

## MetTest – Tensile Test Furnace Control Units

TMS Europe 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

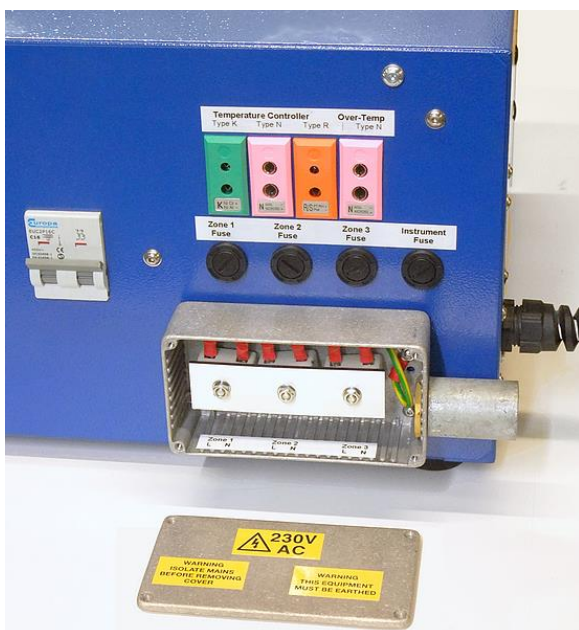
**Power Connection:** 16A blue round plug (IEC 60309)

**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.

TMS 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.



TMS Europe Ltd is a UKAS accredited calibration laboratory No. 0461. We are accredited for calibration on site and in our laboratory, as defined in our Schedule Of Accreditation( see [www.tmseurope.co.uk/soa](http://www.tmseurope.co.uk/soa) ).

