MiG Micro Air Intelligent Generation Range of Time Switches and Temperature Controllers

Micro Air

Established in 1980, Micro Air Pty Ltd is a wholly Australian owned and operated company dedicated to the efficient use of energy in commercial environments.

Micro Air products include a range of energy management products, consisting of time switches and a range of temperature, pressure and humidity controllers. These timers and controllers are designed to control and manage air conditioning systems and other building services.

Our products are the culmination of extensive research and development, with proven reliability in an expansive range of installations and environments. Our products all come with a 2-year warranty and are fully supported by Micro Air service and repair facilities. All products carry the Australian Standards C-Tick approval, along with meeting CE international standards. The products are also Australian made and manufactured to meet ISO9002 Quality Assurance Standards.

As a member of the Energy Smart Ally Program we contribute to facilitating the development of a sustainable energy industry.

Micro Air continues to lead the market in Energy Management products through exceptional quality, service and support.

NEW CT5 – Combined Timer and Controller

The CT5 is a revolutionary new product, combining the features of a timer with the features of a controller, and is totally unique to this market. This two in one unit requires less wiring and space and the programming is integrated. The 'energy management' features of the CT5 will provide considerable cost savings to the end user.
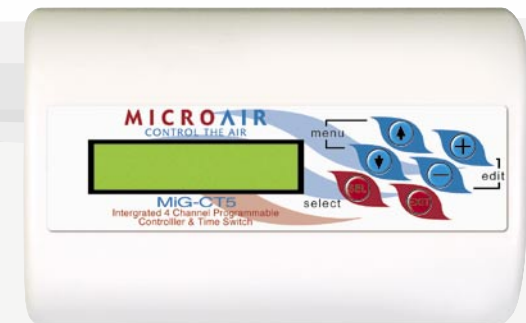
The Data Logging facility is another innovative feature of the CT5, saving technicians time and money in fault investigations.

The CT5 is designed to operate as a stand-alone unit, without the need to link it into larger building management systems.

- **4 channel controller with a single channel time switch**
- **5 relay outputs**
- **2 analogue outputs**

Timers

The Temperature Optimised Time Switch range has been designed for air conditioning and heating systems or any other application that requires a time switch to turn equipment on and off.

Applications include (but are not limited to):
★ Air Conditioning
★ Exhaust Fans
★ Lighting
★ Automatic doors
★ Pumps
★ Alarm systems
★ Watering systems
★ Agricultural irrigation systems
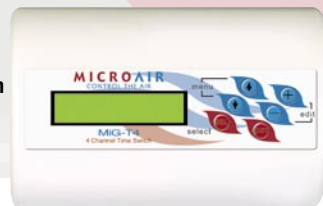★ Pools – timers and chemical dispensers

Unlike an ordinary time switch, the MiG time switches have Temperature Optimised Starting, allowing the programming of arrival time and preferred temperature. The on-board micro-processor quickly learns the building's heating characteristics and makes the necessary adjustments as weather conditions change. This feature provides substantial savings in running costs as the system starts just-in-time each morning.

The major features of the MiG time switches include:
★ Liquid Crystal Display – 2 lines, 32 characters
★ 365 day programmable which allows for 12 single holidays and 4 holiday periods
★ Multiple switching times per channel
★ Temperature optimisation start
★ Extreme temperature override function
★ Daylight saving option
★ Manual override function allows unscheduled operations – may be set for 15min to 8 hours
★ Remote override for after hours which need not be near the main unit
★ Memory backup via a 'super capacitor' therefore there is no need to replace or dispose of batteries
★ Ease of programming via an intuitive on-screen menu
★ Security access feature to prevent unauthorised program changes
★ May be wall mounted or DIN rail mounted
★ 2 year warranty on parts
★ Able to switch off past midnight

There are three options when choosing a timer:

T1 – Single channel time switch

T2 – Dual channel time switch

T4 – 4 Channel time switch

Controllers

The MiG range of controllers are not restricted to temperature control. They also have the ability to monitor and control the following units: °C, °F, %RH, %kPa, psi, Pa, "W, BAR, I/s, CFM, GPM, PPM, mA, V with one unit of measurement only monitored at one time. This option is unique to the MiG controller product.

The controllers incorporate the latest in micro-processor technology and cannot drift from their programmed settings. Thermistor accuracy is achieved by continually referencing to an internal standard of 0.25% tolerance. Furthermore, the controllers eliminate the disruption caused by line borne noise, averaging over 500 samples per reading before starting or stopping the stages.

The controllers are not confined to resistive inputs only. The user can reconfigure the hardware for the required inputs to be resistive (for thermistor and push button override), 0-10v, 4-20v and 0-20mA. The menu features are then enabled according to the specific use of the controller.

The major features of MiG controllers are as follows:
★ Liquid Crystal Display – 2 line, 32 characters
★ Controlled temperature range between -30ºC and + 110ºC and -20ºF and + 230ºF at a resolution of 0.1 of a degree allowing a wide range of applications from air conditioning to refrigeration
★ Ease of programming via an intuitive on-screen menu. The user will be unable to set conflicting data with error prompts to avoid incorrect programming
★ 2 analogue (0-10v) outputs
★ Either 2 or 4 digital outputs (relays)
★ The C2-2 stage controller, will have one set of normally open and normally closed contacts and one set of normally open contacts.
★ The C4-4 stage controller, will have two sets of normally open and normally closed contacts and two normally open contacts
★ Remote offset control ability
★ Time proportional heating
★ Outside air/economy cycle capabilities
★ Memory backup via non-volatile EEPROM
★ Display status shows the setpoint, remote offset, relay status, analogue outputs and high and low temperature logs
★ Start-up delay for the relay cut-ins is 1 to 60 seconds
★ Pre-programmed
★ Security control
★ Live On Site Testing to assist with commissioning
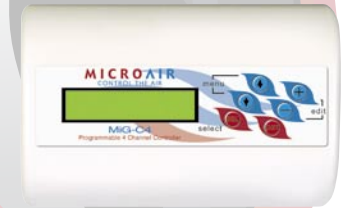
C2-2 stage controller

C4-4 stage controller

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Range of Time Switches & Temperature Controllers

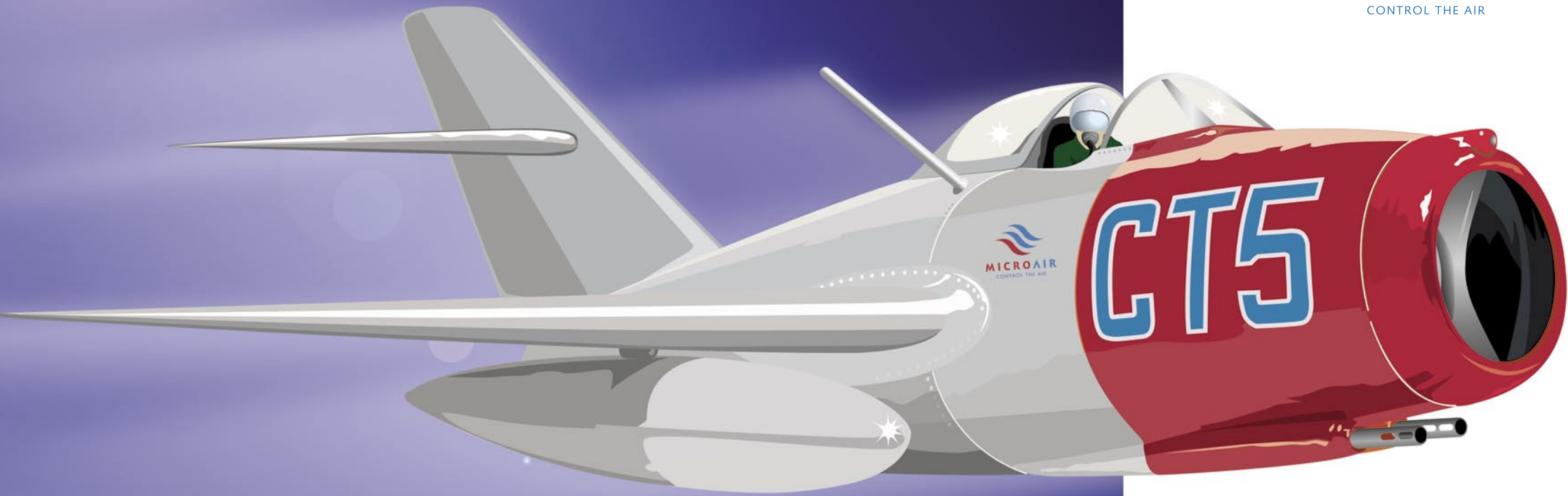| FEATURES		TIME SWITCHES	T1	T2	T4	CONTROLLERS	C2	C4	COMBINED	CT5
Wall Mount			★	★	★		★	★		★
DIN Rail Mount			★	★	★		★	★		★
Concealed Wiring			★	★	★		★	★		★
Snap Fit Lid			★	★	★		★	★		★
C-Tick Compliance			★	★	★		★	★		★
CE Compliance			★	★	★		★	★		★
Commercially Rated Components			★	★	★		★	★		★
230V / 110V / 24V Operation			★	★	★		★	★		★
Power Consumption			7VA	7VA	7VA		7VA	7VA		7VA
Voltage Free Relays - Rated to 230V @ 6Amps			★	★	★		★	★		★
Software Security Lockout			★	★	★		★	★		★
PC Interface Software Capable			★	★	★		★	★		★
2 Line, 32 Character Liquid Crystal Display with a resolution of one decimal place			★	★	★		★	★		★
Intuitive On Screen Menu			★	★	★		★	★		★
Program Safety won't allow conflicting data to be entered			★	★	★		★	★		★
Factory Settings - For Conventional Air Conditioning							★	★		★
Customised Settings				OPTIONAL AT CHARGE						
Non-Volatile Memory			★	★	★		★	★		★
Time & Date retained by environmentally friendly Super Capacitor for up to 2 days			★	★	★					★
Relay & Output Status			★	★	★		★	★		★
365 Day Programmable			★	★	★					★
8 Switching's Per Day			★	★	★					★
12 Single Holidays			★	★	★					★
4 Block Holidays			★	★	★					★
Automatic Warning to update holidays			★	★	★					★
Daylight Saving			★	★	★					★
Temperature Optimisation Start			★	★	★					★
Push Button Override			★	★	★					★
Extreme Temperature Override			★	★	★					★
High & Low Temperature Log			★	★	★		★	★		★
Extreme Input Override Run Time Log			★	★	★					★
Push Button Override Run Time Log			★	★	★					★
Controlled Units:°C,°F,%RH,%,kPa,psi,Pa,"W,BAR,l/s,CFM,GPM,PPM,mA,V,blank.							★	★		★
Controlled Inputs via a 10 bit AD: Resistive (kOhm),0-10v, 4-20mA & 0-20mA							★	★		★
Controlled Temperature Range: -30°C and +110°C & -20°F and + 230°F			★	★	★		★	★		★
Relays - Normally Open Contacts			1	1	2		1	2		3
Relays - Changeover Contacts				1	2		1	2		2
Analogue Outputs: 2 proportional 0-10v @ Source Current of 40mA & Sink Current of 20mA							2	2		2
Remote Offset Ability							★	★		★
Time Proportional Heating							★	★		★
Outside Air Economy Cycle							★	★		★
On Site/Live Testing							★	★		★

MICRO AIR
CONTROL THE AIR

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MiG **Micro Air Intelligent Generation**

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CT5

ENERGY SMART™ allies

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