

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 £980

Main Controller: Omron E5CC 1/16 DIN Digital PID Temperature Controller

Zone Controls: None. (All zones by main controller.)

Timed Programs: None.

Power Indication: Neon (on/off pulsing) for each of the 3 zones.

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 system fuse. (No circuit breaker.)

Power Output: 12.5A / 3kW max

Power Connection: UK (BS1363) 13A plug (16A option available)

Thermocouple Sockets: Type N as standard (additional options available)

Dimensions: 380 x 460 x 230mm (WxDxH)



MetTest1OTP £1,100

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 £1,280

- Main Controller:** Omron E5CC 1/16 DIN
Digital PID Temperature Controller
- 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:** Neon (on/off pulsing) for
each of the 3 zones.
- 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.
- Thermocouple Sockets:** Type K, N and R as standard.
- Power Output:** 15.5A / 3.7kW max
- Power Connection:** 16A blue round plug (IEC 60309)
- Dimensions:** 380 x 460 x 230mm (WxDxH)



MetTest2OTP £1,400

As MetTest2, but also with:

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



MetTest2REC £2,380

As MetTest2, but also with:

- Recording & Indication:**
Eurotherm nanodac recorder with 4
channels. First channel recording same
input as main controller. Second input for
over-temperature protection. Third and
Fourth channels are additional recording. 2
external contact/switch closure.
- Protection Method:**
nanodac as separate digital instrument with input for separate thermocouple (ordered
separately). (Independent over-temperature protection, can be set by the user.)
- Thermocouple Sockets:** Type N as standard or specify when ordering.
- Communications:** Ethernet via RJ45 for PC etc connection. USB for data export.



MetTest3 £1,880



Main Controller:

Eurotherm EPC 3008 1/8 DIN Digital PID Temperature Controller

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: Neon (on/off pulsing) 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 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.

Thermocouple Sockets: Type K, N and R as standard.

Communications: Optional Ethernet via RJ45 for PC etc connection. **+£180**

Power Output: 15.5A / 3.7kW max

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

Dimensions: 380 x 460 x 230mm (WxDxH)

MetTest4 £2,480



Master Controller:

Eurotherm EPC 3016 1/16 DIN Digital PID Temperature Controller

Slave Controller: 2x Eurotherm EPC 3016 Controllers

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

Zone Controls: Automatic Slave control (end zones) from Master control (centre zone) with adjustable power limits and setpoint offsets.

Power Indication: Neon (on/off pulsing) for each of the 3 zones.

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

Protection Method: Contactor controlled by all 3 controllers to protect against SSR failing on. Separate digital controller with input for separate 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.

Thermocouple Sockets: Type N as standard or specify when ordering.

Communications: Ethernet via RJ45 for PC etc connection, as standard.

Power Output: 15.5A / 3.7kW max

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

Dimensions: 380 x 460 x 230mm (WxDxH)

MetTest5 £2,980

Main Controller:

Eurotherm nanodac 1/4 DIN Digital PID Temperature Controller

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

Timed Programs: Optional at extra cost. **+£400**

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.

Thermocouple Sockets: Type N as standard (additional options available)

Communications: Ethernet via RJ45 for PC etc connection. USB for data export.

Power Output: 15.5A / 3.7kW max

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

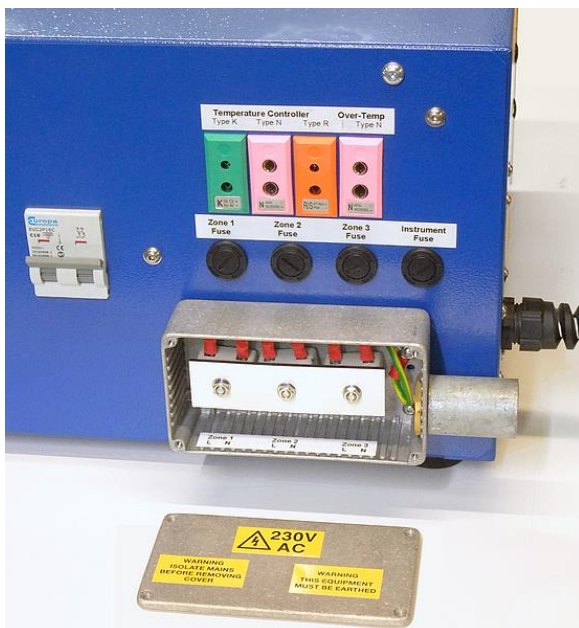
Dimensions: 380 x 460 x 230mm (WxDxH)



MetTest5PA £ POA

As MetTest5, but with:

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



General Features and Options

Thermocouple sockets are Universal size (taking miniature or standard sized plugs).

All models have a connection terminal box at the rear connecting 3 furnace zones (6 terminals).

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.

