

MetTest – Tensile Test Furnace Control Units

AML Instruments offers a range of control systems for use with our range of tensile test furnaces (used for creep test, stress rupture test, etc).

The *MetTest* range provides precise and stable temperature control of 3 furnace zones.



Standard Models

MetTest1 £800

Main Controller:	Omron E5CC 1/16 DIN Digital PID Temperature Controller
Zone Controls:	None. (All zones by main controller.)
Indicators:	None.
Timed Programs:	None.
Power Indication:	None.
Output Method:	Time proportioned Solid State Relay.
Protection method:	Relay controlled by main controller to protect against SSR failing on.
Over-current protection:	Fuse for each zone and fuse in plug. (No circuit breaker.)
Power Output:	12.5A / 3kW max
Power Connection:	UK (BS1363) 13A plug
Dimensions:	380 x 460 x 230mm (WxDxH)

MetTest1OTP £950

As MetTest1, but also with:

Protection Method:

Separate digital controller with input for separate Type N thermocouple (ordered separately). (Independent over-temperature protection, can be set by the user.)



MetTest2 **£1100**

Main Controller: Omron E5CC 1/16 DIN Digital PID Temperature Controller
Indicators: None.
Timed Programs: None.
Zone Controls: All 3 zones have manual power turn-down, via knobs, as a percentage of the centre zone's output.
Power Indication: None.
Output Method: Time proportioned Solid State Relay.
Protection Method: Contactor controlled by main controller to protect against SSR failing on.
Over-current protection: Fuse for each zone and MCB circuit breaker at rear.
Power Output: 15.5A / 3.7kW max
Power Connection: 16A blue round plug (IEC 60309)
Dimensions: 380 x 460 x 230mm (WxDxH)

MetTest2OTP **£1250**

As MetTest2, but also with:

Protection Method:

Separate digital controller with input for separate Type N thermocouple (ordered separately). (Independent over-temperature protection, can be set by the user.)



MetTest2REC **£1950**

As MetTest2, but also with:

Recording & Indicators:

Eurotherm nanodac recorder with 4 channels. First channel recording same input as main controller. Second input for over-temperature protection. Third and Four channels are additional recording. 2 external contact/switch closure.

Protection Method:

nanodac as separate digital instrument with input for separate Type N thermocouple (ordered separately). (Independent over-temperature protection, can be set by the user.)



MetTest3 £1700



Main Controller:

Eurotherm EPC 3008 1/8 DIN Digital PID
Temperature Controller

Indicators: None.

Timed Programs: 1 Program with 8 segments. Extra programs optional at extra cost.

Zone Controls: All 3 zones have manual power turn-down, via a digital setting, as a percentage of the centre zone's output.

Power Indication: None.

Output Method: Time proportioned Solid State Relay for each of the 3 zones.

Protection Method: Contactor controlled by main controller to protect against SSR failing on. Separate digital controller with input for separate Type N thermocouple (ordered separately). (Independent over-temperature protection, can be set by the user.)

Over-current protection: Fuse for each zone and MCB circuit breaker at rear.

Power Output: 15.5A / 3.7kW max

Power Connection: 16A blue round plug (IEC 60309)

Dimensions: 380 x 460 x 230mm (WxDxH)

MetTest4 £2100

Main Controller: Eurotherm EPC 3016 1/16 DIN Digital PID Temperature Controller

Indicators: 2 Digital Temperature Indicators (for the other 2 zones).

Timed Programs: 1 Program with 8 segments. Extra programs optional at extra cost.

Zone Controls: All 3 zones have manual power turn-down, via knobs, as a percentage of the centre zone's output.

Power Indication: 10 segment LED bargraph for each of the 3 zones.

Output Method: Time proportioned Solid State Relay for each of the 3 zones.

Protection Method: Contactor controlled by main controller to protect against SSR failing on. Separate digital controller with input for separate Type N thermocouple (ordered separately). (Independent over-temperature protection, can be set by the user.)

Over-current protection: Fuse for each zone and MCB circuit breaker at rear.

Power Output: 15.5A / 3.7kW max

Power Connection: 16A blue round plug (IEC 60309)

Dimensions: 380 x 460 x 230mm (WxDxH)

MetTest5 £2700

Main Controller: Eurotherm nanodac 1/4 DIN Digital PID Temperature Controller

Recording & Indicators: 1x Control thermocouple sensor, 3 other thermocouple sensor, 2 external contact/switch closure.

Timed Programs: Optional at extra cost. **+£300**

Zone Controls: All 3 zones have manual power turn-down, via knobs, as a percentage of the centre zone's output.

Power Indication: 10 segment LED bargraph for each of the 3 zones.

Output Method: Time proportioned Solid State Relay for each of the 3 zones.

Protection Method: Contactor controlled by main controller to protect against SSR failing on. Separate digital controller with input for separate Type N thermocouple (ordered separately).

(Independent over-temperature protection, can be set by the user.)

Over-current protection: Fuse for each zone and MCB circuit breaker at rear.

Power Output: 15.5A / 3.7kW max

Power Connection: 16A blue round plug (IEC 60309)

Dimensions: 380 x 460 x 230mm (WxDxH)



MetTest5PA £ POA

As MetTest5, but with:

Output Method: Eurotherm Phase-Angle Control Thyristor for each of the 3 zones.



All models without recording can take a Type K, Type N or Type R Thermocouple input via sockets at the rear. Models with recording can have thermocouple input sockets specified when ordering.

All models have a connection terminal box at the rear connecting 3 furnace zones (6 terminals). Dimensions do not include cable connections.

Digital communications and Ethernet (RJ45) connection to a PC are also available at extra cost on some models. Digital inputs for sensing external switch contact closure/opening, to activate/ deactivate controller functions, are also available at extra cost on some models.

We can also provide bespoke solutions to meet your requirements, including 3-zone over-temperature protection, phase-angle output, automatic 3-zone PID control, recording and LED bargraph power indicators.

We also offer a standard range of tensile furnaces and can manufacture them to spec too. We do not supply mounting systems/test rigs, but can normally offer furnaces with compatible mounting for existing equipment.

AML is a manufacturer of thermocouple temperature sensors, so can provide a complete system comprising furnace, temperature sensors and control system.

We can supply temperature sensors and instruments complete with ISO 17025 calibration.

