

## Eycon-10 and Eycon-20 Visual Supervisors Specification Sheet

- **Colour Touchscreen Display**
- **Peer to Peer Communications**
- **Modbus Master/Slave**
- **10/100Mbps Ethernet**
- **Continuous and Sequential Control**
- **Multi-Setpoint Programmer**
- **Batch Control**
- **Recipes**
- **USB Support**
- **21 CFR Part 11**
- **Data Logging**

Eycon-10 and Eycon-20 visual supervisors offer integrated colour TFT LCD display panels and are capable of continuous, sequential and logic control. The open network architecture allows connection to the process interface (T2550) I/O modules, PLCs and other 3rd Party devices. Separating the processing and operator interface from the I/O allows for physical distribution of the modules resulting in reduced wiring costs.

The continuous control strategy is built by interconnecting function blocks, selected from an extensive library. Sequential strategies are built using the powerful and intuitive Sequential Function Chart (SFC) configurator.

### Auditor

The Auditor option for the Eycon-10 and Eycon-20 visual supervisors have been designed specifically to aid compliance with FDA regulation 21 CFR part 11 for Electronic Records and Signatures. Tamper resistant electronic data, including time stamped Audit Trails can be viewed, analysed, and printed using Eurotherm's Review software package.

### Multi-Setpoint Program

The Setpoint Program feature enables an operator to select and run a pre-configured Setpoint Program. A preview facility allows the operator to view the program before running it. Once the program is running, the setpoint and achieved process values are plotted on the trend screen. Up to 8 setpoint programs can be run simultaneously.

### Batch Control

Batch Manager provides comprehensive batch control allowing an operator with suitable access permissions to load, start, hold, restart or abort a batch. The batch status can also be monitored from standard displays. Each batch being processed can be identified by a batch ID entered by the operator or a unique automatically generated batch number. The use of six customisable operator entry fields can be used to further identify the batch data.

## TECHNICAL SPECIFICATION

### Environmental performance

Temperature limits	Operation: 0 to +50°C Storage: -10 to +85°C
Humidity limits	Operation: 5% to 85% RH (non condensing) Storage: 5% to 95% RH (non condensing)
Protection	Bezel and display: IP65 Sleeve (rear of panel): IP20
Shock:	BS EN61010
Vibration (10 to 150Hz):	BS EN60873, Section 9,18
Altitude:	<2000 metres

### Approvals

#### Electromagnetic compatibility CE, (EMC)

Emissions and immunity: BS EN61326

#### Electrical safety

(BS EN61010): Installation cat. II; Pollution degree 2

<p><b>INSTALLATION CATEGORY II</b> The rate impulse voltage for equipment on nominal 230V mains is 2500V.</p> <p><b>POLLUTION DEGREE 2</b> Normally, only non-conductive pollution occurs. Occasionally, however, a temporary conductivity caused by condensation shall be expected</p>
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### Physical

Panel mounting:	DIN43700
Panel mounting angle:	Vertical
Eycon-10	Bezel size: 144 x 144mm. Panel cutout dimensions: 138 x 138mm (both -0/+1mm) Depth behind panel: 87.7mm Weight: 1.5kg
Eycon-20	Bezel size: 288 x 288mm Panel cutout dimensions: 282 x 282mm (both -0/+1.3mm) Depth behind panel: 70.4mm Weight: 3.7kg

### Operator interface

Type:	Colour TFT LCD, with cold cathode backlight, fitted with resistive, analogue, touch panel
Size and resolution	Eycon-10: 1/4VGA (320 x 240 pixels) 5.5" Eycon-20: XGA (1024 x 768 pixels) 12.1"

### Power requirements

Supply voltage:	19.2 to 28.8V dc (24Vdc nominal)
Power consumed	Eycon-10: 20W Eycon-20: 24W
Operating current:	1A max.
Inrush current:	10A max.
Fuse:	No user replaceable fuses

### Ethernet Communications

Ethernet Port:	10/100Mbps Auto Sensing
Protocols:	TCP/IP, FTP, DHCP, BOOTP, MODBUS, Telnet
Cable	Type: CAT5 Maximum length: 100 metres Termination: RJ45

### Serial Communications

No. of Ports:	2
Protocol:	Modbus RTU Master and Slave
Transmission standard:	EIA422 or EIA485

### Back-up Battery

Type:	Poly-carbonmonofluoride/lithium (BR2330)
Support time (RTC):	1 year min. with unit unpowered
Replacement period:	3 years
Stored data:	Hot start parameters

### Master I/O Comms

Modbus TCP slave:	Used to talk through only
Modbus TCP master:	Slave connections 20 max

### Modbus/Jbus (EIA422/485)Slave

Connectors:	Shielded RJ45 connector
Protocol:	MODBUS/JBUS RTU slave
Data rate:	Selectable between 1200 and 38,400 Baud
Data format:	8-bits, 1 or 2 stop bits, selectable parity
MODBUS:	Data tables 16, configurable as registers or bits
Table length (max.):	200 registers or 999 bits
Memory allocated to tables:	20000 bytes
Isolation:	Functional

### Modbus TalkThru

TalkThru is a facility provided on the Eycon Series to enable use of Eurotherm iTools package to configure Modbus slave devices without having to disconnect them from the Eycon.

## Continuous Database Resources

Resource	
Continuous Control Database size	128 Kbytes
No. of TEATT'S (External Attachments)	128
No. of Connections	1024

## Sequence Control Resources

Resources	
Sequence Memory Program Data	112 Kbytes
Sequence Memory SFC Resources	76 Kbytes
Independent sequence task	
simultaneously active	10
SFC actions, including root SFC's	100
Steps	320
Action associations	1200
Actions	600
Transitions	450

## Setpoint Program Resources

Resources	
Max. Profiled Analogs	16
Max. Profiled Digitals	32
Max. Segment per Program	250

A maximum of eight Setpoint Programs may run simultaneously. The table below shows how the resources are shared across multiple Setpoint Programs.

No. of Programs	No. of Analogs (Max)	No. of Digitals (Max)	No. of Segments (Max)
1 Program	16	32	250
2 Programs	16	32	125
4 Programs	16	16	80
8 Programs	8	8	40

## Data Logging

Selected data can be logged periodically (hourly, daily or on demand) to an internal history file. Process variables are placed into history at the configured recording interval. Additionally alarm messages, batch start/stop events are time stamped and placed in to history files when they occur. Archived data (either ASCII or tamper resistant) can then be transferred to a local/remote server via FTP, or a USB storage device. Alternatively archived data can be automatically transferred over the network using Eurotherm Review Software package.

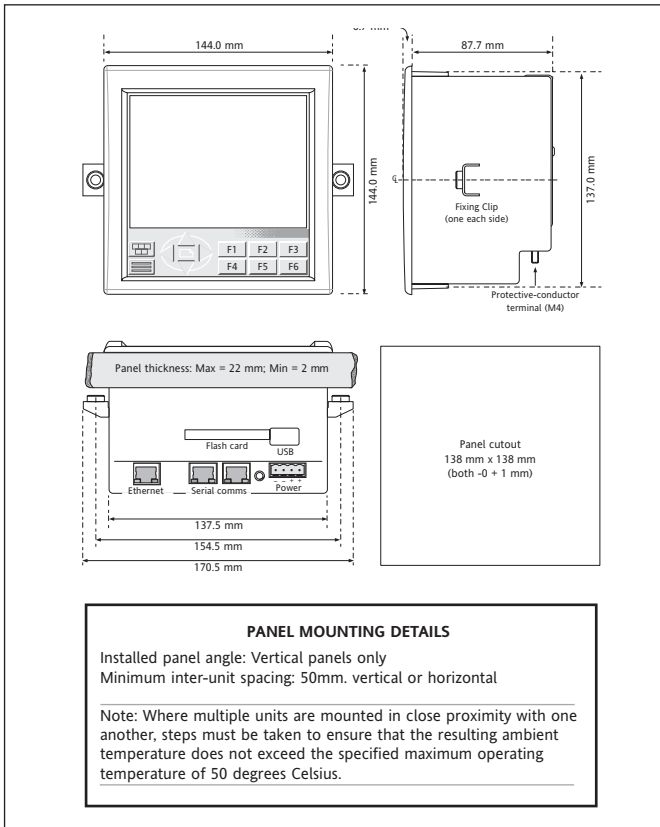
### Data logging Storage

Internal archive:	46Mb flash memory
Data format:	ASCII (.asc) or compressed data
Data compression:	Proprietary
Maximum log frequency:	1Hz

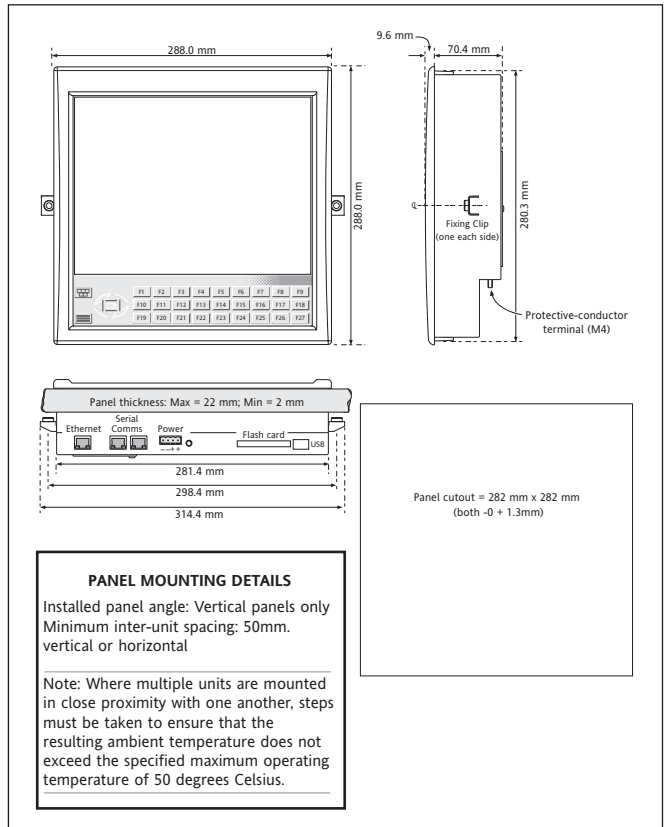
### Universal Serial Bus (USB)

Version:	1.1 (2.0 devices are compatible)
Devices supported:	USB bulk storage devices ('Memory stick')
Isolation:	No signal isolation

## Eycon-10 Visual Supervisor Dimensional Details

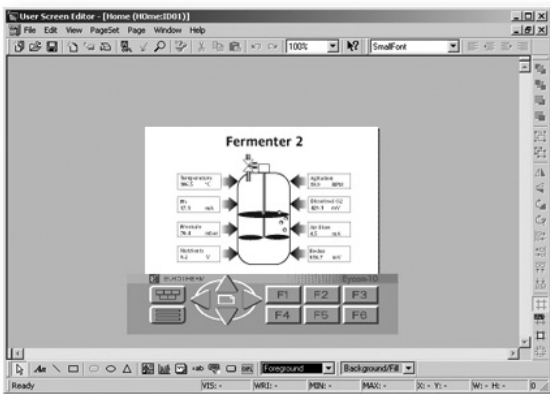


## Eycon-20 Visual Supervisor Dimensional Details



## User Configurable Function Keys

A unique feature of the Eycon series is the User definable keys which can be configured as required using the User Screen Editor Software package. As standard the Eycon-10 visual supervisor has six (27 for the Eycon-20 visual supervisor) user definable function keys that can be configured to perform specific actions such as navigating between process screens.



Additionally the size of the touch area, as well as the number of active keys required can also be customised by the user. The printed legend behind the touch screen area is also removable and can be customised and replaced as required, providing users with the ability to design their own, unique operator interface.

## ORDERING CODE

	1	2	3	4	5	6	7	8	9	10	11
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### Model

<b>Eycon-10</b>	Eycon-10 1/4 VGA Display with Touchscreen
<b>Eycon-20</b>	Eycon-20 Full XGA Display with Touchscreen

### 1 Software 1

<b>NONE</b>	Standard Display and software
<b>L01</b>	Setpoint Program, Recipe & Report Capability
<b>L02</b>	Batch Manager, Setpoint Program, Recipe & Report Capability

### 2 Software 2

<b>NONE</b>	No Auditor Feature
<b>AUDIT</b>	Auditor Feature - Electronic Records and Signatures

### 3 Comms Protocol

<b>ELIN</b>	LIN Peer to Peer communications includes Modbus Slave (RTU & TCP)
<b>MBMS</b>	Modbus Master/Slave - RTU & TCP communications (includes LIN)

### 4 Reserved for future use

### 5 Battery

<b>NONE</b>	Battery not fitted
<b>BATT</b>	Battery fitted

### 6 Bezel Colour

<b>SLV</b>	Silver (Standard)
<b>GRN</b>	* Eurotherm Green
<b>BLK</b>	* Black
<b>SST</b>	* Stainless Steel

### 7 Keyboard

<b>EUR</b>	Eurotherm
<b>OEM</b>	OEM

### 8 Installation Guide Language

<b>ENG</b>	English
<b>GER</b>	* German
<b>FRA</b>	* French
<b>CHI</b>	* Chinese

### 9 Label Set

<b>XXXXX</b>	Eurotherm
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### 10 Technical Support

<b>TS0</b>	No support included
<b>TS1</b>	1 Hour Support
<b>TS2</b>	2 Hours Support
<b>TS4</b>	4 Hours Support
<b>TS8</b>	8 Hours Support

### 11 Warranty

<b>XXXXX</b>	Standard Warranty
<b>WL005</b>	5 Years Extended Warranty

\* Please consult factory

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