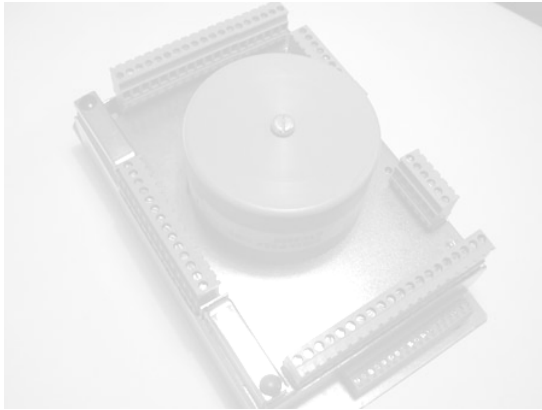


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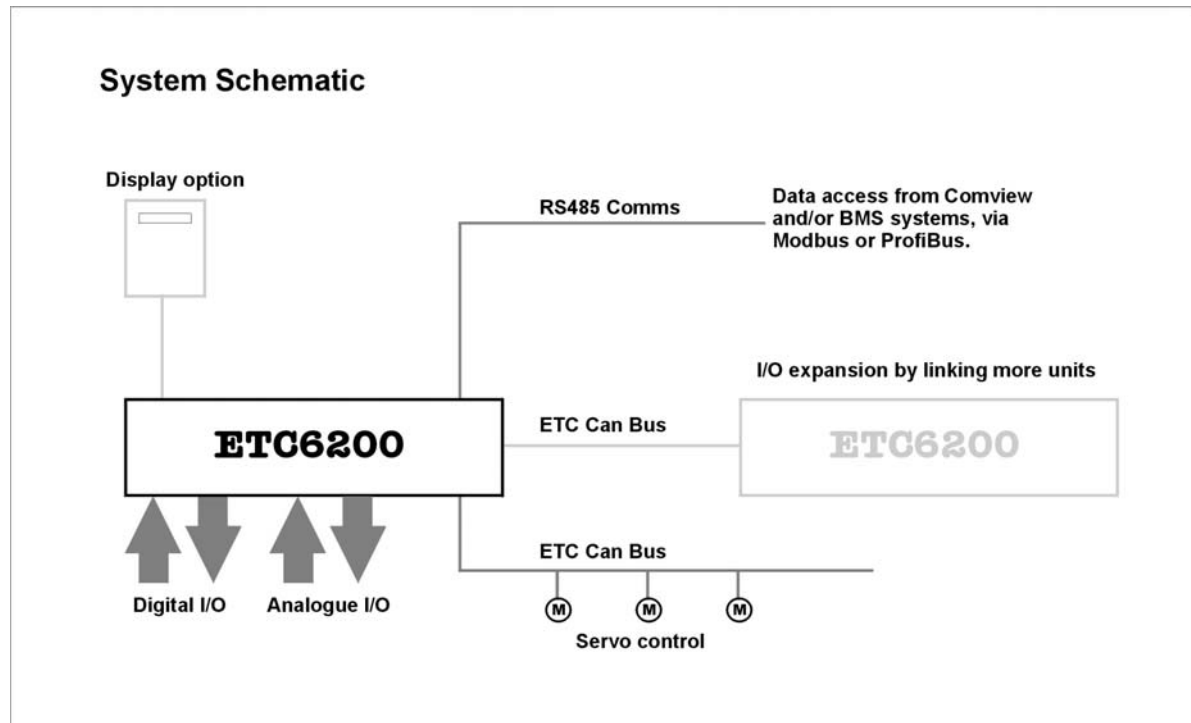
ETC6200 series.

Programmable I/O controllers.



Description

ETC6200 is a non-dedicated, versatile control similar to a PLC but with no ladder logic to contend with. ETCs innovative "Abacus" programme for the PC, makes programming the control a pleasure and extremely time efficient. Unlike many PLC's, control solutions are protected and cannot be copied by 3rd Parties.



Easy to programme, with anti-tamper software, this flexible control is suitable for many site specific or unusual applications, for example:

Additional I/O channels for existing ETC systems
Twin firing control,
Complex boiler sequencing,
Water pump / valve control,
Draught control,

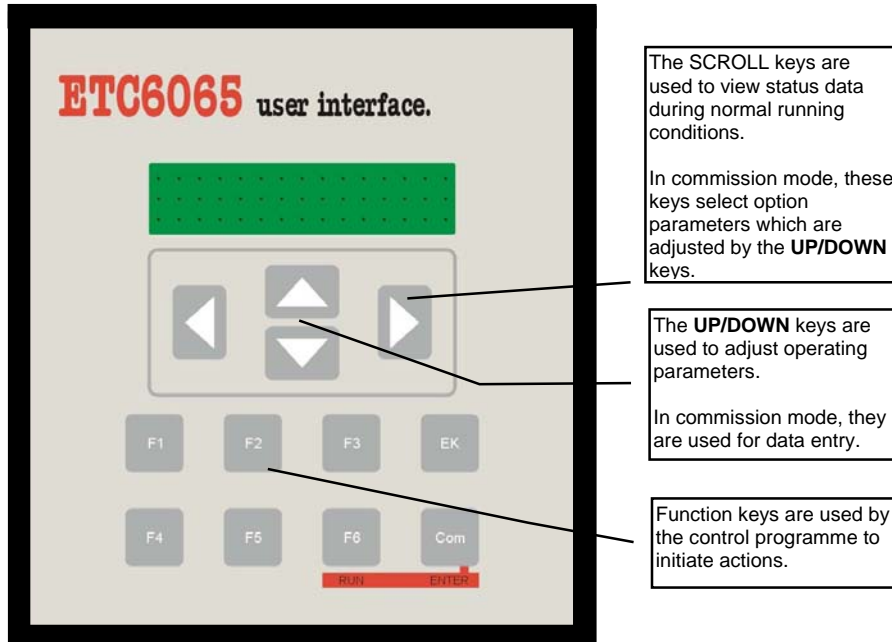
When used in conjunction with the product's optional display and a memory card the ETC6200's freely programmable features will be able to perform simple or advanced data logging functions. Typical applications are Emissions recording, Energy savings records, Utilisation, Trending etc.

Benefits

- The small size and a high degree of integration will allow a reduction in the size of control panels.
- Freely programmable logic increases the scope of the control and its ability to satisfy non-standard applications.
- Digital communications simplifies wiring, interconnections and improves reliability.
- Passcode protection prevents untrained and/or unauthorised changes to programmes.
- "ComView" provides a modern graphical interface for data display and easy analysis.

Optional Display / Keypad

Applications will require a display when customer programmes have local display requirements or user adjustment parameters. The display is a 2 line, 20 character per line, dot matrix vacuum fluorescent type allowing the use of plain text messages for most display parameters. The keypad is a membrane construction with tactile keys to give a positive feedback of the actuation.

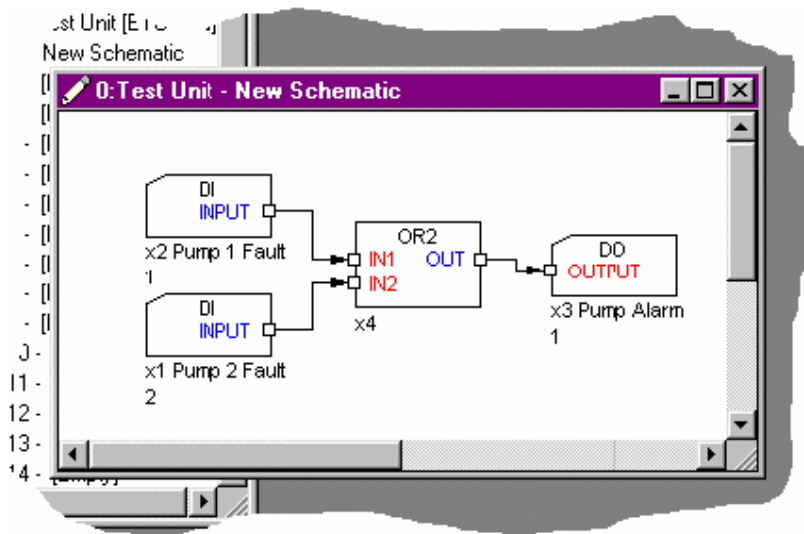


Key actions.

<u>Key</u>	<u>Function</u>
F1	Programmable function key
F2	Programmable function key
F3	Programmable function key
F4	Programmable function key
F5	Programmable function key
F6	Programmable function key
EK	Engineers Key – gives access to Engineers data.
Com	Commission Key – Initiates access to Commissioning parameters

Programming the control.

The ETC6200 series is programmed using “Abacus” a programme designed to run in the Windows® operating system on a P.C. Programmes are designed graphically by connecting library blocks on schematic pages. The schematic pages are then transmitted to the control via a communications link where they operate as a programme. An example schematic is shown below.



The library functions within “Abacus” are listed in the following table:

Measured value	AND 2, 3, 4, 5 inputs
Setpoint	OR 2, 3, 4, 5 inputs
Modulation rate	XOR 2 inputs
Boiler status	COUNTER up
Warning Limit	COUNTER down
EK value	Binary decoder
Fault value	Binary encoder
Fault generate	INVERT
Burner Key	TOGGLE
Fuel profile select	SET/RESET latch
Force fuel Profile	ADD
Digital outputs	SUBTRACT
Universal inputs	MUTIPLY
Analogue outputs	DIVIDE
Logic High	x^y
Logic Low	>
Option Parameter	<
Register Digital inputs	EQUALS
Register Digital outputs	PID
Register Analogue inputs	Interpolate
Register Analogue outputs	Polynomial
Read ETC control device	Rolling Average
Write to ETC control device - digital	On / Off DELAY
Write to ETC control device – analogue	MONOSTABLE
WINDOW	Servo position
AVERAGE	Up / Down Drive
MAX of inputs connected	Curve
MIN of inputs connected	Real Time Clock
Multiplexer	Cycle relay
CONSTANT	Plausibility limits
De-multiplexer	Rate of change
Signal swap	Low Pass filter
Freeze	Custom display messages
Limit check with hysteresis	



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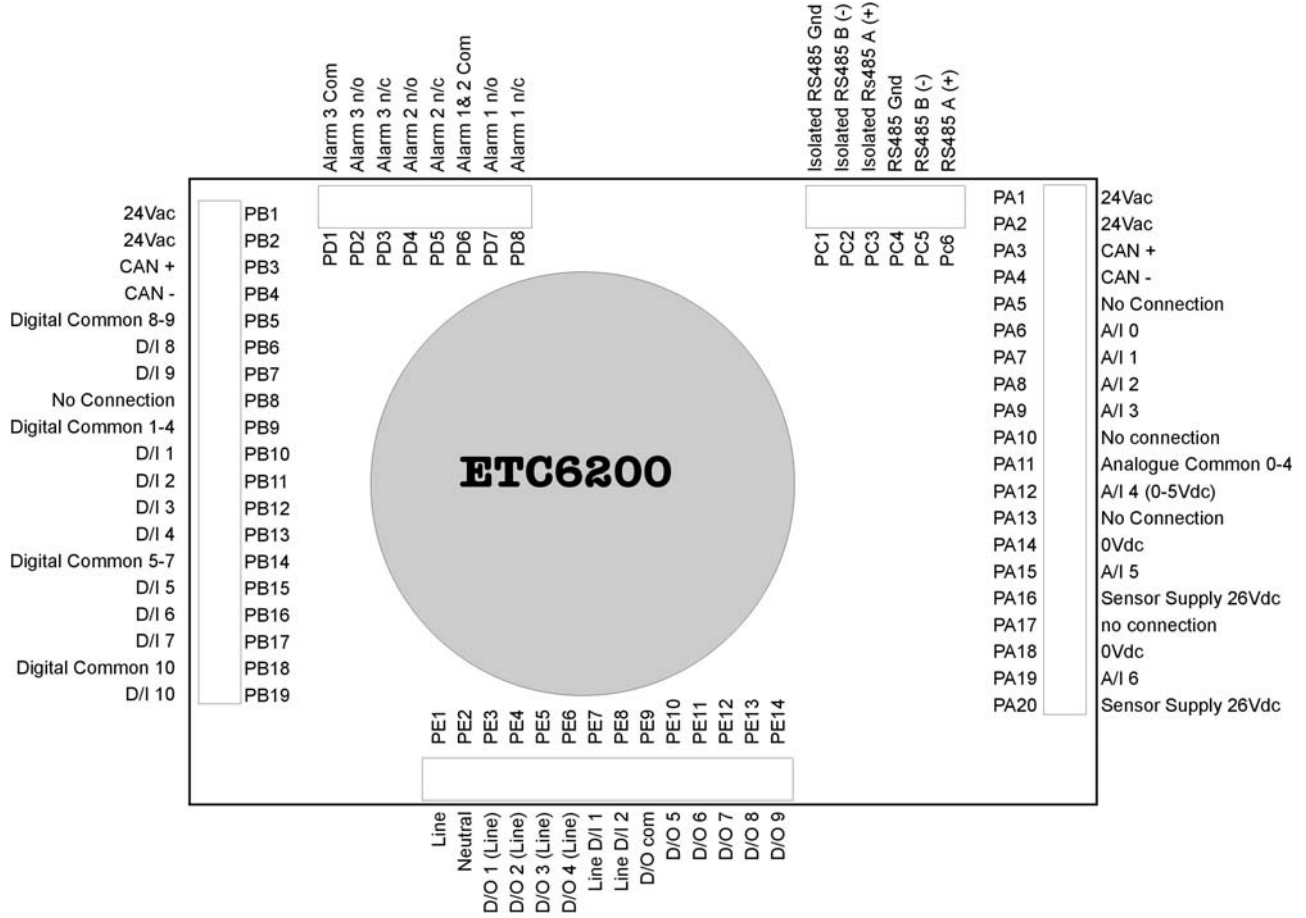
ETC6200 Technical specification

General		
Supply voltage	110/230Vac +10% -15%	
CanBus supply (internal)	24V ac	
Power consumption ETC6000 SERIES	65VA approx.	
Supply frequency	50/60Hz ±5%	
Environmental operating range	0 to 60°C, 85%Rh non-condensing	
Protection category	IP00	
Servo Control Drives	Maximum of 10 (type dependant)	
Servo motor control		
Type	ETC CanBus	
Positioning accuracy	±0.5°	
Relay (Digital) outputs		
Type – Fixed line voltage	4 off	
maximum current	2A rms (fused at 2 A maximum)	
maximum voltage	250Vac rms	
Max total simultaneous current	8A as a combination	
Type – Common supply volt free	5 off	
maximum current	2A rms (fused at 2 A maximum)	
maximum voltage	250Vac rms	
Max total simultaneous current	10A as a combination	
Digital inputs		
Type – High voltage (On = 90V - 230Vac)	3	
Type – Low voltage (volt free contact closure)	10	
Analogue inputs		
Type – Universal (0-5V or 4 to 20mA)	2	
Type – Current 4-20mA non-isolated	5	
Type – Voltage 0-5V	1	
Analogue Outputs		
Type – isolated 4 – 20mA	3	
Frequency inputs:		
Type – non-isolated, low Voltage (0-12V) with an input range 20 – 1000Hz.	3	
Communications interface	3-wire RS485, with termination resistor selectable via link.	

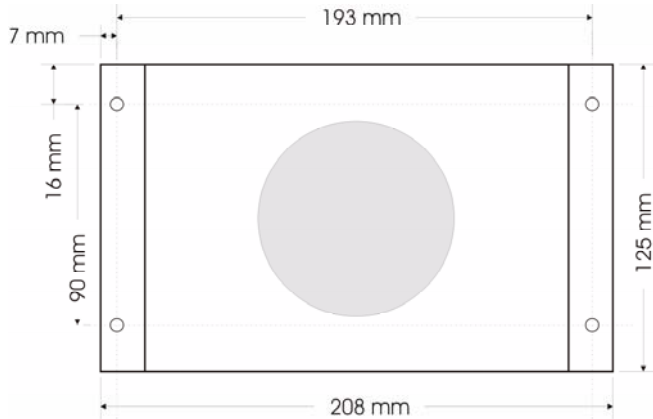
Optional Display.

Basic display		
Type	2 lines of 20 Characters 8 key membrane keypad	
Language	Alternative language tables available for Run Mode	

ETC6200 connection layout



Mechanical fixing details for ETC6200 series controls.



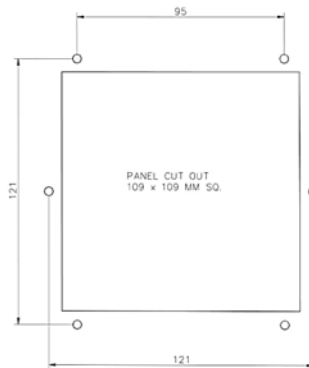
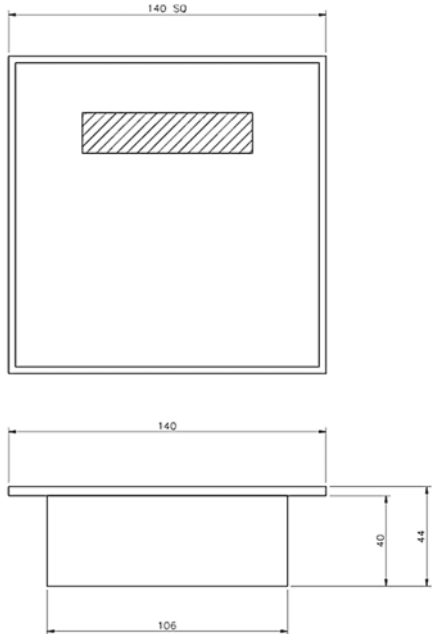
The control unit has been designed for fitting inside a burner control cabinet. The cabinet should have a minimum protection level of IP40 for indoor use or IP54 for outdoor use.

The control can be mounted in any attitude, clearances of a least 60mm should be left around the unit to allow sufficient space for wiring and to ensure reliable operation.

The control must be installed in a clean environment, according to EN6730-1.

The control unit chassis **MUST** be connected to earth to maintain electrical safety and ensure reliable operation.

Mechanical fixing details for the ETC6065 user interface.



The display should be mounted on the front of the burner cabinet, or similar accessible location.

All dimensions equi-spaced about centre lines of the aperture.

Maximum allowable panel thickness is 7mm

The display must be installed such that the section within the panel is in a clean environment, according to EN6730-1.

The display unit **MUST** be connected to earth to maintain electrical safety and ensure reliable operation.