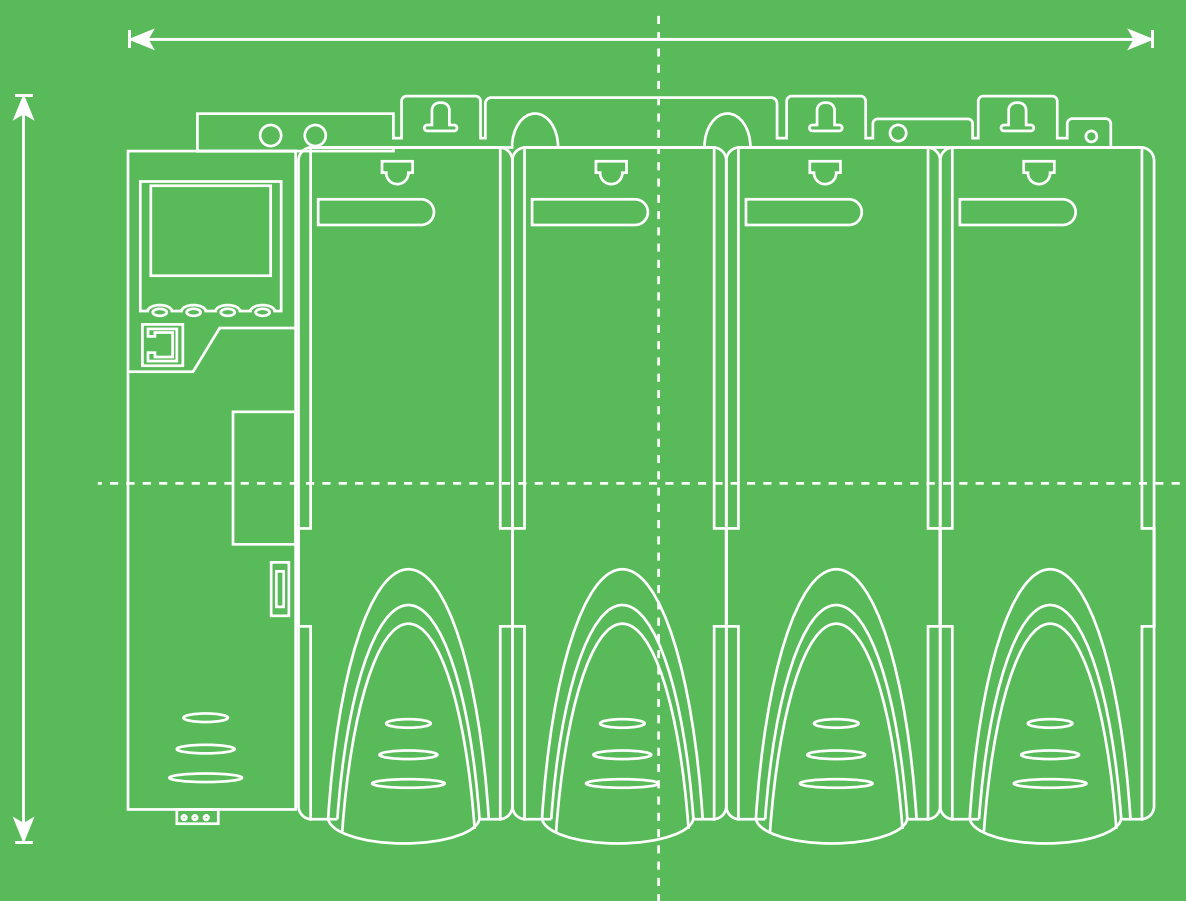


# PROCESS CONTROL, RECORDING AND AUTOMATION



# ABOUT ADM

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**FOR OVER 35 YEARS, ADM INSTRUMENT ENGINEERING HAS BUILT A SOLID REPUTATION ACROSS AUSTRALIA AS A RELIABLE SUPPLIER OF POWER SOLUTIONS, TEST EQUIPMENT, INDUSTRIAL SENSORS AND TRANSDUCERS.**

Offering an extensive range, we are a proudly Australian owned ISO9001 certified company with a strong tradition in providing design solutions, expert advice and excellent customer service.

We can provide a solution for almost any application.

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**ADM NOW OFFERS THE FULL RANGE OF EURO THERM AND WATLOW PROCESS CONTROL, RECORDING AND AUTOMATION SOLUTIONS AND STOCKS THE MOST COMMONLY USED PRODUCTS.**

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# ABOUT US

## WHAT DO WE DO

We provide comprehensive support to customers across Australia, offering a range of products including industrial power supplies, LED drivers, position sensors, pressure sensors, load cells, and encoders. Our customers span various industries, including industrial automation, medical and pharmaceutical, food and beverage, research and design, higher education, as well as lighting specialists and original equipment manufacturers.

ADM is more than just a product supplier. We offer a wide range of services, delivered by ADM's highly dedicated and professional technical team.

But it doesn't stop at stocking and supplying products. We offer a wide range of services Australia wide, delivered by ADM's highly dedicated and professional technical team.

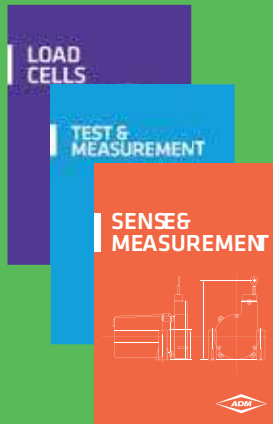
We understand that it matters that you can quickly get a product to your door and that you need to also get that product to your door at a fair and reasonable price. We understand that technical support matters, which is why we keep our technical team up to date with the latest product information. We understand that you want to partner with a supplier that is focused on what matters to you.

## WHO WE ARE

ADM Systems Pty Ltd is a family run group of businesses, first established by our Managing Director, Glenn Bates in 1986.

Since then we have grown to become Australia's largest distributor of MEAN WELL Power Supplies, Eurotherm Process Control and Data Management Solutions, Industrial Transducers and Sensors, PCA Encoders, Industrial Connectors, and Test & Measurement Instrumentation suitable for a wide range of applications.

ADM has a strong commitment to holding stock. This means you know the product is available when you need it. We also offer volume pricing and scheduled ordering to original equipment manufacturers, who need to order in high quantities, as well as convenient online ordering services for small scale enterprises and retail customers. Our technical staff undertake regular factory training and have close working relationships with our leading suppliers, so that they are up to date with the latest technologies available. This ensures you have the best performing position transducers, load cells, led drivers and all other components for your application.



## THE BEST PRODUCTS AT YOUR FINGERTIPS

ADM INSTRUMENT ENGINEERING REPRESENTS LEADING MANUFACTURERS OF THE FINEST ENGINEERED POWER SUPPLIES, POSITION TRANSDUCERS, PRESSURE SENSORS, LOAD CELLS & OTHER INDUSTRIAL & PROCESS MEASURING DEVICES IN AUSTRALIA.

OUR PRODUCT BROCHURES DETAIL OUR EXPERTISE IN POSITION SENSING, LOAD CELLS & TEST & MEASUREMENT INSTRUMENTATION.

TO REQUEST YOUR OWN COPY, PLEASE CONTACT OUR OFFICE ON, 1300 236 467.



Glenn Bates,  
Founder and Managing Director



**IF YOU ARE VISITING  
OUR HEAD OFFICE IN  
DINGLEY VILLAGE,  
YOU ARE LIKELY TO  
RECEIVE A VERY WARM  
WELCOME FROM OUR  
COMPANY DOGS.**

## ADM AIMS TO PROVIDE A COMPLETE SOLUTION FROM THE CONTROL SYSTEMS AT THE CORE OF A PROCESS, TO THE SENSORS MOUNTED IN THE PERIPHERY THROUGHOUT THE FIELD.

Eurotherm process controllers control various processes above and beyond just precision temperature applications. These processes may often involve flows, level, pans and fans and specific sequences, safety interlocks with simple logic such as “If This –Then That” to arguably the most precise PID control loop in the world. Eurotherm is a premier provider of temperature, power and process control, measurement and data management equipment, systems, software and services for global industrial markets and was acquired by Watlow from Schneider Electric in 2022.

At the heart of any process control system lies the control loop. This loop continuously monitors and adjusts a specific process variable, ensuring it remains at a desired set point. To complete the loop and enact adjustments, process controllers rely on final control elements such as a solid-state relay. ADM provides a range of solid-state relays for basic on/off control applications.

Eurotherm's thyristors ensure precise and energy-efficient load control, improving power consumption and scrappage rates. Variable speed drives optimise the performance of fans, pumps, or conveyor motion control.

Variable speed drives or thyristors can be instructed by the controller, to increase or decrease their speed or power output, which in turn may increase or decrease the process variable such as temperature or level. The sensors in the field then detect the effects of these changes and send a signal of this to the upper controller, closing the loop.

See our Sense & Measurement and Load Cells brochures for more details on our range field-mounted peripheral devices that feed signals into the process control.

## VARIABLE SPEED DRIVES

- Easy to use. Other drive brands can be very complicated to set up. Invertek has gone to great lengths to make setup easy and intuitive without compromising features and functionality.
- Significant energy savings can be made when using a Variable Frequency Drive if compared to running the motor Direct-On-Line through a contactor, as the peak in rush current can be reduced. In many cases the speed of fans and pumps can be reduced without compromising the process they serve.



### INVERTEK VARIABLE SPEED DRIVES RANGE

#### OPTIDRIVE E3

##### General purpose industrial VFDs

- Industrial applications e.g. Conveyors & mixers, etc.

#### OPTIDRIVE P2

##### High-Performance VFDs with fieldbus communication options and encoder feedback closed loop motor control

- Precision control with closed encoder feedback module.
- Simple PLC functionality & fieldbus communications.
- 0.75kw to 250kw.

#### OPTIDRIVE ECO

##### HVAC, Fan and pump speed controller are designed to be economical

- Energy efficiency with HVAC in mind.
- Special Pump control functionality.
- 0.75kw to 250kw.

#### OPTIDRIVE ELEVATOR

##### Next generation elevator motor control

- Purpose designed for lifts and for safety.
- Datalogging function.
- 0.75kw to 15kw.



# VARIABLE SPEED DRIVES APPLICATION EXAMPLE

Many universities and tertiary learning centres have fume cupboards in their laboratories with exaction fans to remove harmful gas and fumes, which may be emitted from whatever materials or substances the students or engineers are working with.

The fume cupboard fan does not need to run at full speed all the time, as this is very noisy and very wasteful on electrical energy. So, it is helpful to have a variable speed drive (VSD) controlling the speed of the fan motor.

The laboratory operator can ramp up the fan speed to maximum when their experiment is emitting the most fumes, and they can turn the speed right down when the emissions have stopped.

A local electrician from a nearby university recently reached out to ADM. The electrician had an SSD variable speed drive that, after providing over 33 years of reliable service, had finally ceased to function.

The SSD unit was part of Eurotherm's product range of variable speed drives, a brand for which ADM is the exclusive distributor in Australia.

Regrettably, Eurotherm no longer includes VSDs in their product portfolio. However, ADM has bridged this gap by partnering with INVERTEK, an innovative drives company based in the United Kingdom. This ensures that ADM continues to offer a comprehensive range of products to its customers.

The SSD drive had some special features that lend itself to this application:

1. It had an adjusting potentiometer on the front cover that allows the user to easily vary the speed; and
2. The power terminals were protected from fingers accidentally touching them.

There are two approaches to how one could handle the replacement of this VSD.

A basic drive such as the INVERTEK Optidrive E3, could be installed in a small enclosure with a START and STOP button as well as a speed potentiometer mounted on the door.

The plus side is that the E3 drive is extremely popular around Australia and readily available.

However it requires additional cabinet hardware as well as the labour to assemble it and the VSD digital display is not clearly visible should the operator wish to dial in an exact speed.



The alternative approach would be a slightly more expensive IP66 version of the Optidrive E3.

Although this is designed to be used in a wet wash-down production environment, it can also be simply bolted to the wall and used safely without the risk of electric shock. It also has a built in potentiometer on the front cover.



With a lifetime of experience in process control applications as being experts in motion control applications with our encoder products, ADM is your ideal variable speed drives partner. Contact our team to discuss any challenges you are facing with your applications.

# ABOUT WATLOW



With a history spanning over 100 years, Watlow is renowned for their industrial technology and thermal products. Watlow designs and manufactures heating solutions consisting primarily of electric resistive heaters, temperature sensors, temperature and power controllers and supporting software – all the components of a thermal system.

By bringing together all these components, Watlow helps optimise thermal performance, reduce design time, and enhance the efficiency of products across multiple industries. Watlow serves a wide range of sectors, including semiconductor processing, clean environmental technology, energy generation, diesel emissions, medical equipment, and food service. This broad expertise enables Watlow to address the unique challenges faced by different industries, ensuring that their thermal solutions meet the highest standards of quality and reliability.

Watlow's commitment to innovation is reflected in their extensive portfolio, which includes over 1,000 patents. Their products are designed to withstand challenging environments while providing precise temperature control. Through rigorous testing and manufacturing processes, they ensure all products meet strict industry standards, including UL, C-UL, RoHS, and CE certifications. This commitment to safety and compliance gives customers peace of mind, knowing that they are using reliable and environmentally friendly products.

ADM is proud to have been appointed distributors for Watlow in Australia and provide their cutting-edge solutions to ensure businesses can optimise their thermal processes.

If you're looking for a reliable thermal product, Watlow's versatile range is an excellent choice for various industrial and commercial needs. Our friendly ADM team are here to help, with over 35 years of experience providing sense, measurement, power and testing solutions. Give us a call today on **1300 236 467**.

# HEATING ELEMENTS

## ULTRAMIC® ADVANCED CERAMIC HEATERS

Watlow ULTRAMIC® ceramic heaters are advanced heating devices designed for precise thermal applications.



The ULTRAMIC® ceramic heaters are constructed with aluminium nitride (AlN), providing a clean and stable heat source. They can reach high temperatures quickly and maintain consistent heat across their surface.

Operating at temperatures up to 600°C (1112°F), they have an ultra-fast ramp rate of up to 150°C (270°F) per second, depending on the specific application and design. This rapid heating capability allows for efficient process control and reduces downtime.

Offers high electrical isolation and superior chemical resistance compared to traditional metal heaters. This makes them suitable for use in challenging environments where durability and reliability are crucial.

### Features / Functions

- Made of aluminium nitride (AlN) for clean, non-contaminating heat
- Process temperatures up to 600°C (1112°F)
- High dielectric strength
- Low leakage current
- Suitable for challenging thermal conditions
- Excellent reliability

## FREEFLEX® HEATED TUBING

Watlow FREEFLEX® Heated Tubing is a flexible system for heating and moving fluids through very small tubes.



The FREEFLEX is designed to warm liquids up to 100°C (212°F) and keep them at that temperature as they move from one place to another.

Made from polymeric tubing, it provides excellent tensile strength and can be as narrow as 0.8 mm (1/32 inch) inside. It's wrapped with a heating element that touches the tube directly, making it heat up quickly and evenly. A durable bendable outer layer lets the tube flex and move around easily to allow for fluid delivery to multiple locations.

FREEFLEX® Heated Tubing is useful in many fields, including medical testing, chemical analysis, semiconductor manufacturing, and 3D printing

### Features / Functions

- Flexible heat-up and transport system
- Heating element directly contacts tubing
- Integral sensors
- Low voltage design
- Miniature inside diameters as small as 1/32 in. (0.8 mm)
- Convenient retrofit
- UL® recognition available on qualified designs by request
- Available in three configurations
  - FREEFLEX design allows tubing to flex, coil or bend around system components
  - Pre-formed design allows longer tube length in smaller volume
  - Molded design provides a compact heating assembly for easy installation

# HEATING ELEMENTS

## SILICONE RUBBER HEATERS

Watlow silicone rubber heaters are versatile thermal solutions that combine durability with flexibility. Heat can be applied precisely where needed to enhance heat transfer, speed up warm-ups, and reduce wattage requirements.



These thin, lightweight heaters are designed to provide efficient heat transfer in compact spaces, making them ideal for various applications, such as medical and diagnostic equipment. Their adaptable nature allows them to conform to different shapes and sizes, ensuring optimal heat distribution.

Constructed with wire-wound element of an etched-foil element, they deliver low mass and easily reputable distributed watt densities.

Operates temperatures up to 500°F (260°C) with watt densities up to 80 W/in<sup>2</sup> (12.5 W/cm<sup>2</sup>), dependent upon application temperature.

### Features / Functions

- Rapid warm-up times
- Adaptable to various shapes and sizes
- More than 80 designs available
- Thin profile (1.4 mm for wire-wound, 0.56 mm for etched-foil elements)
- Moisture- and chemical-resistant silicone rubber material for longer heating life
- Vulcanizing adhesives or fasteners

## FIREROD® CARTRIDGE HEATERS

Built with durable materials, the FIREROD heater provides superior heat transfer, uniform temperatures, resistance to oxidation and corrosion and a long life even at high temperatures.



Watlow offers an industry-leading range of FIREROD cartridge heaters, providing the most complete selection of lengths, diameters, and watt densities available.

Utilises advanced swaging technology to enhance thermal conductivity, resulting in faster and more uniform heating performance. Watlow's FIREROD heaters can accommodate non-destructive testing and custom subassembly requirements, making them versatile solutions for diverse industrial applications.

Available from 1/8- to 1-inch diameters and in lengths ranging from less than 1 to 100 in. (25 to 2540 mm).

### Features / Functions

- Nickel chromium resistance wire ensures even, efficient distribution of heat to sheath
- Magnesium oxide insulation of specific grain and purity results in high dielectric strength and faster heat-up
- Alloy 800 sheath resists oxidation and corrosion from many chemicals, heat and atmospheres
- Minimal spacing between element wire and sheath results in lower internal temperatures and accommodates design with fewer or smaller heaters
- UL® and CSA approved flexible stranded wires with lead insulation rated to temperatures of 480°F (250°C)





# TEMPERATURE & PROCESS CONTROLLERS

## PM LEGACY™ PANEL MOUNT CONTROLLER

The PM LEGACY™ Panel Mount Controller is a user-friendly PID controller designed for basic applications and usage levels. Available in two sizes (1/32 and 1/16 DIN), it is suitable as a PID process controller or a temperature limit controller.



The LEGACY features a simple menu that allows users to navigate easily, with a PID auto-tune function for quick start up and efficiency. Reducing the need for extensive training, the device eliminates user complexity often associated with more advanced controllers.

Built with a SMOOTH TOUCH™ keypad, dirt and germs are prevented from entering, ensuring a clean and safe operation. This design also makes the mechanical parts more durable, reducing the chances of them breaking down early.

### Features / Functions

- User-Friendly Interface
- PID Auto-Tune for efficient control
- Factory Mutual (FM) approved over and under-temperature conditions
- Mobile App Integration with EZ-LINK™
- Standard bus communications
- SMOOTH TOUCH™ keypad design helps prevent contamination
- Complies to NEMA 4X, IP66 and IP67 specifications

## EZ-ZONE® RM MODULAR CONTROLLER FAMILY

The EZ-ZONE RM is a flexible, modular controller system that can be customised to meet a wide range of industrial control needs.



Comprises six module types including an integrated on-off or PID control, monitoring and over/under temperature limit module, a high-density on-off or PID control module, a high-density limit only module, an input/output (I/O) expansion module, a high-density monitor/scanner module and a data logging and field communications access module.

### Features / Functions

- Multiple inputs; from 1 to 152 PID loops of control or monitor up to 256 analog inputs
- Advanced PID control algorithm
- USB Port
- SPLIT-RAIL control allows modules mounted in separate high-voltage and low-voltage cabinets to function as an integrated system
- AUTO CLONE reduces time and configuration complexity
- SENSOR GUARD prevents unplanned process shutdowns

## F4T® TEMPERATURE AND PROCESS CONTROLLER

The Watlow F4T Process Controller is a versatile and user-friendly device with a compact 1/4 DIN design and flexible configuration with 1 to 4 control loops.



Features customisable, removable input/output modules and a 4.3-inch color touchscreen for easy operation. The F4T combines multiple control functions—such as temperature PID, over/under-temperature limits, and built-in algorithms for various processes—into one integrated unit.

With numerous communication options, including Ethernet Modbus® TCP and Modbus® RTU, this modular controller adapts to changing requirements. Its intuitive design simplifies setup and operation, making it suitable for a wide range of applications while reducing the need for complex manuals.

### Features / Functions

- 4.3-inch, color touch panel with high-resolution, graphical user-interface
- Integrated system combining multiple control functions
- Robust algorithms for temperature, cascade, altitude, humidity and compressor
- Email and text alerts
- COPC-based configuration software (COMPOSER®)
- Batch processing with bar code data entry



# POWER CONTROLLERS

## DIN-A-MITE® A

The DIN-A-MITE® A is a power switching device controller designed to optimise the management of electrical power in various applications.



It can handle single-phase zero-cross switching up to 25 amperes at 600VAC, making it suitable for a wide range of heating tasks. Due to its integrated design, installation is simplified, eliminating the need to choose separate heat sinks and terminations.

The DIN-A-MITE A is environmentally friendly, made from no mercury. It offers different configurations, including options for variable time base control and 4-20mA process control. It has a 200KA short circuit current rating (SCCR), tested up to 480VAC, which helps prevent dangerous arc flashes.

### Features / Functions

- Easy Installation: Integrated design eliminates guesswork for heat sinks and terminations.
- High Capacity: Handles single-phase zero-cross switching up to 25A at 600VAC.
- Flexible Mounting: Can be mounted on DIN rails or back panels.
- Mercury-Free: Environmentally friendly design.
- Custom Configurations: Options for variable time base and 4-20mA process control.
- Safety Rating: 200KA SCCR tested to prevent arc flash hazards.

## DIN-A-MITE® B

Reliable and efficient, the DIN-A-MITE® B is a low-cost, highly compact and versatile solid state electric heat controller.



Capabilities include single-phase and three-phase zero-cross switching up to 40 and 22 amperes, respectively at 600VAC. This electric heat controller's design includes proper heat sinking and terminations simplifying integration into applications.

DIN-rail and back panel mounting is standard on this electric heat controller. The DIN-A-MITE controller is also mercury free. Variable time base, 4-20mA process control or VAC/VDC input contactor versions are available. A shorted silicon controlled rectifier (SCR) alarm option is also available.

### Features / Functions

- DIN-rail or standard panel mount
- Single- and three-phase power with zero-cross switching up to 25A at 600VAC.
- Mercury-Free: Environmentally friendly design.
- Custom Configurations: Options for variable time base and 4-20mA process control.
- Safety Rating: 200KA SCCR tested to prevent arc flash hazards.
- Faster switching with solid state: Saves energy and extends heater life

## DIN-A-MITE® C

The DIN-A-MITE C silicon controlled rectifier (SCR) power controller offers a powerful solution for electric heat control, delivering up to 80 amperes in a compact package.



Basic features of the solid state controller include single-phase, three-phase/two leg, and three-phase/three leg, 24-600VAC operation. Current switching capabilities range from 30 to 80A depending on the model ordered.

Variable time base, linear voltage and current process control or VAC/VDC input contactor versions are available. Single-phase, phase angle firing and current limiting are also available. This solid state power controller includes 200KA short circuit current rating (SCCR) tested up to 480VAC to prevent arc flash with required fusing.

### Features / Functions

- DIN-rail and standard panel mount thru-wall mounting
- Touch-safe terminals
- One- and three-phase power
- No mercury
- Open heater/shorted output alarm
- Safety Rating: 200KA SCCR tested to prevent arc flash hazards.
- Faster switching with solid state: Saves energy and extends heater life

# POWER CONTROLLERS

## DIN-A-MITE® D

The DIN-A-MITE D silicon controlled rectifier (SCR) power controller provides an inexpensive, versatile product for controlling heat in an efficient package.



It is capable of zero-cross switching up to 100 amperes single-phase, at 600VAC at 86°F (30°C), depending on the model selected. Two or three controllers used together can control three-phase.

Touch-safe and includes standard back panel mounting, on-board semiconductor fuses (accessible from the front) and a current transformer option for external load current monitoring. An optional "shorted SCR detector" feature is available on some models. This model is UL®508 listed and C-UL® and CE certified. These agency approvals are ideal for those panel builders that require agency approvals on their panels and cabinets.

### Features / Functions

- Easy, fast installation
- Achieve optimum control with zero cross switching
- Reduces wear on thermal wear
- System failure prevention
- Rugged, back-to-back SCR design ensures long term reliability
- Safety Rating: 200KA SCCR tested to prevent arc flash hazards.

## ASPYPE® DT SCR POWER CONTROLLERS

Modular and scalable power controller with a SCR design, the ASPYPE® DT SCR family delivers reliable results with minimal maintenance.



With sizes ranging from 35 to 2100 amps, these smart controllers can be customized to meet various power needs. Their adaptable design allows one platform to be reused across a wide range of applications, providing a range of options from single-phase, to complex three-phase loads, to 690VAC.

### Features / Functions

- Easy to use and service
- 20 firing combinations to align with a variety of load types
- Advanced control modes protect heater from damage on start up and extends overall heater element life
- Six available power control modes to maximize thermal performance
- Multiple digital and analog I/O to increase system control functionality
- Quick access to SCRs minimizes production downtime
- Intelligent troubleshooting with built-in diagnostics

## ASPYPE® AT POWER CONTROLLERS

The Watlow ASPYPE AT Smart Power Controller is a flexible, compact and scalable smart SCR power controllers that features multiple advanced firing and control mode algorithms combined with sophisticated diagnostics.



It performs closed-loop control on current, voltage and power, which can improve temperature control by quickly responding to voltage sags or other load issues.

Option to connect with a PM PLUS or other Watlow controller via the inter-module bus to receive its set point signal.

Available with analogue and digital inputs that allow it to receive a signal from other controllers.

### Features / Functions

- High accuracy current and voltage measurement
- Integrated, scalable solution
- Robust SCR design, specifically engineered to meet the high-quality and reliability demands of challenging industrial environments.
- 100KA short circuit current rating (SCCR)
- c-UL® 508 Listed
- Load firing modes: Zero-cross, burst fire, phase angle, soft start
- Open heater and shorted SCR indication

# Eurotherm®



## EUROTHERM BY WATLOW

**Eurotherm was established in June 1965** and has decades of experience in providing world-class process control, recording and automation solutions. In 2022, Eurotherm was acquired by Watlow, a global leader in the design and manufacture of complete thermal systems.

At the heart of Eurotherm's success is a continuous research and development programme, ensuring that Eurotherm solutions meet the modern challenges faced across a wide range of industries, including those in Australia.

Australian Eurotherm customers fully supported by ADM's local sales and service team of highly qualified engineering personnel, who understand the wide range of applications and industries in this country.

## EUROTHERM PRODUCT RANGE

- Process Controllers.
- Process Automation Solutions.
- Recorders.
- Thyristors / Power Controllers.
- Automation Software.

## PROCESS CONTROLLERS

Eurotherm offers both multi-loop and single-loop process controllers.

Multi-loop controllers are used to control a process, which needs more than one control loop within a system. The range of advanced features and options found on the Eurotherm multi-loop controllers makes them ideal for small machine control.

These include flexible I/O options to control and measure a multitude of processes including, but not limited to temperature, humidity, carbon potential, flow, pressure, level, viscosity and additive dosing. Using a multi-loop controller over single-loop device can save installation time and costs by giving one common connection point with less wiring and panel cut outs.

Downtime can also be reduced with rack mount multi-loop controllers, where modules can be changed without powering down the system.

## PROCESS AUTOMATION SOLUTIONS

Eurotherm is a world leader in analogue control solutions. Eurotherm's built-in functionality reflects Eurotherm's core technology and application expertise, which reduces engineering effort and provides systems that are delivered on time and work first time.

Control, advanced data security, energy management, and flexible I/O, together with visualisation options are combined with powerful strategy engines to form the basis of systems, which can easily integrate with existing platforms and 3rd party equipment.

## THYRISTORS / POWER CONTROLLERS

Eurotherm's impressive range of thyristors and power controllers improve process performance and save on energy costs.

Covering all types of load and voltage, these products offer reliability and features such as high-performance alarm strategies and advanced diagnostic load fault detection.

Eurotherm SCR Power Controllers are suitable for multiple applications, whether the load is constant or variable resistance, inductive or transformer coupled, single, or three-phase.

## RECORDERS

Eurotherm's state-of-the-art recorders and data management software ensures that your critical process data is kept safe.

They also optimise operational efficiency, by converting data into the information required to add value to a process.

Eurotherm offers some of the best proven recording and archiving solutions and Eurotherm recorders feature a wealth of functions, including batch, audit trail, electronic signatures and remote viewing/operation.

## pulsar<sup>MEASUREMENT</sup> SENSOR TO CLOUD PLATFORM

- Plug &-play, instant connectivity of a sensor to the cloud over cellular networks.
- Optimised for battery life using latest cell modem technology LTE CAT M1 / NB-IoT.
- Multi input/output to connect to a variety of sensors including analogue, HART, sdi-12, and Modbus.
- MQTT & sparkplug-b ready to integrate with hosts other than SignalFire cloud.



## iTOOLS

A versatile suite of software iTools are designed to aid in the configuration and monitoring of Eurotherm temperature controllers, process controllers, power controllers, and recorders. Some key benefits include:

**Configuration and Cloning:** Eurotherm iTools allows you to edit, store, and clone complete controller configurations. This feature streamlines setup and ensures consistency across multiple devices.

**Data Logging:** You can set up data logging to capture critical process information over time. This helps with troubleshooting, performance analysis, and compliance with regulatory requirements.

**Process Monitoring:** Monitor real-time process variables, alarms, and trends. Eurotherm iTools provides runtime monitoring for Eurotherm nanodac, 2000 and 3000 Series controllers, Mini8 controllers, and 6000 Series graphic recorders.

**Graphical Wiring Editor:** Simplify configuration for specific controllers (such as 3500, Mini8, 2604, and 2704) using a drag-and-drop interface. The graphical wiring editor dynamically maps terminal connections to the instrument configuration.

**Customized Visualization:** Create customized screens using the View Builder tool. Visualize your process data in a way that suits your needs.

**OPC Server:** Connect to remote instrumentation via the internet and read/write values to supervisory packages like Wonderware® or LabVIEW™. The OPC Data Access 2 server allows seamless communication.

**Automatic Network Scanning:** Eurotherm iTools can automatically detect devices on the network, making setup and configuration more efficient.

## DATA REVIEWER

A powerful software application designed for viewing, analysing, and printing historical data files obtained from Eurotherm data acquisition equipment. Here are some key benefits:

**Efficient Data Management:** Eurotherm Data Reviewer allows you to browse and analyze your process data at any time, without the need for specialised application or database expertise. It empowers you to display, analyse, and share historical data files easily and flexibly.

### Optimised Production and Data Integrity:

By organising and managing critical data and contextual metadata, Eurotherm Data Reviewer helps meet stringent regulations on the quality, safety, and authenticity of manufactured goods. It ensures data integrity, which is crucial for industries such as pharmaceuticals, food, and heat treatment.

**Easy Access and Analysis:** The software automatically organises imported data by group and batch, making it easy to find relevant information. You can refine data further by changing date ranges, searching for recording devices, or using dual cursor modes for effective analysis.

**Annotations and Approvals:** During analysis, you can add annotations (such as comments or authorisation signatures) to the data. These annotations are stored alongside the original data, facilitating easy retrieval for future reference.

**Multiple Viewing Styles:** Eurotherm Data Reviewer supports various data viewing styles, including horizontal linear charts, spreadsheet views (from version 5.0 onwards), circular charts, and CSV exports. This flexibility allows you to choose the most suitable format for your needs.

**Integration with OPC UA:** Historical data can be accessed via OPC UA Clients, enhancing connectivity and interoperability.

**Free Foundation Edition:** Eurotherm offers a free Data Reviewer Foundation Edition, making it accessible for users to explore its capabilities.



## ADM INSTRUMENT ENGINEERING

Experts in Measurement and Monitoring Solutions

### If you have an industrial or process measurement challenge ADM can help.

We stock a range of sensors, transducers, and transmitters from well-known brands such as Pulsar Measurement, VAISALA, POSITAL, ESI, UniMeasure, Laumas, and more.

Our product range includes flow and level measurement devices, positions and displacement sensors, encoders, process refractometers, load cells, and weighing instruments, just to mention a few.

Our expert team is on hand to help you find the best solution for your application.





# FOUNDATION CONTROLLERS

## 3200 SERIES FIXED BUILD TEMPERATURE CONTROLLERS

The innovative range of 3200 controllers offer precision control of temperature and other process variables, together with many advanced features not usually found in this class of controller.



The emphasis of the 3200 is on simplicity & ease of use.

A simple 'Quick Start' code is used to configure all the functions essential for controlling your process.

The code includes input sensor type, measurement range, control options, and alarms, making 'Out the Box' operation truly achievable.

In operator mode, every parameter has a scrolling text message describing its function.

More advanced features are configured using Eurotherm iTools, a PC based configuration wizard, which is an easy to use and instructive guide to all the functions in the controller.

### Features / Functions

- 8 Segment programmer
- Heater failure detection
- Current monitoring
- Internal timers
- Scrolling text messages
- Recipes
- Modbus communications
- Modbus SP retransmission
- Analogue retransmission
- Remote setpoint
- Help text
- Wizard set-up via iTools
- Custom messages via iTools
- USB configuration clip ready
- 4 alarms with "OR" to relays

## 3500 SERIES 2 DUAL LOOP CONTROLLER/ PROGRAMMER

This advanced process controller provides precision control of temperature and a host of other process variables, together with an abundance of advanced options making it the most adaptable product in its class.



The emphasis of the 3500 controller is flexibility, whilst maintaining ease of use.

Advanced features are configured using a PC based graphical configuration tool enabling users to pick function blocks from a library then connect them together using soft wiring.

The large 5-digit display provides a clear and unambiguous indication of the process value.

A four-line message centre provides custom or standard views of important information to the user, while vertical and horizontal bar graphs provide at a glance visual indication of the process.

### Features / Functions

- 2 PID loops
- 50 Programs
- Precision PV input
- Carbon potential
- Wet/Dry Humidity
- Maths/logic/timers
- Graphical Wiring via iTools
- Custom user interface
- Recipes
- Digital communications:
  - Ethernet: DUAL RJ45 port
  - Modbus TCP Server and Client
  - Modbus RTU Server and Client
  - DeviceNet® network.
- OEM Security
- Battery-Free Technology

## 26/2704 ADVANCED PROCESS CONTROLLER / PROGRAMMER

These are highly accurate and stable process controllers available in a single, dual or triple loop format. Features include setpoint programming and comprehensive selection of maths and logic functions.



The 2604 has a dual 5-digit display of process value and setpoint with an LCD panel for display of alarm messages, programmer and loop status information.

User defined messages in the LCD panel simplify operation.

The 2704's user interface incorporates a bright dot matrix display, providing extreme flexibility and ease of use.

Both the 2604 and 2704 are highly configurable products offering many features previously found only in programmable logic controllers.

This enables systems to be implemented integrating the process control and logic functions of a machine, therefore simplifying system complexity and reducing the total system costs.

### Control Functions

- 3 Control loops
- PID, VP or ON/OFF
- Cascade, ratio or override
- Carbon potential
- Wet/Dry Humidity
- Gain scheduling
- Configurable control strategies

### Setpoint Programmer

- 60 Programs
- 3 Profiled setpoints program
- 600 Segments
- 16 Event outputs
- Program mimic display

### Digital Communications

Profibus DP, DeviceNet®, Modbus RTU, Ethernet Modbus TCP

# EPC3000 ADVANCE PROCESS CONTROLLERS

## EPC3016 FIXED BUILD 1/16 DIN FORM

The EPC3000 range of programmable single loop process and temperature controllers maximise process efficiency and are certified for cybersecurity communications robustness.



These controllers combine industry leading control and measurement performance with simplicity of use, and they are also highly flexible.

A simple "Quick Start" configuration code, enables fast "Out of the Box" commissioning using just the instrument HMI.

For applications requiring additional processing, user function block wiring provides a full range of math, logic, totalizer and specialised functions.

A highly visible three-colour display, with natural language status and alarm indications is easy for operators to use.

EPC3000 is highly durable, with a battery-free design and extended service life.

### Features / Functions

- Fast Ethernet with RJ45 connector for IIoT and Industry 4.0.
- Modbus, Ethernet/IP and BACnet protocol support.
- Up to 20 ramp/soak program profiles.
- Factory Mutual (FM) approved temperature limit option available.

## EPC3008 FIXED BUILD 1/8 DIN FORM

Fast and accurate process inputs, with exceptional thermal stability, delivering precise and consistent control over prolonged periods without calibration drift.



Recalibration and user calibration correction functions further improve accuracy.

Eurotherm's industry leading PID algorithm delivers fast reacting and repeatable control and has been enhanced to further reduce overshoot.

Rapid rise to operating temperature and low oscillation aids high process throughput at low scrap rates.

Different PID settings may be applied in different process operating regions for optimum performance.

### Features / Functions

- Precision single loop controller with cybersecurity function.
- Precise (0.1%) universal inputs with 50ms sample rate.
- Thermocouples, resistance thermometer, mA, mV, volts, zirconia.
- Exceptional thermal stability.
- Fast PID response with minimal overshoot and oscillation.
- Multi-programmer function with up to 10 programs of 24 steps.
- Standard 50 configuration wires.

## EPC3004 FIXED BUILD 1/4 DIN FORM

Ethernet enabled and certified to meet the stringent cybersecurity requirements of Achilles® Communications Robustness Testing Level 1.



Ethernet communications are supported via a standard RJ45 connector, providing fast access to process and diagnostic information, as well as connectivity to external PLC or plant SCADA.

Ethernet/IP, BACnet and Modbus RTU serial communications are also supported.

iTools Engineering Studio is free PC based backup and configuration software that uses a USB connected tool, powering the instrument from the USB interface for convenient desktop configuration.

### Features / Functions

- High visibility customisable display.
- Quick code setup with application templates.
- User function block wiring including math, logic and totalizer.
- Extensive range of international approvals.
- Direct Ethernet RJ45 Connection certified to Achilles® CRT Level 1.
- Individual setpoint ramp up and setpoint ramp down limits.
- Individual output power ramp up and output power ramp down limits.
- Configurable "Safe" power up.

# HELPING DELIVER AN EFFICIENT AND SECURE PROCESS

## EUROTHERM EPC3000 PROGRAMMABLE CONTROLLERS

Maintain the high standards of production quality and ease your cybersecurity worries



# PROCESS AUTOMATION

Eurotherm DCS solutions utilise the expertise on which Eurotherm has built over 40 years of research and development.

World class control, advanced data security, energy management, flexible I/O and visualisation options combined with powerful strategy engines form the basis of systems that can easily integrate with existing platforms and 3rd party equipment as required.

Eurotherm's products are designed with built-in functionality that reflects our core technology and application expertise - reducing engineering effort and providing you with systems that are delivered on time and work first time.

## T2750 PROGRAMMABLE AUTOMATION CONTROLLER

The T2750 PAC's Enhanced Processor is Eurotherm's highest performance solution, offering extremely cost-effective redundancy options, making high-level process control an affordable option.



- Built-in redundancy that doesn't require expensive engineering.
- Versatile HMI visualisation solutions.
- Point of measurement, secure, redundant data recording.
- Powerful strategy engines.
- Proven control algorithms already packaged and implemented.
- Secure data recording.
- Embedded technologies to meet requirements such as FDA 21 CFR Part 11 and AMS2750E without additional engineering.

The control unit and I/O system form the basis of a complete distributed control and recording environment, which is capable of continuous analogue, logic and sequential control combined with secure data recording at point of measurement.

This is designed to enhance the Return on Investment (ROI) from your process, by maximising process uptime and minimising engineering costs.

The E-Sync technology lowers engineering costs, shortens implementation time and simplifies lifetime maintenance.

The T2750's duplex mode offers redundancy of processors, power supply and network at a price performance level that has never been seen before.

T2750 provides secure and redundant data recording at point of measurement simply by plugging in the additional processor module.

The data is held in non-volatile memory and is in a secure format to inhibit tampering. For valuable data this is the most simple and powerful offering in the marketplace.

## T2750 PROGRAMMABLE AUTOMATION CONTROLLER

The T2750 PAC hardware provides high-performance control with an enhanced processor.



Additional high specification modules make it the most powerful of all Eurotherm's automation and control instrumentation.

## EYCON10 / EYCON20 VISUAL SUPERVISOR

The Eycon™ Series combines Multi-Function Control, Recording, and Visualisation, in a Single Process Management Unit.



This brings expertise in control, data acquisition and process automation into a single process management unit.

The Eycon 5.5" ¼ VGA or 12.1" XGA offer integrated colour, TFT displays capable of performing continuous, sequential and logic control in a slim panel mount enclosure.

This 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 can be utilised as a building block within a larger system to provide peer-to-peer communications over Ethernet (ELIN), reducing engineering costs with increased availability of the system.

The versatility of Eurotherm Process Automation components makes them ideal for a wide range of applications - as diverse as pharmaceutical / chemical reactors, glass furnaces, multi-zone heat treatment furnaces, injection molding and extrusion systems, batch control systems, environment monitoring, and building management systems.

## EUROTHERM MINI-8 LOOP CONTROLLER

Unlock Precision Control with Cutting-Edge Technology  
Are you ready to elevate your process control to new heights? Look no further than the Eurotherm Mini-8, the ultimate partner for your programmable logic controller (PLC).

Make the Transition Now!

The Mini-8 is cost-effective, precise, and adaptable. Whether you're in materials engineering, thin films, or coatings machinery, the Mini-8 is your secret weapon.

Contact ADM today and experience the Mini-8 difference.



# RECORDERS

## DATA REVIEWER: THE POWER OF DATA MANAGEMENT

In the ever-evolving landscape of industrial automation, data management is the heartbeat of efficiency and compliance. The Eurotherm Data Reviewer is a robust software application designed to unlock the potential of historical data files obtained from Eurotherm data acquisition equipment.

### Foundation Edition: Where It All Begins.

**Free to Download:** The Foundation Edition caters to small, standalone instrument networks. It's your gateway to efficient data analysis without breaking the bank.

**Easy Installation:** Install it once on a server, granting remote access to users. Say goodbye to managing multiple installations on various PCs.

**Efficient Data Retrieval:** Imported data is automatically organised by group and batch. Refine your search by date range, device name, or recording group.

**Dual Cursor Mode:** Analyse data effectively with dual cursors. Dive deep into process variable details and select specific data ranges for analysis.

**Annotations for Approval:** Add comments or authorisation signatures during analysis. Annotations are stored alongside the original data for easy retrieval.

### Enterprise Edition: Scaling Up for Success.

**Unrestricted Database Size:** The Enterprise Edition is a server-based powerhouse. No more limits—store as much data as you need.

**Multi-User Access:** Collaborate seamlessly with colleagues. Share insights, optimise processes, and drive productivity.

**OPC UA Server Function:** Access historical data via OPC UA clients. Seamlessly integrate with your existing infrastructure.

**Circular Charts and More:** View data in multiple styles, including horizontal linear charts, spreadsheet views (V5.0 onwards), and circular charts.

**Enhanced Data Integrity:** Comply with regulations (FDA 21CFR part 11, ALCOA, AMS2750) effortlessly. Ensure data authenticity and audit readiness.

### Why Choose Eurotherm Data Reviewer?

**Precision Control:** Optimise your production processes with accurate historical data analysis.

**Compliance Confidence:** Demonstrate regulatory compliance and reduce audit costs.

**IIoT Ready:** DataReviewer supports on-premises data integrity and IIoT connectivity.

## BRIDGE SOFTWARE

Bridge software gives complete remote access to Eurotherm's recorders.

The software can be installed on any number of PCs/Laptops and can connect to multiple recorders via a local network, dial-up connection or the Internet.

Each 6000 instrument can have 10 concurrent, independent, remote users connected to it and viewing live data from the recorder.

Ease of operator use is maintained as the operation and data visible at the PC is the same as on the 6000 instruments.

Data security is maintained with the use of specific user names and passwords.

## 6100A & 6180A PAPERLESS GRAPHIC RECORDER

The 6000 Series offers unrivalled input accuracy with a 125ms total sample rate for up to 48 input channels.



Data is stored in a tamper-resistant binary format that can be used for secure, long term records of your process.

The 6000 Series is truly designed for today's networked world and can be accessed via a Local Area Network, Intranet or Internet. (Even dial-up connection).

### Features / Functions

- 6100A – 5.5" 1/4 VGA, 18 channels.
- 6180A – 12.1" XGA, 48 channels.
- Colour touchscreen display.
- USB 'plug & play'.
- Up to 48 universal Inputs.
- Up to 96MB non-volatile flash memory.
- 125ms parallel sampling.
- Front Compact Flash card drive.
- Modbus RTU.
- Ethernet TCP/IP.
- Web server.
- Ethernet/IP server.
- Up to 128 Virtual Channels available.

## 6100XIO & 6180XIO DISTRIBUTED GRAPHICAL RECORDER

Each 6000XIO instrument has an intuitive, touch screen display to enable operators to clearly view process data in varying formats.



All have onboard flash data storage capability, Ethernet communication and compact flash card drive.

Data is stored in a tamper-resistant binary format that can be used for secure, long term records of your process.

The 6000XIO is truly designed for today's networked world and can be accessed via a Local Area Network, Intranet or Internet, (even a dial-up connection).

### Features / Functions

- 6100XIO – 5.5" 1/4 VGA, 18 channels.
- 6180XIO – 12.1" XGA, 48 channels.
- Expandable up to 176 recording points.
- Colour touchscreen display.
- Modbus master.
- 96MB non-volatile Flash memory.
- Ethernet TCP/IP.
- Serial communications.
- Compact Flash.
- USB 'plug & play'.
- Web server.
- Ethernet/IP server.





# MEAN WELL VARIABLE FREQUENCY DRIVES

Global efforts to combat climate change have made net-zero emissions and energy-saving indicators critical for electricity usage. Motor-related equipment accounts for 46% of global electricity and energy usage, surpassing lighting at 19%. Brushless DC Motors (BLDC) offer advantages like high efficiency, small size, and quiet operation. MEAN WELL's new VFD series, designed after extensive research, includes eight models with built-in power factor correction, covering both DC and AC input voltages. These fanless units achieve up to 93% efficiency and comply with safety standards.



Speak with the ADM Team Today  
to learn more about Variable Frequency Drives!



These controllers are suitable for use in applications such as smoke extraction equipment and water pumps.

1300 236 467 / [sales@admtech.com.au](mailto:sales@admtech.com.au)  
[www.admtech.com.au](http://www.admtech.com.au)



## ADM AUSTRALIA'S NO.1 DISTRIBUTOR FOR HARTING INDUSTRIAL PRODUCTS



### INDUSTRIAL CONNECTORS HAN

- High Current Connectors
- Modular Connectors
- Fibre Optic Solutions
- Hazardous Solutions
- Eco Housing

### INTERFACE CONNECTORS

- Single Pair Ethernet
- Ethernet Interface
- Ethernet Cabling Systems

### HAR-PORT SERVICE INTERFACE

- Ethernet
- USB

### D-SUB CONNECTORS

### CIRCULAR CONNECTORS

Contact ADM if there are any HARTING items you buy on a regular basis that you would like stocked locally. ADM is an authorised HARTING distributor, supporting the entire HARTING range.



# CONTROLLING THE CHOCOLATE MANUFACTURING PROCESS



Producing chocolate involves several process stages, in which the chocolate must be maintained in a liquid state up until the final stage, when the chocolate is 'tempered' into a solid state.

Conching and tempering are two important phases, and the quality of the final product depends on precisely controlling these two processes.

## CONCHING

Conching is a process where a surface scraping mixer and agitator, known as a conche, evenly distributes cocoa butter within the chocolate.

It also promotes flavour development through frictional heat, release of volatiles and acids, and oxidation.

A chocolate conching machine consists of a vessel with a double wall, which enables circulation of the warm and cool water, and a



series of mechanisms which create continuous grinding and mixing movements.

Precision control is required as conching changes the taste, fineness, and homogenisation of the chocolate. The chocolate also needs to remain in a liquid state during the process.

## CONTROLLING THE CONCHING PROCESS

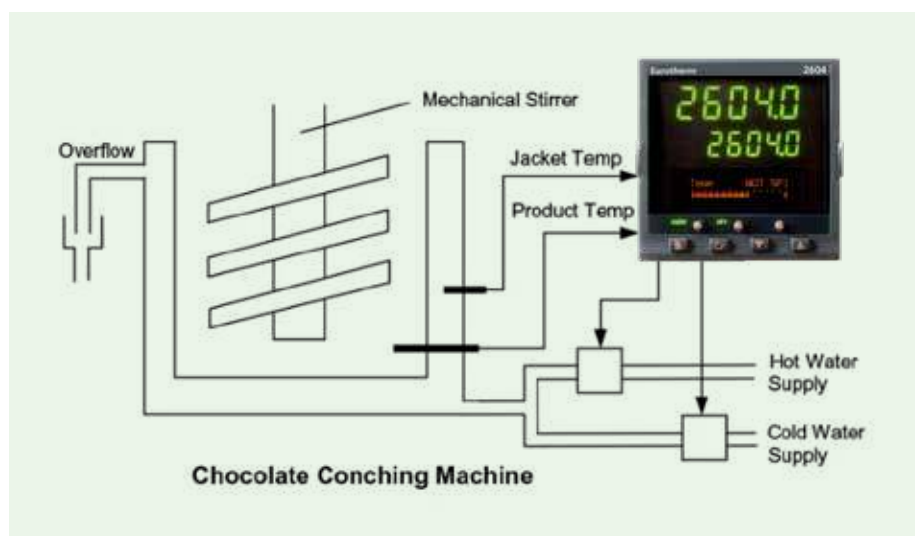
Because of the long delay in the heating and cooling cycles, normal single loop temperature controllers tend not to work well with this type of system, leading to a degradation in the quality of the end product.

The Eurotherm 2604 or Nanodac are ideal for this application.

This is because a cascade control can be set up. The heating and cooling are controlled by pulsing solenoids. These allow hot and cold water to flow into the conch's jacket.

Using the cascade PV feedforward option that is available in the Eurotherm 2604 & Nanodac, it is possible to limit the temperature difference between the water jacket and the chocolate. This is particularly desirable when cooling to ensure that any chocolate close to the wall of the jacket does not solidify while the bulk of the chocolate is still warm.

The Nanodac can also record the process data securely, for quality control and any regulatory compliance requirements.



Please do not hesitate to contact ADM, if you would like assistance in selecting a suitable process controller for a process which requires the accurate control of temperature.

# RECORDERS

## NANODAC

The Eurotherm Nanodac offers high integrity graphical data recording, aiding statutory compliance across regulated industries.

The compact ¼ DIN panel mount unit offers four high accuracy universal inputs for secure data recording and optional PID control.

The Eurotherm Nanodac recorder/controller offers the ultimate in graphical recording, combined with PID control and setpoint programs for a box of its size.

The compact ¼ DIN panel mount unit offers four high accuracy universal inputs for secure data recording and optional PID control.



This Nanodac is enhanced by a full colour, ¼ VGA, 320 x 240 pixel display to bring a crystal clear operator interface to even the smallest of machines.

The Nanodac recorder can store your information in either an open .csv format or in a secure, check summed format to protect data integrity.

Whichever format you choose for your process, Eurotherm has the tools to help you keep this data safe; and get it to the place you need, in the format you require.

- 50MB Flash memory for data storage.
- 8Hz sample and recording rate.
- Secure, binary data (UHH) or open (CSV) data files.
- 4 universal input channels (8 optional).
- 30 additional channels for use as mathematical functions, Modbus inputs, totalisers or counters.

Flexible process communications:

- Modbus TCP/IP Master/Slave.
- EtherNet/IP Client or Server.
- BACnet Slave.

The Nanodac recorder has a variety of ways in which you can view your data: bar graph, trend, numeric values, and a unique alarm monitor view that changes each PV's background colour from Green to Amber to Red based on their configured alarm status.

The clear, full colour display with your data in the format you need makes it easy for operators to see what is happening in a process.

The push buttons below the display also enable simple scrolling between configured views.

Each Nanodac contains an impressive 50MB of non-volatile flash memory for data storage. All process data is continually logged to this memory and the recorder offers multiple archive strategies to ensure that your data is never lost.



Nanodac can also optionally provide two independent control loops, or a Cascade control loop variant is available.

This control functionality utilises the advanced Eurotherm PID algorithm, adding high performance and reliability to your process.

Functionality includes one of the best auto-tune facilities available, along with overshoot inhibition (cutbacks); compensation for power fluctuations using power feedforward; linear, fan, oil and water cooling.

Heat treatment is one of the many processes that often needs to vary the setpoint of the control process over a set period of time; this is achieved by using a set-point program.

The Nanodac offers an optional Dual Programmer supporting up to 100 programs locally, each program supporting 25 segments.

The Nanodac also provides remote access to a further 100 programs that can be easily retrieved via FTP or USB memory stick.

## VERSADAC SCALEABLE DATA RECORDER

The Versadac recorder delivers versatile data management functionality in a scalable form that saves installation costs, optimises ongoing operations with easy management of data, and gives peace of mind with exceptionally secure data recording and archiving strategies.



The Versadac is designed to grow with your needs – enabling you to easily add further I/O or software features in the future. Versadac recorder has a flexible range of base sizes, I/O modules and software options, so you only pay for the hardware and software you need.

It can replace multiple traditional “box” recorders, be installed closer to the point of measurement, reduce the panel space needed and, if your process changes, you can add modules and software options when you need to.

Yet it offers all of the exceptional, advanced, secure recording capability you would expect from a Eurotherm recorder. Versadac is designed from decades of in-depth knowledge and understanding of how to keep data safe.

Advanced recording and archive strategies are supported by comprehensive and secure user access options to give you complete peace of mind that valuable process data is secure and available when and where you need it.

Versadac offers sample and recording rates of up to 8Hz with high accuracy inputs. Data can also be recorded over communications channels as well as from the outputs of mathematical functions and application blocks. Any metadata and audit trail information is also securely recorded along with the process information.



# EPC2000 'BLIND' PROCESS CONTROLLER

The new Eurotherm EPC2000 is a programmable single loop temperature and process controller. It delivers fast acting precision control with easy-to-integrate Ethernet (Modbus TCP) communications. This offers high performance enhanced Eurotherm PID control, either as part of a stand-alone machine or as a control loop in a multi-zone application.



The EPC2000 is a highly cost-effective solution as it does not feature any display panels, or HMI panels that you may not need.

What you get is efficient and repeatable precision control in a convenient and easy to deploy DIN rail package, with just the features that you really need.

The Eurotherm EPC2000 gives you precise control and measurement performance with a high-speed Ethernet connection, which incorporates an integral switch for daisy chain connection to supervisors, panels or PLCs.

You will enjoy a fast PID response, with minimal overshoot and oscillation, resulting in a high degree of control accuracy of the temperature, or process.

There is a convenient multi-programmer function, with up to 20 multi-step sequences. So, the EPC2000 can be used to control relatively complex processes. Eurotherm's user function block wiring with optional maths, logic, totaliser and specialised functions enable the EPC2000 to control additional system functions beyond PID control.

Flexible process communications:

- Modbus Master/Slave (TCP/IP).
- EtherNet/IP Server.
- PROFINET IO.

## STRAIGHT FORWARD PROGRAMMING

Eurotherm iTools Engineering Studio is a versatile suite of software tools to allow configuration and monitoring of Eurotherm controllers, including the EPC2000. The graphical wiring editor allows you to configure the EPC2000 using a drag and drop interface.

Eurotherm's iTools Engineering Studio can be downloaded for free using the QR code below.



It can also be used as a simulator and training tool, giving the opportunity to test the suitability of the EPC2000 for the intended application.

## EPC2000 KEY FEATURES

- Quick code setup with application templates.
- User function block wiring including math, logic and totalizer.
- Extensive range of international approvals.
- Direct Ethernet RJ45 Connection certified to AchillesR CRT Level 1.
- Individual setpoint ramp up and setpoint ramp down limits.
- Individual output power ramp up and output power ramp down limits.
- Configurable "Safe" power up and sensor break recovery strategies.



## YOUR MEAN WELL POWER PARTNER



**ADM is a leading provider of power solutions in Australia. Established in 1986, we have grown to become the country's largest distributor of MEAN WELL Power Supplies.**

We carry a wide range of DIN rail power supplies, DC to DC converters, LED drivers, enclosed power supplies, power adapters and more.

Our expert team is on hand to help you select the best power supply for your application.





# iTOOLS AND VIEW BUILDER / VIEW RUNNER

## EUROTHERM iTOOLS

**Eurotherm iTools is a versatile suite of software tools designed to configure and monitor Eurotherm temperature and process controllers, power controllers, and recorders.**

**Terminal Wiring Editor:** The Graphical Wiring Editor simplifies the configuration of Eurotherm controllers, including the 3500, Mini8, 2604, and 2704 models. It uses a straightforward “drag and drop” interface, dynamically mapping terminal wiring to the instrument configuration.

**Parameter Explorer:** Eurotherm iTools provides a comprehensive parameter exploration capability, allowing users to delve into controller settings and fine-tune parameters for optimal performance.

**Graphical Wiring Editor:** This feature streamlines the setup of Eurotherm controllers, such as the Nanodac, 2000, 3000 Series, and Mini8. It enables easy editing, storage, and cloning of complete controller configurations.

**Programmer:** Eurotherm iTools includes a standalone setpoint programmer editor, allowing users to create and manage complex temperature profiles for precise control.

**Editor OPC:** The OPC Server connects to remote instrumentation via the internet, enabling read and write access to supervisory packages like Wonderware® or LabVIEW™. It facilitates seamless communication between Eurotherm controllers and external software.

**Basic SCADA:** Eurotherm iTools offers basic SCADA (Supervisory Control and Data Acquisition) functionality, allowing users to monitor and control processes in real time.

**Standalone Programmer Editor & OPC DA2 Connectivity:** Users can configure and manage Eurotherm controllers independently using the standalone programmer editor. Additionally, the OPC Data Access 2 server facilitates communication between Modbus TCP and Modbus serial devices.

Eurotherm iTools empowers engineers with a complete engineering studio for configuration, data logging, communications, and monitoring. Whether you're fine-tuning temperature control or managing complex processes, Eurotherm iTools provides the tools you need for efficient and effective control system management.

## VIEW BUILDER / VIEW RUNNER

**Eurotherm's View Builder and View Runner are powerful tools designed to enhance process visualisation and control:**

**Basic SCADA:** Eurotherm View Builder provides basic SCADA (Supervisory Control and Data Acquisition) functionality. It allows users to monitor and control processes in real time. Whether you're overseeing temperature, pressure, or other critical parameters, the SCADA feature ensures efficient supervision.

**Create Custom Screens:** With Eurotherm View Builder, you can create customised screens tailored to your specific process requirements. These screens serve as visual representations of your equipment, displaying relevant data and controls. Whether it's a simple temperature display or a complex process overview, customisation is at your fingertips.

**Import Background Images:** View Builder enables you to import background images into your screens. This feature allows you to overlay process-related graphics, floor plans, or schematics. By incorporating familiar visuals, operators can quickly understand the context and navigate through the interface seamlessly.

**User Buttons for Screen Navigation:** User-friendly navigation is crucial for efficient operation. View Builder lets you add user

buttons to switch between screens. Whether it's moving from the main overview to a detailed alarm screen or accessing specific process parameters, these buttons enhance usability.

**Live Data Monitoring:** View Runner, the companion tool to View Builder, displays live data from your process. Real-time values, trends, and alarms are readily available. Operators can make informed decisions based on the most up-to-date information, ensuring optimal process performance.

**Custom User Interface for Process Support:** Eurotherm View Builder's customisable user interface supports various stages of process management:

**Commissioning:** During setup and commissioning, the interface allows easy configuration and testing.

**Diagnostics:** When troubleshooting or diagnosing issues, the interface provides clear data visualization and alarm notifications.

**Monitoring:** For ongoing operation, operators can monitor critical parameters and respond promptly to any deviations.

In summary, Eurotherm View Builder and View Runner empower users with a flexible and intuitive interface, enhancing process control and efficiency.



- 1. Easy Installation:** These DC-UPS units are designed for straightforward installation on DIN rails. Their compact size ensures they fit seamlessly into existing setups.
- 2. Uninterruptible Power Supply:** ADELSystem DC-UPS provides uninterruptible power, regardless of system conditions. It achieves this through sophisticated and automatic battery management. Whether there's a power outage or fluctuations, the DC-UPS ensures continuous operation.
- 3. Optimised Battery Management:** The units use switching technology with microcontrollers to optimise battery loading and unloading times. This prevents deep discharges and seamlessly switches between battery and charger without interruption.
- 4. Automatic Protection:** ADELSystem DC-UPS units offer automatic protection against reserve polarity, short circuits, overloads, and overvoltage. This ensures the safety of connected systems and prevents damage.
- 5. Communication Protocols:** Some models come with Ethernet interfaces, allowing easy access to battery status, DC-UPS functions, and application data. Communication protocols include Modbus RTU, Modbus TCP/IP, and SNMP.
- 6. Battery Compatibility:** These DC-UPS units support various battery technologies, including AGM, Gel, Ni-Cd, Li-Ion, and more. They select the appropriate charging curve to maximize system efficiency.
- 7. Reliability:** ADELSystem is known for its high-quality and reliable standards, making their DC-UPS a trusted choice for industrial power continuity.

# REDUCING ENERGY CONSUMPTION IN MANUFACTURING



Eurotherm  
EPack Thyristors

Eurotherm  
EPower Thyristors

One of the most significant costs for Australian industry is energy, with many large users of power looking for ways to reduce the amount of energy used in manufacturing and industrial processes.

Managing harmonics and the power factor within the power system at a manufacturing plant will improve its efficiency and result in significant energy savings.

## MANAGING POWER FACTOR

Power factor is a measure of how effectively electrical power is being used in a system. A low power factor means that there is a lot of energy being wasted, which can result in higher energy bills and reduced efficiency. By managing power factor, electrical systems can operate more efficiently, reducing energy waste and costs.

One method of managing power factor has been to use capacitors to encourage current flow, rather than to impede it.

However, capacitors can be prone to premature failure caused by higher voltages across the dielectric of the capacitor. Therefore, it is better to consider an alternative option, such as a thyristor.

## MANAGING PEAK LOADS

Another factor to take into consideration is managing peak loads to reduce electricity demand charges.

Power companies charge industry fees for the available demand that they must have readily available to handle peaks in the load, which your manufacturing operations may place on the utility. Even if that peak demand is only present for a matter of minutes.

A simple method of managing peak loads has been to use simple on/off controllers to ensure that the peak demand caused by motors starting up, or heating elements coming on is staggered. However, for some applications, especially those that utilise thermal electrical elements, they fail to maximise the efficiency of the power consumed.

## HOW EUROTHERM THYRISTORS REDUCE ENERGY USAGE

Eurotherm thyristors, or silicon-controlled rectifiers (SCRs) have been specifically designed to manage the power within a system, to maximise energy efficiency and the productivity of a manufacturing process.

Eurotherm has many years' experience specialising in the control of power systems and ADM Instrument Engineering carries the most common Eurotherm thyristors in stock.

So, how exactly does a Eurotherm thyristor help you improve the efficiency of your power system and reduce your electricity demand charges?

Let's look at an application example that uses a thermal electric element during an industrial process. Some examples of this type of application are:

- Control of temperature in a furnace.
- Production of dehydrated food stuffs (powdered milk, instant coffee, noodle flavourings).
- Concrete lime drying.
- Petro-chemical production.
- Boost heating in a glass lehr.

Unlike simple on / off heating controls, which give you very little control over the power supplied to the element, Eurotherm's thyristors allow you to carefully control the heating process so that you maximise on energy savings.

## CONTROLLED RAMP UP OF CURRENT

A simple on / off controller only has a 'hard' switch on. There is no opportunity to manage the peak demands you may have in your power system. The Eurotherm EPack & EPower thyristors allow you to control the ramp up of the current, allowing you to bring it up gradually, controlling the load in the system. This also has the added advantage of increasing the lifetime of the heating element.

# THYRISTORS & POWER CONTROLLERS

## ESWITCH & EFIT WILL REDUCE YOUR MAINTENANCE COSTS

Mechanical contactors controlling heating elements may operate three million times per year. Often the lifetime of these contactors is just over one year. Therefore, they need to be replaced regularly during the typical life of a machine.



Eurotherm ESwitch solves this problem. The contact is purely electronic, significantly extending the lifetime. Wiring is as simple as for a mechanical contactor and the mounting is very easy: just clip it on a DIN rail!

It features a broad range of AC and DC command signals with a front face LED to display the input status to help commissioning and diagnostics.

## EXTEND THE LIFE OF YOUR HEATERS

Tests performed by a well-known heater supplier have shown that heaters can last up to seven times longer when used with a solid-state contactor.

Faster on/off cycle times cause less thermal expansion and contraction and thus reduce breakage due to fatigue and thermo-mechanical stress.

By preserving the heating elements, ESwitch will allow you to:

- Reduce downtime.
- Minimise scrap.
- Improve yield and productivity.

## EPACK LITE: ESSENTIAL POWER CONTROL

Eurotherm EPack™ Lite Compact SCR Power Controllers offer a simplified feature set for fast commissioning without compromise on performance. They provide a high level of quality, accuracy and reliability to the process. These products are a cost-effective solution for both OEM's and End-Users.



Three Variants:

**EPack Lite-1PH:** Controls single-phase non-variable resistive or primary transformer loads. It's compact and easy to set up.

**EPack Lite-2PH:** Perfect for 2-phase non-variable resistive or primary transformer loads. Accurate control even with unbalanced loads. Advanced configurable firing modes optimize process efficiency.

**EPack Lite-3PH:** The latest generation for 3-phase load control. Ideal for balanced loads directly or through transformers. Burst firing minimizes harmonics and reactive power consumption.

### Key Features:

- Available in Single-Phase, 2-Phase & 3-Phase builds.
- Large voltage capability from 100V to 500V adjustable in the same variant.
- Fast start up with 'Quick Start' or 'Clone Code' features.
- Adjustable control mode V2 or I2 control or open loop.
- Wide range of firing modes: phase angle, intelligent half cycle, variable modulation burst firing, fixed modulation period & logic.
- Built-in measurements: current, voltage, impedance and more.

## EPACK SCR POWER CONTROLLERS

OEMs and system integrators need to be able to react quickly to customer needs while maximizing resources. End users continually need to improve operational efficiency and productivity. Eurotherm EPack™ Compact SCR Power Controllers have been designed to deliver real savings, helping to reduce energy costs. Quick and easy to install, integrate and commission. Compact, with powerful and versatile features that help minimize costs whilst improving productivity and quality.



End users continually need to improve operational efficiency and productivity.

EPack power controllers can deliver real savings, significantly reducing your energy costs.

### EPack 3-PH

Is the ideal solution for the control of all kinds of loads. The control of each phase ensures accurate control, even if the loads are unbalanced. The currents and voltage measurements also allow for a high level of diagnostics, which can be used for alarm management as well as monitoring (impedance, energy counter, reactive power).

### EPack 2-PH

Is the latest generation of power controllers designed to be a cost-effective solution for the control of 3 phase loads. The 2-leg control is particularly adapted to the control of balanced loads, directly, or through transformers. Burst firing avoids generation of harmonics and reduces the consumption of reactive power.

**EPack 1-PH** power controllers are designed to carry currents from 1 to 125 amps, with operating voltage between 100 and 500 Volts.

The scalability and configurability of EPack fits with the requirements of each application. A wide range of alarms can quickly identify a controller detected fault which reduces downtime.

# EPOWER™ CONTROLLER

## EPACK KEY FEATURES

- Nominal load current from 1 amp to 125 amps.
- Voltage up to 500V.
- Compact DIN Rail and bulkhead mounting.
- Configurable via front panel or Eurotherm software (iTools).
- Plug and play Ethernet communications with Zero configuration networking (zeroconf).
- V2, I2 or True power control.
- Controls comprehensive range of loads: resistive, infrared, transformer primary, silicon carbide.
- Energy usage measurement.
- Advanced load diagnostics.
- Integrated dual port Ethernet switch for "daisy chained" communications.
- Modbus® TCP or Ethernet IP protocols.
- Defend OEM knowledge and IP (OEM Security).

## EPOWER™ CONTROLLER

The EPower controller uses the newest technologies and innovations to manage your process and reduce your energy costs. On every level it brings you the flexibility you need to best meet your requirements now and in the future. Let us look after your power control for you and give you the peace of mind that you have the best for your process - even as it changes.



**Flexibility** - Advanced technologies in harmony with modularity and ease of use to deliver your power control needs.

**Efficiency** - World class power control with innovative features to minimise your energy costs with exceptional process performance.

**Peace of mind** - A power controller that will bring you return on investment and can be adapted in the future if your requirements change - one product for all solutions.

## REVOLUTIONARY MODULARITY AND CONFIGURABILITY TO MEET YOUR NEEDS...

Easy ordering, configuration and maintenance through modular design. If your requirements change EPower controller can be easily adapted to meet your needs. Minimum spares holding - many options configurable through a common driver module e.g. firing mode, load, phases, control etc. Up to four power control modules provide single and multi-phase control software configurable options to bring you flexibility

## THE OPTIONS THAT YOU NEED...

A single driver module can support up to four power modules - and hence four independent control loops. Power modules are available in current ratings covering a range from 100A to 630A. The driver module itself supports options boards to give you additional flexibility in your solution:

**Communications** - RS485 Modbus RTU, Profibus, DeviceNet®, Modbus TCP network protocols, CCLink™, EtherNet IP™ and ProfiNet™.

**Predictive Load Management (PLM)** - A powerful feature to effectively manage your power requirements across multiple machines to save on your energy costs.

**Flexible I/O** - The driver module supports standard I/O and up to three additional I/O boards with analogue inputs, analogue outputs, digital I/O and relay outputs.

**LTC** - The Load Tap changer option for single phase unit applications only, allows for managing multi-tap transformers, preventing both increased harmonics and the reduction of power factor.

**Energy Counter** - Available over communications and for display on user screens, customers can access up to 5 scalable counters, one per individual phases and a global energy usage counter.



### Ideal for:

- Glass furnaces | Melt heat treatment
- Food processing | Multi-channel heaters
- High temperature furnaces
- Induction heating | Vacuum furnace
- Large extruders | Plastics

### Control Type:

- Single phase | 2 x single phase
- 3 x single phase | 4 x single phase
- Two phase | 2 x two phase
- True three phase

### Firing Modes:

- Phase angle | Half cycle | Burst firing
- Fix modulation period | Logic mode

### Load Type:

- Standard Resistive | Complex Resistive
- Inductive e.g. Transformer
- Short Wave Infrared

### Load Configuration:

- Single phase | Star | Delta
- Star with neutral | Open Delta

### Feedback:

- V2 | I2 | True power | RMS load voltage
- RMS load current | Open loop



## FIRING MODES

Both the EPower and EPack offer you the flexibility of different firing modes:

- Phase angle.
- Intelligent half cycle.
- Variable modulation burst firing (default 16 cycles).
- Fix modulation period (default 2 seconds).
- Logic mode.

With inductive loads, most circuits will have some internal resistance. This causes the current to lag the voltage, adversely affecting the system's power factor.

A 'Phase Shift' is when the voltage and current no longer fall and rise together.

The transformer firing capability of the Eurotherm EPack & EPower thyristors compensate for the phase shift ensuring accurate control of the heating element. It also allows optimal power factor to be maintained, thereby maximising the efficiency of the power system.

## LOAD TAP CHANGER

Another useful feature you will find on the Eurotherm EPower is the built-in Load Tap Changer, which saves energy costs by maintaining a power factor as close to zero as possible.

The Load Tap Changer manages the multiple stages of a transformer, switching them on and off to ensure that the inductive output of the thyristor remains between 80 ~ 100%. Thus, maintaining a healthy power factor.

This is particularly useful for when you have no other choice but to use phase angle control.

For example, if you have a single phase set up, powering an electric thermal heating element you may want to initially start off with an output voltage of 240V for the cold start. Once the temperature has started to build, you may want to switch over to a lower voltage tap, say 110V to keep the thyristor's inductive output between 80~100%. At a later stage in the heating cycle, you may need to drop the voltage again. For example, down to 60V to keep the thyristor's output in the optimum 80~100% output range.

The Load Tap Changer makes this a fairly simple process, enabling you to reduce energy costs by maintaining a power factor as close to unity as possible.



Eurotherm EPC2000  
Process Controller

## ABILITY TO CALIBRATE CURRENT TO LOAD REQUIRED

Not all thyristors are as advanced as Eurotherm's product range.

Traditionally, if you had a 40A load you would have needed to select a 50A thyristor. With the Eurotherm EPack & EPower series you can calibrate the current output to the actual load required. Again, this improves the energy efficiency of the manufacturing facility's power system.

## AVOIDANCE OF SET POINT OVERSHOOT

The Eurotherm EPack & EPower thyristors operate as a slave to a PLC, controlling the current supplied to the elements precisely. Thus, achieving the power level requested by the PLC by adjusting the current, voltage, or true power necessary to ensure that the heating element maintains the exact required temperature.

For truly excellent PID control, a PLC would use a Eurotherm controller such as the EPC2000 as a co-processor.

The precision is such that there is virtually no overshoot of the set point. This means energy is not wasted by providing more heat than is required. Another useful side effect is the minimisation of scrappage due to damage caused to materials through overheating.



For further information on how Eurotherm can reduce your energy usage, please contact the ADM team on 1300 236 467, or send an email to: [sales@admtech.com.au](mailto:sales@admtech.com.au).

# CARBURISING HEAT TREATMENT WITH EUROTHERM TEMPERATURE CONTROLLERS



One of ADM's customers caters to a range of industries including motorsport, transmission manufacturing, construction, mining, and general engineering. Services offered include stress relief, normalising, through hardening, case hardening, shot peening, bead blasting and metallurgical consulting.

One area the customer specialises in is carburising heat treatment for premium Australian clients. These businesses export all over the world, including the US and Europe.

Gas carburising involves heating parts generally 850°C and using natural gas to diffuse carbon into the surface of steel. The depth of carbon enrichment depends on the time and temperature of the treatment. Heat Treatment leads to a change in the microstructure of steel.

Carbon potential of furnace atmosphere is measured by using a Zirconia probe. It measures the level of oxygen and generates a millivolt signal based on the ratio of oxygen concentration between the reference airside of the probe (outside the furnace) and the amount of oxygen inside the furnace.

The temperature of the furnace is measured using a thermocouple. This may be a thermocouple mounted within the Zirconia probe or installed as a separate item. Together the temperature and oxygen level signals are used to calculate the actual percentage of carbon in the furnace atmosphere.

They use two Eurotherm 3504 controllers. One for temperature control and the other to monitor the atmosphere.

The carbon potential control loop increases the carbon potential by opening a solenoid valve which allows a carburising or enriching gas (e.g. propane) to enter the furnace. Conversely, to decrease the carbon potential, dilution air is introduced into the furnace.

The 3504 can trigger an alarm when the atmospheric conditions within the furnace are such that carbon will be deposited as soot on all surfaces inside the furnace, including on the workpiece. Avoiding sooting protects the furnace lining, maintains the accuracy of the zirconia probe, and stops formation of a soot barrier on the workpiece which can prevent carbon diffusion.

A short blast of compressed air is used to remove any soot and other particles that may have accumulated on the probe.

Once the cleaning has taken place the time taken for the probe to recover is measured. If it is too long this indicates that the probe is ageing and needs replacement or refurbishment.

If your application demands precise temperature control, reach out to the ADM team today to discover how Eurotherm can assist.



Eurotherm 3504 PID Controller

For further information on how Eurotherm can reduce your energy usage, please contact the ADM team on 1300 236 467, or send an email to: [sales@admtech.com.au](mailto:sales@admtech.com.au).

# APCS SIGNAL CONDITIONERS

APCS signal conditioners are designed to enhance accuracy, reliability, and flexibility in various industrial applications.

## RTDT225 (RTD TEMPERATURE TRANSMITTER)



Converts RTD (Pt100) temperature sensor signals to a DC signal.

- Any RTD input type.
- 2-wire or 3-wire output loop power supplies.
- Linearisation circuit.
- Lead resistance compensation.
- Sensor excitation.
- 2000Vrms isolation.
- Front adjustments for span and zero.
- Common applications: process temperature monitoring, room temperature monitoring.

## SL332 (SIGNAL ISOLATOR)



Field-configurable isolating converter with true 3-way galvanic isolation up to 2500Vrms for standard process signals.

- Small 12.4mm case size.
- Wide range AC/DC power supply.
- 165 factory-calibrated input/output ranges.
- Precision digital measurement.
- Response times: LED on = 400ms, LED off = 25ms.

## SL335 (SIGNAL SPLITTER)



Field-configurable isolating converter/splitter with true 4-way galvanic isolation up to 1800Vrms for standard process signals.

- 3 x 16 position encoder switches for input/output range settings.
- User range set using SL300 configuration software.
- Precision digital measurement.
- Ideal for speed monitoring, wind speed alarms, and signal conversion for PLCs and SCADA systems.

## EUROTHERM TECHNICAL HELP

Are you looking for help or technical advice with a Eurotherm product in Australia?

Then ADM Instrument Engineering can help you. ADM is the premier distributor of Eurotherm Process Control and Data Management Solutions in Australia.

We will gladly answer any questions that you may have about any of the following products:

- Eurotherm PID Controllers
- Eurotherm Process Automation / Controllers
- Eurotherm Recorders
- Eurotherm Thyristors & SCRs
- Obsolete Instruments from the Eurotherm range

You do not need to have purchased your Eurotherm products through ADM in order to receive help or technical support. We will happily assist regardless of where the unit was purchased from.

At ADM we have more than 35 years' experience in providing industrial and process automation technical to support to Australian industry.





## TCT286 (THERMOCOUPLE TRANSMITTER/ISOLATOR)



Converts thermocouple signals to a DC signal.

- Input from any type of thermocouple (K, J, T, N, R, S).
- Automatic cold junction compensation.
- Front-end zero suppression.
- Linearized measurement.
- 2000Vrms isolation (except for 3-wire proximity inputs).

## FRT250 (FREQUENCY TRANSMITTER)



Converts pulse and contact signals to a DC signal.

- Input from any type of frequency or pulse sensor (5Hz up to 5kHz).
- Output ramp option.
- Sensor excitation.
- 2000Vrms isolation (except for 3-wire proximity inputs).
- Common applications: speed monitoring, wind speed alarms, PLCs, and SCADA systems.

## SL340 (UNIVERSAL TRANSMITTER)



Offers enhanced capabilities for signal processing and isolation.

Provides precise signal conditioning without breaking the bank.

## DTA137 (DUAL TRIP ALARM)



Suitable for all standard process signals and all common types of sensors.

- Two independently adjustable trip points with true relay contact outputs.
- Standard model will accept DC voltage or current input signals directly (0.1V up to 2kV, 0.1mA up to 2A).
- Optional Input Conditioning Card: Low level sensor or AC input signals require an optional input conditioning card, which is factory fitted.

- Customised Response Option: Special requirements for input response time variation can be accommodated using the customised response option.
- Other options such as extreme low input load (25Ω at 20mA) are also available.
- Trip circuits are operated directly from the pre-conditioned input circuit.
- Trip status is indicated by red LEDs.
- The action of trip operation, e.g. high or low alarm is internally selectable by coding plugs.
- Both relay contact outputs can also be configured internally to be normally open or normally closed.
- Dead band is adjustable from 0.5 to 30% via the front accessible trim pots.
- Various power supply choices are available ranging from 240Vac down to 8Vdc.
- All supply models contain a dual output for power isolation.
- Surge protection for power supply and input is standard with all APCS modules.



## MEAN WELL DIN RAIL POWER SUPPLIES IN STOCK!

Australia's Premier  
MEAN WELL distributor.

- Stock held locally in Australia.
- Power output options range from 15W to 960W.
- Single, two, and three phase models.
- 12V, 24V, and 48V models readily available.
- Larger models can be connected in parallel for high power applications.





# EUROTHERM DIN-RAIL MOUNT PID LOOP CONTROLLER SCIENTIFIC RESEARCH APPLICATION



**The Eurotherm Mini8 Loop Controller is a high-performance DIN-Rail mount PID loop controller, which is very affordable.**

The Mini8 loop controller has a modular design, which makes it the perfect solution for both simple and complex applications alike.

## EXAMPLE OF APPLICATION IN AUSTRALIA

The Mini8 is used by one of Australia's leading scientific research institutions.

ADM was originally asked by the institution to provide for a quote on several Eurotherm 3504 PID controllers.

The number of units being asked for meant that this would have been a considerable purchase. Therefore, ADM thought it appropriate to confirm the institution's requirements before they committed to such a high level of expenditure.

It is in ADM's DNA to offer high quality solutions, rather than make a sale at any cost.

## APPLICATION REQUIREMENTS

During our conversations with the institution, two key points emerged.

- First, the application did not require a localised display as all data was to be captured by the SCADA system.

- Secondly, the application involved multiple loops and tight integration across the loops was highly desirable.

The 3504 is a dual loop controller with a built-in display.

Rather than buying multiple 3504 controllers, ADM suggested that the customer opt for the Eurotherm Mini8 instead.

The most obvious saving for the institution was not having to pay for multiple visual display units that they were not going to use.

The modular design of the Mini8, meant that it could easily be scaled up to control the number of loops required. In fact, the Mini8 can control up to 16 loops.

## DIFFERENT I/O OPTIONS AVAILABLE

There are several different I/O cards available including:

- 8 channel digital output.
- 8 channel relay output.
- 8 channel and 4 channel 4-20mA output.
- 8 channel and 4 channel TC input.
- 8 channel logic input.
- 4 resistance thermometer inputs (PT100).
- 4 resistance thermometer inputs (PT1000) .
- 3 channel current transformer input.

Integration with PLC, or Higher-Level Control System Integrating the Mini8 loop controller with a PLC, or higher-level control system is made easy by the number of communication protocols supported:

- Modbus RTU
- DeviceNet
- Profibus DP
- Ethernet
- Ethernet I/P
- EtherCat



**For further information on how Eurotherm can reduce your energy usage, please contact the ADM team on 1300 236 467, or send an email to: [sales@admtech.com.au](mailto:sales@admtech.com.au).**

## GOING THE EXTRA 1250 MILES... LITERALLY



**ADM RECENTLY ENCOUNTERED A DISTINCTIVE CHALLENGE. OUR CUSTOMER, A PREMIER INDUSTRIAL ALUMINIUM MANUFACTURER BASED IN QUEENSLAND, HAD ORDERED A SET OF UNIQUE AND SENSITIVE MEASUREMENT SCALES CUSTOM-BUILT FROM AN ITALIAN MANUFACTURER. THIS EQUIPMENT NEEDED TO BE TRANSPORTED CAREFULLY OVER A SIGNIFICANT DISTANCE – PRECISELY 2,015 KILOMETERS – TO ENSURE SAFE DELIVERY DIRECT TO THEIR MANUFACTURING FACILITY.**

The scales, which were a substantial investment for the customer were delivered to ADM's primary warehouse at our headquarters in Dingley Village, VIC, directly from the Port of Melbourne.

Our team meticulously managed every aspect of transportation, ensuring careful handling of these bulky and highly sensitive items. Throughout the process, ADM took extraordinary measures to ensure the safe handling of these packages.

The challenge arose when finding an interstate courier to move the packages from Victoria to our customer's production site in Queensland.

After some critical analysis, ADM recognised there were far too many potential issues with

using 3rd party couriers. Various points of interruption, such as sorting hubs and other delivery destinations within the state meant there were too many touch points. Each of these has their own risks of damaging this expensive and sensitive piece of equipment.

Following extensive consideration, ADM concluded that the best strategy for minimising the risk of potential mishandling and damage was to deliver the product from our Victorian warehouse directly to the customer.

ADM hired a medium rigid truck with side access points, and carefully loaded the scales on to the truck and embarked on the 2,015km trip. After two and a half days of driving, an ADM team member arrived at our customer's

doorstep to deliver intact the much-needed scales for the aluminium plant.

After some cups of tea, some laughs, and a pat on the back it was time for the ADM team member to embark on the long drive home.

This incredibly unique instance of ADM staff delivery encompasses ADM's core values of service and leadership, as we wholeheartedly believe this to be what separates us from our competition. We take ownership of our customer service and lead out industry by going the extra mile (or 2,015km).

Thank you for coming on our journey, we look forward to serving you, our customers, again and again.

# ABOUT US

## WHO ARE WE?

ADM Systems Pty Ltd is a family run group of businesses, first established by our Managing Director, Glenn Bates in 1986.

Since then we have grown to become Australia's largest distributor of MEAN WELL Power Supplies, Eurotherm Process Control and Data Management Solutions, Industrial Transducers and Sensors, PCA Encoders, Industrial Connectors, and Test & Measurement Instrumentation suitable for a wide range of applications.

## WHAT DO WE DO?

At ADM we do what we do because we care.

Our team cares about your project and will do all they can to ensure you find the most appropriate solution.

We get that lead times can be a hassle, so we try and carry as much stock as possible to avoid that headache.

Despite that, you rightly expect not to pay too much for this service.

Technical support matters, which is why our technical team keeps up to date with the latest product information.

ADM is a family run business that was established in 1986 by Glenn Bates. From the outset Glenn understood the importance of customer care being at the heart of everything we do. This ethos continues today under the guardianship of our CEO, Kristin Brown, Glenn's daughter.

## OUR SERVICES INCLUDE:

Expertise & consultancy across all of our product range.

Configuration of transducers, sensor & other equipment.

Service and repair down to component level.

Rental/loan of handheld test & measurement equipment.

## HOW WE DO IT.

ADM has a strong commitment to holding stock. This means you know the product is available when you need it.

We also offer volume pricing and scheduled ordering to original equipment manufacturers, who need to order in high quantities, as well as convenient online ordering services for all customers.

Our technical staff undertake regular factory training and have close working relationships with our leading suppliers, so that they are up to date with the latest technologies available. This ensures you have the best performing position transducers, load cells, led drivers and all other components for your application.

## WHY WE DO IT?

### Because it matters to you.

We understand that it matters that you can quickly get a product to your door and that you need to also get that product to your door at a fair and reasonable price.

We understand that technical support matters, which is why we keep our technical team up to date with the latest product information.

We understand that you want to partner with a supplier that is focused on what matters to you.

# Our Suppliers



**Eurotherm®**

Sumitomo Drive Technologies  
By **Invertek Drives**

**A.P. C.S.**



**POSITAL**  
FRABA



**pulsar**  
MEASUREMENT

**VAISALA**



**UniMeasure**



**ADELSYSTEM**  
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**LAUMAS®**

**CURIOTECH**



**Monitran**  
Sensors for Industry



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Contact us for a copy of our other product brochures.