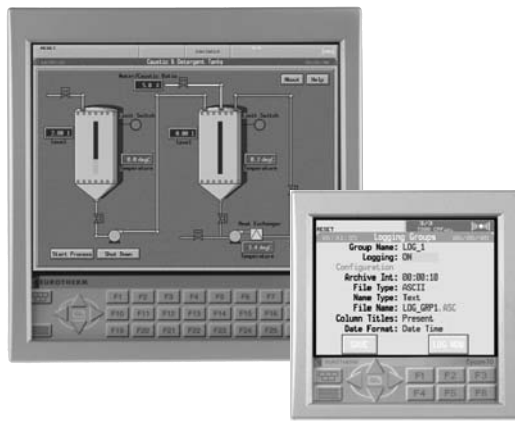


Eycon™ Visual Supervisor

SERIES



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 Eycon10 and Eycon20 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 the Eurotherm® 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.

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

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

Physical

Panel mounting:	DIN43700
Panel mounting angle:	Vertical
Eycon10	Bezel size: 144 x 144mm.
	Panel cutout dimensions: 138 x 138mm (both -0/+1mm) Depth behind panel: 87.7mm Weight: 1.5kg
Eycon20	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	Eycon10: 1/4VGA (320 x 240 pixels) 5.5" Eycon20: XGA (1024 x 768 pixels) 12.1"

Power requirements

Supply voltage:	19.2 to 28.8V dc (24Vdc nominal)
Power consumed	Eycon10: 20W Eycon20: 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 accociations	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.

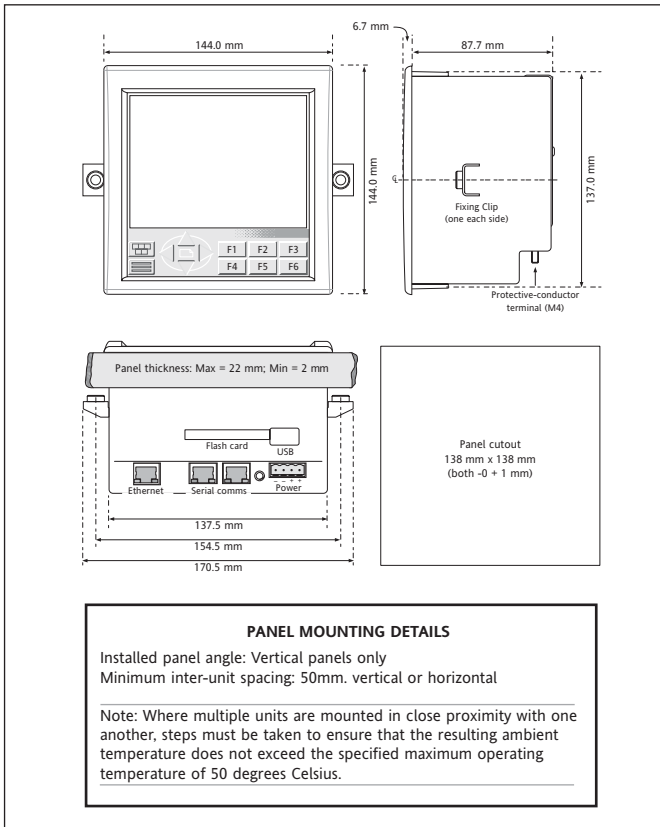
Data logging storage

Internal archive:	45Mb flash memory
Data format:	ASCII (.asc) or compressed data (UHH)
Data compression:	Proprietary
Maximum log frequency:	1Hz

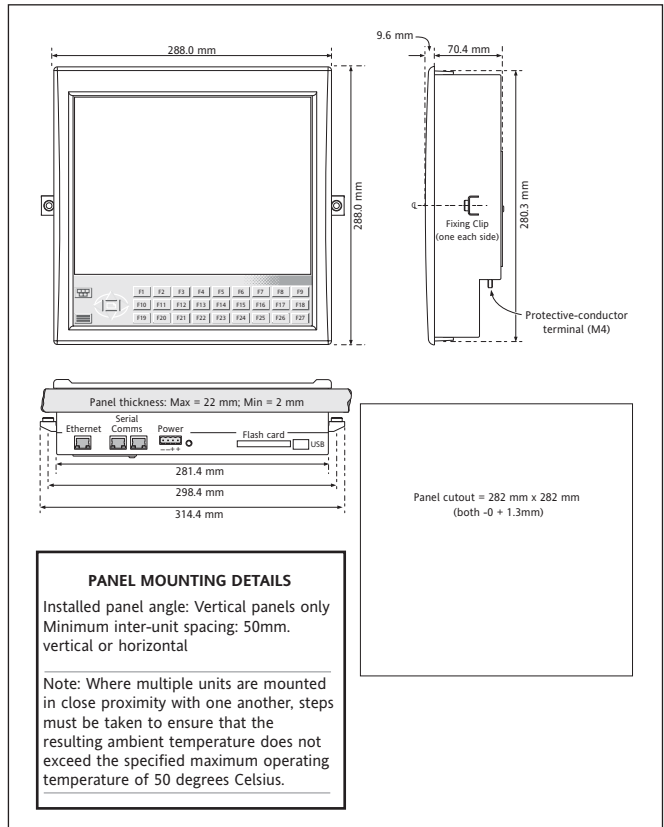
Universal Serial Bus (USB)

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

Eycon10 Visual Supervisor dimensional details

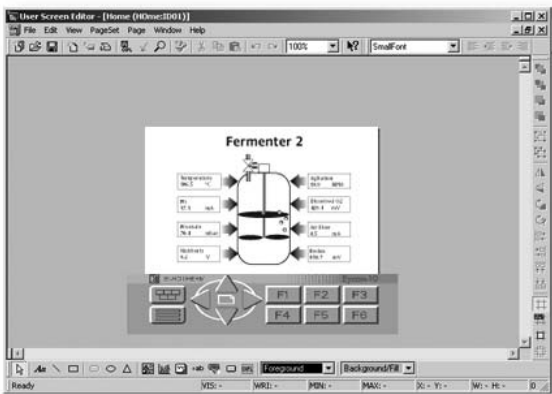


Eycon20 Visual Supervisor dimensional details



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 Eycon10 visual supervisor has six (27 for the Eycon20 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

Eycon10	Eycon10 1/4 VGA Display with Touchscreen
Eycon20	Eycon20 Full XGA Display with Touchscreen

1 Software 1

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

2 Software 2

NONE	No Auditor Feature
AUDIT	Auditor Feature - Electronic Records and Signatures

3 Comms Protocol

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

4 Blank field not used

5 Battery

NONE	Battery not fitted
BATT	Battery fitted

6 Bezel Colour

SLV	Silver (Standard)
GRN	* Eurotherm Green
BLK	* Black
SST	* Stainless Steel

7 Keyboard

EUR	Eurotherm
OEM	OEM

8 Installation Guide Language

ENG	English
GER	* German
FRA	* French
CHI	* Chinese

9 Label Set

XXXXX	Eurotherm
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10 Technical Support

TS0	No support included
TS1	1 Hour Support
TS2	2 Hours Support
TS4	4 Hours Support
TS8	8 Hours Support

11 Warranty

XXXXX	Standard Warranty
WL005	5 Years Extended Warranty

* Please consult factory

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