

# Comprehensive process control

**WEST** Cost-effective range for many application areas



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# Multi loop controller and profiler



4400 and 6400: profiling performances that are hard to beat

The 4400 can create a profile with anything from 1 to 121 segments, store up to 8 programs and configure and store extra programs on a PC.

The 6400 is a leader in its class, offering a 4 recipe, 16 free-format segment profiling capability and unrivalled ease-of-use.

**4400 features:**

- 'Auto Hold' facility
- Remote run hold
- Remote program select
- 4 event outputs
- Real-time clock
- Power failure recovery

**6400 features:**

- Fast accurate control via rAPID fuzzy logic
- Saves up to 4 programs in memory
- Programming in rate or time mode
- Guaranteed soak to protect production quality



ProVU: advanced controller with profiling and datalogging

ProVU with real text/graphic LCD screen is designed to improve user efficiency with many features integrated to reduce commissioning time, simplify operation and minimise downtime.

The versatile display options, USB port, profiling, datalogging and profiling functions are a unique combination in a standard 1/4 DIN controller. The controller can be set-up quickly and easily, a wizard starts automatically on first start-up for step-by-step configuration.

**Features:**

- Single or dual loop
- Multilanguage option
- Colour change LED backlight on alarm (Green/Red)
- Trend view
- 255 segment profiler to allocate in up to 64 programs
- USB port for access to configuration and log files
- Log process values, setpoints and alarms to .csv file
- Cascade control
- Ratio control
- 2nd universal input also for monitoring
- BlueControl configuration and commissioning software
- Valve motor control



MLC 9000+: compact multi loop controller

An MLC9000+ system comprises 1 to 8 Control Modules. 1, 3 & 4 loop modules are available (control up to 32 loops per system), with heater break options on 1 and 3 loop modules. Communication options for connecting to a PLC, HMI, PC or SCADA include Modbus, Devicenet, PROFIBUS, Ethernet I/P and Modbus TCP.

The MLC features a hot swap facility, a module can be replaced and back in service within 30 seconds due to automatic reconfiguration.

Using a MLC system can reduce installation time and cost when compare to standard single loop controllers. The MLC 9000+ involves less wiring with no need for panel cut-outs.

# Technical Data



<b>Model Number</b>	2300	6500	P6100, P8100, P4100	8800	P6170, P8170, P4170	6600, 8600
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<b>Dimensions</b>						
DIN Size	1/32	1/16	1/16, 1/8, 1/4	1/8	1/16, 1/8, 1/4	1/16, 1/8

<b>Display</b>						
Display type	LED	LED	LED	LED	LED	LED

<b>Inputs</b>						
Thermocouple/RTD	●	●	●	●	●	●
DC Linear V			●	●	●	
DC Linear mV/mA	●		●	●	●	
Remote Setpoint			○	○	○	

<b>Outputs</b>						
Max. Number of Outputs	3	2	3	3	4-5	4
Relay	○	○	○	○	○	○
SSR Driver	○	○	○	○	○	○
DC Linear			○	○	○	○
Triac			○	○	○	○
Transmitter PSU			○	○	○	

<b>Features &amp; Functions</b>						
PID Control	●	●	●	●	●	●
Number of control loops	Single	Single	Single	Single	Single	Single
ON/OFF Control	●	●	●	●	●	●
Max. Number of Alarms	2	1	2	2	2	2
Retransmission Output			○	○	○	○
Heater Break Alarm				○		●
RS485 Communications	○		○	○	○	○
Modbus/TCP Ethernet Comms						

<b>Tuning</b>						
Pre-tune	○		●	●	●	●
Easy-tune	●	●				
Self-tune			●	●	●	●
Manual Tuning	●		●	●	●	●

<b>Power Supply</b>						
100-240V AC	○	○	○	○	○	○
20-50V AC/22-65V DC		○	○	○	○	○
12-24V AC/12-30V DC	○					

<b>Function</b>						
Indicator	○					
Temperature Controller	○	●	●	●		●
Process Controller	○		●	●		
Valve Controller				●	●	
Limit Controller						
Profiler / Controller						
Datalogger						

● Fitted as Standard  
○ Option



<b>Model Number</b>	P6010, P8010	8080	P6700, P8700, P4700	6400	4400, 8840	ProVU	MLC, 9000+
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<b>Dimensions</b>							
DIN Size	1/16, 1/8	1/8	1/16, 1/8, 1/4	1/16	1/8, 1/4	1/4	DIN Rail

<b>Display</b>							
Display type	LED	LED	LED	LED	LED	Graphic/text LCD	

<b>Inputs</b>							
Thermocouple/RTD	●	○	●	●	●	●	●
DC Linear V	●	○	●	●	●	●	●
DC Linear mV/mA	●	○	●	●	●	●	●
Remote Setpoint						○	

<b>Outputs</b>							
Max. Number of Outputs	4-5	3	3	3	3	9	48
Relay	○	○	○	○	○	○	○
SSR Driver	○	○	○	○	○	○	○
DC Linear	○	○	○	○	○	○	○
Triac	○		○	○		○	
Transmitter PSU	○		○			○	

<b>Features &amp; Functions</b>							
PID Control			●	●	●	●	●
Number of control loops			Single	Single	Single or dual*	Single or dual*	Up to 32
ON/OFF Control			●	●	●	●	●
Max. Number of Alarms	5		3	2	2	5	64
Retransmission Output	○	○	○	○	○	○	○
Heater Break Alarm							○
RS485 Communications	○	○	○	○	○	○	○
Modbus/TCP Ethernet Comms						○	○

<b>Tuning</b>							
Pre-tune				●	●	●	●
Easy-tune							
Self-tune					●	●	●
Manual Tuning				●	●	●	●

<b>Power Supply</b>							
100-240V AC	○	○	○	○	○	○	
20-50V AC/22-65V DC	○	○	○	○	○	○	
12-24V AC/12-30V DC							18-30V DC

<b>Function</b>							
Indicator	●	●					
Temperature Controller						●	●
Process Controller						●	●
Valve Controller						○	
Limit Controller			●			●	
Profiler / Controller				●	●	○	
Datalogger						○	

\* independent or cascade control

## Flexible, economic, innovative: The right solution for every control task

The WEST product range are high-performance industrial controllers within a portfolio suitable for a multitude of applications.

The range extends from temperature and process controllers, programmers and indicators to temperature sensors, chart recorders, thyristors and actuators. With this comprehensive proposition, WEST offers solutions for a wide range of applications: from ceramic furnaces and thermoprocess systems to laboratory furnaces and extruders.



## Experience, quality and unrivalled support: Your reliable partner

West have designed and supplied process instrumentation for over 60 years. In the 1970s, the company was one of the first to develop a microprocessor based temperature controller. With research and development sites for temperature and process control products in the UK and Germany the tradition to be at the cutting edge of technology continues.

Benefit from synergies resulting from expertise in a variety of application areas and put your trust in our core values: a comprehensive product portfolio, years of experience, flexibility and unrivalled support. Optimal operational processes are guaranteed by our ISO 9001-certified quality management.



## Full Range – from Basic to Advanced



6500: basic 1/16 DIN controller

The 6500 is a simple, no frills 1/16 DIN controller offered at a competitive price.

Added to this are excellent display characteristics represented by a highly visible three-digit display and clear go/no go indication.

**Features include:**

- Easy Tune (PID) or On/Off
- Setpoint lock
- On control indicator
- Alarm lock
- Optional process alarm
- Adjustable PV offset

**The benefits of the 6500 are:**

- straightforward operator interface
- simple set-up
- ease of use
- a fast 'up-time' over a defined range



6100+/8100+/4100+: discrete temperature controllers

The Plus series controllers combine sophisticated functionality with in-built versatility and ease-of-use to provide a range of controllers to suit most process environments.

Because their inputs and outputs are all plug in, including relay, SSR, triac, linear and digital, they can be easily customised as required.

**Other features include:**

- Jumperless configuration – one less area for potential error
- Auto-hardware detect/set-up – to reduce set-up times
- Remote setpoint (RSP) and transmitter power supply (TxPSU) options
- Configuration via PC/Customisable operator menu
- Improved, easy to use HMI – making set-up process quick and easy



8800/8840: advanced temperature & process controllers

The 8800/8840 controllers offer the best in advanced process control for demanding applications. They provide a choice of simple 2-point (on/off) control, continuous PID control or VMD (valve motor drive).

Every 8800 and 8840 comes fitted with 4 process outputs – either relays or up to 2 universal outputs that can be used for operating a solid-state relay, linear current/voltage output or to power a two-wire transmitter.

**Features include:**

- Front Comms port & PC configuration software
- 2 or 3 Analogue inputs
- Valve motor drive with/without position feedback
- Maintenance manager and error list
- Self tuning to the setpoint without oscillation
- High visibility display sharing plain text or bargraphs

## Controllers for Specific Applications



### 6600/8600: heater-break controllers for the plastics sector

The 6600 and 8600 controllers have been designed specifically for control of temperature in plastic forming applications. They provide early warning of heater element failure prior to production problems, thus improving production quality and reducing the incidence of scrap.

A low, high and short-circuit heater break alarm are all available at the same time to provide essential protection.

Front panel indication of heater failure is backed up with visible current and process variables shown on the dual colour four-digit displays.

#### Features include:

- Soft start
- Ramping setpoint
- Process & heater alarms
- Triac output
- Current 'Quick Transfer'
- Heat/Cool operation



### 6700+/8700+/4700+: limit controllers

The Plus Series limit controllers provide a latched relay output which is activated when process parameters either exceed or fall below the desired value, providing a fail safe cut-off which has to then be reset before the process can continue.

LED indication shows when limits have been exceeded and when the relay is latched out.

With a full range of universal sensor input options, the Plus Series range provide a valuable safety control element for most systems.

#### Features include:

- Improved, easy to use HMI
- Configuration via PC/Customisable operator menu
- Auto-hardware detect/set-up
- Modbus communications across the range (as well as West ASCII)
- Jumperless configuration
- FM approval



### 6170+/8170+/4170+: valve motor control

The 6170+, 8170+ and 4170+ are a range of Plus Series controllers and have been designed specifically for open loop valve motor drive (VMD) applications. They feature an improved Plus Series interface and greater field flexibility.

A unique VMD tuning algorithm continuously monitors the process to provide stable control at all times.

In addition to the VMD outputs, further output options exist which can be designated as outputs for alarms, 24 VDC transmitter power supply or retransmit of process value or setpoint.

#### Features include:

- Valve Position Indication
- Jumperless Configuration
- Auto or Manual tuning
- Process & Loop Alarms
- Remote/Dual Setpoint Options
- Modbus Communications
- Auto-Detected Hardware

## Indicators with Versatility



### 2300: basic 1/32 DIN controller/indicator

The 2300 is available as a controller or indicator. Small size does not come at the expense of features; it has large displays, 2 amp relays and full 3-wire PT100 inputs.

This 2300 has a 4 digit display that can be specified in either red or green. It also offers 3 additional multi-colour LEDs to indicate alarm status and configuration mode.

The controller features our hands-free Easy Tune algorithm, full universal inputs and a relay output. The 2300 indicator has universal input options which include Thermocouple, RTD & DC.

#### Features include:

- 3-Wire PT100, T/C or mV/mA Input
- 0.1% Accuracy
- Up to 2 process alarms
- Manual/Easy Tune
- Setpoint Lock
- On Control Indication



### 8080 Indicators: process changes at a glance

The West 8080 offers highly accurate process monitoring and unparalleled display quality. It features a custom-designed LED 5 digit display which offers larger, clearer numbers than other instruments of the same size.

There is a choice of colour for the display and this can be set up to change (green to red) to indicate alarm status.

With either temperature or process inputs available and a choice of alarm and retransmission outputs, the 8080 can serve most process indication requirements.

#### Features include:

- Security lock
- Colour change on alarm
- Process transmitter PSU
- Min/max value hold
- PV retransmit option
- 2 process alarms
- RS485 Comms



### 6010+ 8010+ Indicators: a versatile and highly visible option

The 8010+ and 6010+ are a new range of panel indicators, designed for use in a wide variety of applications. They offer fast, accurate and easy to read displays; together with quick and simple set-up procedures.

The 8010+ provides a new dual-colour display option; it is now available with red, green, or green to red colour change displays.

Plug-in modules allow PV retransmission or Transmitter Power Supply and up to 5 alarm relays on the 8010+ and up to 4 on the 6010+.

#### Features include:

- Up to 5 outputs
- Tare function
- Modbus and ASCII Communications
- PC Configuration
- Self-recognition of option boards
- Jumperless configuration

# Chart recorders, thyristors and sensors



## Chart Recorders: for hard copies of all process activities

West Instruments distributes a wide range of Partlow brand digital (microprocessor based) and analogue circular chart recorders. The range provides reliable operation in rugged environments – from light industrial through to extreme industrial wet applications to industry specific flow and relative humidity applications.

Applications include: Plastics forming/ Industrial Ovens/Food Processing/ Pharmaceutical and Chemical Processing and Pulp and Paper Processing.

Circular chart recorders range in sophistication from a basic one-pen one-process recording instrument to a multiple input, multiple-equation profiling recorder.

They are easily programmable via a front-panel keypad or via serial PC communication.



## Thyristors: problem solvers in many guises

Thyristor units are available from 10-2600A, including single, two and three phase units.

The range includes innovative products to solve all of the most commonly encountered application problems, integrating state-of-the-art technology for the ultimate product performance.

There are a wide range of outputs, options and firing types available, including burst and phase angle firing and zero crossing.

Also available is an industrial thyristor package, normally used in applications where many zones are operating (co-extrusion, blow moulding, thermoforming machines and in furnaces to model flat glass etc.).



## Sensors: models available for almost every need

With over 30 years supplying experience of sensors, West's range offers a combination of performance and quality that is hard to beat.

These high quality temperature sensors can be manufactured in many styles, from a simple welded junction joining two dissimilar metals, to mineral-insulated sensors with waterproof connecting heads and adjustable process fittings.

The diverse range of designs means there will be one ideally suited to just about any installation or application.

WEST Control Solutions — your global partner for temperature and process control

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Brochures and datasheets are available for the complete range of WEST Control Solutions products, contact your local sales office for more information or visit our website at: [www.west-cs.com](http://www.west-cs.com)

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