification steps from DQ to PQ, thermal mappings and final report compilation.

Contact us! Become one of the many companies in the pharmaceutical and food industries, research laboratories and hospitals, medical institutes and warehouses relying on ELPRO for environmental monitoring and services.*

*Reference lists available upon request



Integrated regulations & recommendations

GMP, GLP, GAMP 5	Software validation in compliance with 21 CFR Part 820, Electronic records 21 CFR Part 11, 21 CFR Part 210/211, 21 CFR Part 110, 21 CFR Part 58
EG/EU	Directive (EC) 37/2005, Directive 2002/95/EC (RoHS)
HACCP	Hazard Analysis Critical Control Points

Directives & standards

ISO 9001: 2008	SGS certificate no. CH98/0013
ISO / IEC 17025	SCS 122, NIST L2357
ATEX	Approval for EX protection zone 1, EN 60079-0:2009, EN 60079-11:2007, EN 1127-1:2011
CE	EN 61000-6-2:2006 and EN 61000-6-4:2006
EN12830, EN13485, EN13486	Temperature recorder for transport, storage and distribution of foodstuffs and products
GZ1480	Exceptional approval for calibration GZ1480/2000 from 10.4.2000, BEV, Austria

