

invenSense
Eurotherm

versadacTM

Scalable Data Recorder

Record - peace of mind
that your data is safe

Manage data - how
and where you want to

Optimise - reduce installation costs
and improve operational efficiency

record manage optimise

Choose a recording solution that fits your process

with a recorder that can reduce installation costs and bring improved efficiency to your operation

The versadac recorder delivers versatile data management functionality in a scalable form that saves installation costs, optimises ongoing operations with easy management of data and gives peace of mind with exceptionally secure data recording and archiving strategies. Furthermore, it can grow with your needs – enabling you to easily add further I/O or software features in the future.

Don't compromise on what you want from a recorder – choose the versadac recording solution for security, versatility and operational efficiency.



The versadac recorder has flexible range of base sizes, I/O modules and software options so you only pay for the hardware and software you need, making it a cost efficient choice for your process. It can replace multiple traditional “box” recorders, be installed closer to the point of measurement, reduce panel space needed and, if your process changes, you can add modules and software options when you need to...

...and it still offers all of the exceptional, advanced, secure recording capability you would expect from a Eurotherm recorder

www.eurotherm.com/versadac

Record - peace of mind that your data is safe

The versadac recorder is designed from decades of in-depth knowledge and understanding of how to keep data safe. Advanced recording and archive strategies are supported by comprehensive and secure user access options to give you complete peace of mind that valuable process data is secure and available when and where you need it.



Safe, certain recording

- 100MB on board flash memory for data storage
- 8Hz sample and recording rate
- Secure, checksummed binary data (UHH) or open CSV file formats
- Ideal for regulated industries

Flexible archiving strategies

- Ethernet comms for efficient data transfer for long term storage
- "Store & Forward" self-healing extension service to ensure archives are complete even after a loss in communications
- Configurable archive strategies

Controlled user access

- Unique user names and passwords
- Configurable, specific security options for each individual
- Secure audit trail of all actions and events
- Electronic signatures in accordance with FDA 21 CFR Part 11

Manage data - how and where you want to

Once recorded, the versadac recorder gives you a wealth of options to further process and manage data. A rich library of mathematical functions and application specific blocks enable you to make more sense of your data without additional instruments. Recorded data is archived over the Ethernet and can be made available anywhere on the network, or using the Eurotherm Online Services (EOS) Director, available on any web-enabled device via secure access. The recorder can be viewed and operated from a PC anywhere on the network or using the user-friendly optivis operator panel.



Data anywhere for convenience and efficiency

- Remote visualisation, operation and configuration from anywhere on the network
- Integrated webserver for data viewing
- EOS Director for secure, online, information centric access to archived data from any web-enabled device
- Easy to use optivis Operator Panel with customised views
- Alarm/event notification via email

Rich functions for you to get the most from your data

- Up to 30 recording groups (six as standard)
- Record and manage data by batch
- Mathematical and logical toolkit blocks for enhanced data processing
- Pre-tested application blocks including steriliser, relative humidity, mean kinetic temperature (MKT) and steam calculations

Powerful tools to search, retrieve and analyse historical data

- Easy to find and recreate charts of any process data using Review software
- Easy report creation using Dream Report software
- Efficient reviewing of reports via web portal or email
- Find the data you need quickly with filename, time, date or batch search

Optimise - reduce installation costs and improve operational efficiency

The versadac recorder comes with a choice of base sizes and wide selection of I/O modules to ensure you get the right fit for your application. Installation can be closer to the point of measurement and integral serial and Ethernet comms with multiple protocols available enable quick and easy integration into wider systems. versadac has a compact form to save precious panel space and a single unit can replace multiple traditional recorders with up to 30 recording groups handling up to 30 simultaneous batches - dramatically reducing the cost of installation.



Reduce installation costs

- Fit the size of unit and I/O you need - nothing more
- versadac grows with your process - upgrade in the field to add I/O or software options
- Install close to point of measurement to reduce wiring costs
- Easy configuration with graphical wiring and complete toolkit blocks
- Record up to 64 analogue and 250 comms inputs

Flexible, powerful communications for easy integration

- Modbus TCP/IP and RTU, EtherNet/IP, FTP, Web Server
- Master/slave, client/server capability
- Support and record data from up to 32 slave devices

Total Peace of Mind

Recorded data has value – why else would you record it? Invensys Eurotherm has decades of knowledge and understanding of the requirements for capturing, storing and retrieving electronic records and will ensure your data is kept safe at every stage of its life.

Capturing data

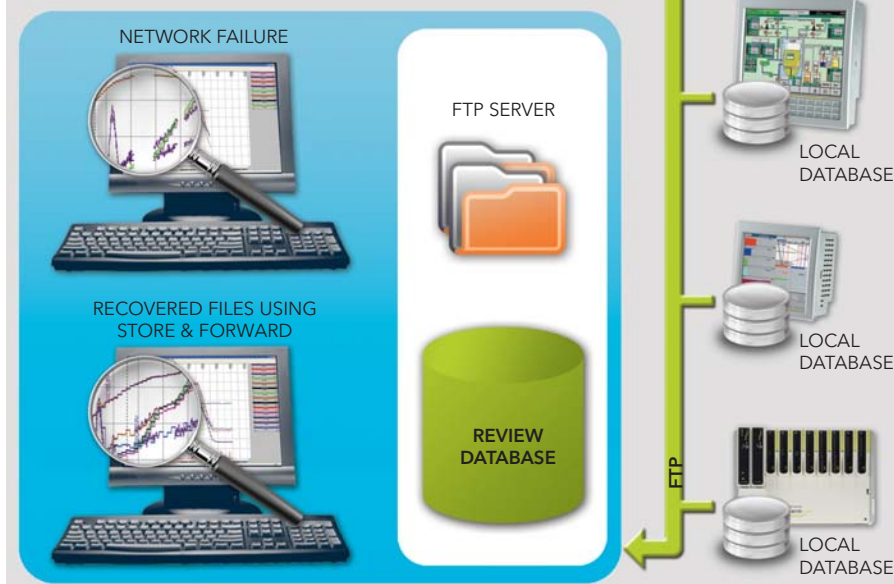
The versadac recorder offers sample and recording rates of up to 8Hz with high accuracy inputs. Data can also be recorded over comms channels as well as from the outputs of mathematical functions and application blocks. Any metadata and audit trail information is also securely recorded along with the process information.

All data captured is stored in an impressive 100MB internal flash memory which provides constant recording of process conditions. For applications within industries such as pharmaceutical and heat treatment, recorded files can be in secure, tamper-resistant, binary, check-summed format (known as "UHH" files). If appropriate to the application, files can also be created in open CSV format for direct use in programmes such as Microsoft® Excel®.

Storing data

The files created in the versadac recorder can be archived to numerous locations to best suit operational requirements and add efficiency to the process. File transfer protocol (FTP) is used to send files via Ethernet at configurable intervals to an FTP server. A second FTP server address can also be set for backup in case the primary server is not available. The PC Review software further automatically builds a database of recorded files over the network. For the ultimate in efficiency in handling recorded data, the EOS Director application can be used to store files on a fully secure and managed data handling facility – enabling user access from any web-enabled device anywhere.

One of the many unique features provided by Eurotherm archiving strategies is the "Store & Forward" functionality. This is a self-healing, validated archiving system that automatically stores data in the measuring device during a communications failure and, once communications have been restored, pulls the missing data into the filing system, ensuring complete and total data integrity.



User access

All services that can access recorded data come with comprehensive user access security – from the view of the live versadac recorder through to access to EOS Director which may hold decades worth of records.

User access to a versadac instrument

Access to the versadac recorder is via the PC iTools configuration software. Each user can be given a unique user name and password with specific access rights. This not only ensures protection of privileged areas but also simplifies operation as dynamic menus only show relevant options.

Electronic Signatures

The versadac scalable recorder supports the use of Electronic Signatures in accordance with FDA 21 CFR Part 11. All user actions can be configured to require signing or signing and authorisation. The ability to sign and authorise is configured on a user by user basis and incorporates signature control elements including account retirement.

Each user account has a completely unique username and password. Passwords can be controlled with defined expiry and configurable minimum length. Further protection is enabled with automatic timed logoff along with automatic disabling of accounts and notification on failed login attempts.

Security Manager software is available to provide a process wide solution to security management with user IDs, passwords and access permissions maintained in a single database.

Retrieving data

Review software and EOS Director offer powerful search capabilities which are specifically designed to quickly find and retrieve process data. Searches can be carried out by filename, date, time or batch name/number. Once the correct file is located, the user can quickly recreate the view of the process with Review software or generate a customised report using Dream Reports.

Reduced total cost of ownership

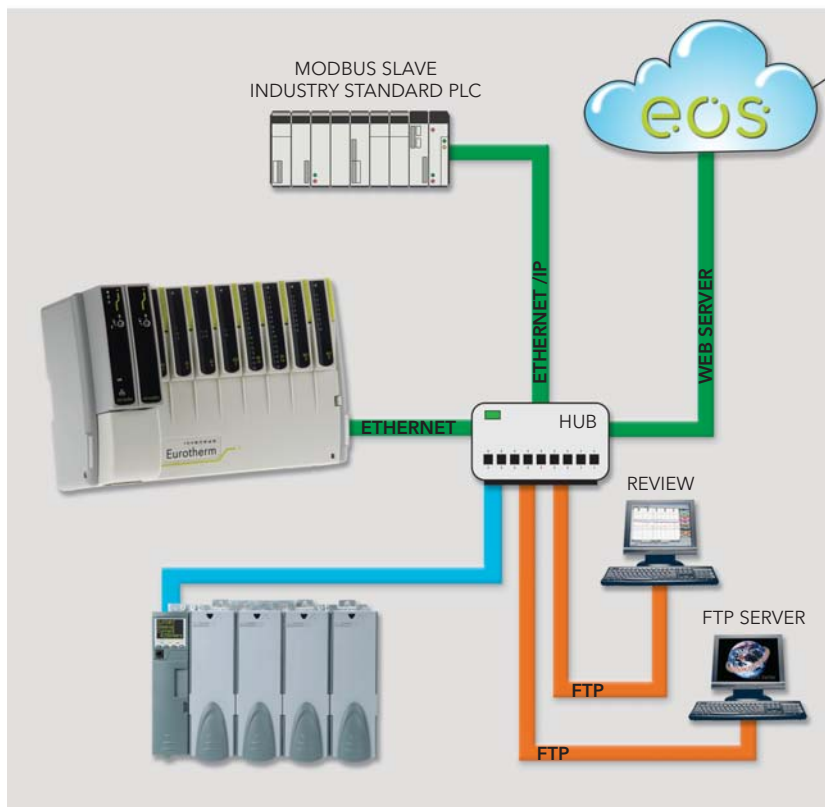
Install only what you need and easily upgrade if you need to

The versadac scalable recorder is designed so you can install a recording solution that is optimal for your process requirements. In the event that you need more I/O or additional software features in the future, the recorder can be simply modified in the field. Additional I/O and new software options can be quickly and easily enabled and then configured using the iTools software with no need to return the unit to the factory or contact a service engineer.

10/100BaseT Ethernet
Modbus Slave or Master TCP or RTU
EtherNet/IP Client or Server
FTP
Web Server

Reducing engineering costs

The versadac recorder is designed to offer powerful functionality with straight forward engineering to reduce your initial and ongoing costs. The iTools configuration software offers graphical wiring of toolkit blocks and some common, specific application blocks are ready for you to use straight away - including mean kinetic temperature (MKT), a cycle based steriliser block and steam flow calculations. Furthermore, iTools can store and copy configurations for easy re-use or quick service replacement.



Easy integration

The versadac recorder has selection of communications protocols to ensure it can be easily integrated into a wider system.

The unit can further support up to 32 slave devices and offers up to 250 communications channels with 30 independent groups for recording data.

With the flexible communications options offered, end users and systems integrators can easily add features such as batch control, advanced (21CFR Part 11) security, MKT, steam flow calculations and a secure audit trail, which are not normally available on a PLC network

The versatility in versadac

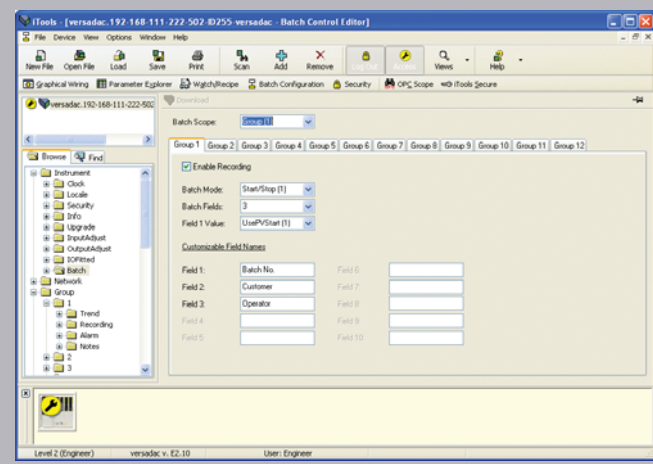
The scalability the versadac recorder offers makes it a naturally versatile product but it contains many features which can add additional flexibility, value and efficiency...

Complete traceability

versadac recorders have an Audit Trail and Recorded Login facility. Every time a user logs on, completes an operation or makes a change to the configuration their actions are recorded. The Audit Trail is time-stamped and incorporates the operator details along with the changes made. It is stored with the process data and cannot be modified or removed.

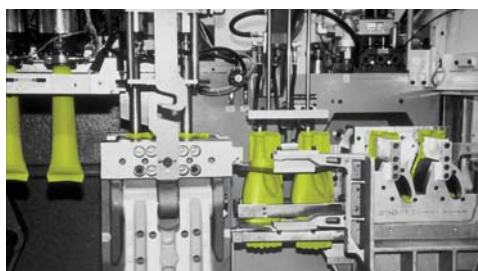
Recording by batch

You can use up to 30 separate groups within the versadac recorder and each one is capable of running a batch - that's up to 30 simultaneous batches to manage multiple processes or machine zones. Each of these can be independently started or stopped and automatic actions configured to trigger on a start or stop event, for example driving a relay. Up to 10 fields of data can be configured for entry of details about each batch with information auto-filled or entered by an operator.



View data where you want to

Recorded data from the versadac recorder can be viewed anywhere on the network or, using EOS Director, anywhere from a web-enabled device. In addition, you may choose to use the versatile Optivis operator panel to provide a local operator interface. This device provides a high quality touchscreen interface with standard and customised views of the process, enabling the user to efficiently monitor and review process details. It can also be used as a data entry point for operator notes or batch information and can be installed in a place that is most convenient for operator efficiency.



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Powerful configuration tool

iTools configuration software is a powerful tool that gives you the flexibility to configure sophisticated applications in an easy-to-use application. Drag and place graphical wiring ensures quick configuration development while standard, pre-tested application blocks minimise overall engineering time required. Configuration templates can be copied and stored to optimise the installation of multiple instruments and to ensure rapid changeover should a unit need to be replaced.



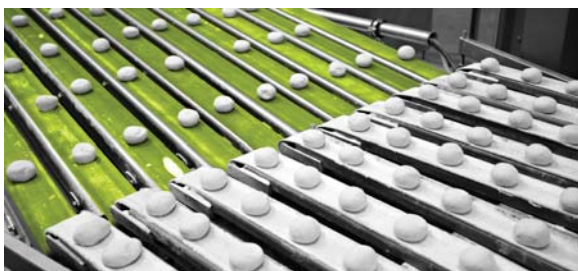
Further data processing

versadac has powerful features that enable you to further process measured data to give you the information you need to see, record and control exactly what is happening with your process. Mathematical functions can be used to determine process values (such as difference between two temperatures or maximum temperature reached) while logical functions and timers can be used to create dependent events and trigger specific actions.

Pre-engineered application blocks are also available to quickly create configurations. These include a steriliser block, MKT, relative humidity, saturated steam mass flow, saturated steam heat flow and saturated steam heat consumed.

Comprehensive alarming and notification capability

versadac recorders provide comprehensive alarming capability which can be easily configured using the iTools software. Alarms can be used to automatically trigger events, such as sending an email, placing a message on the operator panel or driving an output relay, to ensure rapid operator notification of a process situation.



Specification

General	
Base Sizes	0 way, 4 way, 8 way or 16 way
Input/Output Modules	AI2, AI3, AI4, AO2, DI16, RLY8
Alarms	2 per channel
Alarm Types	Abs high, Abs low, Dev high, Dev low, Dev Band, Rise ROC, Fall ROC
Recording	
Memory for Data Storage	100MB
Recording Formats	UHH (Eurotherm proprietary, secure, check summed files) or CSV
Recording Destinations	Internal Flash, FTP Server
Recording Speed	8Hz max
Removable Media	USB
Groups	Up to 30 (6 standard)
Optional Features	
Batch	Allows the user to enter information specific to a batch and to record this information with the process data
Auditor	Enhanced security with password control and Audit trail designed in accordance with FDA 21 CFR part 11 requirements
Security Manager	Provides a process wide solution to security management. User IDs, passwords and access permission are maintained in a single database
Application Blocks	Relative humidity, Steriliser, Mean Kinetic Temperature, Steam flow
Virtual Channels	Up to 250 (Maths/Totalisers/Counters) Maths Types: Add, Subtract, Multiply, Divide, Group Min/Max, Group average, Channel Min/Max, Channel average, Configuration revision or Modbus Input
Communications	
Serial	RS485/422
Ethernet	10/100BaseT autosensing/negotiating
Protocols	Modbus TCP/IP, RTU Master/Slave, Ethernet/IP Client or Server, FTP, DNS, SNTP Client, Web Server
Network Addressing	DHCP or Fixed (Static) IP addressing

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