Eurotherm®

Eycon™ Series

Visual Supervisors

Creative visualization solutions that put you in control

eurotherm.com/eycon

WATLOW®
Powered by Possibility

Power and efficiency combined

The Eycon™ Series of visual supervisors provide innovative, multi-function control, recording and visualization. Eurotherm® combine their expertise in control, data acquisition and process automation into a single process management unit.

Process Management

Eycon visual supervisor technology incorporates extensive functionality to provide complete management of a process. Their advanced array of features effectively makes the Eycon visual supervisor a mini DCS – with the efficiency and economy of integration into a single unit and the flexibility to be a powerful component of a wider system.

Eycon visual supervisor instruments utilised as a building block within a larger system provide peer-to-peer communications over Ethernet (ELIN) — reducing engineering costs with increased availability of the system. They are designed to reduce configuration, integration, installation and wiring costs while improving efficiency and quality with their accurate control.

The versatility of the Eycon visual supervisor units makes them ideal for a wide range of applications – as diverse as pharmaceutical / chemical reactors, glass furnaces, multizone heat treatment furnaces, injection moulding and extrusion systems, batch control systems, environment monitoring, building management systems and many more.

Record, Control, Visualize, Automate

- Batch control
- Continuous and sequential control
- Recipe management
- Setpoint programming
- Alarm/event management
- Audit trail
- Secure logins
- Master comms
- Data logging
- Printer support

- **Accurate Control** – improve efficiency and quality
- **21CFR Part 11** – electronic records and electronic signatures
- **Easy to Use** – custom displays to match your operation
- **Mini DCS** – complete process management

Accurate Control

improve efficiency and quality

Easy To Use

custom displays to match your operations

21CFR Part 11

electronic records and electronic signatures

Mini DCS

complete process management

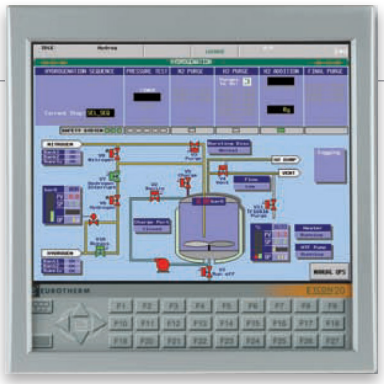
Easy to use, economical solutions

The Eycon-10 and Eycon-20 visual supervisors both incorporate an integrated, full colour, operator display utilising touch screen technology. A simple to use ‘pop-up’ navigation menu provides the user with an intuitive interface to a wide range of functionality – such as Batch Control, Recipe Management, Commissioning and Diagnostics tools and communications parameters.

Standard displays

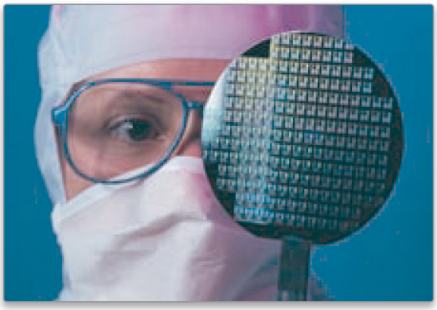
- 99 user-defined displays
- IP65 front of panel enclosure displays
- User programmable keys

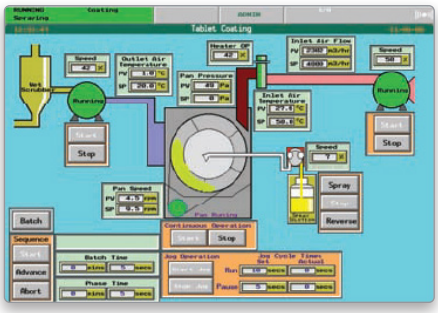
Eycon-10
5.5" 1/4 VGA TFT touch screen display

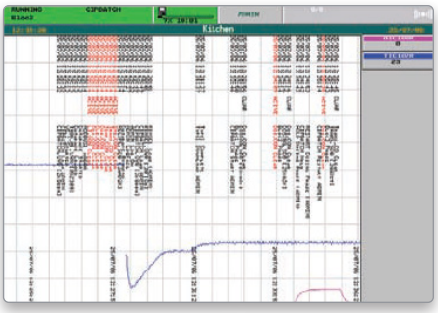


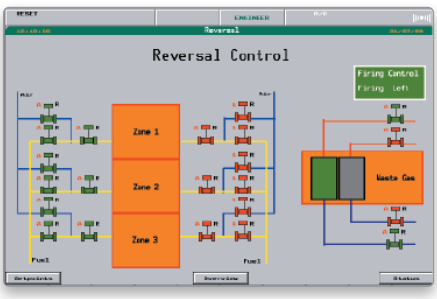
Eycon-20
12.1" XGA touch screen display

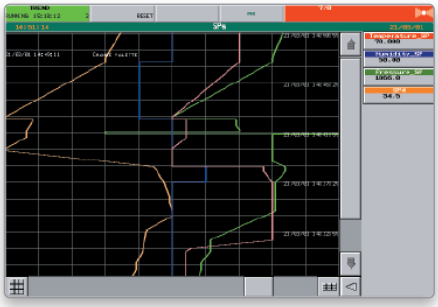
Visualize

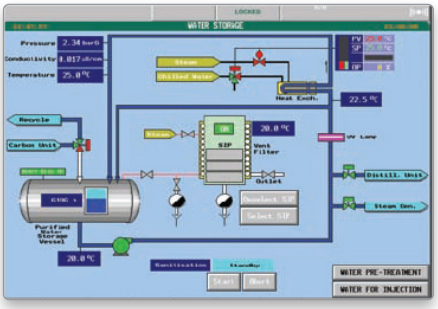












A Complete Solution

The Eycon Series of visual supervisors is ideal as both a stand-alone solution and is easily integrated into a larger system. EurothermSuite software provides a single environment for visualization, engineering and configuration across a plant wide solution incorporating multiple strategy engines and I/O solutions. Eycon visual supervisors fit perfectly with this solution as their control network provides peer-to-peer LIN communications with EurothermSuite and other control nodes. Communication with any Modbus device is also provided via serial or Ethernet connection.

Record

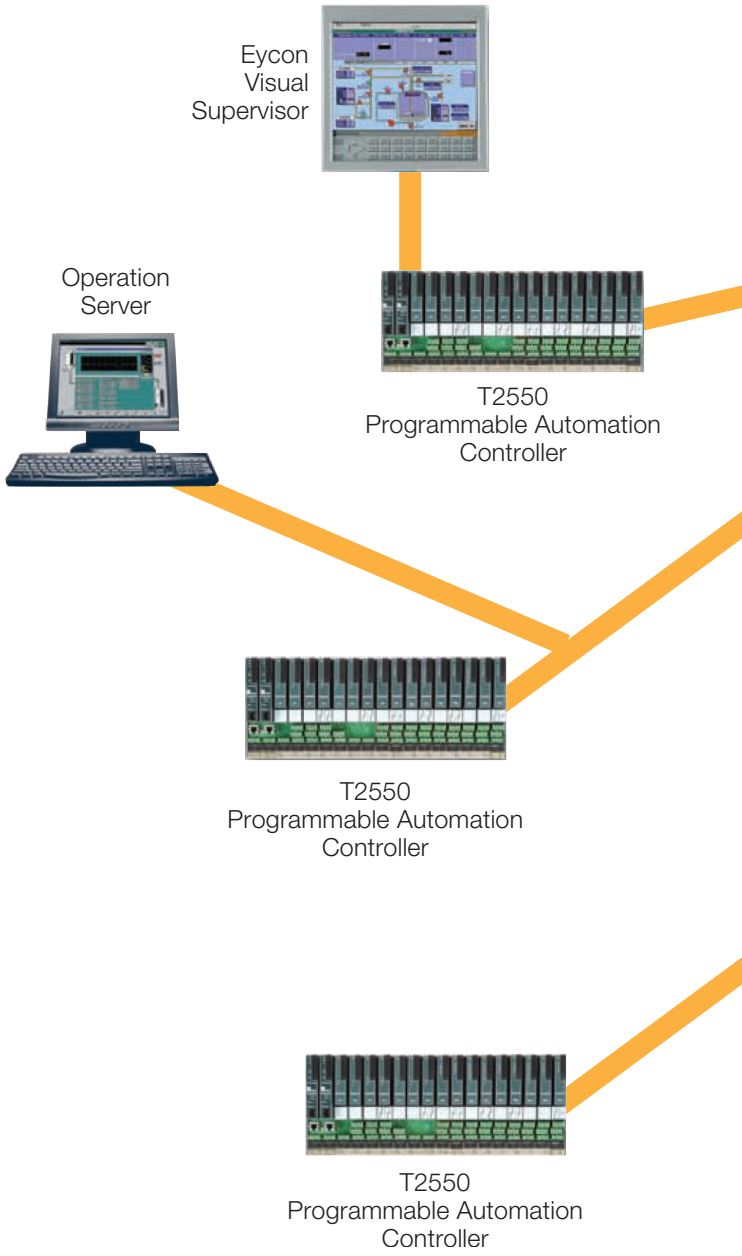
Eycon visual supervisors and EurothermSuite also provide continuous, built-in data logging and trending capabilities. Online and historical trends can be viewed locally at the Eycon display or at any EurothermSuite operator station. Logged files can be archived to a removable USB memory stick or to servers on the network using File Transfer Protocol (FTP).

Control and Automate

Versatile continuous control capability provides accurate, multiple PID loops and advanced process automation strategies. Eycon visual supervisor's sequential capability provides powerful sequential control and enables implementation of phases as defined by the ISA-S88 process model for the batch processes.

The Setpoint Programmer enables the operator to select and run a required Setpoint Program from a list. With the Preview facility, the operator can view the Program before running it.

Up to 8 Profiled channels including 128 Digital events with up to 32 segments per Program are supported.



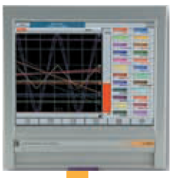
RECORD	*Trending, Data logging*
CONTROL	*Multiple PID loops*
VISUALIZE	*Touch screen, User display*
AUTOMATE	*DCS, Multiple setpoints*

Business Systems

Operator Viewer

Active Factory

6180A Graphic Data Acquistion Unit



Eycon Visual Supervisor

Eycon Visual Supervisor

Operator Terminal

OPC Server

Serial Comms

Operator Terminal

3216 Controller

3rd Party Integration

Eycon Series

Eycon visual supervisor instruments can be used either as a stand-alone system or as a building block within a larger system

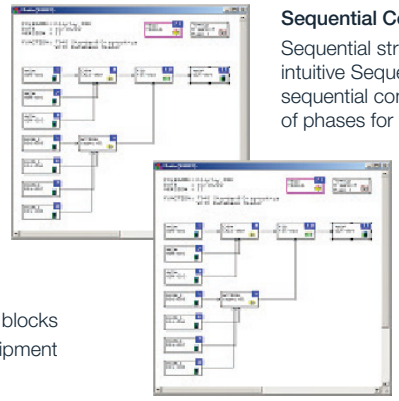
Control Environment

The Eycon Series of visual supervisors are capable of both continuous and sequential control. Their open network architecture allows connection to the Process Interface (T2550) I/O modules and other third party devices. Separating the processing from the I/O allows physical distribution of the modules which saves on wiring costs and panel/cubicle space).

Continuous Control

The continuous control strategy is built by interconnecting function blocks selected from an extensive library.

- Alarm and Event logging/printing with date and time stamp
- Easy to use block structured programming
- Function blocks library includes control, timing, logic and maths blocks
- ISA-S88 based control modules representing physical plant equipment such as valves, pumps
- User configurable function



Sequential Control

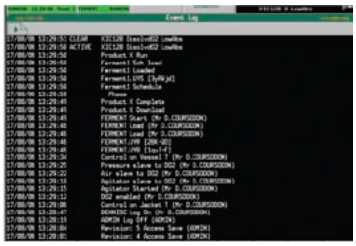
Sequential strategies are built using the powerful and intuitive Sequential Flow Chart (SFC) configurator. The sequential control capability enables the configuration of phases for batch process as defined by the ISA-S88 process model.

- Ideal for configuration of phases for a batch process
- Multiple sequences running simultaneously
- Sequences can be loaded and unloaded as required by process
- Easy to use Sequential Flow Chart programming

Alarm and Event Management

Eycon visual supervisor instruments provide alarm and event management for additional security and traceablility of the process. Time stamps all alarms and event messages and provides a comprehensive audit trail as required by 21 CFR Part 11. For alarms, the alarm history log displays the“activated”, “acknowledged”, and “deactivated” times in a single line.

- Alarm and event logging/printing with date and time stamp
- Standard Historical and summary displays
- Tamperproof audit trail
- Single or multiple alarm acknowledge
- Ability to add notes to the alarm history log



- Option of including alarm and events in the log/batch logs
- Archive on demand

Recipe Management

The Eycon visual supervisor provides advanced and flexible recipe management. This powerful feature is easy and efficient for the operator to use. Automatic version control gives added peace of mind that the correct recipe is being downloaded. Recipes can be created, maintained and downloaded from the front panel. The order of execution of a recipe is the order of the values in the file in a top-down manner.

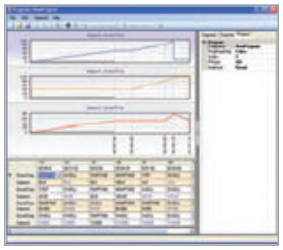
- On-line and off-line recipe editor
- Up to 500 parameters per recipe
- Automatic version control
- Ability to store multiple recipes, with download and capture facilities
- Advance recipe monitor with diagnostic information

- Optional multiple recipes in a single file, easy to maintain

Multi-Setpoint Program

The Setpoint Programmer enables the operator to select and run a required Setpoint Program from a list. With the Preview facility, the operator can view the Program before running it.

- Up to 8 Profiled channels including 128 Digital events with up to 32 segments per Program
- Support for simultaneous running of multiple programs
- Stores over 200 Setpoint Programs
- Comprehensive control: Run, Hold, Skip,abort, Schedule, etc.
- On-line graphical monitoring
- Local and remote editor
- Load Setpoint Program via USB memory stick



Batch Control

Batch Manager enables an operator to control (i.e. load, start, hold, restart, abort) a batch, and monitor its progress from standard displays. Each batch is identified by either a unique number (automatically generated) or a batch ID entered by the operator.

- Configure a batch from Set-up page
  - Unique custom/automatic Batch id
  - Recipe selection
  - Six operator entry fields such as customer name, product type
- Comprehensive batch control
- including Start, Hold, Abort, Restart, Reset, etc.

- Automatic recipe download
- Automatic batch log and report generationLocal and remote editor
- Load Setpoint Program via USB memory stick

Batch Control

An application running on an Eycon Visual Supervisor can be configured to:

- Send alarm and event messages to the printer
- Send report files to the printer
- Support special control sequences for formatting the printed alarm
- and event messages
- Can be connected to any serial printer that supports ASCII code

Batch Control

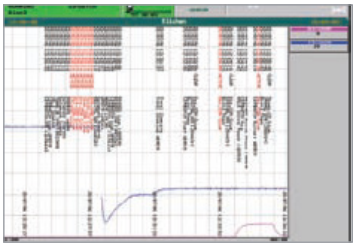
This feature allows Reports to be created and sent to the printer or log files on demand.

- Triggered/controlled from the strategy
- Configured using a “form” file
- Support for multiple reports
- Support for fixed text

Trending and Data Logging

The Eycon visual supervisor provides trending of analogue and digital values with data logging to historical files. Historical data can be stored in a secure, encrypted format or ASCII to best suit the application.

- Multiple log groups
- Batch, hourly, daily or on demand logging
- Multiple, simultaneous recording rates for different log groups
- Logged data files stored on the internal flash memory or archived to
- USB memory stick or FTP server
- Standard displays include horizontal and vertical trends, bar graphs and numerical data representation
- Log files can contain reports, alarms, events and operator messages
- Up to 3 remote file servers can be configured for added security of data
- On-line trending
- Local historical trending
- Trends can be incorporated into user-defined displays
- Audit trail information can be displayed on the trends

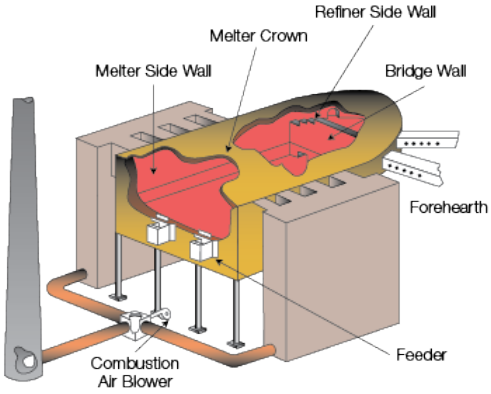


Glass Solutions

Glass manufacture requires a high level of accuracy and reliability in the control to achieve consistent glass quality. The Eycon visual supervisor combined with the T2550 PAC provides an excellent solution for glass production lines. The multi-zone capability, control accuracy and easy monitoring of the process are ideal for areas such as furnaces and lehrs that require accurate and consistent control throughout several zones.

Glass Furnaces

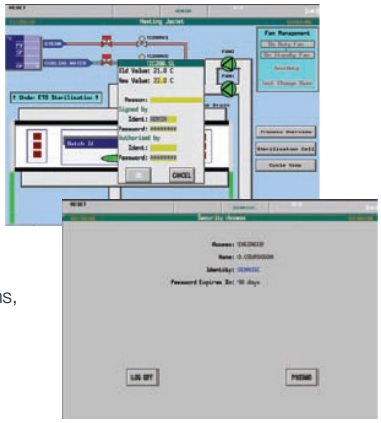
- Local visualization
- World renowned accuracy of control
- Continuous, precise glass level control
- Cross-limiting lead/lag combustion control
- Redundant processors in T2550 PAC provide high availability where required
- Fuel flow/ratio control
- Fuel switch over control
- Oxygen trim



Life Sciences

21 CFR Part 11 Validatable

Auditor features on the Eycon visual supervisor have been specifically designed to meet the requirements of the FDA 21 CFR Part 11 regulation for Electronic Recorders and Electronic Signatures. Tamper proof Electronic data can be viewed, analysed and printed off-line using the secure Review package.



Secure Electronic Records

- Process Values and Audit Trails (Alarms, Events, Electronic Signature)
- Data and Time stamped
- Time Synchronisation
- Viewable in human readable format

Electronic Signature

- User actions with signing and authorisation
- Unique signatures required
- Automatic Log-off
- Minimum length password
- Access control according to authority level
- Automatic password expiry

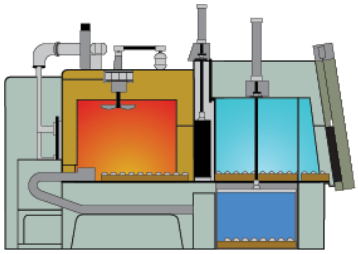
Security/Authorisation

The Visual Supervisor offers a comprehensive security, which controls access to various features and to individual parameters on the mimics as required by 21CFR11 Part 11.

- Controlled Access
- Each user with a unique ID and password
- Offers five level of access: Admin, Engineer, Commission Engineer, Operator and Locked
- Electronic signature with “Reason” and “Authorisation”

Heat Treatment

The integration of control and data logging combined with batch, recipe and setpoint programming makes the Eycon visual supervisor ideal for many heat treatment applications. Eurotherm has vast experience in providing heat treatments solutions in both regulated and non-regulated applications. The Eycon visual supervisor, combined with Eurotherm’s expertise, could help you to increase productivity and lower costs.



Gas Carburising of Steel

Surface hardening of steels by the chemical diffusion of carbon into the surface layer of a component requires the precise control of temperature, furnace atmosphere and time.

- Furnace sequencing
- Product transfer
- Data management
- Furnace diagnostics
- Recipe management
- Three gas IR
- Endo generator control
- Temperature programming and control
- Carbon potential and diffusion control
- Power/gas control
- Atmosphere probes and gas sequencing
- Quench sequence control
- Quench recipes
- Quench oil control

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